How Professionals Became Natives: Geography and Trans-Frontier Exploration in Colonial India

by

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ABSTRACT

This dissertation examines a group of native explorers employed by the British from the second half of the eighteenth to the late nineteenth century to survey and explore regions beyond their territorial possessions in India. These explorers, from the outset of their employment by the British, were trained and constituted themselves as professionals in the art of exploration and in the production of the geography that emerged from it. By examining this process of training and professionalization, this dissertation argues that along with the development of geography as a discipline in the nineteenth century, there was a corresponding process whereby, even as they came to be recognized by the state as "native explorers," the contribution of these professional explorers was largely effaced.

This dissertation elaborates on three processes. Firstly, although there were rich precolonial traditions of geography and map-making in South Asia that many native explorers were well versed in, they nonetheless constituted themselves as a new body of experts on a European paradigm of exploration and the geography it privileged. Secondly, the geography made available by exploration was inextricably linked with the political context of its production. By examining the gatekeeping of the colonial state as well as other scientific institutions like the Royal Geographical Society in relation to the geographical work of native explorers, we can understand how geography came to be stripped of its political context to develop as a seemingly empirical and matter-of-fact discipline by the end of the nineteenth century. Finally, these explorers navigated numerous roadblocks in their careers as they sought to meet the distinct but

shifting professional norms put in place by the colonial state specifically for natives. Even as they skilled themselves as explorers, there was a parallel process through which their expertise was routinized and invisibilized by the state, giving us an insight into how collaboration between the British and Indians worked in the case of this new profession catering to the needs of the colonial state.

CHAPTER ONE – INTRODUCTION

Amongst the many explicit or implicit differences between native explorers and their European counterparts, there is one acute distinction that underpinned the entire enterprise of nineteenth-century exploration in colonial India. The lives of native explorers were expendable in ways that European explorers' simply were not. This was made amply clear in the Government of India's Intelligence Branch request for a native to survey a pass in Swat in April, 1888.[1] This person, alternately referred to as an explorer or a "native reconnoiterer," was to go and make a secret reconnaissance in a region that had for some time been resisting both British influence from India and Afghan influence coming from Kabul. The pass was in the Malkand range, or the "Black Mountains," that, several months later, would see military action by a British-Indian force against the Hazaras. A "suitable" native explorer had already been identified for the job when the request was forwarded to the Foreign Department to ask if they had any objection to sending him. The response by telegram of the Foreign Department under-secretary was brief and brutal: "I see no objection. The man can but get killed, and no excitement will be aroused."[2] By the lack of any trace of him in the archive, where we neither find a name for this native explorer, nor what happened to him, it is more than likely that the under-secretary was right.

There were hundreds of such native explorers (see Appendix I) who were sent to explore and also survey regions beyond the influence of the British, from when the latter first established

1 Foreign/Frontr. A/100-102, May 1888, NAI. The British were referring to this pass as Shahkot, but were more probably referencing Sakhakot, which is a town in the Malkand

2 Foreign/Frontr. A/100-102, May 1888, NAI.

territorial rule in Bengal in the second half of the eighteenth century. Expansion was inextricably linked to exploration, and these explorers, along with their European counterparts, were at the forefront of mapping and making legible India and its frontiers through the geography they made available. In this dissertation, I will examine how exploration led to the creation of both geographical knowledge and the discipline of geography, and the specific role of native explorers in this process.

From the outset of their employment with the colonial state, natives were trained to the profession of exploration in ways both big and small, so much so that by 1888, as was conveyed to the Foreign Department, finding "someone specially suited" was not a hardship.[3] By the time the native explorer was sent out on an expedition in the late nineteenth century, the question was no longer one of the recruitment or ability or training or the trustworthiness of such an explorer. Those questions had been repeatedly addressed over the past hundred years, from when the British first sought to employ natives for exploration. The question that was now being debated by the Foreign Department and the Military Department on the above correspondence, as well as others, was one of secrecy. Government Officials wondered how best this explorer could carry out exploration without being detected at his work by local authorities. By the end of the nineteenth century then, colonial officials knew well the kind of training and work that could be expected from native explorers. Behind this hard-won understanding, however, is a long history of how the profession of native exploration took shape through a clear delimitation by the state of what native explorers were and were not supposed to do. In short, as I will go on to elaborate in this dissertation, the colonial state consistently articulated a shifting but strict set of norms of what was entailed in the profession of native exploration.

3 Foreign/Frontr. A/100-102, May 1888, NAI.

In contrast to professionalized native explorers, surveying and exploration as a pursuit for a European was marked by precisely its amateur and amorphous nature. A case in point is Francis Younghusband, who was returning from an overland journey from Peking to India, across the Himalayas, the very same year as this unnamed native explorer was sent out on his expedition to Swat. Then a young subaltern in the British Army, Younghusband first published his account almost three decades after the journey took place in 1888.[4] He framed this work, *Wonders of the Himalaya*, as something of an originary account that would explain in some part his subsequent career as one of the most well-known explorers that England had ever produced. Indeed, perhaps even the last of these explorers.[5] He began his account with a couple of other directions his life might have taken, to then conclude: "But if I had none of the sportsman's instinct and if the naturalist instinct had been nearly atrophied within me, I had - Heaven be praised - the explorer's instinct still strong and ardent."[6] This instinct was inborn - he traced its genealogy also to his "progenitors on both my mother's and father's side, who had been accustomed to travel over the earth."[7] But it was also honed by circumstance and cultivated with a view to a successful career.

European exploration was twinned with a military career for the British in India. It was Younghusband's experience in military reconnaissance that led to the opportunity to travel the overland route from Peking to India via Central Asia. When offered the opportunity to go on a reconnaissance of the "passages across the Indus from the frontier," he jumped at it,

4 Francis Younghusband, *Wonders of the Himalaya* (London: J. Murray, 1924).
5 See Patrick French, *Younghusband: The Last Great Imperial Adventurer* (Vintage, 2016).
6 Younghusband, *Wonders of the Himalaya*, 12.
7 Younghusband, *Wonders of the Himalaya*, 12.

remembering the advice of his old surveying instructor at Sandhurst, the military college that trained cadets destined for the British and Indian armies. Younghusband wrote: "Colonel Kitchener had told us cadets that surveying was a good thing to take up, as it generally led to something good. He instanced his brother Herbert in the Engineers, who had taken up surveying and was now (1881) doing very well in Egypt."[8] Every cadet was trained in surveying at the various military schools in England. At its most basic, surveying has been defined as the "extraction of standardization information from the physical landscape by standardized methods in order to reconstruct specific characteristics of that landscape."[9] A practical education in surveying would have involved a cadet knowing the use of "all instruments required in geodesical operations."[10] In other words, officers were required to know how to locate their position on the earth. This was one of the many basic requirements that an officer of the Royal Engineers, for instance, was supposed to master.[11] In addition, depending on their inclination, officers supplemented their military careers with some other means of distinguishing themselves – just as Herbert Kitchener had done. Kitchener had conducted a survey in Palestine, and later led British expeditionary forces in the Second Boer War, eventually being appointed as Commander-in-Chief of the Indian Army and ending his career as Cabinet minister.[12] Younghusband was no less ambitious, and he was best known for his 1902 "expedition" to Tibet,

8 Younghusband, *Wonders of the Himalaya*, 40.
9 Peter Collier and Rob Inkpen, "The RGS, Exploration and Empire and the Contested Nature of Surveying," *Area* 34, no. 3 (2002): 273-83, 274.
10 Peter Collier, "The Role of Networks in Changing Survey Teaching and Practice in Nineteenth Century Britain and the British Empire" (lecture, International Federation of Surveyors Working Week, Eilat, Israel, 3-8 May 2009), 5. https://www.fig.net/pub/fig2009/papers/hs02/hs02_collier_3190.pdf.
11 Peter Collier, "The Role of Networks in Changing Survey Teaching and Practice," 6.
12 See Bill Nasson's *The South African War 1899-1902* (Bloomsbury, 1999) and *The Boer War: The Struggle for South Africa* (History Press, 2011) for Kitchener in South Africa.

that better resembled a military campaign in the fatalities it left in its wake.[13] That surveying "generally led to something good" for these cadets was more than likely - there was the distinct possibility of making a name for yourself as an explorer and distinguishing yourself from the scores of other military officials who made up the majority of colonial administration. There was no particular blueprint for becoming an explorer for Europeans, and indeed, many complained about the lack of clarity on what constituted an expedition of exploration.[14]

Whether European or native, by the end of the nineteenth century the theater for exploration had shifted to the poles and away from Asia, and exploration as a viable avenue for advancement was becoming less of a possibility for young men. Nevertheless, an examination of the contrasting careers of two contemporary explorers like Younghusband and the nameless native explorer to Swat points to how this biracial profession of exploration took shape in India in the nineteenth century.

Firstly, alongside the European explorers of different parts of Asia, such as Younghusband, there were native explorers who did much or all of the same work of surveying and exploration. This must be stated at the outset since much of the work of the latter was typically dismissed as consisting of information collection and little else. At the same time, native explorers were also often considered to be proxies for European explorers, for whom travel in frontier regions was considered too dangerous. Thus, even while the work of native explorers was not valued as knowledge, it was still possible for the British to consider them as

13 See French, *The Last Great Imperial Adventurer*.

14 For Richard Burton's famously contentious relationship with the Royal Geographical Society of London, which had become "Britain's quasi-official directorate of exploration" by the time he was making his expeditions in the 1850s, see Dane Kennedy, "The Explorer," in *The Highly Civilized Man: Richard Burton and the Victorian World* (Cambridge: Harvard University Press, 2005), 93-130, 96.

instruments who would carry out the same work as them in their absence. I examine this tension to fully understand different aspects of the work of native explorers and their contribution to geographical knowledge.

Secondly, both this unnamed native explorer and Francis Younghusband drew on a tradition of exploration that had to be repeatedly reinvented. Exploration was premised on the existence of a *terra incognita* or an unknown land to be then made known.[15] This *terra incognita* had to be reinvented from time to time to justify the presence of explorers. Geographical knowledge was iterative, building upon itself, as technologies evolved and the anxieties of colonial rule in India dictated that explorers be sent out repeatedly to survey and explore the frontier. What had been explored before had to be either updated or forgotten to justify newer expeditions that combined the collection of information both political and geographical, with the former often dictating the latter. As geography developed to become an empirical, matter-of-fact discipline by the end of the nineteenth century, it was the political context of its production that came to be gradually stripped away. In tracing the creation of a tradition for native exploration in the Indian subcontinent, I reattach the political context to geographical knowledge production, to understand how the discipline of geography took shape in the nineteenth century through these iterative processes that involved a particular kind of forgetting.

The lineage of native exploration I develop in this dissertation has its beginnings in the late eighteenth century. The British recruited men belonging to communities or professions with a tradition of service to the state, such as *munshis* who had long taken on any or all of the roles of interpreters, translators, secretaries, accountants and so on. These men were then to be trained in

15 See Dane Kennedy, *The Last Blank Spaces: Exploring Africa and Australia* (Cambridge: Harvard University Press, 2013).

surveying and employed by the British in trans-frontier exploration, they often made their living off of this job. From the outset of British rule, Indians were trained and professionalized in exploration. This work concludes with the Pundits, who were part of a planned project of trans-frontier exploration launched by Captain Thomas Montgomerie in the 1860s. The Pundits were lauded precisely for their professionalization and specialized training, and were finally given that epithet of "native explorer" by their employers. They came to be recognized as such by institutions like the Royal Geographical Society (RGS) and even the contemporary press in Britain and India.[16] The unnamed native explorer who travelled to Swat, although not part of the Pundits, can be best understood as part of this trajectory that culminates in the recognizable figure of the "native explorer." I argue that it was in the movement from the earliest of these professional explorers to actually becoming "native" explorers that the geographical knowledge produced by them came to be dismissed altogether. In other words, as geography came to be shaped into a discipline in the nineteenth century, it resulted in professional explorers being rendered "native."

Collaboration and Empire

As the British colonial state expanded its territorial possessions, its reliance on native intermediaries deepened in order to better map its frontiers. And indeed, many of the explorers I study in this dissertation have been referenced by historians as kinds of native intermediaries or informants who were employed by the colonial state for carrying out the work of government.[17]

16 On one occasion, the coverage of the Pundits in the press resulted in new rules being formulated by the Government of India that suppressed or censored accounts from being made public at all. See "Personal Narratives. Reports of Exploration across the frontier, for publication, not to contain _." Foreign/A Genl. E/ 16-20, February 1883, NAI.

17 C. A. Bayly, *Empire and Information: Intelligence Gathering and Social Communication in India, 1780-1870* (Cambridge University Press, 2000); Kapil Raj, "When Human Travellers become Instruments," in *Relocating Modern Science: Circulation and the Construction of Scientific Knowledge*

It is by now well established in the literature that the British employed a large number of intermediaries specifically for collecting knowledge, and also that many of them belonged to traditions of service and knowledge production for political masters that predated the British.[18] It was with the revisionist scholarship best exemplified by the works of C.A. Bayly, Thomas Trautmann, Philip Wagonner, William Pinch and others, where colonial knowledge production came to be debated not only as another powerful "cultural tool of imperialism" but as a deeply contested enterprise, that the role of native intermediaries came in for fresh scrutiny.[19]

Continuity with the precolonial period is a hallmark of this literature, and here the collaborator can emerge as a complex figure who draws on wide-ranging intellectual and social traditions that predated the British, allowing historians an opportunity to think about relations of rule with respect to what went before. Further, scholarship on the early modern period has been

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in South Asia and Europe (Permanent Black, 2006), 184-185; M. H. Fisher, *Counterflows to Colonialism: Indian Travellers and Settlers in Britain, 1600-1857* (Permanent Black, 2006).

18 C. A. Bayly, *Empire and Information;* Rosalind O'Hanlon and David Washbrook, "Introduction," *Indian Economic and Social History Review* 47, 4 (2010): 441-443; Rama Sundari Mantena, *The Origins of Modern Historiography in India: Antiquarianism and Philology, 1780-1880* (Palgrave Macmillan, 2012); Bhavani Raman, *Document Raj: Writing and Scribes in Early Colonial South India* (University of Chicago Press, 2012); Phillip B. Wagoner, "Precolonial Intellectuals and the Production of Colonial Knowledge," *Comparative Studies in Society and History* 45, no. 04 (2003): 783–814; Velcheru Narayana Rao, "Pundits, Karanams, and the East India Company in the Making of Modern Telugu," in *India's Literary History: Essays on the Nineteenth Century*, ed. Blackburn, S.H. and Vasudha Dalmia (New Delhi: Permanent Black, 2004); Muzaffar Alam and Sanjay Subrahmanyam, "The Making of a Munshi," *Comparative Studies of South Asia, Africa and the Middle East* 24, no. 2 (2004): 61-72; Neeladri Bhattacharya, "Remaking Custom: The Discourse And Practice Of Colonial Codification," in *Tradition, Dissent and Ideology: Essays In Honour Of Romila Thapar,* eds., R. Champaklakshmi and S. Gopal (Oxford University Press, 1997); Nandita Prasad Sahai, "Collaboration and Conflict: Artisanal Jati Panchayats and the Eighteenth Century Jodhpur State," *The Medieval History Journal,* 2002 , 5, 1 (2002): 77-101; Lakshmi Subramanian, "Banias and the British: The Role of Indigenous Credit in the Process of Imperial Expansion in Western India in the Second Half of the Eighteenth Century," *Modern Asian Studies* 21, 3 (1987): 473–510.

19 Bayly, *Empire and Information*; William Pinch, "Same Difference in India and Europe." *History and Theory* 38, no. 3 (1999): 389-407; Thomas Trautmann, "Inventing the History of South India," in *Invoking the Past: The Uses of History in South Asia,* ed., Daud Ali (London: Oxford University Press, 1999), 36-54 and *Aryans And British India* (Yoda Press, 2004).

particularly insightful on intermediaries such as scribes and how they functioned in precolonial polities as intermediaries between kings and their subjects and what traditions of service they belonged to.[20] These historiographical trends have given us the figures of the *harkara*, newswriter, munshi, and pundit, and studies on communities of Kayasthas, Saraswat Brahmins, and Niyogis, all of which go towards peopling a rich landscape of native collaboration with the state.[21] To add to these figures are those of the munshis or pundits who went on to become native explorers. Their work with the state meant they had to become acquainted with the lineaments of a new profession that had echoes in some of what they knew from longer traditions of domestic education, as well as older models of apprenticeship and learning.

Having situated the intermediaries working with the colonial state within a longer imperial history, the question then arises of how to make sense of the newness of the colonial period. For, even as a reliance on native knowledge and labor sustained the everyday functioning of the colonial state, the initial enthusiasm of the British for native knowledges and knowledge-producers was replaced by a hardening dismissal of the same by the middle of the nineteenth century.[22] This has necessitated the kind of historical work that sought to recover the contributions of natives to the scientific and cultural developments in South Asia and the world.[23] Nor has this simply been a project of recovery. Much of this work has been to examine

20 O'Hanlon and Washbrook, "Introduction."

21 Harkaras refers to intelligence agents; pundits to Hindu teachers, mostly Brahmins; Kayasthas are a North Indian scribal caste; Saraswat Brahmins belonged to Western India, and were known to be successful traders and administrators; Niyogis are a South Indian scribal caste, also Brahmin.

22 See Thomas Metcalf, *Ideologies of the Raj* (Cambridge: Cambridge University Press, 1995), Karuna Mantena, *Alibis of Empire: Henry Maine and the Ends of Liberal Imperialism* (Princeton University Press, 2010), Thomas Trautmann, *Aryans and British India* (Yoda Press, 2006).

23 See Jon E. Wilson, "Agency, Narrative, and Resistance," in *The British Empire: Themes and Perspectives, ed. Sarah Stockwell (Oxford: Wiley Blackwell, 2008), 245-268,* on the problems with "recovery" as a frame for indigenous agency.

processes of borrowing and exchange between Europeans and Indians in the production of knowledge. For instance, historians have elaborated on natives as doctors, scribes, historians, artists, or ethnologists who shaped and often transformed scientific and cultural thought and practice.[24] I follow from this literature to understand how Indians contributed to the fields of geography and the cartographical construction of India in service of the colonial state. However, there are two significant points at which I depart from this literature on collaboration.

Firstly, my attempt is not to recover an "authentic" or "indigenous" knowledge attributable to native explorers in the case of geography and cartography. This is a whole other line of scholarly enquiry waiting to be pursued. The native explorers I study were certainly adept in several knowledge traditions, and made use of generational, local, and community-based knowledge in their travels and as they navigated the colonial state. Yet, unlike territorial magnetism, or natural science, or antiquarianism or architecture, all of which have had scholars separating the precolonial from colonial strands of thought, the paradigm of exploration was particularly European.[25] Exploration, in its most recent and thorough reconsideration, has been understood as a "concept and a practice that carries a particular set of cultural, social, and political valences, and they originate in the European historical experience."[26] It is inextricably

24 Bayly, Empire and Information; David Arnold, Colonizing the Body; Bhawani Raman, Document Raj; Rama Mantena, The Origins of Modern Historiography in India; Tapati Guha Thakurta, Monuments, Objects, Histories: Institutions of Art in Colonial and Post-Colonial India (Columbia University Press, 2004); Phillip B. Wagoner, "Precolonial Intellectuals and the Production of Colonial Knowledge."

25 Jessica Ratcliff, "Travancore's Magnetic Crusade: Geomagnetism and the Geography of Scientific Production in a Princely State," *The British Journal for the History of Science* 49, no. 3 (009/001 2016): 325–52, https://doi.org/10.1017/S0007087416000340; David Arnold, *Colonizing the Body*; Rama Mantena, *The Origins of Modern Historiography in India;* Will Glover, *Making Lahore Modern: Constructing and Imagining a Colonial City* (Minneapolis: University of Minnesota Press, 2008).

26 Dane Kennedy, ed., *Reinterpreting Exploration: The West in the World* (Oxford University Press on Demand, 2014), 1.

tied up with ideas of European exceptionalism in the realm of science, civilization, state power, and prestige.[27] There is an added complication to disaggregating "indigenous" and "colonial" scientific practices and thought, which is that this disaggregation assumes some version of a diffusionist model of dissemination of science.[28] In this analysis, the "indigenous" remains rooted in the colony and the "colonial" emanates outwards from the (European) metropole.

Historical scholarship on science in colonial India, in contrast, has mounted strong critiques of the diffusionist model of the dissemination of science, coming to cohere around the importance of locality to scientific knowledge production.[29] This involves a privileging of networks or connected histories of empire and colony, united, in the words of Kapil Raj, by adopting "circulation as a "site" of knowledge formation."[30] For instance, Jessica Ratcliffe connects Travancore and Britain in the mid-nineteenth century when it came to the science of terrestrial magnetism.[31] She argues in favor of networks of connections when she says, "as much as the historical geography of scientific practice across the British Empire was developing centre-periphery 'divides', it was also generating increasingly interconnected infrastructures and economies."[32] Savithri Preetha Nair in her discussion of the princely state to the north and east of Travancore, Tanjore, explicitly privileges "locality" over making the connections between

27 Dane Kennedy, *Reinterpreting Exploration*, 2.
28 The initial provocation for the diffusion model was provided by George Basalla's Cold War era three-stage model outlined in his "The Spread of Western Science,"*Science*, 156 (1967): 611-622.
29 For an overview of the debate see Livingstone, *Putting Science into Place*; Kapil Raj, "Beyond Postcolonialism… and Postpositivism: Circulation and the Global History of Science," *Isis* 104, no. 2 (2013): 337-347.
30 Raj, "Beyond Postcolonialism," 345.
31 Jessica Ratcliff, "Travancore's Magnetic Crusade."
32 Ratcliff, "Travancore's Magnetic Crusade," 330.

"center" and "periphery" that Ratcliff does.[33] Nair follows Latour to elaborate on Tanjore as a "center of calculation," referring to a point or locality where accumulation of knowledge about what is at a distance might be achieved over time.[34] Raja Serfoji II (r. 1798-1832), the ruler of Tanjore, collected books and manuscripts, technologies like the printing press, kept up with scientific and literary journals and so on.[35] Perhaps predictably so, this center did not long outlast Serfoji II. The above literature on the circulation of scientific knowledge in the colonial period, however, is largely limited to individuals and to exceptional moments of scientific knowledge production they enabled. Further, both these accounts are of elite Indians who were able to manipulate their vast resources to participate in the global history of science that is possible through this focus on circulation.

Moving away from a strict focus on circulation, I pay attention to questions of power and authority that are often lost in understanding science as being constituted and circulating easily in a hybrid, global culture. I follow Hellen Tilley who finds the existence of a "colonial science" untenable, arguing that neither did a "Western" science develop in isolation in Europe, nor was it distinct from science proper.[36] This was certainly true for geography and map-making, which have rich precolonial traditions in South Asia.[37] Rather than tracing how several traditions

33 Savithri Preetha Nair, *Raja Serfoji II: Science, Medicine And Enlightenment In Tanjore* (Routledge, 2014).

34 Bruno Latour, *Science in Action: How to Follow Scientists and Engineers through Society* (Harvard university press, 1987), 220.

35 Nair, *Raja Serfoji II*, xxi.

36 Helen Tilley, *Africa as a Living Laboratory*: *Empire, Development, and The Problem of Scientific Knowledge, 1870-1950* (University of Chicago Press, 2011), 10.

37 Joesph Schwartzberg, "Introduction to South Asian Cartography," in Harley and Woodward, ed., *The History of Cartography: Cartography in Traditional Islamic and South Asian Societies*, Vol 2., Bk. 1, 295-331; Susan Gole, *Early Maps of India* (Humanities Press International, 1976) and *Indian Maps and Plans: From Earliest Times to the Advent of European Surveys* (Manohar, 1989); Irfan Habib, *An Atlas*

interacted, whether indigenous, colonial, or global, I focus on how people produced knowledge. I agree with Michael Dodson in thinking that studying the construction and reconstruction of knowledge and its transmission has reached the limit of its usefulness, and perhaps a newer approach that leads to "histories of the knowable, and those who act knowingly" is a way to better understand the colonial encounter.[38] In the case of geography produced from the act of exploration, the colonial state was a formidable gatekeeper of not only who produced this knowledge, but also what kind of knowledge was privileged as geography and what fell outside of its strict parameters. It is these processes I examine to understand how geographical knowledge and the discipline of geography took shape through the efforts of native explorers.

Secondly, native explorers adopted this European tradition of exploration fairly early, and rather than for any indigenous knowledge they might possess, their work was valuable to the state for how they adapted this paradigm to the context of India and its frontiers. Natives were able to move between multiple traditions of knowledge and also had language skills suited to the kind of labor involved in exploration. These explorers constituted a new body of experts who emerged when paradigms of European exploration were being developed and applied to India and other parts of Asia.

In sum, alongside the vast array of European travelers and explorers who traversed, mapped, and surveyed the Indian subcontinent in the colonial period, there were a large number of native explorers who did the same. There were some who launched expeditions of their own, such as Sarat Chandra Das, who designed an itinerary that would take him to Tibet, in the 1880s,

of the Mughal Empire (Oxford University Press, 1982).

38 Michael Dodson, Orientalism, Empire, and National Culture, 14.

"in the manner of David Livingstone."[39] Das has, in fact, come to be considered part of the Pundits, although he largely planned and executed expeditions independent from the Survey of India.[40] Prior to the Pundits, there were a large number of natives in the employ of the East India Company, who were taught land surveying techniques, asked to write daily journals, and sent to survey multiple routes. Further, European travelers rarely traveled alone, and were always accompanied by a large party that consisted of cooks, coolies, munshis, grooms, guides, secretaries, translators, sometimes a native doctor, and at least one or two native surveyors. Native explorers, distinguished by their training in surveying and practical knowledge of how to execute a successful expedition of exploration, often emerged from this eclectic bunch and were thus also munshis, or Persian secretaries, or surveyors, or, in one instance, a coolie. I employ this rubric of "native explorer" to refer to the assorted individuals or groups of individuals who were employed and trained by the British to survey and map regions in South and Central Asia.

Even as I use the term "native explorer" to refer to this group of professionals throughout this work, there was a process of *becoming* native that I chart here. The very phrase "native explorer" was not in use until the Pundits were conceived of by Captain Thomas George Montgomerie as an answer to exploring the frontiers in the 1860s. From the earliest of such explorers, meriting barely a name in the memoirs of maps and other geographical literature, to the early native explorers who were sent out on solo expeditions, to still others who published their own travelogues, and back to the anonymity of the Pundits, I chart the birth and death of a profession.

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39 Sarat Chandra Das, *Autobiography: Narrative of the Incidents of my Early Life* (Past and Present, 1969), First Published in 1901, 11.

40 Derek Waller, *The Pundits: British Exploration of Tibet and Central Asia* (The University Press of Kentucky, 1990).

There was an ironic cast to the trajectory from the earliest of these trained professionals with their imperfect instruments and patchy training to the highly-trained corps of native explorers like the Pundits, lauded for their accuracy and the replicability of their results. Emerging from anonymity with the development of geography as a discipline, these explorers also sank back into obscurity the more the profession of "native explorer" became a recognizable avenue for advancement within the colonial state. What resulted was a geography that was deeply empirical and fact-based, and disaggregated from the political context of its production.

Known Geography

Native explorers were sent out not only on reconnoitering expeditions to examine viability for military action, including best routes for moving troops, foraging and so on, but also for "scientific" purposes. The frontiers of British territories in India were repeatedly spoken of as "unknown" by colonial officials, and in dire need of being explored. Through exploration, these regions would enter the realm of "known geography." This was a term used by a British official and future president of the RGS, H.C. Rawlinson.[41] He was commenting on the value of the work of the earliest of native explorers collectively known as the Pundits, specifically a man who explored parts of now-Afghanistan under the codename of "Mirza" in the early 1860s. At a meeting of the RGS in May 1866, Rawlinson commended those in charge of sending out native explorers in the region, pointing out that "the territory beyond our northern frontier in India was of the greatest possible interest."[42] Since this territory was "debateable ground" between India and Russia, Rawlinson continued, it would become only more interesting "as we went on

41 T. G. Montgomerie, "On the Geographical Position of Yarkund and Other Places in Central Asia," *Proceedings of the Royal Geographical Society of London* 10, no. 4 (1865): 162-65, 165, doi:10.2307/1799431.

42 T. G. Montgomerie, "On the Geographical Position of Yarkund," 164.

towards our future destiny."[43] The allusion here was to the ongoing tension between Russia and the British in India, especially in relation to Afghanistan, which resulted in two Anglo-Afghan Wars, in 1839-42 and 1878-80. Continuing to dwell on the respective surveying and mapping operations by Russia and Britain, Rawlinson surmised that "now…only a small strip of from 250 to 300 miles across…between the Thian Shian and Tarkund, [were] remaining to be laid down." Once that was done, he concluded that "Central Asia would be brought into the category of known geography."[44] The unknown was undesirable for political reasons, and geography was to make it known and navigable.

In the second half of the eighteenth century, though the British were initially largely restricted to Bengal, they had nevertheless begun the process of collecting geographical knowledge from the rest of the subcontinent. The creation of a complete geography was critical to the establishment of the East India Company's military-fiscal ambitions.[45] As Sudipta Sen has pointed out, "early colonial political economy…was seriously concerned with a geographical revelation of the countryside as terra incognita."[46] The earliest of the colonial cartographers of India, James Rennell the most prominent amongst them, Ian Barrow reminds us, were "still surveying under the medieval conceptions of the uncharted and its rhetorical practices of revelation."[47] As they went about their "discovery" of the Greater Bengal region, they faced

43 T. G. Montgomerie, "On the Geographical Position of Yarkund," 164.
44 T. G. Montgomerie, "On the Geographical Position of Yarkund," 164-5.
45 See Sudipta Sen, "The Making of a Colonial Terrain," in *Empire of free trade: The East India Company and the Making of the Colonial Marketplace* (University of Pennsylvania Press, 1998), 89-119, 93.
46 Sudipta Sen, *Empire of Free Trade*, 94.
47 Ian J. Barrow, "Moving Frontiers: Changing Colonial Notions of the Indian Frontiers," *SAGAR: South Asia Graduate Research Journal*, 1, 2 (1994): 3-28, 11.

many of the problems that explorers usually did. There were political obstacles to venturing where you pleased, armed with a compass and theodolite. More significantly, there were language barriers and hostile local populations. Reports circulated of people actively disrupting surveys by, for instance, destroying viewing platforms.[48] Indeed, surveyors would also cause enormous disruption, as when they cut down trees to get a clear line of sight.[49] Scholars have understood the mapping and surveying of the Indian subcontinent to have revealed a picture of India as ordered and knowable to the Company's gaze.[50] And as they expanded their footprint over the Indian subcontinent and brought more of it under the grid of survey by triangulation, the East India Company also repeatedly reconstructed the frontiers of their territories.

Unlike the eminent knowability of, say, Mysore, which was quickly triangulated, the north-west and north-east frontiers of India were not similarly amenable to knowing. In this context, Barrow has suggested that the break occasioned by the arrival and large-scale adoption of trigonometrical surveying in India was to convert the frontier from a "zone of travel" to a physical and material barrier.[51] Thus, where a survey had earlier been a kind of exploration of the frontier, it was now a journey to a limit, demarcating the known from the unknown.[52] This position is strengthened by Matthew Edney's seminal work on the chaos that underlay the Great Trigonometrical Survey, which nevertheless resulted in a picture of India that rendered it

48 IMC 65-66, F/4/1821 75190, 30 April 1838, IOR, cited in Matthew H. Edney, *Mapping an Empire: The Geographical Construction of British India, 1765-1843* (University of Chicago Press, 1997), 330, footnote 43.

49 "Report by the Surveyor General of India [Major George Everest] on the Reluctance of Some Native Inhabitants to Allow the Destruction of Trees Which Obstruct the Operations of the Great Trigonometrical Survey," F/4/1547/61706, October 1834, IOR.

50 Matthew Edney, *Mapping an Empire*; Ian Barrow, "Moving Frontiers."

51 Barrow "Moving Frontiers," 20.

52 Barrow "Moving Frontiers," 20.

knowable and thus governable by the alien British.[53] Even though Edney questions the relevance of the trigonometrical surveys for the purposes of revenue collection, which required an altogether separate establishment and forms of surveying, the power of the Great Trigonometrical Survey lay very much in rendering India as coherent and knowable to the British and a small Indian elite.

In contrast, there is a persistent scholarship that imagines the frontiers of British India, where demarcation was always contested by local conditions and peoples, to be hard to know and hard to govern. For instance, Thomas Simpson speaks of "the interwoven colonial projects of bordering and territory-making [that] were defined by multiple slippages rather than being assured projections supposedly characteristic of modern state authority."[54] However, these difficulties in delimiting borders, such as in the case of Afghanistan, have to be seen within the context of the repeated attempts to map and know this region, and the failed attempts at expansion as in the two Anglo-Afghan Wars of 1839-42 and 1878-80. Rather than imagining the frontier as an exceptional space where the limits of the colonial state and its governance are on display, I follow David Ludden as he advocates for a *longue dureé* history of empire taking into account periods of imperial fusion and fission.[55] There were moments when centralized authority was dominant, and other moments of frontier activity that was relatively independent of the center.[56] The colonial state's impulse to know its territories, which animated the continuous

53 Edney, *Mapping an Empire*.
54 Thomas Simpson, "Bordering and Frontier-Making in Nineteenth Century British India," *The Historical Journal* 58, no. 02 (June 2015): 513–42, 540.
55 David Ludden, "The Process of Empire: Frontiers and Borderlands," in *Tributary Empires in Global History*, ed. P.F. Bang and C.A. Bayly (Palgrave Macmillan, 2011), 132-150.
56 David Ludden "The Process of Empire: Frontiers and Borderlands," 140.

survey and resurvey of its territorial possessions, certainly had to be amended in light of the limitations of surveying frontier regions from where no revenue was forthcoming. Yet, the twin promise of trade and the threat of conquest were potent motivations for continued surveillance of the frontier.

The mapping of the frontiers of British India was very much in conversation with the mapping of its interiors, united by the same institutions and deploying the same practices of knowledge production. As Nitin Sinha insightfully argues, "[t]he term interior symbolized a sense of "distance," - a distant, detached spatial identity, - which nonetheless, technically and knowingly, resided *within* the purview of the colonial gaze and control."[57] That was a key difference between the constructed space of the frontier and that of the interior - the ability of the colonial state to "penetrate" the former was significantly limited in comparison to the latter. As Sinha shows for the interior, the mode of travel and the traveller's gaze played a large role in producing that space, and in proliferating meaning. So, a "roadscape narrative" that approached a space from the road was markedly different from a "Gangascape narrative" that approached a space like the Ganges river from a boat.[58] "Going inland" when traveling on a boat was a far more fraught enterprise than the thicker description made possible from the road.[59] Route Surveys, as Sinha shows for the interior, made possible a knowledge of the frontier that was certainly fragmentary and limited in large part to principal routes, yet it was almost continuous and deeply ethnographic.

The colonial state's relentless need for political and geographical knowledge of the *terra*

57 Nitin Sinha, *Communication and Colonialism in Eastern India: Bihar, 1760s-1880s* (Anthem Press, 2013), 36.
58 Nitin Sinha, *Communication and Colonialism in Eastern India*, 47-48.
59 Nitin Sinha, *Communication and Colonialism in Eastern India*, 48.

incognita that was the frontier was never quite fulfilled. It was this need, for which I borrow Rawlinson's phrase "known geography," that gave rise to the profession of exploration, and especially of natives in trans-frontier exploration.

Geography and Exploration

Geography emerged as a discipline in Britain over the nineteenth century in large part out of travel and exploration. David Livingstone has written widely and convincingly of "putting science in its place," or how different sciences took on their disciplinary shape in the nineteenth century through "certain discursive procedures and methods that helped define "the field" in question; particular forms of dissemination, be they lectures, specialist journals, or instrumental procedures, helped give science a public and professional credibility not readily enjoyed in earlier periods."[60] This is the "landscape of knowledge" within which scientific production might be located, and this is a paradigm that is yet to account for the workings of geography and empire more than simply to examine institutional contexts of its production in the British Empire.

When it comes to geography specifically in the case of India, scholars have convincingly demonstrated how it came to be appropriated for the ends of empire or nation. Shubho Basu elegantly demonstrates how Bengali elites selectively picked elements of racial ideologies from colonial sources to construct a hierarchy of civilizations by synthesizing "*Puranic* cosmography and the new science of geography."[61] Manu Goswami, too, has focused on the Bengali intelligentsia's use of Puranic geographies for the construction of their own Hindu, upper-caste

60 David N Livingstone and Charles WJ Withers, *Geographies of Nineteenth-Century Science* (University of Chicago Press, 2011), 4; David N. Livingstone, *Putting Science in Its Place: Geographies of Scientific Knowledge* (University of Chicago Press, 2010).

61 Shubho Basu, "The Dialectics of Resistance: Colonial Geography, Bengali Literati and the Racial Mapping of Indian Identity," *Modern Asian Studies* 44, no. 1 (2010): 53-79, 79.

"national space-time and people."[62] As Basu writes, what entered geography textbooks was naturalized as axiomatic truth, and both Basu and Goswami do the important work of imagining the social and political world these textbooks both created and enabled. They follow from the work of C.A. Bayly, who first took up the pedagogical function of geography textbooks as a key part of the civilizing mission.[63] But even before geography entered textbooks that could then be parsed for its inherently political framing and underpinnings, there was a process of the creation of geography as a discipline that requires explication.

The known geography made available by explorers was what was whittled down into the discipline of geography through the efforts of the colonial state and the Royal Geographical Society of London. That the Royal Geographical Society contributed in large part to the development of geography as a discipline is ground well covered by scholars.[64] Its role as the node through which knowledge was both archivalized and disseminated was critical in this regard.[65] However, the role of empire in both the workings of geography and the Royal Geographical Society has so far been limited to how the networks of empire enabled more and more regions of the world to be better known and understood. David N. Livingstone takes the examples of missionaries collecting data, or the broader planetary consciousness enabled through the expeditions of James Cook, or the cartographic data from the Great Trigonometrical Survey

62 Manu Goswami, *Producing India: From Colonial Economy to National Space* (University of Chicago Press, 2004), 194.
63 C.A. Bayly, *Empire and Information*, 309.
64 Roy C. Bridges, "Europeans and East Africans in the Age of Exploration," *Geographical Journal* 139, no. 2 (1973), 220–32 and "The Historical Role of British Explorers in East Africa," *Terrae Incognitae* 14, no. 1 (1982): 1-21; Felix Driver, *Geography Militant: Cultures of Exploration and Empire* (Blackwell, 2001); Clive Barnett, "Impure and Worldly Geography: The Africanist Discourse of the Royal Geographical Society, 1831–73," *Transactions of the Institute of British Geographers* 23, no. 2 (1998): 242; Thomas Richards, *The Imperial Archive: Knowledge and the Fantasy of Empire* (Verso, 1993).
65 Barnett, "Impure and Worldly Geography."

in India to argue that "British geography is not coterminous with Britain."[66] He further explains, "The geographical knowledge that was produced and consumed in Britain was routinely acquired in distant places."[67] This is manifestly true, but the colonies of the British Empire were more than staging grounds for collecting information or a pure repository of indigenous technologies.

The literature on the colonial encounter in relation to geography in India has examined those same arguments of the takeover of European knowledge systems and the disavowal of indigenous knowledge systems. The "terrestrial lessons" whereby natives were educated in the "useful science" of geography became the site for the collision between Indian knowledge and European knowledge.[68] The outcome is predetermined, much like in the case of Bayly who sees the fields of medicine, astronomy, and geography, in particular, as particularly amenable to takeover by European knowledge systems.[69] Yet, where Bayly gestured towards elements of indigenous knowledge as discernible in how geography was understood in colonial India, for Sumathi Ramaswamy, the conquest of the globe and of modern geography is immanent in the narrative she draws of the establishment of an "empire of geography." In this analysis, missionaries and British officials and native teachers and pundits are alike the "foot soldiers of empire."[70] The "scientific modern," a perpetual other, has no place for negotiation with the mythic or divine, or indeed, the indigenous. Even though I do not dwell on this same distinction between the indigenous, or lack thereof, and the colonial in geographic knowledge in South Asia,

66 David N. Livingstone, "British Geography 1500–1900: An Imprecise Review," in A Century of British Geography, ed. Ron Johnston and Michael Williams (Oxford University Press, 2003): 11-44, 13.
67 Livingstone, "British Geography 1500–1900," 13.
68 Ramaswamy, *Terrestrial Lessons*, 129-30.
69 Bayly, *Empire and Information*, 9.
70 Ramaswamy, *Terrestrial Lessons*, 279-280.

the geography that comes into being from exploration is not as relentlessly modern or European as Ramaswamy would have us believe. Tracing these native explorers as they equip themselves as explorers allows me to trace ambiguities and contradictions in the adoption of European knowledge systems in India, and how the discipline of geography came to be shaped through these very behaviors.

The history of becoming a native explorer is also one of succeeding invisibilization, much like the history of colonial knowledge production that gradually effaced indigenous forms of knowledge. Yet, there is a difference between tracing how knowledge gets invisibilized and how these native knowledge-producers get invisibilized. In the case of these native explorers, they started out as trained professionals, wise in the ways of European exploration. It was as they gained greater proficiency and expertise that their labor came to be dismissed and eventually invisibilized. This had little to do with indigenous forms of knowledge being devalued by the colonial state, which did indeed happen alongside. This is a history of collaboration with the colonial state that demonstrates how difference was consistently navigated by explorers over the course of the colonial period. In short, this is a history of how collaboration between natives and Europeans actually worked, as they produced geographical knowledge.

Chapter Outlines

In each chapter, I examine different aspects of the training and professionalization of native explorers to understand the kinds of knowledge and expertise they had to master to create geographical knowledge.

The first chapter lays out the beginnings of a tradition of native exploration, one based on the centrality of the route survey to the work of exploration. The most basic of task of surveying and exploration - the route survey – involved explorers measuring the distance from place to

place on any given route; noting to the left and right of them any prominent landmarks; taking down the direction of the road and bearings, if possible; and, most importantly, keeping a regular diary of their observations. On their return, these route surveys would result in newer maps drawn up in the cartographer's office on the basis of these route surveys. With their expert knowledge of the field, native explorers also included with their route surveys some rich ethnographic observation, potted political histories, and a comparative perspective on the regions and empires they passed through. Much of this did not make it into maps. Taking my cue from post-representation cartography, I focus on the political functioning of maps.[71] According to this theory, maps have no meaning separate from how they are constructed and the subsequent use they are put to. The implication of native explorers' participation in the process of cartographic mapping, I argue, is one that points to the limitations of maps as a means for understanding how the British came to know their colonial possessions in South Asia. It is through an examination of the route surveys of native explorers that I trace an intellectual history of the geographical knowledge they produced as experts and professionals.

The second chapter examines the English-language education of native explorers, by examining the very first such explorers who were given a formal public education in the 1820s and 30s. Whereas the debate on public education in English has been structured around how it masked the civilizing mission of the British, very little has been written on the reception of this education. By examining how the education of two explorers, Mohan Lal and Shahamat Ali, shaped their careers with the colonial state, I unpack what was required for a professional

71 See John Pickles, *A History of Spaces: Cartographic Reason, Mapping and the Geo-Coded World* (London and New York: Routledge, 2004) for perhaps the most influential explication of post-representation mapping. Also see Rob Kitchin, Chris Perkins and Martin Dodge, eds., *Rethinking Maps: New Frontiers in Cartographic Theory* (New York: Routledge, 2009) on the emergence and review of post-representation cartography.

explorer in terms of an English education. For the purposes of gaining employment with the colonial state, I demonstrate how these explorers had to combine both their formal or public education and their domestic education to succeed as explorers.

In the third chapter I trace the journey of a route survey as it achieved publication as an article in the *Journal of the Royal Geographical Society*. Through an examination of the process of editing the route survey of a native explorer for publication, I lay bare a parallel process of the creation of a geography palatable both to the colonial state and to the Royal Geographical Society. It is the creation of a geography that is shorn of the political context of its production. By the latter half of the nineteenth century, it was this seemingly empirical geography, divorced from all that might be considered "political," that entered the curriculum of schools and universities as a distinct discipline.

The final chapter of this dissertation examines a group known as the Pundits, who were the first to be explicitly termed "native explorers" by their British employers. Belonging to the north west and north east frontier regions of British India, the Pundits went on to explore parts of Central Asia and Tibet beginning in the 1860s, up to the early twentieth century. The question that attends their work is whether their specialized training led them to be the ideal observers and collaborators for the British, or were they doing more than merely collecting information? I examine this question by considering all that went into a successful expedition of native exploration. I argue that the case of the Pundits urges a reconsideration both of the kind of geographical knowledge made possible by exploration, as well as the role of the explorer in creating new knowledge.

My attempt in this dissertation has been to examine the development of the profession of native exploration both thematically and chronologically. As I examine the different aspects of

training and professionalization of these explorers, I develop an intellectual lineage for native explorers. Some of the forms of knowledge they perfected – such as constructing a route survey – remain largely unchanged over the course of the nineteenth century. Others, such as what constituted a good and scientific observer, changed with the changing intelligence and knowledge requirements of the colonial state. Still others skills, such as gaining proficiency in the use of more instruments that were steadily made more portable, like the sextant and the thermometer, resulted in explorers like the Pundits being recognized subsequently as the "first professional explorers." In contrast to such a narrative, the trajectory I draw here is not one of increasing professionalization or technical proficiency. My focus is on the continuities which then allows me to develop an intellectual history that so many of these natives drew upon as they went about their work.

CHAPTER TWO – A NEW TRAJECTORY FOR THE INDIAN SURVEYS

J.A. Hodgson, who was assisting in the survey of the Upper Doab in 1813, wrote to the Surveyor-General of Bengal, Charles Crawford, of a map he had decided not to make.[1] The map was not of Saharanpur or Moradabad, where he was carrying out revenue surveys, but of a route from Phillaur in Punjab, up to Mansar Lake in present-day Jammu and Kashmir, further north and east to Ladakh, and back down to Jammu. These regions - Punjab, Kashmir, Ladakh - lay beyond British territories in India, with Delhi and its environs being the furthest north and west that they had encroached thus far. The officer who Hodgson was assisting, Francis Sellon White, had already expressed reservations about surveying regions even close to Punjab, which was under the rule of Ranjit Singh, when he wrote, "It is true that no part of the Jumna flows in the vicinity of the territories of Runjeet Singh, but…any appearance of the British Government directing its attention to that Quarter might have rendered Ranjit Singh suspicious."[2] More specifically, White was worried that this would have "induced him [Ranjit Singh] to believe that something more was intended than the mere Survey of the Country."[3] Thus, when Hodgson wrote to Crawford a few years later with a route through Punjab and beyond, with apologies for its deficiencies, he wrote, "but such as it is I send it for want of a better, trusting it may not with due allowance be altogether uninteresting." The reason for his apologetic tone was that the route had been surveyed by a native, whom Hodgson referred to merely as "the man" or "the Bramin," and he wrote, "Knowing too much of the Exageration and Falsity of Natives I dare not vouch for the

1 Hodgson to Crawford, 14 November 1813, Dehradun Volumes – 135 – To Surveyors from the S.G., 1810-20, National Archives of India (Hereinafter NAI).
2 Cited in Reginald Phillimore, *Historical Records of the Survey of India*, Vol. II. (Dehradun, 1950), 455.
3 Phillimore, *Historical Records of the Survey of India*, Vol. II, 455.

Correctness of this route."[4]

Hodgson had several problems with this route survey provided by this nameless and upper-caste native explorer. His key concern relating to the veracity of this account was whether this explorer had personally observed and surveyed the route or not. Having first roundly dismissed natives as liars, he continued, "[B]ut I have reason to believe that the Man did go to Maunsir [Mansar Lake] himself, but suspect that the remainder of the journey back he may have got by Informants."[5] Hodgson nevertheless continued to build a shaky edifice of credibility for this account he had commissioned. This was done by relating the two most important facts he knew about this explorer - firstly, that he was Brahmin, and secondly, that he had been in the employ of another British surveyor previously. Hodgson further described him as "intelligent and enterprizing," and informed Crawford that he could write in Hindi, some Persian, and "a little execrable English."[6] In his previous travels, this explorer had demonstrated familiarity with the norms of surveying expeditions. He was familiar with that most basic requirement of collecting specimens and had shown Hodgson the gold dust and trinkets he had picked up along the way.[7] For a government that was wary of making its presence known to its neighbors and broadcasting the systems of surveillance in place, this explorer was ideally suited and already trained in that he had also in the past "[posed] as a Pilgrim and Native Doctor, with medicines for those who are so unfortunate as to become his Patients." Indeed, this was a crucial factor, because Hodgson had considered sending him out on an expedition to Kashgar but gave up the idea for fear that

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[4] Hodgson to Crawford, 14 November 1813, DDN Volumes – 135 – To Surveyors from the S.G., 1810-20, NAI.
5 Hodgson to Crawford, 14 November 1813, NAI.
6 Hodgson to Crawford, 14 November 1813, NAI.
7 Hodgson to Crawford, 14 November 1813, NAI.

"he might attempt to pass himself for an authorized Agent of Government & misbehave accordingly." Finally, and perhaps most importantly, this explorer was familiar with the use of the compass, though he had been instructed again by Hodgson. Hodgson had also then provided him with an astrolabe and a quadrant, for making astronomical observations. In fact, rather than wait for further instructions and also to be provided with a pedometer, this explorer had purchased a compass for his own use for sixty Rupees and had gone off on his own. Although his route was forwarded by Hodgson, it appears that the explorer was away again, and unable to help Hodgson construct a map. For Hodgson wrote to Crawford: "When this man returns I will protract his Route which I do not send now, not caring to put any Thing in the shape of a Map for which I have not satisfactory authority."[8] Protracting a map from a route survey would have required close co-ordination with the surveyor, who, from personal observation, would have directed the plotting of each point on the map. The actual route survey does not survive in the archive. However, Hodgson's letter provides an insight into the kinds of cartographical processes and invisible labor that underlie the making of a map. It also highlights how this map, which. after all, was never made, was perhaps marginal to Britain's geographical knowledge of India.

In this chapter, I resituate the work of native explorers in the Indian Surveys by foregrounding the critical importance of the route surveys they produced for the creation of geographical knowledge of India. The traditional historiography on mapping and surveying has emphasized the trajectory of surveys as one of greater accuracy, coherence, and the accumulation of useful knowledge.[9] This is exemplified in narratives that foreground older forms of

8 Hodgson to Crawford, 14 November 1813, NAI.

9 Ian J. Barrow, Making History, Drawing Territory: British Mapping in India, c. 1756-1905 (New Delhi: Oxford University Press, 2003); P. L. Madan, Indian Cartography: A Historical Perspective (Manohar Publishers, 1997; John Keay, The Great Arc: The Dramatic Tale of How India Was Mapped And

topographical surveying being easily replaced by triangulation (which was also the preferred methodology for revenue surveys), with maps only increasing in efficacy, and, all the while, more and more regions becoming "known" through surveying.[10] Even recent histories that demonstrate the chaos of the Indian Surveys and the messiness of these transitions focus on maps and the rationality and standardization they sought to impose on the landscape.[11] A detailed study of route maps and the kinds of knowledge they made possible help us to see the processes that made maps more "accurate" and, simultaneously, point to the limitations of maps in understanding the kind of geographical knowledge the British sought to gain. Taking maps as a starting rather than ending point of investigation, I outline an alternative trajectory of the beginning of the Indian Surveys.

Locating Natives in Maps

Natives employed in trans-frontier exploration were not only rendered invisible in the historical record - indeed, there could hardly be a more generic term to refer to someone than "the man" or "the Bramin" as in the example above - but their employment was also actively discouraged by the government. In response to the account provided by Hodgson, Charles Crawford was markedly unenthusiastic. He wrote, "the Government have notified to me that they wish to throw cold water on all natives being taught, or employed in making Geographical discoveries."[12] He further cited the example of Colonel Tod, who would have been employed in explorations in Central India in the early 1810s. This officer "taught and employed natives to go

Everest Was Named (New York, NY: Harper Collins, 2000).

10 C. R. Markham, and Great Britain India Office, *A Memoir on the Indian Surveys* (W. H. Allen and Company, 1871); and Reginald Phillimore. *Historical Records of the Survey of India*, 4 Volumes (Dehra Dun, U. P., 1945) are the two most prominent histories of the Indian Surveys.

11 Matthew H. Edney, *Mapping an Empire: The Geographical Construction of British India, 1765-1843* (Chicago: University of Chicago Press, 1997).

12 Crawford to Hodgson, 2nd December 1813, DDN Volumes, 135, 1810-1820, NAI.

with Compasses, Prambulators & Pedometers – and after collecting available set of Routes which were regularly forwarded to this Office he could not without the greatest trouble get any remuneration, except any paltry one; and was thus desired to discontinue the practise."[13] The government was seemingly reluctant to spend money on training natives to carry out route surveys; the Military Accountant General wrote to the Surveyor General to say he found "no precedent for allowances having been granted to any native for taking a Survey."[14] He could thus find no reason for "burthening the public with any additional expense."[15] When it came to natives "employed in making Geographical discoveries," even in the 1860s when a planned project of exploration was being proposed by a British officer to survey Tibet and Central Asia, it was pitched as a novel enterprise.[16] However, it remains that regardless of the government's position and of the Surveyor-General's stated support of it, or even of historical memory, many natives had been and were continuing to be recruited and trained in their individual capacities from the time the British gained territorial control over Bengal in the 1760s.

As the British expanded their influence beyond Bengal, surveyors and map-makers followed closely on the heels of the army. And as Francis White's worry about Ranjit Singh's response to hearing of British surveyors in his territories makes clear, this connection between surveying and British expansion was no secret. Further, surveying was part of the curriculum in Britain's military schools, and surveyors and military officials were one and the same. One of the popular contemporary memoirists of the surveys reminds us: "Rennell, the father of Indian geography, served under Clive, the conqueror of Plassey."[17] James Rennell, that celebrated "father of Indian

13 Crawford to Hodgson, 2nd December 1813, DDN 135, NAI.
14 Cited in Phillimore, *Historical Records of the Survey of India*, Vol. II, 354.
15 Cited in Phillimore, *Historical Records of the Survey of India*, Vol. II, 354.
16 Derek J. Waller, *The Pundits: British Exploration of Tibet and Central Asia* (University Press of Kentucky, 2004).
17 C. R. Markham, *A Memoir on the Indian Surveys* (W. H. Allen and Company, 1871), 39.

geography," published increasingly dense survey maps of Bengal and Bihar over the course of the 1770s and 1780s, and further compiled a map of India that included detailed survey work.[18] Most histories of the Indian Surveys begin with Rennell's contribution to mapping the subcontinent. His work is an example of the first comprehensive effort undertaken by the British to map the territories they already occupied and the future direction their territorial expansion would take. More significant to this analysis, however, Rennell's work marks the shift to personal observation from the field becoming a key element of creating geographical knowledge.

By the early nineteenth century, as Matthew Edney shows us, maps came to be premised on measurement and observation and "the basis of the map's cultural authority…shifted from the cartographer in his office to the surveyor in the field."[19] Rennell can be said to have heralded this move, commissioning surveys from Europeans and Indians in large numbers to build his maps. In several editions of his *Memoir of a Map of Hindoostan,* published over the course of the 1780s, he tracks his multiple sources minutely. Among the long list of European surveyors and army officers, he also acknowledged several natives, such as Golam Mohamed, who explored in 1774 the "roads and country between Bengal and the Deccan;" Mirza Mughal Beg for surveys of northwestern India; and Sadanand for Gujrat.[20] While we know that native explorers were very much part of this process, usually it was only their names that were inscribed. Added to this is the complication that maps abstracted a large amount of this knowledge into their two-

18 James Rennell, *A Bengal Atlas: Containing Maps of the Theatre of War and Commerce on That Side of Hindostan*., 3 p. ([London], 1781), https://mirlyn.lib.umich.edu/Record/001272582; *Memoir of a Map of Hindoostan, Or, The Mogul's Empire: With an Examination of Some Positions in the Former System of Indian Geography, and Some Illustrations of the Present One, and a Complete Index of Names to the Map* (M. Brown, 1783). https://goo.gl/xJ3WgV; *Memoir of a Map of Hindoostan: Or the Mogul Empire: With an Introduction, Illustrative of the Geography and Present Division of That Country By James Rennell, To Which Is Added, an Appendix, Containing an Account of the Ganges and Burrampooter Rivers* (M. Brown, 1788). https://goo.gl/hAVtNN.

19 Edney, *Mapping an Empire*, 30.

20 Rennell, *Memoir of a Map of Hindoostan*, 1783, vi.

dimensional format. The contribution of natives to the project of constructing geographical knowledge is difficult to evaluate when reading the typical documents relating to exploration in the colonial archive, which is to say, maps.

The erasure of native knowledge from maps is perhaps best understood through the history of the mapping of Afghanistan by Rennell and his successors. Unlike Bengal, Bihar, Oudh and coastal cities of peninsular India that had been surveyed in operations conducted alongside the army, Afghanistan was largely an unknown quantity. For those regions where the army and its accompanying surveyors could not venture, Rennell made deft use of secondary literature and existing maps, relying heavily on the late sixteenth century revenue manual commissioned by Akbar, Abul Fazl's *Ain-i-Akbari*, as well as d'Anville's 1752 map of India, which I discuss in more detail later. He acknowledged with regret that "[t]he first point beyond Delhi which I have any kind of *data* for fixing the position of, is Lahore."[21] It was in the second edition (1788) of his *Memoir of a Map of Hindoostan* that Rennell received some of the data he wanted from George Forster, who travelled overland from Bengal to England via Afghanistan in the early 1780s.[22] Forster updated some of the latitudinal and longitudinal calculations of cities like Kabul and Kandahar that Rennell had been uncertain of, arguing that Persian sources were inadequate in this regard.[23] It was more than thirty years later that the map made by John Macartney of "Caubul and some of its dominions" (Figure 1), on return from the 1810 mission to Kabul led by Mountstuart Elphinstone, succeeded in superseding Forster and Rennell's account. The next overhaul of the map of Afghanistan was proposed by Alexander Burnes before his travels in the 1830s, invoking the bogey of a threat from Russia, and arguing once again for the limitations of

21 Rennell, *Memoir of a Map of Hindoostan*,1783, 191. Emphasis in original.
22 Rennell, *Memoir of a Map of Hindoostan*, 1788.
23 Rennell, *Memoir of a Map of Hindoostan*, 1788, 91-92.

extant knowledge on the region.[24] The surveys undertaken during this particular mission came to be especially useful during the First Anglo-Afghan War of 1839-42. The war, in turn, gave rise to a vast number of surveys undertaken by the military and sundry other officials, and after this burst, it was only in the late 1850s and 1860s that further exploratory surveys were undertaken in Afghanistan.

24 "Exploration of Afghanistan and Central Asia proposed by Burnes," Foreign/S.C./18, 16 September 1831, NAI.

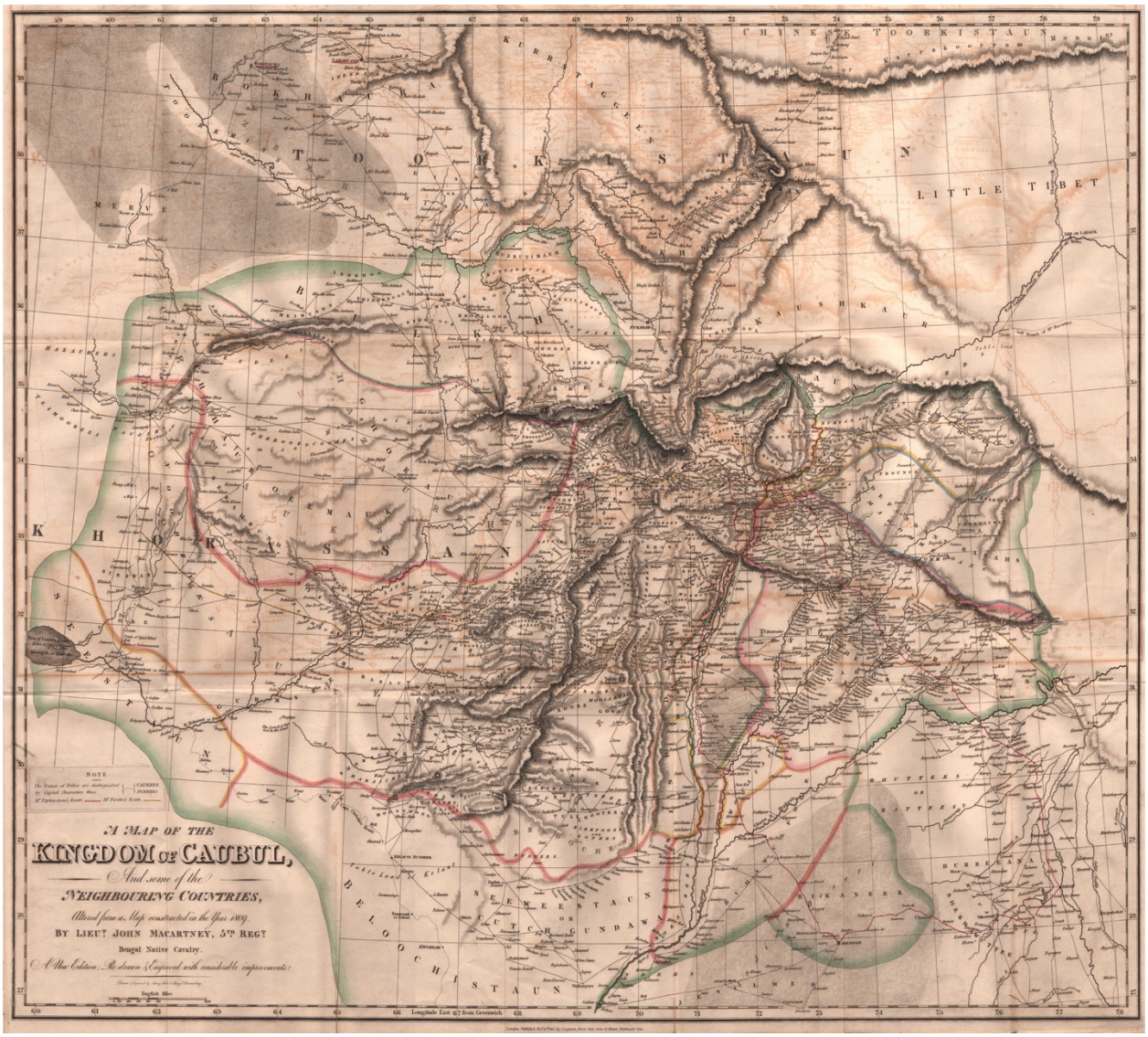

Figure 1: John Macartney, "A Map of the Kingdom of Caubul and Some Neighbouring Countries" (1818)
Source: Pahar – Mountains of Central Asia Digital Dataset, http://pahar.in/afghanistan-general-maps/

What is significant about the two earliest maps - those authored by Rennell and by Macartney - has less to do with the incremental bits of information that came to be incorporated into the ever-sharpening image of Afghanistan, but rather the way in which a greater degree of accuracy was determined through a more efficient use of native information. Mountstuart Elphinstone made a critical comparison between Forster and Macartney when he attempted to draw out the significance of the latter's work, and by extension of his own mission to which the

latter was attached.[25] He acknowledged that a large part of the information they gathered was from natives, and pointed to the remarkable "observation and veracity" of the Afghans, asserting that their calculations of distance and directions were sound, but ultimately stating that these were all secondary considerations when one considered that "nothing is known of the geography of the countries in question that is not derived from the natives."[26] As he pointed out, while Forster may have traveled through Kabul and its dominions, his distances were laid out in *farsangs* and not miles, indicating that his information was likely not based on his own observations but on information received.[27] He further sought to discredit Forster's account by pointing out that Forster did not have with him any instruments with which to take reliable observations.[28] As a closing salvo, Elphinstone remarked, "however superior he [Forster] was to the natives in all the other requisites of a traveller, he could not be so good a judge of the length of a stage as a person who had often travelled it, and was besides accustomed to estimate the rate at which camels move."[29] Macartney reinforced this opinion in the memoir of the map that he appended to Elphinstone's account of the mission. He dwelled at length not only on the reliability of his sources and the instruments they used but also how carefully several different route surveys had been checked and cross-checked against each other, even though he himself was compiling these data from Peshawar and did not make these surveys himself.[30] I will come back to these methods of corroboration in chapter four, but for the moment I want to highlight the shift from Rennell's map to Macartney's map.

25 Mountstuart Elphinstone, *An Account of the Kingdom of Caubul*, 2 Vols. (R. Bentley, 1842). First Published in 1819. https://goo.gl/qdBYWW
26 Elphinstone, *An Account of the Kingdom of Caubul,* xiv.
27 Elphinstone, *An Account of the Kingdom of Caubul,* xiv-xv
28 Elphinstone, *An Account of the Kingdom of Caubul,* xv.
29 Elphinstone, *An Account of the Kingdom of Caubul*, xv.
30 Elphinstone, *An Account of the Kingdom of Caubul*, 390-397.

Elphinstone was attempting to discredit Forster's account because of his use of farsang (or as Forster spells it, fursung) as a unit of measurement, thus implying that his information was not only second-hand but also derived from native informants. Forster himself explained his switch from *cosses* (sing. *cos;* one kos = 1.4 or 1.8 miles) to fursung by noting that "[t]hroughout this quarter of Afghanistan, and all the dominions of Persia, the land measurement is calculated by fursungs, which may be roundly computed, at four English miles."[31] Forster moved easily from cos to fursung to mile in his journey from Bengal to England, sometimes also using the mile for short distances through the entirety of his account. Rennell had a similar approach in his *Memoir of a Map of Hindoostan* and used any number of measures of distance depending on his sources, sometimes translating them back into miles (either "geographical miles" or the "British statute mile") or cosses and sometimes not. He explained that his own "Hindoostanny itineraries and tables are in computed cosses."[32] Further, considering that Hindustan was roughly half the extent of Europe, Rennell continued, "the estimated length of the itinerary measures, although of the same denomination, must vary in different parts of it [Hindustan]."[33] Taking the comparison to its logical conclusion, he pointed out that the mile varied much more in its proportions [than the cos] in different parts of Europe. Variations in different measures of distance thus were made explicit and built into the calculations Rennell made.

What Macartney accomplished then, in the map he constructed thirty years later, was to send out native explorers armed with pedometers and compasses, who could translate the cos or fursung into the mile (or perhaps he did that in his office in Peshawar). The methods remained

31 G. Forster, *A Journey from Bengal to England: Through the Northern Part of India, Kashmire, Afghanistan, and Persia, and Into Russia, by the Caspian-Sea* (R. Faulder, 1798), 92. https://hdl.handle.net/2027/osu.32435018406199
32 Rennell, *Memoir of a Map of Hindoostan*, 1788, 4.
33 Rennell, *Memoir of a Map of Hindoostan*, 1788, 4

the same - laying down route surveys to calculate distances and pinpoint the latitude of cities through astronomical observations. Macartney, as part of a large mission that was making its way to Afghanistan, had a large number of native explorers at his command. Several of their names emerge in his narrative - Zemaun Shah, Mahmood Shah, as well as a "Cashmeerian" (lit. one hailing from Kashmir) – while the rest are rendered as nameless informants. These informants laid out a dense network of routes that then allowed Macartney to fix more points, and Elphinstone argued that this new map resulted in the "surveyed line [being] advanced many hundred miles beyond the last map" and in the geography of the region finally being "settled."[34]

In fact, the geography of Afghanistan would never get quite "settled" and it was repeatedly surveyed throughout the nineteenth century. But comparing the differences between Forster's 1780s account and Macartney's 1810s account, it becomes clear that what had changed was not technology but rather that the latter account merely cut out some of the variation in earlier accounts and standardized the unit of measuring distance. To be clear, even with pedometers, which measured steps taken, distance would still vary with the stride length of each surveyor. It is doubtful whether Macartney sought to standardize the stride length of each surveyor to obtain a more uniform measurement of distance, as would be done in the latter part of the nineteenth century. In fact, distances as recorded by Rennell, Forster, and Macartney varied very little. Macartney's map was significantly denser with the names and locations of many more towns and cities, derived from the many route surveys he had commissioned, and it became the benchmark for the next British official to travel that region.

In keeping with the tradition of European knowledge production, existing authorities had to be cited, credibility for oneself established, and then difference in methods and findings

34 Elphinstone, *Account of the Kingdom of Caubul*, xiv.

delineated. Thus, when Alexander Burnes sought permission to survey the Indus in the 1830s, he could refer to Forster and other European travelers in the region in the same breath as the information derived from the historians of Alexander of Macedon, leading to a current state of the field where they were still "destitute in information" on the "military information" of this region.[35] Native sources continued to remain nameless though Burnes could claim that he had the "latest and best native information regarding their [countries bordering the Indus] present condition, and those parts which are to be avoided from being desolated by anarchy."[36] He ended squarely by speaking of the need for his own presence, "travelling always as an European officer."[37] When his map was compiled and published by Arrowsmith in London in 1834, Burnes wrote an account of the making of the map.[38] Lauding Macartney on his "unwearied zeal" Burnes wondered at the circumstance that "he [Macartney] erred so little when he visited so few of the places he has fixed, and received his information from such [native] sources."[39] This opportunistic back and forth on the value of native sources plots, fairly reliably, on to who was benefitting from their use, but it is worth mentioning that the twenty bearings a day that Burnes claims to have made at different points on the Indus were also likely taken in large part by native explorers. Further, the routes taken by the native surveyor in his employ, Muhammad Ali, as well as his Persian Secretary who was trained in surveying, Mohan Lal, cover a significant portion of his map. Comparing the maps of Forster, Macartney, and Burnes, it becomes clear that maps were becoming denser as additional information on local place names, and the distances between them, were now available to the mapmakers.

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35 "Exploration of Afghanistan and Central Asia proposed by Burnes Foreign," 16 September 1831, NAI.
36 "Exploration of Afghanistan and Central Asia proposed by Burnes Foreign," 16 September 1831, NAI.
37 "Exploration of Afghanistan and Central Asia proposed by Burnes Foreign," 16 September 1831, NAI.
38 Alexander Burnes, "On the Construction of the Map of the Indus," *The Journal of the Royal Geographical Society of London* 3 (1833): 287–90.
39 Burnes, "On the Construction of the Map of the Indus," 289.

Figure 2 J.A. Arrowsmith, "Central Asia; comprising Bokhara, Cabool, Persia, the River Indus, & countries eastward of it. Constructed from numerous authentic documents, but principally from the original M.S. surveys of Lieut. Alex. Burnes" (1834) Source: David Rumsey Historical Map Collection, https://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~33877~1170029:Central-Asia-#.

Route Surveys, in their multitude, lay at the heart of the maps, which represented graphically the information derived from them. For, as we have seen in the mapping of Afghanistan, in the literature around maps and leading up to the creation of maps, there was a process of abstraction that took place when a map was being drawn. Not only was more information from route surveys being incorporated and white spaces being filled in, but there was also a limited range of data that could be included in maps. Indeed, much of the data derived from route surveys remained unrepresented on these survey maps. These data included popular landmarks, population and occupational figures, religious affiliations, production and consumption trends, migratory patterns, and so on. The effacement of these details from the maps published in London and

adorning the walls of the India Office there, combined with the lack of map literacy and the limited availability of maps in this period, points to the many different ways in which geographical knowledge was collected and disseminated. Indeed, we have very little to go on as regards the extent of map literacy, and it was only in the 1830s that lithographic reproduction made maps more widely available. Even in the list of instruments and books that accompanied a native agent trained in surveying, who was making his way to Afghanistan in 1835, we find requests for the usual books on surveying and mathematics, though he also took with him a "Persian Map of the World" and a "Devnagree Map of the World."[40] These were not the survey maps being produced by the British. Most likely, accounts of exploration including route surveys were the most accessible means of knowing a region for the explorers who actually travelled there. Reading them now, they give us a sense of the many kinds of knowledge sought by a colonial state intent on knowing its frontiers, as well as the ways in which it was produced and collected, much more than just what came to be represented on a map.

Route Surveys and their Roots

Route Surveys consisted mainly of the traveler walking a high or main road, marking the distance from one place to another. As the traveler came across a town or village, they would note it in their field book, along with any object to the left or right to them, and the distance of this object in relation to them. By the early nineteenth century, the traveler would likely be provided with a compass, and imagining the earth as a place on which all medians were parallel to each other, they would note the direction in which they were traveling. Determining longitude and latitude proved challenging, as the technology for these measurements changed over time, but rough estimates of these figures would often be included.

40 Foreign/Political/106-107, 30 March 1835, NAI.

A route map as pertaining to laying down the major points along a road is a fairly common feature of South Asian cartography, although the earliest surviving route maps are roughly contemporaneous to the British establishing territorial power in Bengal. Jadunath Sarkar, *in India under Aurangzib*, an early twentieth-century account of the topography, statistics, and roads of the Mughal empire under Aurangzeb (1618-1707), took his account largely from the *Chahar Gulshan*, composed by Ray Chaturman Kayat'h in 1759-60.[41] *Chahar Gulshan* was a work that, Sarkar deduces, was probably derived from a survey manual dating back to 1720 and thus gives us a picture of the Mughal empire shortly after the death of Aurangzeb. One of its volumes consists of a Road Book, which identifies various overland routes from Delhi to different cities like Agra, Bijapur, Lahore, Attock, Kabul, and Multan.[42] Listing very simply the distance between different towns on each route, the Road Book also provided the occasional tantalizing detail. For instance, where a traveler's rest house or *serai* could be found (the author mentions one overlooking the River Yamuna, not far from Agra); the length of canals; different branches and the drainage of rivers; the presence of famous monuments like the tomb of Akbar or the Lahore Fort, or of holy places for Hindus such as Kuru Chatra (Kurukshetra).[43] Nor was the road book of the *Chahar Gulshan* a lone example. Joseph Schwartzberg has noted the existence of several Persian cloth maps from the later half of the eighteenth century that relate the route from Delhi to Kandahar, via Lahore and Kabul, as well as irrigation maps and maps of pilgrimage routes that adhere to similar principles.[44]

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41 Jadunath Sarkar, *The India of Aurangzib (Topography, Statistics, and Roads) Compared with the India of Akbar; with Extracts from the Khulasatu-T-Tawarikh and the Chahar Gulshan* (Calcutta: Bose brothers, 1901). https://hdl.handle.net/2027/umn.31951p00771325r.

42 For more detail on the *Chahar Gulshan* see Joesph Schwartzberg, "Geographical Mapping," in Harley and Woodward, ed., *The History of Cartography*, Vol 2., Bk. 1, 435-436; Susan Gole, *Indian Maps and Plans: From Earliest Times to the Advent of European Surveys* (Manohar, 1989), 91-93.

43 Sarkar, *The India of Aurangzib*, 122-178.

44 Schwartzberg in Harley and Woodward, ed., *The History of Cartography*, Vol 2, Bk 1, 388.

As Kapil Raj has pointed out, "the mapping of India started by mobilizing available resources."[45] James Rennell's map of India, in fact, adopted wholesale the administrative divisions of the Abul Fazl's *Ain-i-Akbari* of 1594 that minutely details by province the revenue administration under Akbar (1542-1605).[46] The *Ain-i-Akbari* has been compared to British Gazetteers in its attention to detail, seen in its comprehensive description of each *subah* or province. These details included descriptions of principal cities and towns, primary crops and objects of trade, potted histories of rulers and dynasties, and information about regional climate, flora, fauna, and principal fortifications. The *Chahar Gulshan* too derived many of its topographical notices from the *Ain-i-Akbari*. The Road Book of the *Chahar Gulshan* is an addition to the kind of information found in the *Ain*, and Sarkar too lauds it for its great value in providing "a good account of the main roads, before the old order had altogether disappeared from India, before railways were introduced, before the British dominions had extended beyond the Sutlej…"[47] As observed here, it was the small, incremental additions to the "known geography" of the region that was marked as valuable for the colonial enterprise.

The earliest attempts of the British to codify geographical knowledge of the subcontinent derived its form, and not just its information, from an existing constellation of maps and geographical treatises. James Rennell's *Bengal Atlas*, published in 1779, some twenty years after *Chahar Gulshan*, is similar to the latter in that both are concerned with delineating a series of routes and marking distance between points on these routes. Delhi forms the center of *Chahar Gulshan*, and the author tracks the royal road from the southern city of Bijapur up to Delhi, and

45 Kapil Raj, "Colonial Encounters and the Forging of New Knowledge and National Identities: Great Britain and India, 1760-1850," *Osiris*, 2000, 129.
46 Clements Markham, *Major James Rennell and the Rise of Modern English Geography* (London: Cassell, 1901), 89. https://hdl.handle.net/2027/umn.319510022944198.
47 Sarkar, *The India of Aurangzib*, xxv.

promises to write of roads to the north, south, east, and west of Delhi. The furthest north (and west) he travels is Kabul, which he writes as 606 kos, and the furthest east of Delhi he tracks is Patna. *Bengal Atlas*, on the other hand, began with Calcutta as its locus, and moved outward through Bengal and Bihar. It did however contain less detail than *Chahar Gulshan*, being relatively unconcerned with landmarks like serais and places of pilgrimage. Although *Bengal Atlas* can be resituated amongst a genre of contemporary road books, the routes that went into its making and into the making of Rennell's *Memoir of a Map of Hindoostan* are few and far in between, and none survive, to my knowledge, of those authored by native explorers. To understand the ways in which a changed political context would have led to new kinds of knowledge production, we have to turn to a slightly later native account.

The First Native Account of Exploration

The earliest native explorer who graduated from being a nameless informant buried in the back issues of hefty journals was Mir Izzet Ullah, who was deployed by a British officer to travel to Tibet and then west into Yarkhand and onwards to Turkmenistan and other parts of Central Asia in 1812. His account was translated from the Persian and published several times over the course of the nineteenth century, in journals such as the *Calcutta Oriental Quarterly Magazine* (1825) and the *Journal of the Royal Asiatic Society* (1843), as well as a standalone travelogue in 1872.[48] C.A. Bayly sees Mir Izzet Ullah's travelogues as representing "a halfway point between the Islamic travelogue and British topography" in that although he represents details with care and precision, "Izatullah's imaginative world remains that of Mughal kings and Sufi saints,

48 Mir Izzet Ullah, *Travels Beyond the Himalaya* (1825); "Travels beyond the Himalaya: Republished from the Calcutta Oriental Quarterly Magazine, 1825," *Journal of the Royal Asiatic Society of Great Britain and Ireland* 7 (1843): 283-342; Mir Izzet Ullah and P. D. Henderson, *Travels in Central Asia by Meer Izzut-Oollah in the Years 1812-13* (Calcutta: Foreign Department Press, 1872), V/27/69/6, British Library, Oriental and India Office Collections, India Office Records (hereinafter IOR).

whose monuments and tombs he always mentions."[49] Indeed, the serais make a reappearance, as do brief histories of the Mughal kings and princelings who left their mark on the regions he traversed. It was also not a coincidence that Izzet Ullah belonged to an influential family with a tradition of service with the Mughals. William Moorcroft writes of his grandfather, a functionary at the Lahore court, and of the respect that Mir Izzet Ullah received from "natives of high distinction," including Ranjit Singh, the powerful ruler of the Punjab.[50] In his career with the colonial state, we see that other half of Mir Izzet Ullah, as one who gradually rose through the ranks, from being officiating munshi of the Delhi Residency, to becoming an explorer and publishing his own account. Unlike many of the other explorers, of whom we know nothing more than the fact that they were a "Pundit," or a "Munshi," Mir Izzet Ullah, the former munshi (an important relic of the Mughal administration that continued under the British), merits a name and a biography.

The testimonials Mir Izzet Ullah collected give us a sense of his long career and wide-ranging proficiency.[51] He served at the "office of Northern intelligence" under Thomas Metcalfe, in Multan "for the purpose of gaining…and transmitting intelligence respecting the Chiefs of that country." Subsequently, he was attached as head munshi to Mountstuart Elphinstone's mission to Kabul. Elphinstone wrote of him in this position: "He is very well qualified…being industrious, intelligent and well informed, and unusually methodical and accurate." Mir Izzet Ullah spoke both Persian and Turkish, and Elphinstone tells us that he was "well acquainted with the Cabul country."[52] This would likely have recommended him to the notice of his next employer, William Moorcroft. Moorcroft was the first qualified veterinarian in Britain, and traveled widely out of

49 C.A. Bayly, *Empire and Information,* 85.
50 F/4/1038 28641. May 1810 - Feb 1828, IOR.
51 Bengal Political 24 Jun 1829, draft 358/1828-29. E/4/725, IOR.
52 Bengal Political 24 Jun 1829, draft 358/1828-29. E/4/725, IOR.

India into Central Asia, in search for a stock of Turkoman horses and long-haired goats he could use for cross-breeding. This, at least, was the ostensible purpose of his travels. Along the way he sought permission from the British government in India to head to Lake Mansarowar, and was granted permission to "penetrate into Tartary."[53] Geographical exploration formed not an insignificant part of his expedition, and he had employed Mir Izzet Ullah to carry out separate reconnaissance missions prior to his own travels. Moorcroft, in turn, vouched for Mir Izzet Ullah's "attachment to British interests" and lauded the "knowledge gained by him of the political condition of various countries touching upon the British territories, and of others more remote, but which are not without a great prospective interest in the present and possible relations of the British Government."[54] Munshi, spy, polyglot, and already familiar with the regions he was planning to explore, Mir Izzet Ullah was a most desirable candidate to explore the frontier for the British.

Mir Izzet Ullah did not claim, in the manner of European travel writing of the time, to have written a unique, never-seen-before account. His pronoun of choice was "we," though no mention was made of the party that would certainly have been travelling with him. In cases where he drew upon other people, he acknowledged them by name, for instance, the author, Moollah Nuzur of Kashgar, of the route survey from Yarkhand to Kashgar that is appended in full in his own narrative.[55] The survey is appended with the caveat that its author had a perfect recollection of the road and was familiar with the route, having traveled it twice. Izzet Ullah's own recollection of the road is interspersed with discussions of marriage customs, festivals, forms of dress, and customs he found remarkable. Further, he recorded occupations, trading

53 Phillimore, *Historical Records of the Survey of India*, Volume II, 80.
54 Bengal Political 24 Jun 1829, draft 358/1828-29. E/4/725. IOR.
55 Mir Izzet Ullah, *Travels in Central Asia*, 32-44.

commodities and trade routes, as well as details like the kinds of arms the local population used and whether they were likely to be armed or not. Izzet Ullah's account include moments of incredulity, such as when he sees Tibetan dogs that were much bigger than those he had seen in India, and which were said to be capable of killing tigers.[56] Or when he heard of a stone that "when certain action is taken with it rain and snow can without fail be produced…Though I have had no opportunity of testing the truth of this alleged phenomenon personally, yet I have often heard of it from respectable people of the country."[57] Matthew Mosca's concept of "geographical agnosticism" is particularly useful to think with here, whereby any number of competing explanations are put forward in texts, without necessarily privileging any one explanation, unlike modern maps which are evacuated of ambiguity.[58] These instances that occasioned surprise or incredulity also mark Mir Izzet Ullah's own unfamiliarity with the region, and the manner in which he too privileged first-hand experience. There is a sense of immediacy to his observations that situate him clearly in place, and his encounter with the familiar and unfamiliar speak of what ordinary, practical knowledge he was acquiring on the road.

This text also marks Mir Izzet Ullah as an explorer who was learning to cultivate his own approach to and instruments for knowing a region. He notes that he was not provided with a compass, and indeed, compasses were hard to come by even for European explorers. He writes, "Sreenuggur lies north-east of Cashmere; having no compass with me, I was unable to take any accurate observation."[59] The lack of a compass, while certainly undesirable for Mir Izzet Ullah, seemed not to stop him from making his observations. A little later in his narrative he writes:

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56 Mir Izzet Ullah, *Travels in Central Asia*, 15.
57 Mir Izzet Ullah, *Travels in Central Asia*, 28.
58 Matthew Mosca, *From Frontier Policy to Foreign Policy: The Question of India and the Transformation of Geopolitics in Qing China* (Stanford University Press, 2013), 18.
59 Mir Izzet Ullah, *Travels in Central Asia*, 5.

"Being unprovided with instruments I was unable to determine accurately the position of Leh, but from an observation of the Polar Star, taken by means of a rough instrument made by myself out of a piece of curved wood, I made the longitude 37 degrees and 40 minutes."[60] Mir Izzet Ullah possibly fashioned some sort of quadrant out of his piece of wood to calculate angles in aid of coming up with the latitude. To one familiar with astronomy and Islamic traditions of mapmaking, it was probably not much of a stretch. The seeming ease with which he adjusted to the lack of instruments, even crafting his own in the process, is indicative of a moment in the Indian surveys when standardization and calibration had not yet become all-important.

That such exploratory fieldwork was characterized by negotiation and much adjustment to the elements, lack of instruments, and on a reliance on local knowledge is clear. It was also predicated upon the skills of knowledgeable subjects like Mir Izzet Ullah, who could translate between several languages and field methods that were being practiced both in the field and in the surveyor's office thereafter. This is perhaps most evident in the ways in which surveyors negotiated the multiple units of measurement in use. It is safe to assume that Mir Izzet Ullah was not equipped with a pedometer or a perambulator to calculate distance and would have used the simple method of pacing for this purpose. He thus used kos or *kroh* as the unit of distance, roughly equal to a mile, and this was not translated for any of the editions of his work. When reporting the route of Moollah Nuzur from Yarkhand to Kashgar, as mentioned above, Izzet Ullah reproduced the unit of distance used by Nuzur, the *yool*, which he then explains:

> "Yool" in the Turksish language means simply a road, but it is now used as a measure of distance. Some say a yool is 360 koolach, a koolach being equal to two Shahjehanabad yards. Others again assert that a yool is equal to 360 yards. At any rate a distance of 70 or 80 yools is a pretty fair journey for one day.[61]

60 Mir Izzet Ullah, *Travels in Central Asia*, 15.
61 Mir Izzet Ullah, *Travels in Central Asia*, 44.

Mir Izzet Ullah provides distances both in kos and in terms of the time that it takes to cover the distance. Eventually, the sense he made of distance was in how much time it took to get from one place to another – one day. The existence of multiple units of measure - whether it was the yool, kos, koolach, Shahjehanabad yard (only some of which were mentioned in other textual sources) – could only be reconciled by someone who could easily move between languages.

The confusion that arose from time to time in the pages of journals and books on exploration sometimes reflected both the uneasiness with which these measures co-existed, but also the way in which they were then incorporated into known geography. On one occasion, this occurred in an expedition to Mansarovar Lake, led by William Moorcroft. He had employed a "pundit" by the name of Harkh Deo, who had the "singular purpose of striding the whole route, by regular paces of four feet."[62] The problem arose when the narrator of the expedition expressed deep skepticism as to how a person could pace four feet in one step across the steep and difficult terrain of the Himalayas.[63] The answer was provided by a British officer some time later in his travelogue:

> By some unaccountable mistake, the Pundit has been said to stride the whole way at paces of four feet each, which is quite impossible even on level ground. Captain Hearsay explained this to me: at first he said that he reckoned the pace four feet, but on enquiry I found he meant Hindoostanee Kudum or Qudum, by Dr. Gilchrist, which is a double space. This estimate of four feet to the Qudum, agrees very nicely with the distances I have measured in mountainous countries. I have employed several natives to pace distances, and they invariably computed by the double pace.

Measurement and pacing are inextricably tied with the credibility of native accounts (which I

62 H.T. Colebrooke, "Art. IV 1. Narrative of a Survey for the Purpose of Discovering the Source of the Ganges," *Asiatic Researches* xii (1817), 415.

63 Colebrooke, "Art. IV 1. Narrative of a Survey for the Purpose of Discovering the Source of the Ganges," 415.

examine in chapter four), but for the purposes of this discussion, I want to point to the "Hindoostanee Qudum" – which meant counting your pace at every second step instead of every single step. This was a widespread practice – and named for the whole of Hindustan, most likely by John Gilchrist, professor of linguistics at Fort William College in Calcutta. This was also a kind of pacing that then later became institutionalized in the training that native explorers in the latter half of the nineteenth century received. Underlying the unambiguous neatness of a scaled map laying out distances between points then, there was the native explorer taking double step that measured them out, occasionally creating confusion in the cartographer's office.

The End of Route Surveys?

Clements Markham, who wrote a memoir of the Indian Surveys in 1871, pointed out that Rennell's maps were superseded at the turn of the century by revenue surveys based on triangulation, as indeed was the fate of most maps based on route surveys and astronomical observations.[64] There is one crucial exception - that of regions beyond the control of the British government. Markham's history of the surveys remained unparalleled until Reginald Phillimore's *Historical Records of the Survey of India*, which was published in five volumes over the course of the 1960s. Both delineated the same trajectory of route surveys replaced by trigonometric surveys, with brief digressions into trans-frontier explorations that were usually understood as quick, inaccurate, and on a need-to-know basis. George Everest, Surveyor-General of India, writing in 1829, is an exemplar of such thought, and he made a still finer distinction between route surveys and revenue surveys. In his opinion, "Countries where the inhabitants are comparatively backward in point of Civilization, where there are but few large Towns where Commerce is not the primary pursuit, and hardly any great Roads, the delineation of the grand

64 C. R. Markham, *A Memoir on the Indian Surveys* (W. H. Allen and Company, 1871), 43.

features which they present has been commonly considered an object of curiosity rather than utility." It was these areas where carrying out the less-accurate route surveys was most desirable.[65] In contrast, areas that were fertile and well peopled, a "nearer approach to the truth" was more desirable.[66] Still, the first substantive manual for surveying, published in 1851, provides insight into the frequency of route surveys and their continuing utility.[67] It described them as "of a more desultory nature, [and] constantly going on in India."[68] It further identified two main uses of route surveys - for lining new roads, and for exploratory expeditions into new and unknown countries.[69] The question of the validity and utility of route surveys is a vexed one in the contemporary literature of the surveys.

Triangulation was imagined to be a method that would efface less accurate astronomical observations - a staple of topographical surveying practices - for the purposes of locating one point in relation to another on the surface of the earth. The new system of triangulation meant laying down a mathematical framework where points on a surface were defined in relation to each other - usually done by connecting lines that joined the tops of hills or buildings, and which made up a grid of interlocked triangles. The aim was to cover the entire subcontinent in this grid; surveyors would extend it in every direction, with an understanding that there would eventually be little need for astronomical positions to locate places spatially.

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65 COPIES of Papers relating, to the Survey of India, etc., as follows:- Remarks on the value of the pace, as a means of keeping an itinerary, by Lieut. J. D. Herbert, f. 2. : -Notes and Letters of Capt. T. B. Jervis, Relative To The Execution Of The Trigonometrical Survey Of India, 1838; Add MS 14380 f. 2, IOR.

66 Remarks on the value of the pace, as a means of keeping an itinerary, by Lieut. J. D. Herbert, Add MS 14380, IOR.

67 R. Smyth and H. E. L. Thuillier, *A Manual of Surveying for India, Detailing the Mode of Operations on the Revenue Surveys in Bengal and the North-Western Provinces* (W. Thacker, 1851). https://hdl.handle.net/2027/njp.32101049490970.

68 R. Smyth and H. E. L. Thuillier, *A Manual of Surveying for India,* 234.

69 R. Smyth and H. E. L. Thuillier, *A Manual of Surveying for India*, 234.

Matthew Edney, however, has successfully revealed the cartographic ideal of a systematic and comprehensive map based on survey work, even with the veneer of the supposedly more accurate trigonometric method, to be an "empiricist delusion."[70] The history Edney writes of the Great Trigonometrical Survey, which began in 1799-1800 and spanned almost the entirety of the nineteenth century, is not one of an increasing coherence and of improved technology leading to the creation of ever more accurate maps. Instead, he marks the very gradual transition from topographical surveying to trigonometrical surveying during the early 1800s, a process characterized by him as deeply chaotic and lacking administrative, organizational, and ideological unity. He writes of the ultimate aim of the GTS: "The triangulation framework reduced all geographical data to a common and universal reference that obviated the need for any local knowledge."[71] This ties into how he locates the contribution of this mammoth enterprise of surveying the subcontinent on trigonometrical principles, whereby "[t]he triangulation of India promised the perfect panopticon not because its geometry would be better than that of astronomical control but because its geometry would be the same as the world's."[72] Standardization and rationalization of the terrain of India were what the British sought, and in Edney's analysis, that was what resulted, leading up to the creation of a comprehensive geographic archive that could then be understood without relying on indigenous informants.

The critical work of discursively demystifying triangulation that Edney performs is, however, somewhat undermined by the centrality he attributes to triangulation as the primary way for the British to survey, and thus know, India. It was not possible to extend the very cumbersome trigonometric surveys beyond the boundaries of British India, where surveyors did not have the

70 Edney, *Mapping an Empire*, 30.
71 Edney, *Mapping and Empire*, 234.
72 Edney, *Mapping an Empire*, 337.

acquiescence of ruling powers. However, the need to rationalize space and make it coherent did not stop at the borders of British India. Thus, in areas like Sindh, Afghanistan, other parts of Central Asia, and eastwards towards Tibet - areas that were of surpassing geo-political importance to the British in India and where explorers were either negotiating the terms of their influence or were unable to move freely (as in Afghanistan and Tibet) - detailed trigonometric surveys were not possible for most of the nineteenth century. Topographical surveying with the aid of astronomical observations remained the norm outside of the environs of British India. Here, the shifting boundaries of the British Empire in India become important – thus, although White could write to the Surveyor-General of Bengal in 1808 of his hesitation in venturing into Punjab, the annexation of Punjab in 1849 put a different complexion on the matter.

Triangulation was further limited in its application outside the borders of British India in terms of the large manpower and cumbersome equipment it entailed. Other than the lead surveyor, who was usually a British official, and his one or two assistant surveyors, also usually recruited from the Company's service, there was a considerable native establishment. The imagined ideal of a native establishment on a trigonometrical survey by the 1830s included a military contingent made up of several grades of native officers ranging from at least one *Jemadar* to upwards of a hundred Privates, a native doctor, carpenter, and several *Hurkarahs* to relay messages.[73] Besides them, there were be the native surveyors with specialized training in surveying, received either at colleges in Calcutta, or in the school for surveyors that had been established in Madras in 1793, or perhaps had been individually instructed by British officials in Calcutta or Delhi. Further, the heavy equipment - including theodolites and telescopes and those

73 "Proposals of the Surveyor General of India, Major George Everest, for Reorganizing the Subordinate Native Establishment of the Great Trigonometrical Survey - His Departure for the Upper Provinces in Dec 1832 - Question of His Travelling Expenses, Etc," F/4/1379/55089, August 1832, IOR.

lights and flags that would be set up at a distance from each other to lay down triangles - was out of the question in exploratory surveys in regions where such activities would generate as much suspicion as interest. In contrast to this, topographical surveys consisted of smaller parties that traveled swiftly, many times in disguise and with their limited set of instruments hidden away, conducting surveys in as inconspicuous a manner as possible.

My aim here is not to set up a false binary between trigonometric surveying and older kinds of topographic surveying. It is, rather, to speak to a literature that makes the history of the Great Trigonometric Survey synonymous with the history of Indian surveys and, especially, its cartography. In this history, trans-frontier exploration often becomes a romantic interlude in the serious, if flawed, work of mapping and knowing the subcontinent through triangulation. Although the term "trans-frontier exploration" comes to be used in contemporary literature only in the 1860s, once the boundaries of British India are somewhat stabilized, I use the term "trans-frontier exploration" advisedly, from the time the British annexed Bengal and began their surveying operations in the subcontinent. To talk of "trans-frontier exploration" in, say, Oudh, Sindh, Punjab, Tibet, and Afghanistan, is to highlight the manner in which these regions came to be known through surveying and exploration, and the gradual and contested process through which some of them became integral parts of the British Empire in India.

Further, even in the messy history of the triumph of triangulation over other methods of surveying, as laid out so well by Edney, the idea of a British India is formalized through maps resting on the superiority of British knowledge, reason, and rule. The work of natives in this analysis is reinforced as merely supplementary. Their role is limited to providing information for constructing maps that made these maps more legible to Europeans which ironically sought to do away with precisely this reliance on native knowledge. Or, in other cases, their role was in

providing the essential manpower in carrying out surveys, which has little significance for understanding the ways in which geographical knowledge gets constructed.

This limiting of the role of natives ties into a larger problem with the existing work on surveying and mapmaking in South Asia, specifically in the way it assumes them to be passively receptive to the diffusion of European science into the colonies.[74] However, as more recent work on the history of science has brought to light, it is hard to delineate the dimensions of a colonial or "Western" science that developed on its own in the rarified environs of Europe.[75] Maps were not merely the result of European cartographic culture being transplanted onto the Indian subcontinent as Edney suggests, and a closer look at cartographic practices shows the complex processes of adaptation and negotiation in the local context.[76] Kapil Raj demonstrates this through a brief history of the modern geographical map to show its co-constitution in the metropole and the colony.[77] This process of co-constitution is achieved through events and processes that are ineluctably local but that nevertheless point to the existence of a global "hybrid culture…[which] is just what characterizes the practice of science."[78] However, a focus on the interplay of local and global, while critical to conceptualizing how science circulates, tends to take for granted the ways in which asymmetrical power relations operate in the shared spaces of colonialism, which cannot adequately be described as operating in an undifferentiated "hybrid culture." To understand these asymmetries is also then to understand how certain technologies take shape and

74 The first and most influential of these is in George Basalla *The Evolution of Technology* (Cambridge University Press, 1989).
75 Helen Tilley, *Africa as a Living Laboratory: Empire, Development, and the Problem of Scientific Knowledge, 1870-1950* (Chicago: University of Chicago Press, 2011), 10.
76 Kapil Raj, *Relocating Modern Science: Circulation and the Construction of Knowledge in South Asia and Europe, 1650-1900*, (New York: Palgrave Macmillan, 2007), 60-61.
77 Kapil Raj, "Circulation and the Emergence of Modern Mapping: Great Britain and Early Colonial India, 1764-1820," in *Relocating Modern Science,* 60-94.
78 Kapil Raj, *Relocating Modern Science*, 94.

gain power, usually through the erasure of certain kinds of labor and histories.

The focus of the existing literature not only on triangulation but also on the maps that result from it, has rendered insignificant other creative and diverse ways in which knowledge was produced in colonial South Asia. Maps have become the key technology through which to understand the ways in which the British sought to control their empire.[79] And indeed, that the development of cartography under the British was clearly geared towards the administrative needs of an expanding colonial state and its officials, is manifestly clear. A Survey of India officer, William Coldstream, in a presentation at the Royal Geographical Society in 1919, helpfully laid out the ideal trajectory for the "cartographical needs of a country new to western civilization."[80] First would be the geographical maps of the explorers and the merchant adventurers, laying out coastlines, the big towns, and the lines of communication. Then would come the needs of the soldier, who required maps laying out physical features, or what are known as topographical maps. After the soldier was the administrator, who required large-scale surveys of cultivable land and still larger-scale maps of how pieces of land lay in relation to each other. And finally, all order disintegrated once everyone from forest officials to hydro-electrical engineers, to geologists and municipal authorities, all wanted specific maps with their "own pet area plumb in the centre of it."[81] It is worth remembering at this juncture of what Matthew Edney reminds us - the idea of India that emerges from mapping is one that is both British and elite.[82]

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79 Edney, *Mapping an Empire*; David Ludden, "Orientalist Empiricism: Transformations of Colonial Knowledge," in *Genealogies of Orientalism: History, Theory, Politics*, 2008, 75–101; Thomas R. Metcalf, *Ideologies of the Raj*, New Cambridge History of India, III (Cambridge, New York: Cambridge University Press, 1994); Bernard S. Cohn, *Colonialism and Its Forms of Knowledge: The British in India*, Princeton Studies in Culture/Power/History (Princeton University Press, 1996).

80 Colonel W. M. Coldstream, "Indian Maps and Surveys," *Journal of the Royal Society of Arts* 74, no. 3822 (1926): 299-320.

81 Coldstream, "Indian Maps and Surveys," 300.

82 Edney, *Mapping an Empire*, 36.

And the picture we get from Coldstream's lecture on the development of cartography bears this out - it neatly laid out the different (mostly British) officials of the colonial state who required these maps in their offices and on their walls. And yet, Coldstream's list also makes clear the large amount of information required to be flattened onto a map for each such official, and the impossibility of achieving this, what he called a "Survey Utopia."

A reorientation to the route survey reminds us of the uneasy transition to trigonometrical surveying, and of the persistence of older forms of topographical surveying. Further, the standard narrative of the increasing accuracy and precision of maps as time wore on and the colonial state extended its territories can be rethought through the lens of the route surveys and elaborate native labor it required. Here, accuracy can be redefined as more and thus better information gleaned from valuable native sources rather than through glacial technological advances, especially in the case of trans-frontier regions. Further, the move to standardize and rationalize measurement of distance was one of the key ways in which to evacuate particularity and impose the abstraction of the British statute mile that saw its apogee in a map. Through route surveys such as that of Mir Izzet Ullah's, we can not only see the way in which the Hindustani Qadam made up the mile, but also the way in which mapping came down to walking.

Figure 3 Mohan Lal Kashmiri. Source: Mohan Lal, Travels in the Punjab, Frontispiece.

Figure 4 Alexander Burnes. Source: Alexander Burnes, Travels into Bokhara, Frontispiece.

CHAPTER THREE – HOW TO MAKE A NATIVE EXPLORER: EDUCATION AND PUBLIC EMPLOYMENT IN THE INDIAN SURVEYS

An English education would be transformative to the native. This was the bedrock of the discourse of improvement that underlay the project of colonial education. As much was clear in the foreword to explorer Mohan Lal's travelogue, written by his mentor and one-time secretary of the General Committee of Public Instruction, Charles Trevelyan.[1] He wrote of Mohan Lal:

> What has given Mohan Lal so decided an advantage over the generality of his countrymen? What is it that has gained for him a willing acknowledgment of his personal superiority by the princes of Central Asia, and enables him to enjoy, on terms of equality, the society of European gentlemen? It is simply his knowledge of the English language: not a *critical* knowledge - that he leaves to those philologists in whose estimation languages are desirable objects of acquisition…but such knowledge as enables him to read and understand English books, and to converse intelligently with English gentlemen on ordinary subjects…This is the simple cause of Mohan Lal's elevation of character…[2]

Let us, for a moment, take C.E. Trevelyan's words seriously and accord due importance to English education in the making of a traveler such as Mohan Lal. Although this quote was published in 1845, in the forward to Mohan Lal's travelogue, Trevelyan was looking back to a time when Mohan Lal was a student at the Delhi College in 1828-29 and part of the first English class established outside of Calcutta. When Trevelyan wrote this, he was commenting on the success of the project of English education in the first two decades of its rollout in the subcontinent. What he chose to commend to demonstrate this was Mohan Lal's ease

1 Trevelyan, when he wrote the foreword, had newly married Lord Macaulay's sister, Hannah More Macaulay, and his influence on his brother-in-law's thought is noticeable, see Aparna Basu, *Essays in the History of Indian Education* (Concept, 1982) for more on this.

2 Emphasis in original. C.E. Trevelyan in the foreward to Mohan Lal, *Travels in the Punjab, Afghanistan, and Turkistan, to Balk, Bokhara, and Herat: And a Visit to Great Britain and Germany* (Language Department, Punjab, 1846), xix-xx, https://hdl.handle.net/2027/nyp.33433082446653.

inconversing not only in English but with Englishmen on "ordinary subjects." It was congratulations for not only on having knowledge of English, but precisely the right kind of knowledge – to elevate himself above the majority of his countrymen.

On the part of the colonial state there was a clear trajectory of improvement that was available for English-educated Indians. As scholars of British educational policy have highlighted, native education was a strategy of containment on the part of the British parliament, such that colonialism itself comes to be seen as a pedagogical enterprise.[3] Yet, an English education could only ever take you so far, especially when it was for the purpose of gaining employment with the colonial state.

In this chapter, I want to examine the uses of an English education for the purposes of becoming an explorer. I take as my subject two students, Mohan Lal and his classmate Shahamat Ali, two of the earliest beneficiaries of a public education in English, who then went on to survey and explore regions in Sindh, Punjab, and Afghanistan. I argue that the primary use of their public education was to distance themselves from the traditional occupation of a *munshi*, a profession that included any or all of the work of a scribe, translator, interpreter, writer, secretary, reader, or tutor, to then chart a career as a "Persian Secretary." In so doing, Mohan Lal and Shahamat Ali, who were two of the earliest of the professional explorers I incorporate in the lineage of native exploration I develop in this dissertation, constituted themselves as new experts on travel and exploration.

The travelogues in English that Mohan Lal and Shahamat Ali wrote both reiterate a

3 Gauri Viswanathan, *Masks of Conquest: Literary Study and British Rule in India* (New York: Columbia University Press, 1989; Parna Sengupta, *Pedagogy for Religion: Missionary Education and the Fashioning of Hindus and Muslims in Bengal* (Berkeley: University of California Press, 2011); Sanjay Seth, *Subject Lessons: The Western Education of Colonial India* (Duke University Press, 2007); Javed Majeed, "British Colonialism in India as a Pedagogical Enterprise," *History and Theory* 48, no. 3 (October 1, 2009): 276–82, doi:10.2307/25621421.

strong connection between their education at the Delhi College and their subsequent career as "Persian Secretary" with the colonial state.[4] And in the very first sentence of Mohan Lal's travelogue, he emphasized that his official designation was not munshi but "interpreter and Persian Secretary" to the diplomatic mission led by Alexander Burnes to Afghanistan.[5] Similarly, in the frontispiece of Shahamat Ali's work, he styles himself as "Persian Secretary with the Mission of Lieut. Col. Sir C.M. Wade…and now Mir Munshi to the Political Resident in Malwa."[6] A munshi's job included much of what Mohan Lal and Shahamat Ali were called upon to do, but it had the disadvantage of locating them within a numerous and largely undifferentiated class of munshis whose work undergirded the operation of the British government. The English phrase "Persian Secretary" emphasized their specialized knowledge of both Persian and English and distanced them from the largely clerical work that munshis were seen as performing.

There was no precedent in the genre of travel writing in English for Persian Secretaries to write and publish their travelogues. Yet, when we consider the education and training of Mohan Lal and Shahamat Ali, there is a way to understand this somewhat surprising move. The genre of exploration literature was only just beginning to take shape as Mohan Lal and Shahamat Ali published their travelogues, as I go on to discuss in the next chapter. They neither sought nor were given by their British employers the title of "native explorer," and neither identified even as surveyors. Alexander Burnes specifically noted the difference between his Persian Secretary

4 Mohan Lal, *Travels in the Punjab*; Shahamat Ali, *The Sikhs and Afghans in connexion with India and Persia immediately before and after the death of Ranjit Singh* (London, 1849), https://hdl.handle.net/2027/mdp.39015022634276.

5 Mohan Lal, *Travels in the Punjab*, 1.

6 Shahamat Ali, Frontispiece, *The Sikhs and Afghans*. A Mir Munshi was the head munshi of the establishment and in charge of the work of the legion of munshis, thus a senior position reached after several years of service.

Mohan Lal from the native surveyor who accompanied the expedition to Afghanistan, Muhammad Ali.[7] However, both were trained in surveying and made expeditions of exploration, collecting geographical information.[8] Styling themselves in the manner of Alexander Burnes, who had published his best-selling travelogue to great acclaim already, Mohan Lal and Shahamat Ali too published travelogues that relied on the daily journals they had kept on their expeditions. The importance of the daily journal to the work of exploration cannot be overstated, especially to the travelers personally. On the way to Kandahar, Mohan Lal happened to lose his journal. He wrote, "I was exceedingly vexed and annoyed at losing my Journal, which I expected would be the only means for me to get access to the presence of the Governor-General."[9] Not only would this journal bring him to the attention of higher ups, but it was also how his journey was corroborated by officials he answered to. It contained all the information, commercial and geographical, that he had been instructed closely to gather. It was this journal that was then transformed into a travelogue, becoming a key means of advancement in the rigid hierarchies of the colonial state. This was a strategy pioneered by Mohan Lal and Shahamat Ali, and I make a close reading of their travelogues to understand what was required to craft a successful career under British rule.

Introducing the Travelogues

Both Mohan Lal and Shahamat Ali begin by an apology for their newness to the English

7 Alexander Burnes, *Travels into Bokhara: Being the Account of a Journey from India to Cabool, Tartary and Persia; Also, Narrative of a Voyage on the Indus, from the Sea to Lahore, with Presents from the King of Great Britain; Performed Under the Orders of the Supreme Government of India, in the Years 1831, 1832, and 1833* (J. Murray, 1834), xi-xii.

8 For a representative sample of Mohan Lal's travels see his account of his journey from Mithankot to Shikarpur, both in present-day Pakistan, Foreign/P.C./9-19, 5th September 1836, NAI. Shahamat Ali wrote about his expedition in *The Sikhs and Afghans*, including his journey to Kabul, where he and Mohan Lal spent time together, as well as to the Khyber Pass.

9 Mohan Lal, *Travels in the Punjab*, 288.

language. Mohan Lal, in the opening lines of his travelogue, wrote, "I feel it incumbent on me to state that my course of instruction in the English language was not of a long duration, and therefore I hope that errors of idiom, and the uses of terms not strictly proper, will be overlooked by candid readers."[10] Shahamat Ali too began his first book, *The Sikhs and Afghans* (based on his travels from Lahore to Kabul and back), with a reflection on his English education. His very first sentence reads: "Being a stranger to the English people, and their language one foreign to my own, it may be expected that I should give some account of myself, the source to which I am indebted for the little knowledge I possess, and the motives which have encouraged me to publish my Journal."[11] Tied to this newness to English, is the credibility provided by their English education that allows them to pen these words in the first place, even if not to the satisfaction of all.

In one sense, these opening paragraphs may be read as the standard "arrival scene" of the genre of travel writing. The ubiquity of the arrival scene across the genre has been discussed by Mary Louise Pratt, who sees these as "particularly potent sites for framing relations of contact and setting the terms of its representation."[12] Even if the opening lines quoted above were not highlighting their arrival at a new place in their travels, Mohan Lal and Shahamat Ali were instead setting the terms of their contact with an English-speaking world. As became clear over the course of their narrative, they did not require English to travel in Afghanistan and Punjab and Sindh to converse with inhabitants there. Yet, they did require it for recording and disseminating the information required by a colonial state looking simultaneously to secure and expand its borders, which was then compiled into the all-important journal that became the basis of their

10 Mohan Lal, *Travels in the Panjab*, v.
11 Shahamat Ali, *The Sikhs and Afghans*, v.
12 Mary Louise Pratt, *Imperial Eyes: Travel Writing and Transculturation* (London, New York: Routledge, 1992), 78-79.

published work.

Another dimension of the arrival scene is evident in the authors' detailing of the long process of acquiring a language and the obstacles they faced in the process of mastering it. Having established his foreignness to English, Shahamat Ali then continued by expanding on how he overcame this particular obstacle through his public education in English. The Delhi College and its formative role in his education was emphasized through the potted history he provided of both the institution and his English class. He mentioned his recruitment from the Delhi College by a British official planning a diplomatic mission and whose requirements, he specified, were for a person familiar both with Persian and English. Initially hesitant to accept this offer of employment because it would interfere with his English studies, Ali reported agreeing once he was assured by the headmaster of the college that "the situation I was to fill would be highly beneficial to my worldly interests."[13] Thus, even though gaining employment was a positive outcome, for Ali to get an English education seemed to be a more desirable path towards achieving his "worldly interests." He took up the position and this book was based on his travels. Before he wrote about his travels however, he continued to elaborate on his experience at the Delhi College. He related the resistance he initially faced from the Maulvis or the Muslim professors in the Persian and Arabic departments, who "either from jealousy or from the excess of their prejudice, declared that, by beginning to receive an English education, we had lost our creed; and all the Mussulmans regarded us as infidels, and abstained from eating and drinking with us."[14] Although Ali wrote that he and another couple of Muslim classmates remained in the class, the others returned to their previous courses of study. Eventually, on the intervention of C.E. Trevelyan, who asked the professors why they held this stance and who

13 Shahamat Ali, *The Sikhs and Afghans*, vi.
14 Shahamat Ali, *The Sikhs and Afghans*, ix.

were then forced to concede that they could give "no good cause for it," the students were again readmitted to the English class. This being the only obstacle in his telling, he then discussed the composition of the class, and of Mohan Lal's employment on a mission to Afghanistan and his own offer of employment while at school, to then conclude: "Our schoolfellows, seeing us depart to seek our fortunes in the world, were ambitious of following us; and the kind patrons whom I have named soon found opportunities of providing for them."[15] The aligning of his "worldly interests" with the opportunities for advancement provided by the Delhi College became our introduction to Ali's work. As an extension of that arrival scene, Ali's account of his education at the Delhi College served to lay out his credentials to write in English about Punjab and Afghanistan. To that end, even when he recounted the one obstacle that lay in the way, the Maulvis and their diktat, he was quick to point out that he remained in the English class in spite of the implications this might have had for how he was received amongst his peers and larger community. This, along his prominent acknowledgement of the role of several British mentors, underlined his commitment to getting his English education.

An English Education and Employment

Public education was in its first years of being introduced across the Indian subcontinent when Mohan Lal and Shahamat Ali were at the Delhi College. The norms of what constituted a quintessential "English education" were still being worked out. Not only did it include instruction in the English language, it also included all that might come under the rubric of "useful arts and sciences." This entailed a course of study to be undertaken in an institution where some or most of the scholars were residential and examinations were public. Mohan Lal and Shahamat Ali both were admitted into the Delhi College to study Persian under this system,

15 Shahamat Ali, *The Sikhs and Afghans*, x.

and then made the transition to instruction in English in 1827.

Gauri Viswanathan has shown that the teaching of English literature in colonial institutions was a means to usher in a Protestant morality amongst natives, even as the colonial state claimed to maintain a strict policy of "non-interference" in religious matters in the early years of British rule.[16] Sumathi Ramaswamy follows on this by arguing that the teaching of geography - a large part of what constituted "useful knowledge" - was another such "mask of conquest," one in which the imparting of this knowledge was itself a continuation of colonial rule.[17] The historiography of the workings of the early colonial state in British India has addressed the central role of state education policy, particularly the disjunct between its discourse and practice. Scholars have carefully excavated this disjunct to demonstrate the ways in which an English education was a form of discipline and reinforced many of the same inequalities it professed to address. In this section, as I examine the establishment of the English class at the Delhi College, I want to understand how colonial discourse imagined an ideal student who would then become an ideal employee of the colonial state.

Even before the English class was established, there were many challenges anticipated by British administrators to their project of native education, and the most pressing was how to generate interest amongst the locals. The answer was found in adapting Mughal systems of education for their own use, and specifically in holding out the lure of jobs with the government for its students. The connection between education and employment is one that was well-established under Mughal rule in Delhi, and this was modified in an incremental manner by the

16 Gauri Viswanathan, *Masks of Conquest*.
17 Sumathi Ramaswamy, *Terrestrial Lessons: The Conquest of the World as Globe* (University of Chicago Press, 2017), 49.

British as they debated the best practices for introducing "useful knowledge" to India.

The introduction of an English class at the Delhi College in 1828 rehearsed many of the same debates on the introduction of English education into India that arose with the passing of the English Education Act of 1835. One of the key questions debated around the time of the Act was between the Anglicists and the Orientalists. The former argued in favor of defunding education in Arabic, Persian, and Sanskrit that had thus far been the norm, and creating separate institutions for the exclusive study of the "European Arts and Sciences." The Orientalists, in contrast, wanted to secure public co-operation in continuing things much as they had been before, and focusing more on translation and gradual "engraftment" of studies in the European arts and sciences onto the landscape of public education.[18] This debate was played out at the micro level in each educational institution set up by the British.[19]

Although the 1813 Charter Act required the East India Company to devote one lakh rupees from its income for "native education," it was not till the General Committee for Public Instruction (GCPI) was formed in 1823 that there was any concerted policy of the colonial state to establish educational institutions outside of Bengal.[20] One of the first steps undertaken by the GCPI as its members set about the task of establishing schools and colleges in the 1820s to teach "European science" in cities like Calcutta, Benaras, and Delhi was to correspond with Local Agents to gauge the viability of each institution. Underlying the rhetoric of moral and civilizational improvement to be brought about by native education that was the typical discourse

18 See Michael Dodson, *Orientalism, Empire, And National Culture: India, 1770-1880* (Springer, 2007), for an account of how engraftment and translation worked together as the twin pillars of colonial education policy.

19 See Michael Dodson, *Orientalism, Empire, and National Culture*, for an account of this in Banaras Hindu University.

20 Lynn Zastoupil and Martin Moir, *The Great Indian Education Debate: Documents Relating to the Orientalist-Anglicist Controversy, 1781-1843* (Richmond: Curzon, 1999), 98-99.

of the GCPI, were the sometimes contrary reports by these Local Agents who were doubtful of how improvement might be effected.

The approach often recommended by the Local Agents on the ground was to establish an educational institution that, in keeping with past practices, would lead to employment for its graduates. This is evident in the exchange between the GCPI and the Local Agents it commissioned to constitute a "Local Committee" and to provide a report on the political and educational climate in Delhi in 1823-24.[21] The consensus of the Local Agents was that knowledge for knowledge's sake would have no purchase here, this never having been a priority of Delhi's (unnamed) former rulers. In their experience of India, knowledge was not sought "with the primary view of attaining its intrinsic qualities, the amelioration and elevation of the human character."[22] The cultivation of arts and sciences in Delhi had depended upon a system of education based on patronage and encouragement from previous rulers, they continued, with its most powerful stimulus being "the throwing open some field of livelihood as the ulterior reward of successful application and excellence, in any of the branches of useful knowledge."[23] Their strong recommendation then was a legislation that would employ under different branches of government only such natives "as after having studied an undergone a course of public instruction in some of the Collegiate establishments…[and] shall have obtained testimonials of proficiency in some of the essential branches of the European Arts and Sciences."[24] The recommended branches were the Civil and the Military Departments, where, as matters stood at the moment, different officers and also warrant or noncommissioned officers of native military

21 Secretary, Delhi Local Agency to H.T. Prinsep, Secretary and Junior Member of the GCPI, 7 January 1824, Delhi College Correspondence, WBSA.
22 Delhi Local Agency to Prinsep, January 1824, Delhi College Correspondence, WBSA.
23 Delhi Local Agency to Prinsep, January 1824, Delhi College Correspondence, WBSA.
24 Delhi Local Agency to Prinsep, January 1824, Delhi College Correspondence, WBSA.

regiments were appointed merely by virtue of "fortuitous good luck" rather than any moral or intellectual attainments they might possess. The urgent and conspicuous need, they concluded, was to adopt a new system and make it over in the interest of the public and that clearly lay in finding an avenue that educated them for government employment.

The GCPI took the recommendations of the Local Committee under consideration, and established an institution at Delhi that strongly drew upon its Mughal past. Thus, the site chosen for the new college was an old eighteenth-century Mughal madrasa (school) attached to the Kashmiri Masjid in Delhi.[25] The Chief Professorship of the college was offered to a highly respected philosopher and son and follower of Shah Wali Ullah's school of thought, Maulvi Shah Abdul Aziz, who declined and died shortly thereafter.[26] The position was then offered to his most reputed disciple and Shah Wali Ullah's youngest son, Maulana Rashiduddin Khan. As the Secretary of the Delhi Local Agency, and Delhi College's first principal, J.H. Taylor wrote, "The appearance of such a man at the head of the Establishment, would not only dissipate all that alarm which the very name of an english school would undoubtedly create, but would conciliate all ranks of the inhabitants to the new institution."[27] As the historical scholarship on the Delhi College emphasizes, it was a place where British and Indo-Islamic cultures met, and where we can clearly see the wildly entangled histories of encounter and interaction that ensued.[28]

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25 See Ebba Koch, "The Madrasa of Ghaziu'd-Din Khan at Delhi" in Pernau, M. *The Delhi College: Traditional Elites, the Colonial State, and Education Before 1857*. OUP India, 2006, 35-59, for a discussion of the eighteenth-century madrasa that was then made over into the Delhi College.

26 See M. Ikram Chaghatai, "Dr. Aloys Sprenger and the Delhi College" in Pernau, *The Delhi College*, pp. 105-124, for a discussion of the first three headmasters of the institution; Gail Minault, "Delhi College and Urdu." *Annual of Urdu Studies* 14 (1999): 119–34.

27 Delhi Local Agency to Prinsep, January 1824, Delhi College Correspondence, WBSA.

28 Margrit Pernau, "Introduction," in *The Delhi College*, 1-34.

Figure 5 The courtyard of Ghazi al-Din Khan's Madrassah [and tomb] at Delhi; a watercolor by Seeta Ram, 1814-15. Source: Francis Pritchett, http://www.columbia.edu/itc/mealac/pritchett/00routesdata/1600_1699/shahjahanabad/ghaziuddin/ghaziuddin.html

There were some challenges that remained in making over the Madrasa to suit the needs of the College. The Headmaster of the college wrote to the GCPI in the very first year of its establishment regarding this pressing problem: "The Committee, from the want of such an accommodation were placed under the necessity of rendering the late examinations private, when for obvious reasons they should be held in as public a manner as possible."[29] Funds were solicited for this room, which would be a space not only for holding public examinations, but also a place for professors and students to get together and study. It would also function as a library. Even as the Delhi College continued to be referred to as the Madarsa, or the "Mogul College at Delhi,"

29 28th April 1826, Taylor to the GCPI. Delhi College Correspondence, WBSA.

several years after its re-establishment by the British, at least the space of the institution was slowly sought to be transformed by the British in accordance with their ideals of public school instruction.

The madrasa, which was now equipped with a library in its new avatar as the Delhi College, quickly needed books to fill its shelves.[30] The headmaster was of the opinion that most of the books were procurable from Delhi, except for those that "catered to render a knowledge of the rudiments of the European Arts & Sciences acceptable to the Natives," which were sought from Calcutta.[31] These would include books relating to geography, mathematics, mechanics, "use of the globes," astronomy, chemistry, and "authentic history," that would "not only serve to explode the erroneous notions prevalent upon some of the commonest phenomena of Nature and on scientific subjects, but lay a solid foundation for future enquiry and research, which the necessities or the inclinations of the Student, in after life, may lead him to make."[32] Every few weeks, books in Arabic, Persian, Hindustani, and English would be delivered to the Delhi College: from grammars and readers in each of these languages and Euclid in Persian and Arabic to canonical texts like the *Shahnama* and Sa'di's *Gulistan* and *Bostan*, and from maps in different scripts such as the "Nagree Map of the World" and the "Persian Map of the World," to dictionaries of every description.[33] The library soon filled up with the books that students needed most for their classes.

In what was perhaps the first statement on the new curriculum at the Delhi College, the

30 J.H. Taylor, Secretary, Delhi College Committee to H.H. Wilson, Secretary, GCPI, 28 April 1826, Delhi College Correspondence, WBSA.
31 Taylor to H.H. Wilson, Delhi College Correspondence, WBSA.
32 Taylor to H.H. Wilson, Delhi College Correspondence, WBSA.
33 "List of Books supplied to Delhi College" on 14 February 1825, 13 October 1825, 16 November 1825, 20 January 1826. 8 April 1826, 26 July 1826, 26 November 1826, 10 April 1827,17 September 1828, Delhi College Correspondence, WBSA.

headmaster, in a letter, followed up his request for books with an all-important caveat: "The diffusion of such important knowledge it is obvious, can only be accomplished through the medium of translations in easy Persian."[34] This was the first year of the Delhi College, and the establishment of the English class was still two years away. The headmaster recognized that as things stood, it would be a while before translations were even commissioned and for the time being, instruction continued primarily in Arabic and Persian. In the examination report for the year attached along with his letter, students were commended for their proficiency in mathematics, which consisted of a "severe examination" on the first book of Euclid, either in Arabic or Persian.[35] Further, they were examined in Persian composition, reading comprehension, and "Mahomedan law and logic," based again on Euclid and the law compilations in the *Hedaya*. Whereas students like Mohan Lal and Shahamat Ali, who came from reputed families in and around Delhi, would have been educated at home through tutors, their time in the Delhi College would have been quite different.

In their first year at the Delhi College, the students of Mohan Lal's class studied and were examined in the following topics: geography, arithmetic, astronomy, "map of the world," "questions in the use of the globes," and calligraphy.[36] His classmates were from all over Delhi and other cities in North India, like Deoband, Patiala, Meerut, Jalalabad, Saharanpur, Panipat, Muzaffarnagar, and even one from Madras.[37] Many of them were Muslim, and they were styled by the college administration as "Syed" or "Shaykh," honorifics often given to lesser nobles, or were assigned a "caste" according to their race, such as "Pathan." Similarly, Hindu students were

34 Taylor to H.H. Wilson, Delhi College Correspondence, WBSA.
35 Taylor to H.H. Wilson, Delhi College Correspondence, WBSA.
36 "Examination Report of the Dehlee Government College for 1827," Delhi College Correspondence, WBSA.
37 "Examination Report," 1827, 1828, 1829, Delhi College Correspondence, WBSA.

designated as "Bramin," or "Bania" to refer to their caste and/or occupation. The Persian Class that year studied Nizami's biography of Alexander, *Sikandar Nama*, as well as the Shahnama, and the book of fables I discuss shortly, the *Anwar Suheleei*. In addition to these Persian texts, they studied geography, which involved "map exercises and writing."[38] Good scholarship was rewarded by prizes such as gold and silver medals, and certificates in proficiency. Thus, in the elementary class, contemporary to the Persian class, a student got a gold medal in "Mohameddan Law" another got a silver medal in arithmetic, and still others received medals in geography, logic, essay, and translation.

For the first few years of its existence, the Delhi College reimagined the space of the Madrasa to adapt some essential elements of a British public school education to Delhi – a broad and comprehensive syllabus, a library, a public examination of students, and a school room that would enable these things. Although, the kind of education in the arts and sciences that was imagined by the GCPI was still being worked out, students were studying geography, the use of the globes, map exercises, Euclidian geometry, and arithmetic even in the Persian, Arabic, or Sanskrit classes. The project of introducing formal education in "European arts and sciences" had begun before the study of English.

Shahamat Ali listed the books he, and presumably Mohan Lal too, read, presumably at the Delhi College library - Oliver Goldsmith's *Histories of Greece and Rome and of England*, Euclid, and three other books on Arithmetic, Geography, and on the use of globes.[39] He continued: "The above formed the whole stock of my instruction in the English language, and with it I departed from the school, with little confidence that I could be of much use in that

38 "Examination Report," 1827, Delhi College Correspondence, WBSA.
39 Shahamat Ali, *The Sikhs and Afghans*, xi.

branch of my duty to the officer who was about to employ me."[40] There was a distinct anxiety here, reflected in Mohan Lal's work too, of whether they would be able to fully make use of their education.

More than an Education

That initial obstacle presented by English was never fully overcome by them, and both Shahamat Ali and Mohan Lal repeatedly apologized to the reader of their travelogues for their inadequate command over English. Mohan Lal recorded his lack of "correct idiom" at multiple times in his *Travels in the Punjab*, and was certainly more comfortable with his expression in Persian. In one instance, when faced with the ruler of Kabul, Dost Mahomed Khan, he wrote that he might be able to write about him in Persian but was not "sufficiently qualified in the English language to do his character justice."[41] For the purposes of publication at least, it is clear that idiom and expression were of paramount importance, but there seemed to be a greater urgency to questioning what an English education benefitted its students. This is perhaps what lay at the heart of Mohan Lal repeatedly emphasizing in his travelogue that his official designation was "Persian Secretary" to the diplomatic mission that made its way to Afghanistan,

The peculiar nature of the work that both Mohan Lal and Shahamat Ali performed necessitated skills of interpretation rather than mastery over English. They were travelling into regions where their language skills in Persian were of particular value to their employers, such as Alexander Burnes, who desired efficient and clear communication. This involved communication with locals to gather knowledge as well as liasing with rulers and nobles from Sindh, Punjab, and Afghanistan. In one instance in Herat, a Persian youth, whose name was

40 Shahamat Ali, *The Sikhs and Afghans*, xi.
41 Mohan Lal, *Travels in the Punjab*, 71.

Sarkhush, was recommended by the ruler of Herat to Mohan Lal as an English scholar.[42] Mohan Lal, on examining him, found him to be "a liar and a deceiver," though he possessed a "fund of Persian knowledge, and was the author of some poetry."[43] More than his language skills however, he found his demeanor to be "peculiar." He described it thus, "whenever he talks, he puts his little finger sometimes on his lips, and sometimes on his chin. When he speaks, he raises and again lowers the eyelids of his beautiful dark eyes; after that, he closes them suddenly."[44] Clearly discomfited by this non-normative behavior, Mohan Lal offered Sarkhush some advice when he was asked for help with joining some gentleman for a job. He wrote, "I answered him, "If you are a good Persian writer, you will get a good situation; otherwise, all these your effeminate actions, instead of gaining the favour of gentlemen, will cause them to dislike you.""[45] The requirement of writing in Persian that Mohan Lal had was accompanied with the requisite performance of masculinity, and it all seemed to depend upon how an Englishman might like him.

Testimonials from British officials were the key means of applying for jobs, gaining more experience, and obtaining higher remuneration the longer you were in service. Barring Burnes, the other person who would have been most well acquainted with the work of Mohan Lal was Dr. John Gerard, who was also part of the mission to Kabul in the capacity of medical doctor and botanist. He wrote a glowing testimonial for Mohan Lal on their return to India.[46] Referring to him as "Delhi Student," and noting that he had worked with him closely for eighteen months, Gerard credited his "highly satisfactory conduct…equally due to himself as to the Service that

42 Mohan Lal, *Travels in the Punjab*, 213.
43 Mohan Lal, *Travels in the Punjab*, 213.
44 Mohan Lal, *Travels in the Punjab*, 214.
45 Mohan Lal, *Travels in the Punjab*, 214.
46 C.M. Wade to W.H. Macnaughten, Secretary to the Government, Forwarding letter by J.G. Gerard, 29 March 1834, Foreign/S.C./ 14-18, 15 May 1834, NAI.

has afforded him the gift of an English education for it is his Collegiate instruction chiefly, and an honest emulation in its advantages that have guided his deportment."[47] According to Gerard, these advantages of an English education had ensured Mohan Lal gained a respect that people with far more experience had not. In other words, it had elevated Mohan Lal above the generality of other such natives, as he was found to be "free from the failings of the Native character."[48]

Gerard, however, was impressed primarily by Mohan Lal's Persian skills. He wrote: "It must not be concealed that Mohan Lal's domestic [education] has been most respectable & that his accomplished knowledge of Persian commanded the highest estimation & regard even in those countries where it is the Vernacular dialect."[49] Further, as a conclusion, Gerard recommended to the notice of the Governor-General that he had himself continued to instruct Mohan Lal in English:

> For proof of this I beg to instance the Superior style of his journal in the latter part of the tour, the variety of his enquiries & the improvement in oral conversation so evident to himself and which I venture to predict will be considered satisfactory to his friends and appreciable in the quarter that is ultimately destined to promote his future welfare.[50]

Here were the benefits of an English education that were not likely to be found in any textbook or curriculum or any subsequent training, but which were nevertheless considered a necessary part of an English education. Oral conversation in English could only be learned in the field and through living and working with different people who spoke the language fluently. Further, the daily journal, as already discussed, was critical to any ambition for a career in exploration. Increased and improved "varieties of enquiries" that displayed keen observational

47 J.G. Gerard, 29 March 1834, Foreign/S.C./ 14-18, 15 May 1834, NAI.
48 J.G. Gerard, 29 March 1834, Foreign/S.C./ 14-18, 15 May 1834, NAI.
49 J.G. Gerard, 29 March 1834, Foreign/S.C./ 14-18, 15 May 1834, NAI.
50 J.G. Gerard, 29 March 1834, Foreign/S.C./ 14-18, 15 May 1834, NAI.

skills as well as the ability to translate these into clear prose would further add texture and credibility to this journal.

Other than getting him noticed by higher ups like the governor-general, the journal was also a key means for Mohan Lal's employers to corroborate his travels and surveys. In the instructions he was given before one of his later expeditions to Afghanistan, the officer he was reporting to, Claud Wade, assumed at the outset that Mohan Lal would know "the manner in which your journal ought to be kept."[51] The assumption was that in his training in surveying with Mr. Rowe, and while in Chandigarh with another British Official, and finally, while on his erstwhile travels with Alexander Burnes, Mohan Lal would have understood "the kind of information, both statistical and geographical," expected from him.[52] Nevertheless, Wade continued, "You are required to protract your route in a field-book, to be regularly kept for that purpose, and to insert in your journal whatever information you may be able to collect regarding the statistics of the country you traverse."[53] Mohan Lal was being sent on an expedition in continuation of one Burnes had already begun - of ascertaining the possibilities of opening up the Indus River to trade. In addition to the commercial information he was required to bring back, including noticing exports, imports, trade routes, probable annual amount, transport means, duties, key merchants, markets and insurance, Mohan Lal was also to note down the routes he traveled "including every information relating to them."[54] This mix of commercial or statistical and geographical information that made up both the journals of Mohan Lal and Shahamat Ali

51 Mohan Lal, Travels in the Punjab, 381.
52 Mohan Lal, Travels in the Punjab, 381.
53 Mohan Lal, *Travels in the Punjab*, 381-382.
54 Mohan Lal, Travels in the Punjab, 382.

was what was then transformed into their travelogues.

The general metropolitan literate audience for these travelogues was less than complimentary of the efforts of Mohan Lal and Shahamat Ali, but it is likely that this was not the ideal audience they had in mind when they published their work. An anonymous reviewer in *The Spectator* reviewed the latter's book *The Sikhs and Afghans* and it is worth quoting at length:

> There are three reasons why this book was not wanted. In the first place, both the war in Afghanistan and the character and government of Runjeet Singh have been freely treated by competent persons…Secondly, the particulars which Shahamat Ali furnishes, even when they happen to be new, (if any of them are new,) are both small in themselves and not only passed but perished. In the third and chiefest place, Shahamat Ali is utterly unfit to write a volume. He doubtless is very competent to translate official papers, and to collect particular information; but he wants the breadth and strength of mind requisite to compose a book; and this natural deficiency appears more remarkable to us from the almost childishness of the Oriental intellect presenting itself in the English language, - which, however, Shahamat writes very creditably. The most trivial details of the day's journey, or the business of the political agency - flying reports about this, that, and the other - with observations, uninteresting because devoid of strength or character - form the greater part of the diary. The rest consists of accounts of barbarous clans, without the least interest to the British Public, and traditions, which are not always devoid of interest as illustrations of credulity and superstition, but are somewhat out of place, and quite incapable of redeeming the character of the rest. A more thoroughly *empty* book we have rarely met. [Emphasis in original.][55]

It was precisely this delimiting of what was expected of natives like Shahamat Ali and Mohan Lal that they anticipated and negotiated in their writing. Not being content to limit themselves to merely "translate official papers, and to collect particular information," we see Mohan Lal insisting on his work as a "Persian Interpreter." Further, there was the "natural deficiency" that characterized Ali's work - even if he could demonstrate a hold over the rules of the English language, he could not deploy them well enough to write a "volume." This particular criticism is articulated over and over again with regard to the work of native explorers - whether

55 "Shahamat Ali's Sikhs and Afghans," *The Spectator Archives*, 12 December 1846, Last Accessed on March 21, 2018, http://archive.spectator.co.uk/article/12th-december-1846/17/shahamat-alis-sikhs-and-afghans.

it is in the composition of a travelogue, or ability to transform information into knowledge, or a lack of precisely the English taste, morals, opinions, and intellect that Macaulay imagined would be replicated in the "learned natives."

Self-fashioning as an ideal employee – and an ideal student – was a common trope in the writing of native employees of the colonial state over the course of the nineteenth century, and Shahamat Ali and Mohan Lal were no different from the other students of the Delhi College. Consider, for example, the case of another Delhi College student, James Joshua Rennel, styled as "Indo-Briton" in the records, and who was only thirteen years old when he joined the college in 1836. In his year of matriculation itself, Rennel competed for first place with his classmate Bholanath in English reading, Geography, Mathematics, and English Composition. The scraps of his class work we see in the archive can perhaps be attributed to the fact that Rennel, at least, had a "good hand" and was commended for it by his headmaster. He wrote an essay titled "On the Advantage of Education" that neatly echoed the vision of colonial administrators on their pet project of native education. Adjudged to be the second best in class by his teacher, Rennel dwelled on the many advantages bestowed by education - eradication of vices, productive of independence of mind, infusing ideas of freedom and independence usually seen in Europeans, and even enabling students to truly know their maker.[56] Even his essay on History repeated many of the same civilizational and moral improvements that accrue through an education in the arts and sciences that he gestured to in his essay on education. However, his writing was interlarded with a more striking practicality to the pursuit of an education. He mentioned that education could be a means through which one could get acquainted with the arts and sciences, and, on a

56 General Committee of Public Instruction, Correspondence of the Committee relating to Schools and Colleges, Delhi College, West Bengal State Archives. n.d. but Rennel was a student at the Delhi College in 1835-36.

still more prosaic note, something that "enables us to hold correspondence with great men and men of excellent capacities." This is not to read these instances as any kind of resistance to the colonial discourse of improvement, for, as Gauri Viswanathan points out in her reading of some student essays from the 1840s, the complexity of institutionalized education and its system of awards and prizes is too great to allow these to be read as proof of the hegemony or otherwise of colonial discourse.[57] Viswanathan however does read her examples of student essays as an internalization of the objectives of British instruction, regardless of the personal convictions that students might have held. This ties into her argument about the trajectory of English studies in the subcontinent, as having a "predominantly religious and moral function in the Indian curriculum" from the 1820s to the mid-1850s.[58] Although she has done the crucial work of exposing the ways in which English education reproduced the same inequalities it sought to dismantle and how the religious and moral entered into the Indian education system in spite of protestations to the contrary, the reception of this discourse remains outside the purview of this work.[59] Read by itself, Rennel's essays would fit nicely with the few essays Viswanathan assessed as internalizing British objectives of education, but located against the context-specific and institutionally-based understanding of English education, I suggest a different interpretation. Here, the practical value of an education was not simply an extension of the religious and moral drive of education unresistingly consumed by its audience, but a key strategy employed by students to adapt to demands of the new colonial order.

A seemingly throwaway sentence in a larger essay - namely, that an education enables correspondence with great men - gestures towards the many benefits of an education that are

57 Viswanathan, *Masks of Conquest*, 140.
58 Viswanathan, *Masks of Conquest*, 142.
59 Viswanathan, *Masks of Conquest*, 14.

unlikely to be articulated in a student essay on the subject. These include the writings of Shahamat Ali and Mohan Lal too, who expended much ink on lauding their education, and whereas that can be read as an instance of self-fashioning as an ideal colonial servant, there was a lot more to gaining success and distinction than being educated in English.

Domestic and Formal Education

It was an English education in the newly-established public institution that was the Delhi College, in combination with their Persian education they would have received at home, that made Mohan Lal and Shahamat Ali such valuable additions to the emerging colonial bureaucracy. To be a successful explorer meant trading in multiple knowledge traditions and languages. Further, while they certainly leveraged their English education for jobs and power, their work was premised on their unrivalled expertise in Persian and several other languages.

Mohan Lal and Shahamat Ali were certainly well educated in Persian; in addition, they were fluent in Urdu and some amount of Arabic as well, much like other educated elites in the early nineteenth century. Michael Fisher reminds us that "domestic education" of Mohan Lal, referring to the education in Persian he would have received at home from tutors, would have had an enduring influence on his career. This can be seen in the relationship of these students with the books they read when at the Delhi College and continued to refer to, even after they had graduated. Mohan Lal and Azamuddin Hasun requested some books, amongst supplies such as paper, drawing pencils, "Indian rubber", while at their respective temporary residences in and around Kabul.[60] The large number of non-English books here included a Persian translation of a twelfth century Sanskrit treatise on Mathematics by Bhaskaracharya, *Lilavati;* the poetry of

60 Foreign/Political/106-107, 30 Mar 1835, NAI.

Hafiz, *Dewan-i-Hafiz* (Mohan Lal occasionally quoted from this in his writing as well); Firdausi's eleventh century epic *Shahnama*; a colonial state-endorsed Persian history of the Mughals from Aurangzeb up till the coming of the British, *Siyar-ul-Mutakharin* by a Mughal noble Gholam Hosein Khan;[61] Euclid in both Persian and Arabic; a sixteenth century handbook of Mughal jurisprudence, the *Fatawa-i-Alamgiri*, possibly in the original Arabic; along with a "Persian Map of the World" and a "Devnagree Map of the World."[62] Gail Minault gives the definitive list of books that a "future gentleman-administrator" would have continued to include over the course of the nineteenth century, even after the British abolished Persian as the official language in 1835.[63] Included on that list were Sa'di's *Gulistan* and *Bostan*; classics of moral philosophy and education, including Husain Waiz al Kashifi's (1463-1532) *Akhlaq-e Muhsini*; other epics and romances; and also the animal stories of the *Anwar-e-Suhaili,* all of which are prominent in the curriculum of the Persian class that Mohan Lal was part of before he moved to the English class, and also then requested when on his travels. Minault points out that regardless of the language policy of the British, "no one who had not mastered the Persian classics, both in poetry and in prose, could claim to be truly cultivated."[64] Outside of their homes and the domestic education they received, Mohan Lal et al. would have had access to these books at the library at the Delhi College.[65] The library was expanding rapidly from its earlier state, and it was these

61 "Syer Mutakuddamin," as it appears in the list, could also refer Tarikh i siyar al-mutaqaddamin, which is an older Persian history on which I can find no information.

62 Foreign/Political/106-107, 30 Mar 1835, NAI.

63 Gail Minault, "The Virtuous Individual and Social Reform: Debates among North Indian Urdu Speakers," in M. Pernau et al., *Civilizing Emotions: Concepts in Nineteenth Century Asia and Europe* (OUP Oxford, 2015), 170.

64 Minault, "The Virtuous Individual and Social Reform: Debates among North Indian Urdu Speakers," 170.

65 The Delhi College Committee was committed to the establishment of a library at the institution, writing to the GCPI with its plans: "A competent library being an essential desideratum & no place in India affording the opportunities which Delhi does for forming a good collection of Arabic and Persian works, the Committee propose to set aside 200 Rs. annually for that object." 28th April 1826, Delhi

books and more that were being stocked and restocked with clockwork regularity, along with the English books that were demanded from the Calcutta School Books Society.[66] Further, as discussed earlier, the desire for colonial officials to keep the different departments of English, Persian, Arabic, and Sanskrit separate was not as simple in practice, and much ink was spilled on debating the efficacy and judiciousness of this endeavor. The conclusion to be drawn here is that the "domestic education," and the essential though not "formal" education for gentlemen-administrators, was very much intermixed with the kind of public education that they received in institutions like the Delhi College, and both were very much in use when these administrators continued on to their various positions, even outside the borders of British India.

Further, several of the same books that were considered essential reading for anyone who claimed an expertise in Persian in the nineteenth century, also gained prominence for their educational uses in the curriculum of public institutions in both native education as well as in the education of East India Company cadets making their way to India. The case of the *Anwar-e-Suhaili* is particularly interesting. The version of it that Mohan Lal and his classmates almost certainly read was a Persian translation of the *Kalilah wa Dimnah*, which is based in large part on an amalgamation of stories from the *Pancatantra,* the *Hitopadesa*, and with some influence from the *Mahabharata* as well.[67] The *Kalilah wa Dimnah* has a convoluted history of circulation and translation, seen in its travel from India into Iran through translation into Middle Persian, of which remains only its version in Arabic and Old Syriac, and then its travel back into India as well as to other parts of the world, when the Arabic was translated into Persian, Hebrew, Greek,

College Correspondence, WBSA.

66 Letter from Delhi College Committee, 28th April 1826, Delhi College Correspondence, WBSA.

67 Francois de Blois, *Burzōy's Voyage to India and the Origin of the Book of Kalīlah Wa Dimnah* (Royal Asiatic Society, 1990). See chart of different versions and translations on page 11.

Italian and several other languages.[68] In India, William Jones included it within his Persian Grammar first published in 1789, and the first of its kind, writing of *Anwar-e-Suhaili* in terms that were then repeated by everyone who translated it into English thereafter: "The most excellent book in the language [Persian] is, in my opinion, the collection of tales and fables called *Anver Soheili* by Hussein Vaés…[it] has comprised all the wisdom of the Eastern nations, in fourteen beautiful chapters."[69] Shortly after this endorsement, *Anwar-e-Suheili*, was translated for the use of young cadets first at the Calcutta College in the late eighteenth century and by 1804 for cadets at Haileybury and the East-India College in England who were on their way to appointments in India.[70] A bitter debate in the 1810s took place in the pages of the *Asiatic Journal* around two competing English translations of *Anwar-e-Suheili*, and in the back and forth there emerged an understanding of the importance of this text as an instructional tool not just for learning Persian but also for understanding ethics, practical knowledge, and morality.[71] This circulation of the *Anwar-e-Suhaili* within the English-speaking world is referenced by Mohan Lal, who once wrote to Calcutta listing the Persian and Arabic books that he wanted sent to him in Afghanistan, and said of this endeavor: "by Such means of policy we can show these distant People how far India has been civilized Since the British Government and how much interest the English people take to improve and Cultivate the knowledge of the Foreigners."[72] On Mohan Lal's fairly short list was an Arabic-Persian dictionary, a sixteenth century medical manual in

68 de Blois, *Burzōy's Voyage to India and the Origin of the Book of Kalīlah Wa Dimnah*, 11.
69 William Jones, *A Grammar of the Persian Language* (W. Bulmer and Company, 1809), xvi.
70 Letter by Gulchin to the Editor of the Asiatic Journal, *The Asiatic Journal and Monthly Register for British India and Its Dependencies*, 12 (Black, Parbury, & Allen, 1821): 542-556, 552-553. https://goo.gl/xDxudk.
71 Letter by Gulchin to the Editor of the Asiatic Journal, 547. See debate between "Gulchin" and Professor Stewart and "Munsif" on their competing translations of Anwar-e-Soheili in *The Asiatic Journal and Monthly Register for British India and Its Dependencies*, Vols 5-13.
72 Foreign/P.C./ 107-109, 24 December 1834, NAI.

Persian, and four copies of "*Anwar Sohily"* or the *Anwar-e-Suhaili*. It is interesting that he chooses the *Anwar-e-Suhaili* as a key text to demonstrate the benevolence of the British Government or even to demonstrate his oneness with the aims of the diplomatic mission he was attached to, and it was possibly a nod to the popularity of this text in Afghanistan as well, even more so than Sa'di's *Gulistan*. Amongst one of the most travelled and circulated texts, it is hard to assign a single meaning to the ways in which the *Kalilah wa Dimnah* and its fifteenth century version *Anwar-e-Suhaili* was read and used by its many readers. But its circulation within India and Britain is further evidence of how "domestic" and "formal" or public education continued to impact each other.

Shahamat Ali on Improvement and Education

Shahamat Ali provided a historical account of education in South Asia in an essay he wrote on the subject later on in his career.[73] It was a call for comprehensive reform and the establishment of a system that was less exclusionary, or at least as inclusionary as that of empires past. The responsibility of the state was to a committed liberalism, and without distinctions of "color and creed," to provide opportunities for improvement of natives.[74] As someone whose ancestors had served the Mughal dispensation, Ali was remarkably sanguine about the lifecycles of empires, seeing ahead to the end of this British Empire too. Regardless, it was a reflection on his movement through the education system established by the British, and his subsequent years of service for the colonial state.

In his book, titled *Notes And Opinions Of A Native On The Present State Of India And*

73 Shahamat Ali, *Notes And Opinions Of A Native On The Present State Of India And The Feelings Of Its People* (Ryde, 1848), *The Making of the Modern World,* Gale CENGAGE Database, Web, Last Accessed March 20, 2018. https://goo.gl/pcESqU.

74 Ali, Notes and Opinions of a Native, 108.

The Feelings Of Its People, published in 1848, almost twenty years after he had graduated from Delhi College, Ali made a comparison between the British and past rulers of India in their investment in education for the masses.[75] Of establishing schools and colleges, he wrote: "[I]t was considered a deed of honor and virtue, both by the Hindoos and Mahomedans, to give a liberal education to the people, to provide the poor with the means of subsistence, as well as accommodation."[76] In keeping with colonial histories of India, Shahamat Ali was adopting the chronology of Hindu-Muslim-British eras to divide up the past, yet, he was very selective in the use he made of these. He continued to talk of the proliferation of such public works by these past rulers – both Hindu and Muslim – concluding that "It was owing to them, that India was famed as the land of hospitality, generosity, ease and plenty, and thousands and thousands of people, widows, orphans, indigents and strangers received education and every proper care and support."[77] Here, not only did he counter the typical historical argument of the dark eighteenth century, but he was also setting up an unfavorable comparison with colonial education policy. Putting the revenue and territorial acquisitions of the Mughals and the British side by side, he concluded that even though the British did not have the same amount of territory as the Mughals did, their revenue was at par. This was due to much higher taxation, and, in studied phrasing, "the non-existence at present of the large estates and tracts of lands which were attached to the above charitable institutions [schools and colleges], as well as to the discontinuance of rent-free lands and jageers enjoyed by the nobility and gentry of the country."[78] Structuring this work are Shahamat Ali's critiques of the British government, whether in comparison to earlier rulers, or to contemporary rulers in different parts of India and Central Asia that he travelled through. Ali

75 Ali, *Notes and Opinions of a Native*, 102-112.
76 Ali, *Notes and Opinions of a Native*, 103.
77 Ali, *Notes and Opinions of a Native*, 103
78 Ali, *Notes and Opinions of a Native*, 104

wrote the preface to his own book in the third person, presenting the following caveat: "The writer assures the reader that these Notes are intended rather for the information of, than against Government."[79] Indeed, he acknowledged his fear at presenting these views in the very second sentence, and yet, proceeded to print an account deeply critical of the colonial state. At the same time, Ali was seeking still more improvement from a neglectful state.

The debate on the introduction of English education to India, to Shahamat Ali, was about the balance of power between the British and natives. He presented the case for an imagined counter argument, writing, "By some, the enlightenment of the natives was considered as dangerous to the stability of the British rule in India."[80] Comparing this perspective to the one that also denied Indians freedom of the press, Ali was not only identifying liberal and illiberal stances of the state, he was also critical of the execution of colonial policy. He complained that the money allocated to educational institutions was not enough, and neither were they numerous enough to accommodate everyone with a desire for a British-styled liberal education. Taking the example of the restoration of the Delhi College, he wrote of it as being "hailed by the people of Delhi and the neighbourhood, with the greatest demonstration of joy. Hundreds of boys came, but only a certain number were kept."[81] The debate on introducing European arts and sciences into India had been cast by him as a debate on whether Indians could be given the same skills as the British or not. As he suggested, it was the responsibility of the ruling government to provide education for all – very much in the vein of the erstwhile Hindu and Muslim rulers, who had considered it their duty.

Of "primary consideration" to Shahamat Ali was attention to "useful and practical arts

79 Ali, *Notes and Opinions of a Native*, vi.
80 Ali, *Notes and Opinions of a Native*, 105.
81 Ali, *Notes and Opinions of a Native*, 105.

and sciences" that suffered at the expense of merely theoretical considerations at the hands of the government. This tied into his larger critique of the lack of support for employees of the government, which he had experienced through his two decades as government servant. He proposed an amended plan: "Government should establish extensively institutions in various branches of popular education, in addition to a general knowledge of the sciences, including agriculture, civil and military engineering, medicine, and other arts and trades."[82] By popular education, Ali meant subjects that would allow natives to pursue a career with the government. He went on to propose a tiered system divided by class, where people of the "higher classes" could devote themselves to classical studies and foreign languages, especially English. The "poor" and the "working classes" were the other two tiers, but they were by no means straightforward categories. The poor, to Ali, included "many of the old nobility and gentry….[in] their present circumstances," and, in fact, seemed to refer mainly to the disenfranchised gentry and nobility, who were not used to gainful employment.[83] Ali suggested that the British Government, too, "in some degree," maintain these men like had the earlier rulers. Ali was almost certainly from exactly such a family, although, unlike Mohan Lal, there is very little trace of his ancestors in the archive. The working classes would benefit, in the final analysis, from the "the knowledge of the mechanical arts, such as may be of use to them in their several professions."[84] The Orientalist-Anglicist debate of the previous decade was dealt by him in one sentence when discussing how the working classes should be taught the mechanical arts in vernacular languages, "which, after prolonged discussions, has been established beyond other languages to facilitate the cause of improvement."[85] Here was a new-and-improved model for

82 Ali, *Notes and Opinions of a Native*, 108.
83 Ali, *Notes and Opinions of a Native*, 108.
84 Ali, *Notes and Opinions of a Native*, 108.
85 Ali, *Notes and Opinions of a Native*, 108-109.

education and employment under the conditions of colonial rule, by someone who was an ideal candidate for colonial education policy and who had benefitted from it.

Conclusion

It would be too simple to say that the "critical knowledge" of English that Trevelyan lauded Mohan Lal for consisted merely of learning enough English to gain employment with the colonial state. Both Mohan Lal and Shahamat Ali, and several others after them, did not only learn enough English to keep a diary and translate papers, but they also recognized the many constraints imposed by a colonial state on their careers, and consistently sought to step outside the lines of these recognized paths to further their prospects. Whether in their carefully-crafted travelogues or in other tracts that reflected their grappling with the very colonial education policy under which they have been trained, the cases of Mohan Lal and Shahamat Ali help us understand how beneficiaries of colonial education policy best made use of it.

These "new munshis," as Chris Bayly has referred to both Mohan Lal and Shahamat Ali needed a lot more than an English education tacked on to their Persian education.[86] Involved in a career as an explorer with the colonial state was an expertise in Persian and a "critical knowledge" of English, and skills of interpretation between the two. In addition, the requisite performance of masculinity was required, and a successful career went nowhere without a gentlemanly patron, glowing testimonials, and the distinguished notice of other powerful British Officials, preferably the most powerful one of them all, the Governor-General. Thus, their education was further linked to earning a livelihood, and incorporated the use of practical knowledge in navigating the hierarchies and exclusionary policies of the state. Scholars of education in colonial India have focused on the disciplinary function of public instruction,

86 C.A. Bayly, Empire and Information, 144.

however, the means through which students responded to it has been studied less. A Western-educated class emerges in the historiography as if fully formed in the late eighteenth century to make those important critiques of colonial rule that become the basis of a still later national movement. The process of engrafting an English education in India was slower and more complicated than has been previously discussed, and its critique was current and comprehensive, as in the writings of Shahamat Ali. Adding the perspective of those students who were some of the first to benefit from an English education, and, more importantly, sought to make a career from pursuing it, it is clear that an "English education" led to a career only in combination with these precolonial forms of instruction, and involved a lot more than what these students learned at the Delhi College.

It was these munshis, recast as Persian Secretaries, that made up the majority of native explorers over the nineteenth century. Indeed, even till the late 1880s, there was some debate on whether native explorer Imam Sharif was to be called Native Sub-Surveyor Imam Sharif, or Munshi Imam Sharif.[87] Further, several explorers in the 1860s, such as Pundit Munphool and Faiz Buksh, discussed in the next chapter, also served as munshis to the British, as well as to the administrations of princely states. To become an explorer, however, meant gaining distance from the vast numbers of munshis who performed a variety of tasks to then use some of those same abilities that made one a good munshi into becoming an explorer. To do that, in addition to a "critical education" in English, a sound domestic education, and the extras it took to navigate the colonial state, it was imperative to understand what constituted geographical knowledge, as I discuss next.

87 "Rewards to Native Sub-Surveyors who accompanied the Afghan Boundary Commission," Foreign/Frontier A/9-22, May 1887, NAI.

CHAPTER FOUR – THE POLITICS AND SCIENCE OF EXPLORATION: NATIVE EXPLORERS IN THE ROYAL GEOGRAPHICAL SOCIETY

A pale-blue form letter was sent to reviewers for articles to be published by the Royal Geographical Society (henceforth RGS). The size of a foolscap sheet, folded once down the middle, the front page of this "Referee Report" invited reviewers to respond to four questions. For more than four decades, from the 1860s to the early 1900s, the questions remained the same:

> 1st, Whether the Paper be ORIGINAL?
> 2dly, Whether it should be printed in the Journal or Proceedings?
> 3dly, Whether it can be altered or abridged with advantage; and IN WHAT MANNER?
> 4thly, Whether any Illustrations or Map should accompany it, and if a Map, of what size?[1]

The answers were short, and rarely exceeded the length of a paragraph. In relation to the question on whether the article was to be published in the *Journal of the Royal Geographical Society* (*JRGS*) or the *Proceedings of the Royal Geographical Society* (*PRGS*), there was a clear answer. Lengthier, more considered reports were published in the *JRGS*, which had been established in 1831. More preliminary research papers were read out at the evening meetings of the RGS in London, and subsequently printed in the *PRGS*.[2] Regarding the question on maps, if one accompanied the manuscript at all, it would be included with a recommendation for scaling it to the pages of the journal. Else, earlier maps of the region or sketch maps typically were recommended by reviewers for inclusion with the narrative. The remaining two questions on this list, however, invited deeper reflection. The responses to whether the papers were original and

1 Emphasis in original. "Munphool Meer Moonshee - On Gilgit and Chitral India Office. 1869." JMS/11/67, RGS, 1869.
2 The Proceedings of the evening meetings of the RGS were published as part of the Journal till 1857.

how they may be altered or edited, combined with the actual editing of manuscripts, are indicative of the manner in which information from across the British Empire was shaped into geographical knowledge.

In previous chapters I have tried to understand how the work of native explorers undergirded European exploration and mapping in South and Central Asia. Here, I examine a key process of becoming any explorer – publishing with the Royal Geographical Society. However, for natives who made a career in exploration, this particular avenue for gaining acclaim and establishing one's scientific credentials was not an option till the 1860s. It was only in 1868 that the first native explorer was published by the RGS, when Pundit Munphool's abridged report appeared in the *PRGS*.[3] Nor did Pundit Munphool have much of a career as an explorer. By the time the report was published, he had retired from service with the Government of India and moved on to what was likely a more lucrative post, as the Prime Minister for the Raja of Bikaner.[4] It was not till several years later that reports by native explorers started appearing with relative frequency in the pages of the *JRGS* and *PRGS*. These reports were usually anonymized and the identity of the explorer remained a secret to the audience at large, for reasons I will go on to discuss. And this anonymization was only the first step in the production of these reports, which were heavily mediated and edited by British officials, explorers, and members of the RGS before they were made public. A consequence of the deeply unequal conditions of production of geographical knowledge, the heavy editing of the reports of native explorers provide us with a clue to the kinds of geography privileged by the RGS. Much of this editing consisted of unwritten rules that were

3 Munphool Meer Moonshee, "On Gilgit and Chitral," *Proceedings of the Royal Geographical Society of London*, 13, no. 2, (1868): 130-133.

4 Henry Yule, Munphool Pundit, and Faiz Buksh. "Papers connected with the Upper Oxus Regions." *The Journal of the Royal Geographical Society of London* 42 (1872): 438-39.

nevertheless enforced with regularity, especially in the case of native explorers, even before material was made public to the RGS.

In this chapter, I will trace the development of a genre of exploration literature relating to South and Central Asia through how it gets shaped in the publications of the RGS. As in the case of Africa, the British in India used their territorial possessions in India to launch projects of exploration into many different parts of Asia, and the geography produced as a result of these encounters was archived and disseminated through the RGS. I will first examine the role of the RGS in nineteenth century European exploration, and the connection between exploration and geography as mediated by the RGS. Then I go on to locate the beginnings of exploration literature of the British in India, from the founding of the RGS in 1830 to the 1860s. I then follow the publication journey of the earliest of the native explorers to be published with the RGS under their own name, the aforementioned Pundit Munphool and his contemporary, Faiz Buksh. From this history of publishing and attempting to publish with the RGS, some answers to question three on the Referee Report cited above – whether this paper can be altered and abridged – provide us with a key edit that was made on reports sent to the RGS. This was a distinction made between "geographical" and "political" content, where the former was abstracted for publication in the journal and the latter altogether eliminated. I attempt to draw out the dimensions of what constituted both the "geographical" and the "political" through a study of several of these edits being enforced by both the RGS and the Government of India, especially when it came to the travels of native explorers. What emerges in the 1860s, along with these explicitly "geographical" reports, is the science of exploration that is divorced from the political conditions of its production. By the 1870s, geography had become institutionalized as a discipline in Britain and the Commonwealth, and exploration became twinned with the demands

to awaken the world to science. This chapter will demonstrate how politics got abstracted from the practice of exploration and the discipline of geography.

The RGS and the Exploration of the *Terra Incognita*

The European explorer of the nineteenth century had to demonstrate a commitment to science. The *terra incognita* or the "unknown" places in the world were to be made known, at the very least, through personal observation from the field and accurate measurement from well-calibrated instruments. "Scientific exploration," as it came to be called, although mostly initiated and funded by states and corporations like the East India Company, was honed in different ways by each individual explorer. That most celebrated of the scientific explorers, Alexander von Humboldt (1769-1859), who traveled in parts of South America (at his own expense) at the turn of the eighteenth century, was a pioneer in the field. He traveled with a large number of instruments - even a very bulky theodolite - and returned with droves of specimens from his travels. He published a thirty-four-volume *Voyage to the Equinoctial Regions of the New Continent* on his findings, between 1807 and 1826. Humboldt's contributions to geography, natural history, geology, botany, climatology, chemistry, galvanism and so on, reflect the wide remit of an expedition of exploration. The knowledge produced in these expeditions - whether in the form of material specimens or in published form as books, reports, journal articles - related to many difference branches of science. However, as Felix Driver has pointed out, geography in the nineteenth century came to be deeply associated with the figure of the explorer; more so than many other branches of science, like natural history and astronomy.[5] The romantic explorer, venturing deep into the *terra incognita*, and awakening it to geographical knowledge had become a particularly persistent trope of literature, whether scientific or fictional, by the early nineteenth

5 Felix Driver, *Geography Militant: Cultures of Exploration and Empire* (Blackwell, 2001), 2.

century.[6]

If exploration and geography came to be particularly linked, it was the Royal Geographical Society, founded in London in 1830, that became emblematic of this bond. The stated purpose of the Royal Geographical Society, as the prospectus of its first anniversary meeting in1830 laid out, was to make a plan for "the promotion and diffusion of that most important and entertaining branch of knowledge, GEOGRAPHY."[7] It was no coincidence that the Royal Geographical Society had as its immediate predecessors societies devoted to travel and exploration, namely the Raleigh Club and the African Association. The RGS had in common with both these societies an elite membership, consisting of aristocrats, army and naval officers, colonial administrators, and engineers, united by their interest in exploration. RGS members made extensive use of the networks of empire to travel and explore new regions, and also collaborated with the Royal Navy and the colonial and India offices to fund and organize expeditions of exploration across the world. One study has pointed out a common denominator amongst these men - women were not fully admitted to the society till 1913 - and this was their vast administrative experience (especially in India) combined with their academic interests.[8] In addition to the profile of its

6 Some representative examples are Alexander von Humboldt, who in his *Personal Narrative,* wrote, "From my earliest days I felt the urge to travel to distant lands seldom visited by Europeans. This urge characterizes a moment when our life seems to open before us like a limitless horizon in which nothing attracts us more than intense mental thrills and images of positive danger." Alexander von Humboldt, *Jaguars and Electric Eels (*London, 2007), 3. First published in 1814.

Joseph Conrad was writing in the early twentieth century but his writing is often quoted as representative of the genre of travel writing of explorers. In his essay on geography and exploration he wrote, "Regions unknown! My imagination could depict to itself there worthy, adventurous and devoted men, nibbling at the edges, attacking from north and south and east and west, conquering a bit of truth here and a bit of truth there, and swallowed up by the mystery their hearts were so persistently set on unveiling." Joseph Conrad, "Geography and Some Explorers," *Last Essays* (London, 1926), 19-20.

7 "Prospectus of the Royal Geographical Society," *The Journal of the Royal Geographical Society of London* 1 (1831): vii-xii, vii.

8 Roy C. Bridges, "Europeans and East Africans in the Age of Exploration," *Geographical Journal* 139, no. 2 (1973), 220–32.

members, the RGS also borrowed its dinner club format from the Raleigh Club, and members would meet on a designated evening, and read papers aloud over a wide-ranging dinner. The African Association, set up in 1788 for the purposes of exploration in West Africa, was absorbed by the RGS in 1831. The RGS would very soon became a site of information exchange and for the "archivalization of knowledges" coming in from all across the world.[9]

The first half of the nineteenth century has also been understood by scholars to be one of an explosion of data collection.[10] The emergence of learned societies like the RGS were key to managing this information, and this was very much in keeping with similar societies like the Geological Society (1807), the Royal Asiatic Society (1823), the Astronomical Society (1820) and the British Association for the Advancement of Science (1831).[11] These societies (more specifically the last on this list, the BAAS) were also responding to the elitism of the Royal Society (1660), and were concerned with the diffusion of scientific knowledge to larger audiences.[12]

The primary means of this diffusion was through the publications of annual journals, which would perform the function both of archivalization and dissemination of knowledge. For the RGS, this was the *Journal of the Royal Geographical Society* (*JRGS*), in circulation from 1831

9 See Driver, *Geography Militant*; Clive Barnett, "Impure and Worldly Geography: The Africanist Discourse of the Royal Geographical Society, 1831–73," *Transactions of the Institute of British Geographers* 23, no. 2 (1998): 242; Thomas Richards, *The Imperial Archive: Knowledge and the Fantasy of Empire* (Verso, 1993).

10 See Susan Faye Cannon, *Science in Culture: The Early Victorian Period* (New York, 1978); Jessica Ratcliff, "Travancore's Magnetic Crusade: Geomagnetism and the Geography of Scientific Production in a Princely State." *The British Journal for the History of Science* 49, no. 3 (2016): 325-352.

11 For an excellent account of the fate of scientific societies in the early twentieth century and their role in scientific knowledge production, see Helen Tilley, *Africa as a Living Laboratory: Empire, Development, and the Problem of Scientific Knowledge, 1870-1950* (University of Chicago Press, 2011).

12 Felix Driver, *Geography Militant*, 32.

to 1880. The first volume laid out the prospectus of the RGS, which expanded on the aim of promoting and diffusing geography to further argue that existing geographical information was "so scattered and dispersed, either in large books…or in the bureaus of public departments, or in the possession of private individuals," that it was effectively unavailable to the general public.[13] In addition to the *JRGS*, was the *Proceedings of the Royal Geographical Society of London,* mentioned at the beginning of this chapter, which contained shorter and more preliminary research papers along with discussions of papers at the RGS, details of evening meetings, as well as the anniversary address of the president and so on. It was published as part of the *JRGS* till 1857, then separately till combined again in 1879. The *JRGS* was followed by the *Proceedings of the Royal Geographical Society and Monthly Record of Geography* (1879-1892), and finally *The Geographical Journal* published from 1893 up till very recently in 2011.

The role of the RGS as gatekeepers of scientific knowledge becomes complicated by the fact that the knowledge it produced is widely understood to be inextricable from Britain's overseas empire.[14] It has been studied by scholars in terms of the fields of exploration opened up to RGS members who also doubled as colonists in the many outposts of the British Empire.[15] Further, much of the financial and logistical support to exploration was provided by the RGS in conjunction with the various colonial and foreign offices. Perhaps the most significant function

13 "Prospectus of the Royal Geographical Society." *The Journal of the Royal Geographical Society of London* 1 (1831), vii.

14 For more on the RGS and its links with empire, see Robert Stafford, "Scientific Exploration and Empire," in *The Nineteenth Century*, ed., Andrew Porter (Oxford University Press, 1999), 294-319; Robert Stafford, *Scientist of Empire: Sir Roderick Murchison, Scientific Exploration and Victorian Imperialism* (Cambridge University Press, 2002); Felix Driver, *Geography Militant*; David R. Stoddart, *On Geography and its History* (Blackwell, 1986); D. Graham Burnett, *Masters of All They Surveyed: Exploration, Geography, and a British El Dorado* (University of Chicago Press, 2001).

15 Roy C. Bridges, "Europeans and East Africans in the Age of Exploration," *Geographical Journal*, 1973, 220–32.

of the RGS, in addition to all of this is, as Dane Kennedy puts it, as "gatekeepers of scientific knowledge" in that it was the RGS that: "established the disciplinary ground rules that governed the practice of scientific exploration, controlled access to scientific instruments and resources that explorers required to carry out their tasks, and judged the outcomes of expeditions."[16] The practice of any science is inextricable from imperial and national rhetoric in the nineteenth century, and it was the RGS that decided what constituted the parameters of scientific enterprise when it came to exploration.

Even if the RGS and the British empire were inextricable, it is important to note that formal or even informal empire was not necessary for initiating and executing exploratory expeditions. Indeed, in many ways, explorers were at the forefront of evaluating the commercial and mercantile merits of a region, and this was a common reason given by them when seeking funding for their expeditions.[17] Having made that caveat, there is a specificity to each context within which empire and exploration interacted. The template of the European exploration of Africa is the norm applied by scholars to the context of Australia, and the North and South Pole, as well as to South and Central Asia. However, in spite of some important similarities with that of Africa, there is a particularity to exploration in these regions, especially in relation to encounters of Europeans with native knowledge and expertise, that complicates the picture of European exploration in other parts of the world.

Exploration Literature in South and Central Asia

16 Dane Kennedy, *The Last Blank Spaces: Exploring Africa and Australia* (Harvard University Press, 2013), 38.

17 In the case of South Asia, see my discussion of the letter by Alexander Burnes proposing the exploration of "lands West of the Indus" in Chapter 1. "Exploration of Afghanistan and Central Asia Proposed by Burnes" Foreign/S.C./18, NAI, 16 Sept 1831.

If the qualification for the existence of a *terra incognita* was that no European had traveled in the region before, then South and Central Asia were still more bereft of such spaces than was Africa[18]. Largely due to their presence in India, the British had taken advantage of existing lines of communication and migration between South Asia and the rest of Asia to either travel widely themselves or get as much information as they could from native travel accounts and travelers. The exception to this was the climbing expeditions to the highest peaks of the Himalayas, which would become important for exploration in the early twentieth century. Staying with the nineteenth century however, the "blank spaces" on maps were few and far in between.

When James Rennell had composed that first comprehensive map of India by a Britisher in 1783, discussed in Chapter 1, it was not the blank spaces in the map that preoccupied him.[19] The geographical divisions on his map were coterminus with the big empires of India at the time - broadly speaking, the Mughals in the north, and the dominions of the Marathas, Haider Ali, and the Nawab of Arcot in the south. If his "Hindoostan Proper" was the part of the Mughal Empire that lay to the north of the Narmada, the geography of the south of India was briskly rearranged by him as he contemplated the death of Haider Ali and how that might bring the British in close contact with the Marathas in the Deccan.[20] He also used Jesuit maps and "Lama's maps" as well as the accounts of George Bogle and sundry missionary accounts and maps to speculate on the geography of the "countries between Hindoostan and China" including Tibet, Nepal, Bhutan, and

18 See Stewart Gordon, "Exploration in Central Asia," in *Reinterpreting Exploration: The West in the World*, ed. Dane Kennedy (Oxford University Press, 2014).

19 James Rennell, *Memoir of a map of Hindoostan; or the mogul's empire: with an examination of some positions in the former system of Indian geography; and some illustrations of the present one: and a complete index of names to the map. By James Rennell, F. R. S. Late Major of Engineers, and Surveyor General in Bengal*, 1st ed. (London, 1783).

20 Rennell, *Memoir of a Map of Hindoostan; or the Mogul's Empire*, 1783, 15-16

Burma.[21] Rennell added more material with a view "to correct, and to extend" the geography of Hindustan with every edition of his *Memoir*.[22] It was this correction and extension that in subsequent maps and atlases, from the time that Rennell first produced a "geographical definition" for the British, that continued to be revisited by the British in India as they expanded their territorial possessions in India. Indeed, the only feature that Rennell acknowledged as "utterly unknown" to Europeans was the Brahmaputra river, although he had surveyed part of it himself, and it would be more than a century later in the 1880s that the full course of the Brahmaputra was mapped by a native explorer, as I discuss below.

What then was the *terra incognita* that was invoked repeatedly by European explorers in South Asia? Dane Kennedy points out in his comparative study of the exploration of Africa and Australia, the *terra incognita* was a place that had to first be made unknown, before it could be known.[23] Only then could it be understood in the abstract, universalizing terms that Europeans sought to impose upon the landscape. The discourse of the *terra incognita* was deployed by them in several different ways as scientific exploration developed in the nineteenth century. The case of South Asia was similar, and although Rennell himself did not make use of it when compiling his map, the *terra incognita* came into frequent use by Europeans in the 1830s who sought to first establish one so they could then propose the need for its survey and exploration. Below, I examine some of the common strategies for establishing a *terra incognita* in Asia.

Most often a *terra incognita* was indicated by arguing that it had not been surveyed in the recent past, rather than positing the existence of a region never visited by Europeans. This was

21 Ibid., 87.
22 Rennell, *Memoir of a Map of Hindoostan, or the Mogul Empire*, 3rd ed. (London, 1793).
23 Kennedy, *The Last Blank Spaces*, 20.

done by invoking accounts dating back to antiquity, and ignoring more recent travelogues, to then establish both modernity and difference. Thus, Alexander Burnes, on the very first page of his enormously popular travelogue *Travels into Bokhara* introduced a theme he repeatedly harked back to - the exploits of his more famous fourth-century namesake - when he wrote of his life-long desire "to see new countries, and visit the conquests of Alexander."[24] He continued to then highlight his contribution in the present even as he simultaneously employed that other stable trope of European travel writing - a motivation and dedication for the task at hand that reached back into the far past, into their childhood. He wrote: "As the first European of modern times who had navigated the Indus, I now found myself stimulated to extend my journey beyond that river - the scene of romantic achievement which I had read of in early youth with the most intense interest."[25] Indeed, the fascination with Alexander and his account of this region is reflected in geographical literature from Rennell onwards, who pioneered the use of the Greek names for the five rivers of the Punjab. Mohan Lal, discussed in Chapter 2, like Burnes, who he was accompanying, extensively used Hydaspes for the river Jhelum, Acesines for Chenab, and compared the geography of the regions they were travelling through with Alexander's journeys. Interestingly, while Burnes sought to establish the superior accuracy of his identification of Grecian remains and cities over previous (European) accounts, Mohan Lal often presented multiple opinions, including those of locals and how they used and repurposed older ruins.[26] As I

24 Alexander Burnes, *Travels into Bokhara: Being the Account of a Journey from India to Cabool, Tartary and Persia; Also, Narrative of a Voyage on the Indus, from the Sea to Lahore, with Presents from the King of Great Britain; Performed Under the Orders of the Supreme Government of India, in the Years 1831, 1832, and 1833* (J. Murray, 1834), ix.

25 Alexander Burnes, *Travels into Bokhara*, ix-x.

26 A particularly interesting instance is the divergences in the accounts of Burnes and Mohan Lal on Meshhad, in present-day Iran. Burnes was excited about meeting some other British officials who were in the city, and wrote of many visits with them and other Persians. In contrast, Mohan Lal wrote of the

discussed in Chapter 1, Burnes first proposed his project of exploration and he was positioning himself as the first European to survey a region previously only known through native information.

In addition to that, Burnes was also creating the Indus and its surrounding regions as a *terra incognita*. He wrote of his proposed site for exploration: "There has of late been an interest excited by various essays on the geography of that portion of area lying between the Indus and the Caspian Sea, …[inducing] inquiry from their being on the line of routes by which an European army seeking the invasion of India must pass."[27] He was also the most prominent and prolific of the British explorers in India to publish with the RGS. For the *JRGS*, Burnes wrote an article on the construction of the map of the Indus, a geographical memoir of the Indus, as well as sundry other articles arising from his travels in the region, including maritime communications at the mouth of the Indus."[28] Awarded the RGS's Founder's Medal "for his remarkable and important journeys through Persia" - he was the first to be recognized for work in Asia, and the only one of two British officials for exploration in Asia for the first decade of the

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shrine of Imam Raza, that remains a hugely prominent pilgrimage site today and is reckoned to be the largest mosque in the world. The latter wrote: "When Alexander flourished, he happened, it is said, to pass through Khorasan, and encamped in the place where the city of Meshad is erected, and pitched his tent on the very spot where the bones of Imam Raza now repose. It is added, that Alexander, when asleep, had a dream, which inspired him with terror. He started, rose suddenly, and immediately sent for his vazir, Aristotle, who, when acquainted with the dream, said to Alexander, that a holy man would be buried on this spot. He built a quadrangular edifice, with an inscription, to let posterity know what was foretold by his vazir. Imam Raza was poisoned in the year A.H. 203, and buried within the same walls which had been built by Alexander." Mohan Lal, *Travels in the Punjab*, 190-191.

27 Foreign/S.C./18, NAI, 16 September 1831.

28 Alex Burnes, "On the Construction of the Map of the Indus." *The Journal of the Royal Geographical Society of London* 3 (1833): 287-90; "Substance of a Geographical Memoir on the Indus" *The Journal of the Royal Geographical Society of London* 3 (1833): 113-56; "Papers Descriptive of the Countries on the North-West Frontier of India," *The Journal of the Royal Geographical Society of London* 4 (1834): 88-129; "On the Maritime Communications of India, As Carried on by the Natives, Particularly from Kutch, at the Mouth of the Indus." *The Journal of the Royal Geographical Society of London* 6 (1836): 23-29; "On Sind," *The Journal of the Royal Geographical Society of London* 7 (1837): 11-20.

establishment of the RGS.[29] Another officer who had travelled with Burnes, was later awarded a medal by the RGS for his own "valuable labours on the Indus."[30] Many memos were written by Burnes and his contemporaries on the navigability and commercial viability of the Indus, as well as its position as a (negligible) barrier against invading Russian or Afghan forces from the west.[31] For much of the 1830s and 40s, it was the Indus and its surrounding regions that became the main site for European exploration that could then be published with the RGS.

The only person other than Burnes recognized by the RGS for exploration in Asia in the 1830s was a Prussian traveller, Baron Charles von Hügel. He talked of the many delights of the *terra incognita* although he committed several contortions to arrive at the coveted position of being the first European to accomplish an expedition to the North West frontier regions of British India. Several Europeans had traveled to the hill fort of Attock in present-day Afghanistan by the time Hügel reached there in the mid-1830s, yet he nevertheless claimed: "Well, here was I, the first European who had hitherto wandered through this vast empire, from its most southern point at Cape Comorin, to its northern boundary at Atok."[32] It is possible no one had made exactly the same journey, but Hügel was well aware of the European travelers, at least, who had traveled

29 The other explorer was Colonel Francis Rawdon Chesney for the exploration of Syria and Mesopotamia.

30 John Wood, was given the patron's medal in 1841 "For his journey to the source of the Oxus and for valuable labours on the Indus." See "Medals and Awards," www.rgs.org, last updated May 2014, http://www.rgs.org/AboutUs/Medals+and+awards/Medals+and+awards.htm for a full list of awards and medals.

31 Fane's (General Sir Henry) minute on the defence of the western frontier of British India, Foreign/S.C./1, NAI, 10 July 1839; T. G. Carless, "Memoir to Accompany the Survey of the Delta of the Indus, in 1837," *The Journal of the Royal Geographical Society of London* 8 (1838): 328-66. doi:10.2307/1797806; Another prominent traveler in the region was G.T. Vigne, who wrote *Travels in Kashmir, Ladack, Iskardo,... and the Himalaya, North of the Panjab (etc.)* (Colburn, 1842).

32 Baron Charles Hugel, *Travels in Kashmir and the Punjab, Containing a Particular Account of the Government and Character of the Sikhs. Translated from the German and with notes by Major T.B. Jervis* (London: 1845), iv.

these regions before him.[33] He went on to talk of the delights of being a traveler in a country "scarcely marked on our maps" to then talk of the experience of traversing a *terra incognita*: "The interest he [the traveler] feels as he treads on this terra incognita, hoping, perchance, to discover something new at every step; nay more, the very expectation of coming dangers and events tends to exhilarate and occupy his mind."[34] Hügel also submitted part of his account to the RGS and was presented with its Patron's Medal in 1849 for his "enterprising and successful exploration of the Cashmere, the Punjab, and the surrounding countries."[35] Kashmir and Punjab were well travelled by the time Baron Hügel made his way there, but the example of Hügel is interesting in the manner in which he positions himself as an explorer, serving the cause of science (in searching for that elusive "discovery") that is markedly different from travelogues that preceded this period.

The travelogues of Burnes and Hügel are representative of an emerging genre of exploration literature in the 1830s. Rooted firmly in travel writing, they nevertheless departed from the latter by embracing the tropes of scientific exploration - personal observation from the field, use of instruments, ethnographic information on regions traveled, and usually published with new maps

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33 Hugel is most conscious of the tradition of travellers he is following and also superseding. He wrote:
I now proposed to my two English friends, that we should erect something like a monument to the travellers who had preceded us in Kashmir…We agreed to carve the following inscription on a black marble tablet, and set it up in the little building on the Char Chúnar island :-
"Three travellers in Kashmir on the 18th November, 1835, the Baron Ch. Hugel, from Jamú; Th. G.Vigne, from Iskardú; and Dr. John Henderson, from Ladák, have caused the names of all the travellers who have preceeded them in Kashmír to be engraven on this stone."
"Bernier, 1663. Forster, 1736. Moorcroft, Guthrie, and Trebek, 1823. Victor Jacquemont, 1831. Joseph Wolff, 1832.
"Two only of all these, the first and last, ever returned to their native country."
Hugel, *Travels in Kashmir and the Punjab*, 144-45. The inscription never saw the light of day, though Hugel canvassed for it repeatedly.

34 Hugel, *Travels in Kashmir and the Punjab*, 104.

35 Except from the speech of the President of the RGS, W.R. Hamilton, on presentation of the Patron's Medal. From Anatole Hugel, *Charles von Hugel* (Cambridge: Privately Printed, 1903), 63.

accompanying the text. However, the hallmark of "original" exploration lay in the claim of being the first European in a region, accomplished through strategic management of sources, history (re)writing, and perhaps most importantly, judicious editing.

The relationship between the author and publisher/editor in manipulating this process of crafting a novel narrative of exploration has been discussed by Charles Withers and Innes Keighren, who examine the case of John Murray, the editor and publisher of Burnes's *Travels into Bokhara*.[36] The key question on which the editing of Burnes's manuscript turned was in deciding whether to front his navigation of the Indus or his travels to the remote kingdom of Bukhara. (The last known English traveler to Bukhara was William Moorcroft, who had, in fact, died under suspicious circumstances on his way back from there in 1825.) Burnes wrote to that other traveler to Afghanistan, Mountstuart Elphinstone, about his dilemma. As Withers and Keighren remind us, although his trip up the Indus preceded his journey to Bukhara, on Elphinstone's advice, Burnes eventually decided to underplay his stated objective of navigating the Indus and fronted his travels to Bukhara as the unique selling point of his book. *Travels into Bokhara* was enormously successful, selling 900 copies in a single day, and the first edition was followed a year later, by a second in 1835.[37] The editing and rearrangement of his manuscript, where his travels along the Indus formed an awkward addendum to the book, chronologically out of sync with the rest of the narrative, was a choice, Burnes wrote to John Murray. This stemmed from his conviction that "the Bokhara travels are far more interesting."[38] Explained all too

36 Charles W J Withers and Innes M Keighren, "Travels into Print: Authoring, Editing and Narratives of Travel and Exploration, c.1815—c.1857," *Transactions of the Institute of British Geographers* 36, no. 4 (2011): 560–73.
37 Withers and Keighren, "Travels into Print," 568.
38 NLS, MS 42048, A Burnes to J Murray 5 February 1834, cited in Charles W J Withers and Innes M Keighren, "Travels into Print," 568.

briefly in the preface to his readers, Burnes spoke of these two journeys as parts of a whole, though distinct from each other.[39] It becomes clear from this exchange that a reconsideration of the commercial and geographical possibilities of the Indus was already in motion, nor was it limited to Burnes.[40]

Burnes strategically deployed the exploration of the Indus to develop his credentials as geographer and explorer for the benefit of the Royal Geographical Society, where a specialist audience was receptive to the same ground - the Indus - being covered in greater detail. The Indus was less interesting for the purposes of his travelogue. Here, the elements of adventure, traveling in disguise through Central Asia, with the many dangers and thrills he faced on the way were highlighted, which were muted in his contributions to the RGS. Burnes made special mention of Moorcroft as the last person to travel to Bukhara and pointed out that the danger of traveling to this region that had already claimed the life of one of their own.[41] It appears that the conventions of each of these two genres - journal article and travelogue - were fairly specific. Indeed, the native explorer who was part of Burnes's mission, discussed in Chapter 2, Mohan Lal, was never able to break into the ranks of the RGS.[42] Although he was trained in surveying and made route surveys that contributed to the map of the Indus constructed by Burnes, his published work fit more with the genre of travelogue than as an account of exploration. The title of "explorer" was as yet limited to Europeans, and a key step towards becoming an explorer was

39 Burnes, *Travels into Bokhara*, A3.

40 Cite BGS report. After Burnes's death, he was widely criticized for his involvement in the disastrous Anglo-Afghan war of 1839-42, and part of this criticism was also reflected in criticism of his geographical work.

41 Interestingly, the papers of Moorcroft which had been considered lost, were recovered by Burnes and Mohan Lal and were edited and published, several years after Burnes's travelogue, in 1841.

42 Find reference of the letter that mentions Mohan Lal's ambitions re. RGS.

to publish with the RGS.

Leaving aside travelogues, even when we compare the kind of geographical knowledge produced by the *JRGS* to other journals, the distinction is stark. Nowhere is this more evident than in comparison with the RGS's Indian auxiliary, the Bombay Geographical Society (BGS), set up a year after the original, in 1831. With the same stated objective of the "improvement and diffusion of geographical knowledge," the BGS was established by several British officials in Bombay with a focus on "Asia and its islands, and the Eastern regions of Africa."[43] To the BGS went articles more minutely related to the geography of these regions, such as reprints of an account from the *Bengal Chronicle* of a "remarkable hailstorm at Calcutta," or surveys of the River Narmada, or an account of his travels in East Africa by Said bin Habeeb, an "Arab inhabitant of Zanzibar."[44] Although the BGS also republished a large number of articles relating to Asia and East Africa from the *JRGS*, much of its new material was provided by the Government and was such that it was unlikely to have been published by the *JRGS*. New material specific to the BGS included the diffuse category of "Oriental Geography" where scientific works in Persian and Arabic were occasionally commissioned for translation by the BGS.[45] Many of the officers accompanying Burnes on his travels published with the BGS their

43 "Rules of the Bombay Geographical Society, Instituted April 1831," *Transactions of the Bombay Geographical Society*, v. I (Bombay: American Mission Press, 1836), 3.

44 "Hailstorm at Calcutta on the 26th of April, 1829," *Transactions of the Bombay Geographical Society* 9 (1849-50), 188-189; R.N. Keatinge, "Report from R.N.C. Hamilton, Esq., Resident at Indore, of a trip down the Nerbudda from Mundlaisir to Baroche, made by Lieutenant H.L. Evans, of the 17th Regt. Bombay, N.I., and Deputy Bheel Agent. With Sketches of the Sansadara, and of a proposed Road along the North Bank of the Nerbudda to Dauree, by Lieut. R. N. KEATINGE, Assistant to the Superintendant of Nimar (Presented by Government)," *Transactions of the Bombay Geographical Society* 8 (1847-1849), 119-144; Said bin Habeeb, "Narrative of Said bin Habeeb, An Arab Inhabitant of Zanzibar." *Transactions of the Bombay Geographical Society* 15 (1858–60): 146–48.

45 Burnes forwarded a work by Ibn Hawqal of the Balkhi School of geography to the BGS with the comment that "Oriental Geography" was particularly within the province of their society, continuing:

own accounts of surveys along the Indus, as well as accounts they commissioned from locals, including, for instance, the transcription of an oral account by an Afghani horse dealer.[46] Whereas Burnes had also published on different aspects of his journeys in the journal of the Asiatic Society of Bengal, these did not specifically relate to geography and exploration and were instead concerned with subjects like numismatics, ethnographic observations, architecture, historical narratives, such as his account of the "reputed descendants of Alexander the Great" in Afghanistan.[47] It was specifically in the journals of the RGS and the BGS that Burnes could hone his credentials as a geographer and explorer.

The primary difference between the RGS and the BGS was in the former's emphasis on exploration as creating new knowledge. It was with the BGS that Burnes conducted much general correspondence and could send his less considered and polished papers. He wrote to the

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"We are indebted to Arabic works for much of our chemical knowledge, and though in a progressive science like geography, our researches into the literature of that people may not prove equally profitable, it can never be devoid of interest to know the opinions of a race whose emulation diffused the taste and rewards of science, from Samarkand and Bokhara to Fez and Cordova." Letter from Captain Burnes addressed to the President, BGS from Kabul, dated 14th February, 1838. *Transactions of the Bombay Geographical Society*, Vol. I, 47. See more about the Balkhi School of geography in Gerald R. Tibbetts, "The Balkhi School of Geographers," in *The History of Cartography: Cartography in the Traditional East and Southeast Asian Societies,* v. 2, bk. 1, eds., J.B. Harley and David Woodward (University of Chicago Press, 1994), 112-115.

46 "Account of the route between Sonmeanee and Candahar, from the mouth of one of the horse dealers of Affghanistan," *Transactions of the Bombay Geographical Society* 2 (1839): 5-13.

47 Alexander Burnes, "Some Account of the Salt Mines of the Punjab," *The Journal of the Asiatic Society of Bengal* I (1832): 145–48; "Account of the Jain Temples on Mount Abu in Guzerat," *The Journal of the Asiatic Society of Bengal* II (1833): 161–67; "Description of Bokhara," *The Journal of the Asiatic Society of Bengal* II (1833): 224–39; "Description of the Salt Works at Panchpadder, Marwar," *The Journal of the Asiatic Society of Bengal* II (1833): 365–66; "On the Colossal Idols of Bamian," *The Journal of the Asiatic Society of Bengal* II (1833): 561–64; "On the Reputed Descendents of Alexander the Great, in the Valley of the Oxus," *The Journal of the Asiatic Society of Bengal* II (1833): 305–7; "On the 'Topes' and Grecian Remains in Panjab," *The Journal of the Asiatic Society of Bengal* II (1833): 308–10; "On the Reg-Ruwan, or Moving Sand: A Singular Movement of Sound near Cabul, with a Sketch," *The Journal of the Asiatic Society of Bengal* VII (1838): 324–25; "On the Siah-Posh Kaffirs, with Specimens of Their Language and Costume," *The Journal of the Asiatic Society of Bengal* VII (1838): 325–33; "Report on Ten Specimens of Coal from Capt. Burnes," *The Journal of the Asiatic Society of Bengal* VII (1838): 848–54.

BGS in 1837 on the occasion of his second journey to Afghanistan, "You ask me to give you an account of our proceedings: I wish I had time; but here is a sketch, in which modesty need not hold my pen, as I have only acted as doorkeeper, sending forth the officers committed to me in every direction."[48] He gave a short description of his mission to Kabul and the stops they made on the way, and if he had identified with Alexander in his own travelogue, he commended his companion Lieutenant James Wood for following the footsteps of Marco Polo in this letter. He ended on a modest note, writing that he had been a "poor contributor to geography," on this trip to Kabul, where as he stood and looked around him, he realized "a stationary man cannot contribute much to geography."[49] Unlike for the *JRGS*, where he drew up original articles for publication that outlined his work of surveying and exploration of the Indus, Burnes mostly republished with the BGS material already presented to the RGS. The BGS published several papers by him, and they also acknowledged a paper by Mohan Lal that was however not published for it "contain(ed) little information of a geographical nature that can be extracted with advantage or justice to the authors."[50] It is evident that the BGS, although self-avowedly a branch of the RGS, did not do the same work of scientific gatekeeping and coordinating logistics and funding for new expeditions that the latter was famous for. The BGS did differentiate itself from the geography of the RGS as being more expansive, writing of this geography as one where no one may be excluded from its practice "because he may be unable to use a sextant, or to take a survey of an island or bay, or discover the position of any particular parts of the earth's

48 "Read a letter from Captain A. Burnes, addressed to the Secretary, giving the following summary of the principal geographical labors of his Mission to Cabul," *Transactions of the Bombay Geographical Society* 2 (1838-1839), 72.
49 *Ibid.,* 73.
50 *Proceedings of the Bombay Geographical Society*, 1838, 10-11.

surface."[51] There was no premium here on the much-celebrated explorer walking the *terra incognita*, sextant in hand, that the RGS so heavily cultivated.

Even before this process of deciding what met the standards of geographical knowledge fit to be published in learned societies like the RGS and the BGS, there was an important edit made at the level of the Foreign Department. For instance, Burnes's report on the commerce of Sind and Shikarpore, prior to being sent by him to the BGS, was sent to the Governor of the Bombay Presidency by a Secretary to the Government of India.[52] The latter wrote asking if there was any objection to this being published in the BGS. In reply, he was informed that there could, "of course be no objection to furnish information of a general nature" to a society like the BGS, committed as it was to "useful and scientific purposes."[53] There was just one caveat: "The President in Cl. [Council] will however expect that the papers communicated shall be exclusively those relating to geographical or statistical subjects from which all reference to political views shall be carefully excluded."[54] The report itself was a brief account of the opium and indigo he found in Shikarpur (in present-day Pakistan), as well as other possible areas of interest for trade and export, including the best routes for facilitating this trade. Shorn of any explicit "political" content, the report would likely have been unexceptionable to the Foreign Department.

It is unclear whether the Foreign Department actually kept track of what was being published in periodicals of learned societies, however, because in a letter published in the *Transactions of*

51 Heddle, J. Fraser, "Letter from the Secretary of the Geographical Society at Bombay to the Secretary of the Royal Geographical Society of London," *The Journal of the Royal Geographical Society of London* 3 (1833): v-xi, vii.
52 "Burnes's (Captain) report on the commerce of Sind and Shikarpore sent to Bombay Geographical Society" Foreign/P.C./22-23, 29 Nov 1837, NAI.
53 "Burnes's (Captain) report on the commerce of Sind," Foreign/P.C./22-23, 29 Nov 1837, NAI.
54 "Burnes's (Captain) report on the commerce of Sind," Foreign/P.C./22-23, 29 Nov 1837, NAI.

the Bombay Geographical Society (*TBGS*), Burnes made his "political views" on the Amirs of Sind very clear.[55] After discussing the location of Sind in relation to the Indus, its history and the religious practices of its people, he wrote: "The Government of Sinde may be called despotic. Its rulers, the Ameers, are restrained by no laws, though they pretend to abide by the dicta of the Koran in their administration of justice."[56] He also went on to talk of the prospects of a European army in Sind, and its potential allies.[57] One possible explanation for this candid assessment of British prospects in Sindh being published is that the exploration of Afghanistan and other parts of Central Asia was more closely monitored than was Sindh, by a Foreign Department keen on protecting British interests and keeping Russia at bay. The distinction then between "political views" and the "geographical or statistical information" was, as yet, less rigidly policed in journals, and Sindh was soon after annexed by the British to its dominions in India in 1843. Leaving aside considerations of political expediency however, the Foreign Department was not merely editing out sensitive information, but actively shaping what constituted geography and what did not, as I will discuss shortly.

As I have tried to draw out so far in the history of the RGS and its India connection, a career in exploration by the 1830s increasingly meant engagement with a scientific audience that recognized you as an explorer. This was particularly the case with that preeminent institution serving as a scientific gatekeeper of both exploration and geography, the RGS. The RGS was in equal parts reviled and revered by explorers who complained of its exacting standards and often

55 "Proceedings of A Meeting of the Bombay Branch, Royal Geographical Society, Held in the Society's Room on Thursday, the 10th of March, 1836," *Rules of the Bombay Geographical Society* (Bombay: American Mission Press, 1836), 7-15.
56 "Proceedings of A Meeting," Rules of the Bombay Geographical Society, 11.
57 "Proceedings of A Meeting," Rules of the Bombay Geographical Society, 12-13.

acrimonious discussions on very fine points of expeditions and their results, but who nevertheless remained deeply anxious for its approval. The celebrity culture of exploration, where as it was covered in the pages of the *JRGS,* was organized around a few key explorers, and the case of India up till the 1860s was no different. Burnes was the first of the explorers of Asia celebrated by the RGS, and his legacy, along with the possibilities represented by the Indus, loomed large in this institution well into the 1840s. Taking RGS medals as an indication, the explorers and explorations most recognized for their "geographical discoveries" in South and Central Asia were Alexander Burnes, the exploration of James Wood into the source of the River Oxus, Henry Strachey's exploration in Western Tibet in the early 1850s, and Baron von Hugel in Kashmir.

A key requirement to earn their stripes with the RGS was for European explorers to demonstrate their mastery of the *terra incognita*. The erasures and multiple rounds of edits in their writing allowed them to (repeatedly) construct the frontier of their dominions in India as the same. To the extent that the *terra incognita* first had to be made unknown, this history is similar to the European exploration of Africa and Australia, dominated by some key personalities who had a captive audience in the RGS. Examining the literary output of Burnes, the first of the British explorers in South and Central Asia (and who led the way for the likes of Richard Burton and Francis Younghusband later in the nineteenth century), is instructive of the manner in which the *terra incognita* was made unknown in South Asia. However, the proximity of the frontier in Central Asia to British dominions, and a shifting relationship with Afghanistan and the Russian empire, required constant vigilance. This was made possible by casting the frontier as a space repeatedly legible first and foremost through its geography. This was a juncture where what constituted "geography" was most sharply differentiated from what it was not, giving it a shape

recognizable to us today.

Separating the "Political" from the "Geographical"

A preliminary survey of the word "geography" in the *JRGS* yields results in which it is attached to a wide array of prefixes - "local," "physical," "natural," "Oriental," "historical," "mathematical," as well as with adjectives like "modern," "imperfect," and "known geography."[58] One other term that has been used is "political geography," also described by the secretary of the Bombay Geographical Society as "the geography of the human mind."[59] He explained further:

> Its principal objects are to examine the influence which climate, territory, and soil exert upon the character of nations and communities; to observe how far the different productions of the earth affect the manners and habits of those who cultivate and consume them; and to estimate the effect of geographical position in modifying the forms of government and political institutions of social men.[60]

British administrators in the early nineteenth century were certainly very persuaded by physiocratic doctrines of the importance of land and agriculture to economy, and to society and polity.[61] The Secretary of the Bombay Geographical Society was no different, and yet this was by no means a widely-accepted understanding of the phrase "political geography." There was little consensus on what it meant, even in the pages of the *JRGS*. Another instance in which it

58 See Captain Vetch, "Considerations on the Political Geography and Geographical Nomenclature of Australia." *The Journal of the Royal Geographical Society of London* 8 (1838): 157-69, for an explanation of some of these terms.

59 J. Fraser Heddle, "Letter from the Secretary of the Geographical Society at Bombay to the Secretary of the Royal Geographical Society of London." *The Journal of the Royal Geographical Society of London* 3 (1833): v-xi; ix.

60 Heddle, "Letter from the Secretary of the Geographical Society," ix.

61 See Ranajit Guha, *A Rule of Property for Bengal: An Essay on the Idea of Permanent Settlement* (Orient Blackswan, 1982) for an account of the impact of physiocratic thought in Bengal, and Saurabh Mishra, "The Economics of Reproduction: Horse-breeding in Early Colonial India, 1790–1840," *Modern Asian Studies* 46, no. 5 (2012): 1116-1144, for the connection between physiocratic and utilitarian thought and colonial state policy.

comes up is a proposal by Captain Vetch who was proposing the vast and complete reorganization of the existing political borders in Australia, to aid population and administrative ease.[62] (This process, in his opinion, would be easier in Australia than in America, for "the ground requires much less clearing, and the obstruction from natives is much less formidable.")[63] Political geography was one amongst the many kinds of geography that was disseminated by the RGS, each of these defined anew with every usage, but there was a still more specific understanding of what was constituted by "political" in the RGS.

The case of Pundit Munphool and his journey from rejection to acceptance in the *JRGS* is one that helps parse out the kind of geography, free from the political context of its production, that was privileged by the RGS. An English-educated Munshi, originally from Bikaner, and with experience of travel in Central Asia in the employ of the British, Pundit Munphool was the first native explorer published with full author credit by the RGS.

When Pundit Munphool first sent his account of Gilgit and Chitral to the RGS in 1869, his reviewer, Henry Rawlinson, did not recommend it for publication because he reasoned that "the Pundit's Report is mainly political."[64] Further, Rawlinson argued that it borrowed too much from Alexander Cunningham's book on Ladakh, and altogether, was "unfitted for publication by our Society."[65] Instead, he suggested that a few paragraphs may be appended to an account of G. R. Hayward, another traveler to the region.[66] Going through the report with a red pencil, Rawlinson

62 Vetch, "Considerations on the Political Geography and Geographical Nomenclature of Australia."
63 Vetch, "Considerations on the Political Geography and Geographical Nomenclature of Australia," 158.
64 "Munphool Meer Moonshee - On Gilgit and Chitral India Office. 1869." JMS/11/67, 1869, RGS.
65 "Munphool Meer Moonshee - On Gilgit and Chitral India Office. 1869." JMS/11/67, 1869, RGS.
66 "Munphool Meer Moonshee - On Gilgit and Chitral India Office. 1869." JMS/11/67, 1869, RGS.

struck out details like Pundit Munphool's description of the ruling family of Gilgit; how control passed to Gulab Singh, the ruler of Kashmir, in 1846; the subsequent struggle of the Dogras to maintain control over the region, as well as the strength of their fort and garrison in Gilgit.[67] What remained, published in the *Proceedings of the Royal Geographical Society*, were a few pages on the terrain, drainage, topography, produce, religious practices of Gilgit and Chitral, including a strong condemnation of the slavery Pundit Munphool observed in the region. Buried in the "Additional Notices" section of the *PRGS*, and linked not to Hayward's own account but to the route surveys produced by a Yarkhandi merchant he had interviewed, this "geographical" information was stripped of the otherwise highly-coveted intelligence of political developments at the borders of British India. Pundit Munphool was one in a long line of spies sent from India to explore the frontiers and gain as much knowledge they could, not only of the best routes to travel, but also those "intrigues" that featured in the majority of intelligence despatches. The edits that Rawlinson made possibly had the function of secrecy, as I discuss later, but the consequence here was a kind of geography produced by an explorer that was divorced from the context of why they happened to be in the *terra incognita* in the first place.

The next, and final, time Pundit Munphool's work figured in the RGS, it was entirely by chance.[68] Titled "Papers connected with the Upper Oxus Regions. By Colonel H. Yule, C.B." It had been clubbed with two other papers, and the primary author of the report was a British officer, Henry Yule. The first of the papers was a report on Badakshan by Pundit Munphool, although his name was spelled "Manphúl" with seemingly no connection to his earlier work.

67 "Munphool Meer Moonshee - On Gilgit and Chitral India Office. 1869." JMS/11/67, 1869, RGS.
68 Henry Yule, Munphool Pundit, and Faiz Buksh, "Papers Connected with the Upper Oxus Regions," *The Journal of the Royal Geographical Society of London* 42 (1872): 438-81.

Further, any hope of seeing future work from him was dashed by Yule's prefatory remarks saying that although the report ended with the words "to be continued," he feared that "this is only tantalizing." He elaborated that the Pundit had left Punjab, and returned to his native state of Bikaner, where he was prime minister to the Raja, and letters addressed to him now went unanswered. Yule did also clarify that the report had been prepared by Pundit Munphool in English, and had been sent to him by the Pundit himself. Yule himself was living in retirement in Palermo, Italy, and was working on his magnum opus on Marco Polo. Having sent out queries to his fellow officers stationed in India on relevant work related to his new project, he received Pundit Manphul's report: "I imagine that it was written in English by the Múnshi, as in various parts he refers to Ptolemy, Marco Polo, and so forth. But as these references are of a very crude and useless kind, I have omitted them." What was left of the report, and included by Yule in his submission to the RGS, was an account that was accepted with alacrity by Rawlinson. This time Rawlinson gave the following review: "Colonel Yule, who is our best authority on such questions, recommends that these two Papers which he has taken the trouble to correct…should be printed."[69] Recording his concurrence with Yule, Rawlinson deemed them "well worthy of publication" and recommended their publication in the *JRGS*.[70] "Corrected" and edited by Yule, who also sent it into the RGS along with another report by a native explorer, Faiz Buksh. These two reports by Faiz Buksh and Pundit Munphool were the first independent papers by native explorers in the *JRGS*.

We might conclude in this instance that Pundit Munphool had to compose a more explicitly "geographical" report before it was considered worthy of publication by the RGS. And indeed, in

69 Henry Yule et al., "Papers Connected with the Upper Oxus," JMS/11/78, 1873, RGS.
70 Henry Yule et al., "Papers Connected with the Upper Oxus," JMS/11/78, 1873, RGS.

the report printed, and "corrected" by Yule, there is very little of the political history of the region that had been edited out of Pundit Munphool's last report. However, in this case we do not have the original report on which Yule made his "corrections." Still, even just working with the printed report, the line between "geographical" and "political" is not as straightforward here.

As far as similarities went, Pundit Munphool gave context for Badakshan as he had for Gilgit and Chitral, explaining where it was situated in relation to the River Oxus (Amu Darya), going on to give an account of its different "districts," identifying significant ones for more treatment, and giving details of fruits, vegetables, timber-trees, along with religious and ethnic divisions in the region. Explanations were clearly geared toward an unfamiliar, and probably European, audience as when he wrote of the most abundant fruit of the region, the mulberry, saying "it is to the Badakshi what the potato is to the Irish peasantry."[71] Pundit Munphool also made use of that favorite adjective of travel writers in the nineteenth century - romantic - when speaking of a valley where the shrine of a famous saint was located.[72] This report was very much in the style of generic memo on frontier regions: dry, itemized, and indistinguishable from many such others on different regions.

Pundit Munphool exemplified the native agents that British routinely sent out to collect information at its borders, and he clearly was familiar with the commercial operations of the colonial state. The information he provided on mines, for instance, seemed to be with a view to understanding their commercial potential for India. He wrote of ruby, lapis lazuli, and lead mines, the quality of the products mined, and how they were used and traded. On rubies, of which he brought back specimens in white, violet, and rose, Pundit Munphool wrote how the Mir

71 Yule et al, "Papers Connected with the Upper Oxus Regions," 447.
72 Yule et al., "Papers Connected with the Upper Oxus Regions," 445.

of Badakshan had one of the mines worked "at my request" and had presented him with some of the best specimens.[73] On Lapis Lazuli, "deepest blue in colour, with streaks of gold in it," he told us it was sold at Bukhara, exported to Russia, used by Kashmiris and Chinese for decoration of manuscripts and porcelain respectively, and also that its use had been replaced in India by "European blue dye."[74] On lead, he identified possible avenues of interest and enquiry for the government of India, writing of another recently-worked mine where "the Mir [would be] willing to sell it at a price that would answer if it were taken to India."[75] Finally, Pundit Munphool was also adept at identifying agents the British could negotiate with. Thus, speaking of a local notable who was then residing in Balkh, Pundit Munphool wrote, "Aslam Khán…is a very intelligent, well-informed, gentlemanly person, well-disposed towards the British Government." These generic conventions of a recommendation letter, routinely used by British officers, were likely very familiar to Pundit Munphool, who would have required them for himself as he navigated the hierarchies and rituals of colonial bureaucracy. The inclusion of such details in his report for the RGS is interesting in that British commercial and geographical interest in the region did not constitute the category of "political."

This was content that was more likely to belong to Pundit Munphool's "Punjab Trade Report," which made up a large part of the "Report on the Trade and Resources of the Countries on the North-West Boundary of India," published by the Government of India in 1862. As part of these reports and his work as "Extra Assistant Commissioner" for the Punjab Government, Pundit Munphool already had been compiling route surveys provided by other native

73 Yule et al., "Papers Connected with the Upper Oxus Regions," 443.
74 Yule et al., "Papers Connected with the Upper Oxus Regions," 444.
75 Yule et al., "Papers Connected with the Upper Oxus Regions," 444.

explorers.[76] In this report, colloquially known as the "Davies Report," he had probably also edited and "corrected" the route surveys that made up the majority of the report. Pundit Munphool was clearly very familiar with the genre of route surveys and the kinds of information deemed desirable by his employers. Other than his contribution to the Report on the North-West Boundary of India, he also composed report on the rebellion of Chinese Muslim subjects (referred to as "Tungánís" by him) in Eastern Turkestan from the same period.[77] This was one that was more explicitly "political" in that it dealt almost exclusively with political unrest being closely monitored by the British. Producing these different genres of reports is similar to, say, Alexander Burnes, who had also submitted and published articles in journals of the Asiatic Society of Bengal and *Asiatic Researches* that were more closely related to his antiquarian interests, and who further wrote any number of memoranda and reports on his travels for circulation in the Company state. Whereas with Burnes his work had already been edited of the

76 "Memo by Pundit Munphool, Extra Assistant Commissioner, on the cultivation and agricultural produce of Bukhara, the general employment of its people, its slaves, sheeps-wool and trade with Russia, Khokand, &c.; from information furnished by Nazir Khairoolla Khan," *Report on the Trade and Resources of the Countries on the North-West Boundary of India* (Government of India, 1862), clix-clxxiv; "Memo by Pundit Munphool, Extra Assistant Commissioner, on the Afghanistan trade with India," *Report on the Trade and Resources of the Countries on the North-West Boundary of India* (Government of India, 1862), clxxv-clxxvi; "Memo by Pundit Munphool, Extra Assistant Commissioner, on Trade between the British territories (Punjab), and the countries within and beyond the dominions of the Maharaja of Kashmir," R*eport on the Trade and Resources of the Countries on the North-West Boundary of India* (Government of India, 1862), clxxxvii-ccii; "Roads leading over the Passes of the Karakoram or Hindú Kush range from Western Thibet, Kunjut and Gilgit, into the Sar-i-kul or Tashkurghan and Yarkhan territories; and from Afghanistan and the north west frontier of the Punjab, through Chitral into Badakshan and the Pamer steppes, and thence to Yarkhand; compiled by Pundit Munphool, from information furnished by Mohammad Amin," *Report on the Trade and Resources of the Countries on the North-West Boundary of India*, (Government of India, 1862), ccliv-cclxiv.

77 *Report on the Trade and Resources of the Countries on the North-West Boundary of India*, Government of India, 1862, referred to by British officials as the "Davies Report"; "Narrative of the Progress of events in the Provinces of Yárkhand, Káshghar and Khutan, Eastern Turkistán, in connection with the late rising of the Tungánís, — Musalmán subjects of China. 1864-1866 A.D." L/PS/5/260/610-611, 1867, IOR.

"political" before he got permission to publish it, Pundit Munphool's was in the process of being edited. Although eventually it was Colonel Yule who repurposed Pundit Munphool's report for the RGS, it was clearly already carefully abstracted of "political" content that was better suited to other venues for circulation and discussion.

There were moments, however, when this unwritten rule that was the distinction between "political" and "geographical," proved to be galling for members of the RGS. Not long after Pundit Munphool's travels had been recommended for publication in *JRGS* by him, H.C. Rawlinson took the opportunity of an ordinary meeting to summarize the existing sources on Badakhshan. His remarks were prefaced thus (the conventions of reported speech are used in the *PRGS* in accounts of meetings) : "In the meetings of the Society it had been their rule to exclude from the field of debate all political matters; but there were certain topics in which politics and geography were so completely mixed, that it was quite impossible to consider the one subject without, to some extent, introducing the other."[78] Afghanistan was an instance of this, and it was against the background of uncertainty of its borders with India and Russia that Rawlinson identified as the point when "the geographical question arose, as to what were the limits of this territory."[79] This meeting in London in 1873 was taking place just over a month after Russia and Britain had signed a border agreement that recognized as belonging to Afghanistan those territories that were governed by the present Amir of Kabul. In the back and forth between these two governments on the limits of Afghanistan, the way Rawlinson told it, certain "political and geographical difficulties" arose.[80] Badakshan and its province, Wakhan, were being contested by

78 H.C. Rawlinson, "On Badakhshán and Wakhán," *Proceedings of the Royal Geographical Society of London* 17, no. 2 (1872): 108-16, 108.
79 Rawlinson, "On Badakhshán and Wakhán," 109.
80 Rawlinson, "On Badakhshán and Wakhán," 109.

Russia as to whether they constituted a part of Afghanistan, a dispute that still has implications for the modern map in the creation of the "Wakhan Corridor."[81] His remarks were largely repeated from those he had made on a fraudulent German account seven years earlier, in 1865, discussed in the next chapter. He dwelt on Europeans who had travelled near Badakshan, other than James Wood who had actually travelled there in 1838, as well as the "abundance of good native data" on the region, including Abdul Mejid, Pundit Munphool, Faiz Buksh, Mohammed Ameen, Ibrahim Khan, and two of the Pundits, all of whom had travelled through these regions on several occasions in the recent past. Over the course of his remarks, Rawlinson made extensive use of Pundit Munphool's account in particular, especially in relation to mining in the region, to assure his audience that this agreement was beneficial to Britain and adverse to Russia. In this meeting, where its members were still processing the implications of an agreement with Russia after several years of uncertainty, Rawlinson was making good use of his captive audience to clarify his own position, as well as that of the government. Indeed, in a still later presentation by Rawlinson on another part of the border agreement at Khiva, a future president of the RGS congratulated him on highlighting the "political and national importance, of the pursuit of geography."[82] The President continued, "The late agreement concerning the boundary of Afghanistan showed how desirable it was to have precise information with regard to the geographical features of a country…Geography, then, was not a mere idle of dilettante pursuit,

81 The Wakhan Corridor in maps today, a narrow stretch of about 350 kms, is a part of Afghanistan that extends almost entirely into China and separates the borders of Pakistan and Tajikistan. See "The Wakhan Corridor: Endgame of the Great Game" in A.C. Diener and J. Hagen, *Borderlines and Borderlands: Political Oddities at the Edge of the Nation-State* (Rowman and Littlefield, 2010), 53-68, for the making of the Wakhan Corridor as a result of the maneuverings between Russia and Britain in the late nineteenth century.

82 H. C. Rawlinson, "Notes on Khiva," *Proceedings of the Royal Geographical Society of London* 17, no. 3 (1872): 162-65, 165.

but one that had a direct and important bearing on national interests."[83] The sense of revelation that seems to color the tone of these congratulations suggests that this distinction between the "geographical" and the "political" was taken as a given by geographers, at least when it came to the RGS. It is also an indication of the exceptional nature of this moment where, indeed, political developments were being discussed at length at venues like meetings of the RGS, where such discussions were not the norm.

Regardless of the political developments of the time, it remained that collecting political information was inseparable from collecting geographical information. Munshi Munphool and his contemporary, Faiz Buksh, both of whose reports were the first non-European accounts to be published by the RGS, giving due credit to each author, continued to serve as Munshis in the bureaucracies of the colonial state or princely states. These careers were mutually complimentary. Not only did these explorers have a command over the different kinds of intelligence required by the colonial state, their credibility also depended on successfully navigating these worlds simultaneously. When questioned on some sources from which his information derived, Faiz Buksh, who had served as Munshi on a mission to Yarkhand with Sir Douglas Forsyth, made a convincing case as to their veracity. Forsyth reported:

> Faiz Buksh is anxious to remove any impression which may have been received as to the untrustworthy nature of his information. He respectfully states that he has been employed since 1861 on very delicate and somewhat dangerous missions to Badakshan, Balkh, Samarkand, Tashkend, and Kokand, and has brought back information, the value of which Their Excellencies the Viceroys for the time being were pleased personally to acknowledge…Moreover the Presidents of the Royal Geographical Society and Colonel Yule in particular have borne public testimony to the care and accuracy of Faiz Buksh's investigations. He was specially appointed to

83 H. C. Rawlinson, "Notes on Khiva," 165.

travel through Cabul and join the Yarkund Expedition in 1870, and I can testify to his worth as a political informer.[84]

Nor was Faiz Buksh just a "political informer;" he had also been trained in surveying. In debating the veracity of his sources, the Foreign Secretary wrote on behalf of the Viceroy, "His Excellency in Council does not undervalue the information, both geographical and political, which Faiz Buksh has been able on various occasions to collect."[85] He wrote in his report of his hurry to get to Yarkhand, and how this "prevented the prosecution of close geographical research" between Peshawar and Balkh, but he included his observations from much of the remainder of his journey. He included multiple routes lying between India and Yarkhand, reaching up to Russian possessions, and further, reflected on the many kinds of material he had occasion to collect during his journey.

Faiz Buksh made use of both European and native sources as he constructed his reports on the regions he was travelling through. Familiar with the collection of specimens and the uses they could be put to, Faiz Buksh noted that he could not bring with him the horns of a ram indigenous to the Pamirs, but that he had heard of someone else having done so during the British occupation of Kabul. He guessed that this person might be William Moorcroft or Burnes, and wrote, "if this be correct, they [the horns] will probably be traceable in the London Museum." (Colonel Yule noted that it had been James Wood who had collected the horns, and they were residing in the Royal Asiatic Society rooms.[86]) Along with specimens, he also drew on the history of the regions he was travelling through. Writing, "my history of Badakshan and Balkh is being translated. The materials which I have been able to collect regarding the

84 Foreign/Secret/Nos. 82-86, August 1875, NAI.
85 Foreign/Secret/Nos. 82-86, August 1875, NAI.
86 Yule et al., "Papers Connected with the Upper Oxus Regions," 471.

geography, and history, and commerce of Eastern Turkestan, as well as Upper and Lower Chitral, will be compiled and submitted hereafter."[87] He finished by writing, "The object, at present, being only to describe my route, I here conclude this paper."[88] Faiz Buksh had limited himself to routes that had not already been described by "European gentlemen of ability."[89] And unlike these European gentlemen who may have collected a vocabulary or two while they travelled through these regions, Faiz Buksh collected no less than eleven.[90] Further, part of the reason why Faiz Buksh was included along with Pundit Munphool by Colonel Yule in his submission to the RGS was his account of the Pamirs and how place names tracked historically through sources. Faiz Buksh made use of sources by those he called "native geographers," mainly Persian sources and also some by "Turkistan geographers" to come to a conclusion on the names and continuity of the different chains of mountains in the Pamirs.[91] Other than noting that the name Pamir is mentioned by Marco Polo, Faiz Buksh could not make much further use of his work, writing that "the names given by Marco Polo I am unable to identify."[92] Much like an Alexander von Humboldt or like Burnes and Mohan Lal who collected information under many heads, Faiz Buksh too was not limited to any one role. It was in the process of making this information public where, specifically, the classification between "geographical" and "political" became

87 Yule et al., "Papers Connected with the Upper Oxus Regions," 473.
88 Yule et al., "Papers Connected with the Upper Oxus Regions," 473.
89 Yule et al., "Papers Connected with the Upper Oxus Regions," 473.
90 Faiz Buksh wrote: "In the route by which I proceeded, the following languages are spoken by the people of the countries through which I travelled, viz. Afghani, Turkish, Sanglichi, Ishkashmi, Shighnani, Rushani, Mungi, Kafiri, Wakhani, Chitrali, Sarkoli. I will separately submit a vocabulary of these languages." In Yule et al., "Papers Connected with the Upper Oxus Regions," 473.
91 Yule et al., "Papers Connected with the Upper Oxus Regions," 469.
92 Yule et al., "Papers Connected with the Upper Oxus Regions," 472.

meaningful.

Secret Trans-frontier Exploration

Part of the logic of editing by the Government of India – specifically by the Foreign; Political; and Revenue, Agriculture and Commerce Departments – was to do with secrecy. A new rule prohibiting the publication of native explorers' survey reports of any regions beyond the limits of British India was put in place by the Government of India in 1876 – they were now to be considered secret and confidential. This was a rule that was directed at a particular group of native explorers, who came to collectively be called the Pundits.

The idea of sending out natives to make route surveys was the brainchild of Captain Thomas George Montgomerie (Figure 6), an officer with the Survey of India who first publicly proposed this project in 1862. Based on his own experiences in the Kashmir branch of the Great Trigonometrical Survey, where he attempted surveying via triangulation in the challenging mountainous terrain of Kashmir, he proposed a system whereby suitably-trained natives could be sent out into neighboring regions where Europeans were unable to venture. The key was to recruit these explorers from border regions and from communities which already had links to the regions to be explored. Roughly contemporaneous to Pundit Munphool and Faiz Buksh then were these native explorers, whose identities were shrouded in mystery as they were known primarily through sobriquets like "the Mirza" or "the Havildar" or, the one that came to represent all of them, "Pundit."

Figure 6 Thomas George Montgomerie.

It was the report of the Havildar that first alarmed officials in the Foreign Department.[93] In a

93 "Report of survey operations beyond limits of British India and of Feudatory Native States to be

memo to the Secretary of State in London, there were two main problems with trans-frontier reports of exploration outlined by the Viceroy's Office:

> First, there were remarks of a political character, which, if generally known could not fail to be productive of much mischief. Such, for example, are the observations of the narrative of the Havildar's journey, where the late Naib Muhammad Alum Khan, then the most trusted and powerful of the Afghan nobles, is described as "detested throughout the whole of his Government for his cruelty, oppression, and gross debaucheries;" and the following pages contain numerous unfavorable comments on the character of the Afghan officials. Secondly, the shape of the Report, being a collection of narratives of the personal adventures of secret Agents, who in the execution of their tasks are obliged to resort to various shifts and contrivances for the purpose of eluding detection, was thought to render it entirely unsuitable for publication.[94]

In addition to the threat of neighboring governments finding out about intelligence operations, and more alarmingly still, their opinions of neighboring allies, there was the ever-present threat of Russia. It was not possible to send British Agents to Central Asia, it was argued, in the manner of (Russian official) Count Prshevalski, who, along with a military escort, was "openly" sent to Mongolia.[95] Instead, and because of the existing relations with countries on the north-western border, "it is necessary that researches in those countries should be conducted by secret Agents: and secrecy is incompatible with the publication of the adventures of our Agents, whose very names before long become by-words in the mouths of persons interested in watching their movements."[96] Attached media accounts of trans-frontier exploration, that had been leaked

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considered strictly confidential and not to be published without sanction of Foreign Department" Foreign/Genl. B, May 1876/78, NAI; Foreign/Sec./ 1-20, July 1877, NAI.

94 Foreign/Sec./ 1-20, July 1877, NAI.

95 Foreign/Sec./ 1-20, July 1877, NAI.

96 They were not entirely wrong about the names and identities of explorers becoming well known. A.O. Hume, who would later go on to found the Indian National Congress, but at this time was attached to the Revenue, Agriculture and Commerce Department, appended a report in the *Bombay Gazette* on explorations by the Russians in Afghanistan that made use of the (code)names of these explorers and details of their explorations. Foreign/Sec./ 1-20, July 1877, NAI.

to the press, detailed Russians' knowledge of Britain's intelligence on Central Asia, naming explorers from Burnes to, the real concern of the Foreign department, names/sobriquets of several of the Pundits.[97] "Political" content of exploration reports not only included information collected on frontier regions and people, but the methods through which it was collected, as well as the identities of those who did the collecting.

That geographical knowledge went hand in hand with collecting "political" knowledge on trans-frontier regions is evident. This distinction was especially relevant to the colonial state, as when the Viceroy's Office made explicit, "these explorations are valuable not only from a geographical, but also from a political point of view, and the interests of the British Empire in India would suffer if the researchers of our explorers were stopped." The dilemma for the government was to find a way for their agents to find a "harmless way of placing their stores of information at the command of the literary and scientific world."[98] There was no question of stopping the explorations or of keeping them entirely confidential. The question then became of suitably editing the reports to ready them for publication.

The case-by-case editing of each of these reports reveals some room to maneuver in this rule. Reports could be published but they were "to be confined to recording the geographical results of the survey without compromising the narrative of the journeys accomplished, or any other matter of a personal character."[99] This was still objectionable to James Walker, who by now had taken over the management of the Pundits' explorations from Thomas Montgomerie. He pointed out that these reports had been made public for over a decade now, and that in any case, "it has

97 Foreign/Sec./ 1-20, July 1877, NAI.
98 Foreign/Sec./ 1-20, July 1877, NAI.
99 Foreign/Sec./ 1-20, July 1877, NAI.

invariably been the custom to restrict them to geographical matters, and to descriptions of the countries visited and their inhabitants. All information of a political nature, which the explorers may have gathered, have been carefully excluded from them, and communicated by letter – official or demi-official – to your Office."[100] This is the clearest indication of the kind of editing performed by a government that was attempting to distinguish between the many kinds of information brought back by its agents from trans-frontier regions. "Political" here was being equated with the "personal." It referred to opinions on people and places, seemingly entirely subjective, that were an integral part of the work of native explorers, which were then routinely classified by the Foreign Department.

The relationship between the political/personal and the geographical was heavily policed by the colonial state as it debated what could and could not be made public. If these personal narratives could be excised from "geographical information" altogether, the problem might be solved. However, personal narratives served several functions – the most important being professional ambition. A prohibition on making accounts of exploration public, argued the Superintendent of the Great Triogonometrical Survey, James Walker, would result in a "very powerful incentive to the work [being] lost."[101] It was a question that would continue to be lobbed back and forth between the Foreign Department and the Survey of India over the next decade.[102] Whether it was keeping reports confidential or anonymizing them, a junior under-secretary in the Foreign Department was more explicit about these plans than Walker: "Explorers are proverbially egotistic and hence the difficulty. If their names and their privations do not come

100 Foreign/Sec./ 1-20, July 1877, NAI.
101 Foreign/Sec./ 1-20, July 1877, NAI.
102 See "Personal Narratives. Reports of Exploration across the frontier, for publication, not to contain _." Foreign/A Genl. E/ 16-20, February 1883, NAI.

before the public, their zeal will decay."[103] As Mary Louise Pratt has argued, the explorer's "discovery" had no real existence till it got "made" through texts, such as a journal entry or report to the RGS.[104] The act of making reports public was central to the act of exploration.

In addition to professional ambition, personal narratives elevated the genre of geographical writing from the mundane. Walker's objection to the proposed edits to exploration accounts was that these cuts would "expurgate 4/5ths of the report, leaving little but the maps and the memoranda on their construction, and that little all broken and unconnected, the narrative being the back-bone of the report."[105] The Foreign Secretary sympathized with the impossibility of removing the narrative altogether. When the question arose again a few years later he wrote: "From a geographer's point of view…it must be heart-breaking to find one's publications robbed of their life and interest in this way."[106] He drew out the primary function of the personal narrative, "The mere publication of geographical facts in any detail involves at least an admission that some agent of ours has been to the places where those facts can be collected; and a personal narrative, if carefully scrutinised and purged of dangerous political matter, does little more."[107] Here was another level of editing – the political being excised from the personal – that exemplified the approach of the government to the reports of, specifically, native explorers.

Sarat Chandra Das and the Exploration of Tibet

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103 "Personal Narratives. Reports of Exploration across the frontier, for publication, not to contain _." Foreign/A Genl. E/ 16-20, February 1883, NAI.
104 Pratt, *Imperial Eyes*, 213.
105 Foreign/Sec./ 1-20, July 1877, NAI.
106 "Personal Narratives. Reports of Exploration across the frontier, for publication, not to contain _." Foreign/A Genl. E/ 16-20, February 1883, NAI.
107 "Personal Narratives. Reports of Exploration across the frontier, for publication, not to contain _." Foreign/A Genl. E/ 16-20, February 1883, NAI.

The line between the political and personal was next queried in the case of Sarat Chandra Das (Figure 7), who made two journeys to Tibet in the 1880s. In relation to his reports, a disgruntled under-secretary wrote to the Surveyor-General of India that it "abound(ed) in personal items throughout."[108] He gave some choice examples:

> It does not seem necessary to inform the public as on p.2 that "now it was the heavy toil that began to tell on the Babu. He suffered from severe headache, and had to be carried over difficult places on coolie back." …Nor is the statement at p. 3 material, that the travellers "secured long Alpine stocks in a horizontal position at the back of their waistbands," while "the privations suffered by the Babu were great, and for three days he was unable to have any food from want of fuel and also from loss of appetite." Nor is it at all important to know that "he travelled in style and comfort," page 4![109]

108 "Personal Narratives. Reports of Exploration across the frontier, for publication, not to contain _." Foreign/A Genl. E/ 16-20, February 1883, NAI.

109 "Personal Narratives. Reports of Exploration across the frontier, for publication, not to contain _." Foreign/A Genl. E/ 16-20, February 1883, NAI.

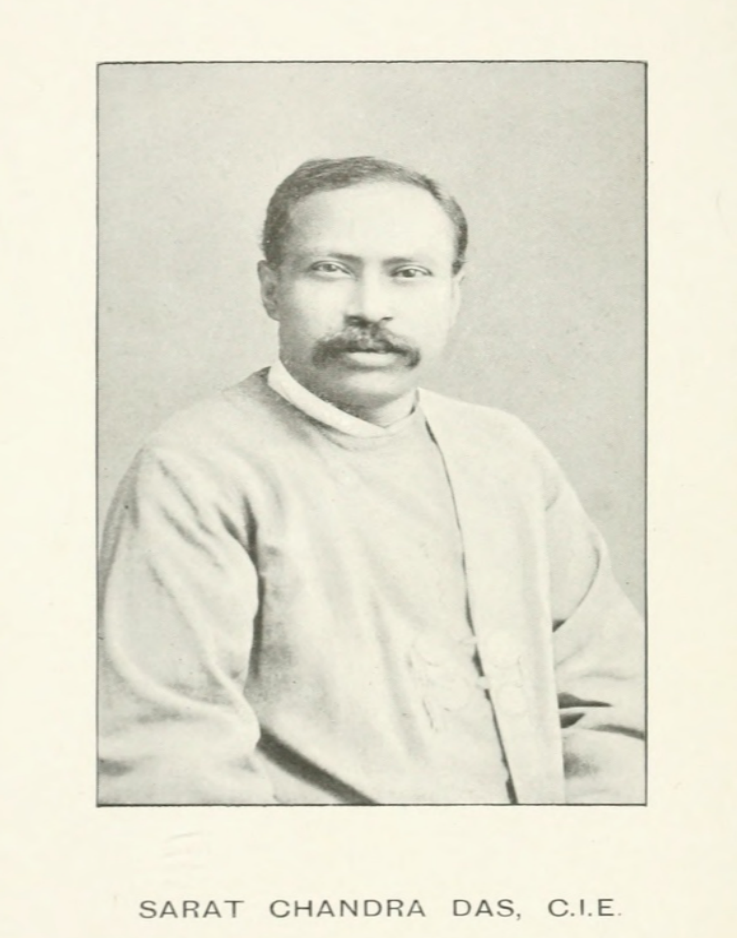

Figure 7 Sarat Chandra Das. Source: Sarat Chandra Das, Journey to Lhasa and Central Tibet, Frontispiece.

Although the Survey of India sought leniency in regard to Sarat Chandra Das, and some in the Foreign Office sympathized with the "the Thibetan case," as "one in which the personal narrative is particularly harmless," no exception to the rule was eventually allowed. Sarat Chandra Das's reports were kept confidential for almost a decade after he made his two journeys to Tibet in the early 1880s, and reports by the Bengal government were published only in 1890.[110] His travelogue, *Journey to Lhasa and Central Tibet*, was finally published in book form

110 Rockhill wrote: ""Of his [Das's] second journey, two separate reports were printed by the

in 1902, and it was a version edited by American geographer and diplomat, William Woodville Rockhill.

It was the RGS that commissioned Rockhill to edit the account released by the Bengal government. Rockhill mentioned the two different rounds of edits made on the finished manuscript in a forward to the volume. The first was by the government that, after the first few years of complete confidentiality, made public "selections from them, bearing exclusively on the ethnology of Tibet." The second round was when Rockhill took these reports and edited them "with only such slight modifications as have seemed absolutely necessary to make the narrative connected." Rockhill's editing was lightly done in that he did not remove much from the existing report that had not already been removed by the government. However, he did remarkably alter the tone and voice of Das's text.

Of the following two quotes, the first belongs to the report published by the Bengal Secretariat Press from Das's original notes, and the second is Rockhill's edited version.

> Reaching the top of Yampung La, I took a short rest, and surveyed the regions to the south and west. The great range of mountains led away to the south in a series of precipitous crests, almost bare of vegetation, and conspicuous in their ghastly nakedness. On the summit of the peak I stood buffeted by the west wind. The fog presented the appearance of a boundless sea, the bristling crags representing ships. To the north the range continued to skirt the snows of the famous Kangchan, the dreaded Khumba Karna of the hillmen. The eye on all sides, except to the east, was met by snow; and as I descended to the south-western flank of the Du la (Demon Mount), I cast an anxious look backwards to the deep gorge through which the Ringbee leaps with ceaseless roar. [111]

Government of Bengal on Das's return, one being "Narrative of a Journey to Lhasa" and the other "Narrative of a Journey around Lake Palti (Yamdok), and in Lhokha, Yarlung, and Sakya." These were, however, kept strictly confidential till 1890 when extracts from them were published in two magazines, namely the *Contemporary Review* and the *Nineteenth Century*." In Introduction to Sarat Chandra Das, *Journey to Lhasa and Central Tibet,* pg. xiii. Sarat Chandra Das made two journeys to Tibet – the first he eventually wrote up in his *Autobiography: Narrative of the Incidents of My Early Life* (Past and Present, 1969).

111 Sarat Chandra Das, *Narrative of a Journey to Lhasa in 1881-82* (Calutta: Bengal Secretariat Press,

> The Yampung La, though not lofty, presented much difficulty in the ascent, the vegetation on its sides not so luxuriant as that on the Jongri la, which is nearly of equal height. To the north the range skirts the snows of the famous Kangchan, the dreaded Khumba Karna of the hillmen. The eye, on all sides but the east, met only snow, and as I descended to the south-western flank of the Du la, "Demon Mount," I looked down towards the deep gorge through which the Ringbi leaps with ceaseless roar.[112]

Stripping away the element of the picturesque, Rockhill's edits limited the romance and maximized the informational potential of the text. Thus, the reader still possessed the same place names, the lack of vegetation, a sense of the climate, and the direction in which the mountains extended. Yet, in Rockhill's telling, Das was made a passive observer, his interiority reduced. His quiet reflectiveness atop the summit and his anxiety at the descent were edited out. Instead of the first person singular account by Das, privileging the "I" who stood atop a peak, it was the peak that became the subject of the sentence in Rockhill's refashioning. The "anxious look backwards" cast by Das as he descended by the edge of a deep gorge became merely a look at a deep gorge, where the Ringbi river ran. Out also went dramatic descriptions like "precipitous crests" and "ghastly nakedness," or the contemplation that went into composing a metaphor comparing two vast landscapes – mountain peaks in a foggy mist to ships on a "boundless sea." Most significant of all, by introducing the comparison to a neighboring peak in terms of height and vegetation, a peak that would not be approached by Das till the following day, Rockhill effectively removed the immediacy of the experience of travel. It was only in retrospect that a detail like the comparative height of a neighboring peak could be introduced, rather than dwelling on the moment of summiting a peak. The explorer standing atop a summit and surveying the distance they had traveled and the distance and difficulties they had overcome was effaced in favor of the peak and the explorer who only reappeared in the first person as he

1885) V/27/69/12, 1885, IOR.

112 Das and Rockhill, Journey to Lhasa and Central Tibet, 15.

descended its heights.

Rockhill's main concern was not to excise "personal narrative" from the geographical narrative. That had already been taken care of by the Bengal Government, and, unfortunately, that round of editing remains a gap in the archive.[113] Rockhill, however, edited out much of what constituted an exploration account in the early twentieth century – the singular voice and experience of the explorer. It was this account that was then opened up to reviews like the following one by Thomas Holdich in the successor to the *JRGS*, *The Geographical Journal* in 1902:

> The actual story of their [Das and his companion Ugyen Gyatso's] travelling adventures is told with all a Bengal[i]'s appreciation of the difficulties and risks (which were not inconsiderable) of the road, but with a great want of appreciation of anything approaching sentiment. We do not *see* Tibet as we follow the daily footsteps of the two travellers from monastery to monastery. The solemn grandeur of the Eastern Himalayas; the silent splendour of eternal snows; the magnificent sweep of still blue lakes embraced by demon-haunted crags and cliffs; and the shimmer and glitter of the morning sun on the gilded spire of dome and chorten over the lazy, priest-ridden city were all there, but they did not appeal to an educated babu intent on unearthing material for a Tibetan-English dictionary with a Sanskrit-English appendix of Buddhist terms.[114]

The lack of "sentiment" and not being able to "*see*" Tibet that Holdich was complaining of

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113 We do however have Rockhill's final proofs on this draft, which were minimal. A representative paragraph with edits in Rockhill's hand (italicized), looked like this:
"How exhausted we were with the fatigue of the day's journey, how overcome by the rarefication of the air, the killing ~~severity~~ ***intensity*** of the cold, and how completely prostrated by hunger and thirst, ~~it~~ is not easy to describe. The very remembrance of the sufferings of that dreadful night makes me shudder ***even now***, but I quickly recover under the inexpressible delight I feel at the consciousness of ~~a~~ ***my*** great success. This was the most trying night I have ever passed in my life. There was a light wind blowing attended with sleet which ***fortunately*** weighed my blankets down and made them cover me closer than they otherwise would have done. And so with neither food nor drink, placed as if in the grim jaws of death ***i***~~o~~n the bl***ea***~~a~~ek and dreary regions of snow, where death alone dwells, we spent this most dismal night." Here, he mostly played with word choice, and sought to check and recheck Das's route against Das's own first journey to Tibet, as well as against previous accounts of the region. These included European travellers to Lhasa, such as Thomas Manning, George Bogle, and Abbés Huc and Gabet, as well as the Pundits who made journeys to Tibet, namely Nain Singh, who travelled there in the 1860s and Kishen Singh and Kinthup, who were in Tibet roughly contemporaneously to Das.
JMS/11/138, 1901, RGS.
114 T.H.H., 'Tibet', *The Geographical Journal* 20, No. 6 (1902): 640-641. [Emphasis in original.]

was precisely what was then edited out by Rockhill. However, in spite of the several rounds of editing that Sarat Chandra Das's notes underwent, and missing the extracts cited by the under-secretary above, there still remained much of the individual explorer to be recovered from Das's work. Much of this shortfall was made up by the autobiography Das subsequently wrote, which allows us an insight into Das's self-fashioning as an explorer seeking to awaken the *terra incognita* to science.

In his autobiography, Das began as most explorers did, by speaking of what led him to becoming an explorer. In the year 1878, Sarat Chandra Das fielded the idea of travelling to Tibet to "make some work of Geographical exploration, in the manner of Dr. Livingstone" in a meeting with the deputy commissioner of Darjeeling, a Major Lewin, who promptly dismissed the idea as absurd.[115] Das made a point of directly quoting Lewin in his *Autobiography,* who, he wrote, threw the application on the floor and said, "Is it not preposterous on your part, being a Bengali, to think you could cross the eternal snows and enter Tibet to explore it as Livingstone of African fame; Europeans – Russians, Germans, not to speak of us, have all failed to penetrate into Tibet?"[116] Das cited his determination to travel to Tibet as stemming from, and in defiance of, the outcome of this meeting: "This unexpected refusal produced in my mind a keener desire for the impossible. Returning home, I thought over the matter again and at last formed the determination to visit Tibet at any risk."[117] Das identified the mountainous region between Peking and Kashmir as a "terra incognita to the civilised world."[118] These regions he wrote,

115 David Livingstone travelled to Africa with the intention of locating the source of the Nile in the 1860s. Das, *Autobiography*, 19.
116 Das, Autobiography, 19.
117 Das, *Autobiography*, 19.
118 Das, Autobiography, 29.

"remaining, even in the nineteenth century, unknown and unapproachable, dead, as it were, to Science, I, after long and mature thought, made up my mind to discover the treasure that may be concealed therein."[119] In contrast to the narrative of a "calling" that many European explorers spoke of, going back to their childhood, here the desire for "geographical exploration" came from thwarted ambition. It was one that he repeatedly dwelled upon, when he continued to list the obstacles to achieving this ambition. These included a disinterested and, occasionally, actively hostile government, as well as jealous "countrymen" who did not want to see him succeed.[120] On the latter he wrote, ""The bulk of my countrymen can hardly conceive the troubles of exploration in wild and inhospitable region, because they seldom venture out of home. They are, therefore, unable to appreciate the humble services that I have rendered to geography and science."[121] Although his ambition to seek out the *terra incognita* may not have been located in childhood or presented as a "calling," nevertheless, there was a strong affinity Das possessed with his European counterparts – one that was not understood by fellow Indians – a service to geography and science.

Das laid out a genealogy for his desire travel to Tibet, placing himself within a specific tradition of nineteenth century European exploration of Asia and Africa. Other than David Livingstone, Das's other, more immediate, inspirations were the French Catholic missionaries who travelled to Tibet in the 1840s, Abbé Huc and Joseph Gabet and the British travelers,

119 Das, *Autobiography*, 30.

120 Das wrote a detailed account of the very limited funds he received to carry out his explorations, concluding, "so slender was the help that the Government had given to the first Indian student-traveller who had penetrated to the heart of Tibet, at a time, when both the Government and the people of Tibet were most hostile to Europeans, and particularly to the British and the British Indians." Das, *Autobiography*, 21-22.

121 Das, Autobiography, 3.

Thomas Manning and George Bogle. Thomas Manning was the first Englishman to travel to Lhasa in 1811, and George Bogle was sent on a mission to Tibet by Warren Hastings, the first Governor-General of India, in 1776.[122] Das wrote of their travels, "I read this last book [*Narratives of the Mission of George Bogle to Tibet and of the Journey of Thomas Manning to Lhasa*] over and over again. It kindled in my mind a burning desire for visiting Tibet and for exploring its unknown tracts."[123] By the time he wrote his autobiography in the early 1900s, Das had been serving the Government for thirty three years and was styling himself as "the first Indian student-traveller who had penetrated to the heart of Tibet."

Das was travelling very much in the manner of the Victorian explorers of the day, being led by local guides, sometimes being carried by them, and travelling in clearly hierarchized parties with a multitude of servants and coolies to ease the most galling discomforts of travel. At one point, after having availed of this facility a number of times on the way, he wrote, "I steadily followed in the footsteps of the guide, and would not let him take me on his back; for if I succeeded in ascending to the highest summit of the Kangla chen without any help, I could look to this achievement with greater pride."[124] Although that specific instance of the coolie carrying him on his back that the under-secretary in the foreign department took exception to likely did not make the final cut, there remained several other instances of the same. His headaches and other health challenges of travel, standard fare for exploration narratives, were extensively detailed. The importance and magnitude of his journey was reinforced by precisely the hazards to

122 Though they made their journeys in the late eighteenth century, their writings were edited and published as *Narratives of the Mission of George Bogle to Tibet and of the Journey of Thomas Manning to Lhasa*, with a forward by Clements Markham, only in 1876, some 5-6 years before Das travelled to Tibet himself.

123 Das, Autobiography, 17.

124 Das and Rockhill, Journey to Lhasa and Central Tibet, 34.

health and life that he faced, and by implication, that he then overcame.

Das's account was one stripped of much of that personal detail that detailed why he happened to be in the places he was travelling. Ironically, keeping in mind the qualms that the British had about making trans-frontier exploration accounts public that could then affect diplomatic relations, it was Das's travels that left an ugly and bloody legacy in Tibet. Soon after his return, he was unmasked as a British spy, which resulted in the execution of the "Prime Minister" to the Panchen Lama, with whom Das had spent a lot of time, along with several unnamed others who had "extended any sort of hospitality to him."[125] This was a legacy that, as one of his biographers points out, Das did not mention in his autobiography although he was in contact with Ekai Kawaguchi, who brought back this account with him from Japan.[126] Das built a long career as a scholar of Indian and Tibetan Buddhism, and lived out the rest of his life in a house named "Lhasa Villa" in Darjeeling. His tenure as an explorer and his two visits to Tibet, that formed the subject of his *Autobiography: Narrative of the Incidents of My Early Life* and his travelogue *Journey to Lhasa and Central* Tibet, became the basis on which he accomplished this feat. His published work was precisely that mix of personal – of the kind that included the hardships of travel and the demands of exploration – but cut out the personal opinion of political and other developments from the regions he travelled through.

Although Rockhill's editing of Sarat Chandra Das's travels muted the specificity of the explorer in the act of exploration, Das's own strategies of self-representation as an explorer were

125 Ekai Kawaguchi, *Three Years in* Tibet (Madras: Theosophist Office, 1909), 403-404. See discussions of the account of Ekai Kawaguchi who described the events in Tibet around the discovery of Sarat Chandra Das as a British Agent/Spy in Donald Lopez, *Prisoners of Shangri-La: Tibetan Buddhism and the West* (University of Chicago Press, 2012), note 12, 234-235 and Derek Waller, *The Pundits: British Exploration of Tibet and Central Asia* (University Press of Kentucky, 2004), 197-204.

126 Mahadevprasad Saha in the Forward to Das, *Autobiography*, vi.

insistent. The rhetoric of awakening a region to science and geography that is so prominent in his accounts was the only acceptable reason for travel and exploration. This discourse made it through uncensored in his accounts by his many editors. Even when he was expressly requested not to make journeys for the purposes of "geographical exploration" by the British official he was in touch with, and told to concentrate his investigations on the "religion, literature and history of Tibet," Das demurred. Printing this letter as part of his autobiography, he noted that in spite of this stricture, "I did not however lose sight of the real object of my original proposal, *i.e.*, the exploration of a large tract of *terra incognita*…this was so accurately done that the late Tibet Mission under Colonel Younghusband, did not consider it necessary to resurvey it."[127] Das had identified a key manner in which to gain recognition and career advancement when under the employ of the British that Mohan Lal also made use of in the 1830s – to write and publish a travelogue. There was a difference, however, between the two. Geography by the time of Das's writing in the late nineteenth century, although still structured around exploration of the *terra incognita*, became one that increasingly obscured the political ends to which it was deployed, and became attached to the discourse of science and improvement.

CONCLUSION

Where scientific exploration for Alexander Burnes had meant personal observation from the field and using more precise instruments and methods of surveying, as the nineteenth century progressed, the way science and geography come to be used in the aid of empire changed. As I have tried to show in this chapter, there is a clear trajectory to this movement. It had its beginnings in "scientific exploration" and the way it came to be deployed in South and Central Asia as centered on specific ways of exploring the *terra incognita*. Geographical information

127 Das, *Autobiography*, 32, footnote 9.

was always bundled with the collection of commercial, political, historical information, but the process of editing has shown how it came to be shorn of these others in the publications of the RGS.[128] The requirements of the RGS were the exploration of a *terra incognita*, divorced from the context of why the explorer was in that place at that time, and this was specifically the case in the case of the frontiers of British India.

Administering a large territorial empire in India, the British were particularly careful of often tumultuous relationships with their neighboring empires, and secrecy dominated their geographical and political investigations into these regions. The Government of India had its own role to play in shaping geographical reports by deciding what could and could not be made public. There was significant overlap between the membership of the RGS and the British government of India and there were shared concerns as to the protection of imperial interests.

However, the RGS was not always on board with the government prohibition on publishing reports of trans-frontier exploration that was put into place in 1876. More than a decade after this rule was promulgated, at a time when Das's travel reports had still not been published, and the recent boundary commission to Afghanistan had completed its work, the President of the RGS, Henry Strachey, wrote to the Viceroy, complaining about the "scanty supply of geographical information we get from India."[129] Strachey further reminded the Viceroy of India's contribution to geography, "I strongly feel that England has in its time done much for geography, and that India has not been wanting in its part of the work."[130] This was critical for the functioning of the

128 See Jules Stewart, *Spying for the Raj: The Pundits and the Mapping of the Himalaya* (The History Press, 2006) and Waller, *The Pundits*, for more on this bundling of the geographical with commercial, political, and other kinds of knowledge.
129 Foreign/Frontr. B/ 105-107, Jan 1889, NAI.
130 Foreign/Frontr. B/ 105-107, Jan 1889, NAI.

RGS, described by Strachey as "a great scientific organization kept up purposely for getting geographical information and making it useful." Having said that, Strachey did recognize certain limitations on the work of the RGS.

Strachey had served his time in India as well as a part of Tibet (for which he was awarded RGS's Patron's medal), and he made a distinction between Afghanistan and other trans-frontier regions. Complaining, firstly, of Thomas Holdich, who had even been given a gold medal by the RGS for his work on the Afghan Frontier Commission, and yet the Government of India had refused to allow anything for publication by the RGS. This, despite the fact, Strachey continued, that the Foreign Office had published "a detailed map of a portion of frontier which the Russians would otherwise have never seen!"[131] Strachey guessed at, and was likely aware of, the existence of "a general rule" prohibiting publication of trans-frontier explorations, complaining that Chitral (a couple of hundred miles north of Peshawar, in present-day Pakistan) also seemed to be under this "ban." Having "personal knowledge" of the region, Strachey wrote forcefully "I wholly fail to understand how any geographical knowledge regarding it [Chitral] can have any other interest than a scientific one."[132] Here Strachey was making a critical distinction – Afghanistan was understandably off limits (although some kind of report would still be welcome) but Chitral (an independent princely state which the British would sign a subsidiary alliance treaty with in 1895), was purely "scientific."

This use of "scientific" to refer to an interest that was purely academic is common in contemporary literature, and emblematic of the shift I have been trying to draw out here, i.e., the discourse of science became a way to obscure the patently "political" commitments of

131 Foreign/Frontr. B/ 105-107, Jan 1889, NAI.
132 Foreign/Frontr. B/ 105-107, Jan 1889, NAI.

exploration. In fact, as Helen Tilley's account of the King Léopold's 1876 Geographic Conference has shown, it was precisely this question of where science stopped and political activities began that was being debated there.[133] I have tried to show here the deliberate process of separating the "geographical" from the "political" that made such discussions possible. As we saw in the case of Sarat Chandra Das, science became the only (unedited) justification for exploration by the 1880s. And when Strachey wrote to the Viceroy of India in 1888, the discursive separation of the "geographical" and the "political" was complete, seen in the way he imagined a "purely scientific" space evacuated of any other concerns. The ways in which science was geared towards the ends of empire have been well covered by scholars, but there was a deliberate process whereby science was stripped of its politics and made increasingly apolitical. Geography as it was shaped in London and India by the RGS and the government gives us an insight into this process.

133 Tilley, Africa as a Living Laboratory, 48.

Figure 8 Map of Lama Ugyen Gyatso's Explorations in Tibet. *Source: Pahar – Mountains of Central Asia Digital Dataset*, http://pahar.in/wpfb-file/1916-lama-ugyen-gyatsos-3rd-seasons-explorations-in-tibet-jpg/.

CHAPTER FIVE – AUTOMATON OR EXPLORER: NATIVES AND TRANS-FRONTIER EXPLORATION IN SOUTH AND CENTRAL ASIA IN THE LATE NINETEENTH CENTURY

The explorer Ugyen Gyatso's wife knew very well what constituted a successful expedition of exploration. She was never named in the narrative report of their travels and explorations in Tibet and Bhutan.[1] Nevertheless, her role in the expedition looms large. Over the course of this dissertation, I have considered the question of who gets to be called a native explorer, and expanded its use to the first half of the nineteenth century to refer to travelers who often did not seek nor were given the epithet of "native explorer." This unnamed woman's contemporaneity to the Pundits, the very first native explorers according to the British, raises this question anew. When I talk about her, I use the name Pema. In Tibetan and Sanskrit, the name means "lotus" and can be used to refer to a woman of many accomplishments.[2] At three key moments, Pema's accomplishments made possible a successful expedition of exploration.

The first moment is when we learn how Pema added credibility to an expedition that was disguised as a pilgrimage. Thomas Holdich, who drew up the narrative report of their expedition,

1 Report on the Explorations of Lama Sherap Gyatsho, 1856-68; Explorer K. P., 1880-84; Lama U. G., 1883; Explorer R. N., 1885-86; Explorer P. A., 1885-86; in Sikkim, Bhutan and Tibet. Prepared in the Office of the Trigonometrical Branch, Survey of India. Prepared by Lieut.-Colonel G. Strahan; and published under the direction of Colonel H.R. Thuillier, (Dehra Dun: 1889), V/19/78, IOR (henceforth cited as Report on the Explorations in Sikkim, Bhutan and Tibet); Exploration in Tibet and Neighbouring Regions, Part I, 1865-1879; Part II, 1879-1892, Records of the Survey of India, Volume 8, 2 Parts (Dehra Dun: 1915), (henceforth cited as Records of the Survey of India 8).

2 Sarat Chandra Das, *A Tibetan-English Dictionary with Sanskrit Synonyms* (Bengal Secretariat Book Department, 1902).

twice noted the importance of Pema to the disguise assumed by Ugyen Gyatso. He wrote approvingly: "The presence of his [Ugyen Gyatso's] wife in his camp seemed to have a reassuring effect — it was a sort of guarantee that he was a *bonâ fide* pilgrim."[3] The makeup of a traditional family - husband, wife, and even brother-in-law - seemed to temporarily placate the Tibetan and Chinese authorities, who had long been suspicious of British imperial designs at their frontiers.

The second moment is when next the Tibetan authorities conducted an unannounced search of the party's belongings a couple of months later, and Pema's actions mitigated much of the ill effects of this encounter. She had had the forethought to hide some of Ugyen Gyatso's "instruments and treasures," although she and Ugyen Gyatso subsequently reported that even a "very partial examination of his [Ugyen Gyatso's] effects was quite enough to arouse the suspicions of the *Dzong*."[4] This resulted in the three of them - Ugyen Gyatso, Pema, and her brother - being arrested, and "all his [Ugyen Gyatso's] instruments and botanical specimens, books, maps, &c, were examined."[5] Holdich reports that there could have been no doubt in the minds of the officials that Ugyen Gyatso was an explorer, and that recent orders had been issued by the Tibet Government against "allowing explorers to make maps of the country."[6] The party was eventually let go after strenuous cross-questioning and after they distributed judicious bribes.[7] Their instruments and books were all returned. It is hard to say how much the

3 *Report on the Explorations in Sikkim, Bhutan and Tibet*, 20

4 A *Dzong* refers to a kind of monastery-fortress hybrid, common in Bhutan and Southern Tibet, that housed soldiers and bureaucracy along with monks and religious leadership. *Report on the Explorations in Sikkim, Bhutan and Tibet,* 20.

5 Report on the Explorations in Sikkim, Bhutan and Tibet, 20.

6 Report on the Explorations in Sikkim, Bhutan and Tibet, 20.

7 Report on the Explorations in Sikkim, Bhutan and Tibet, 20.

intervention of Pema helped an already difficult situation, but, as I will discuss subsequently, the safety and care of these all-important instruments was critical to a successful expedition.

The third, and perhaps most critical, instance took place when the explorers were surveying that most-desirable destination for exploration, Lhasa. When in the city, Ugyen Gyatso and Pema became very friendly with their hosts. So much so, that Ugyen Gyatso reported the need to "check any intimacy between his wife and the wife of his host, for fear of discovery."[8] At the same time, their host proved to be a fount of information about Tibetan government and religious practices. Here was where Pema had a key role, for Holdich writes that all this information was "noted by his [Ugyen Gyatso's] wife, who refreshed his memory when preparing his narrative subsequently."[9] The preparation of a narrative was a laborious process that took several months. It entailed the explorers sitting down with the British official with whom they had been in correspondence and engaging in an exhaustive oral interview, which some contemporary observers have likened to an oral catechism.[10] Pema was present during the preparation of the report. Not only did she take notes of her own on various subjects during their travels, but she also recounted these details with greater accuracy than her husband.

The three instances discussed above provide more than sufficient evidence for Pema to be counted amongst native explorers in nineteenth-century South and Central Asia. There is no such

8 Report on the Explorations in Sikkim, Bhutan and Tibet, 31.

9 *Report on the Explorations in Sikkim, Bhutan and Tibet, 31*. Interestingly, when this report was lightly edited in subsequent volumes produced by the Survey of India on exploration in Tibet, the sentence was edited to read: "All these were noted by his wife, and he refreshed his memory when preparing his narrative subsequently." See Records of the Survey of India 8, Part 2, 351. The most benign interpretation of this is that instead of writing "and she," the editor wrote "and he refreshed his memory" - a sentence that makes little sense within context. This was one of the very few edits made to this report in its reprint in 1915.

10 Col. Henry Yule, Memorandum on Trans-Himalayan Explorations, 27 June 1883, Foreign/Secret E/100-106, August 1883, NAI.

ambiguity about Pema's husband, Ugyen Gyatso, being included among Pundits. He was given the codename "Lama U.G." and in addition to the training he would have received when he travelled to Tibet to collect specimens for the Calcutta Botanical Society, he was also given additional training.[11] For his explorations into Tibet and Bhutan for the Survey of India, he received a week's training with a British surveyor who taught him the use of the prismatic and compass and the hypsometer, and was then sent on his way.[12] The training the Pundits received in exploration is what makes the Pundits something of an anomaly in the literature on native exploration in South Asia. They have been referred to as the "first professional explorers" in the world, to highlight the training they received and their employment primarily for the purposes of exploring Tibet and Central Asia.[13] Kapil Raj has called the Pundits "human instruments of precision" in that their highly trained and calibrated bodies produced a kind of knowledge that could be both trusted and replicated.[14] He elevates them from "rank of a simple instrument, a 'docile body,' which sustained colonial rule and argues that the work of the Pundits was legitimized and calibrated in ways that it could then be trusted at least as much as that of Europeans.[15]

Imagining Pema as an explorer along with the Pundits, I place the Pundits within a longer tradition of native exploration within which they can be better understood. Pema then may be

11 Report on the Explorations in Sikkim, Bhutan and Tibet, 18.
12 *Report on the Explorations in Sikkim, Bhutan and Tibet,* 18.
13 Gordon Stewart, "The Exploration of Central Asia," in *Reinterpreting Exploration: The West in the World,* edited by Dane Kennedy (Oxford University Press, 2014): 195-213, 206.
14 Kapil Raj, "When Human Travellers Become Instruments: The Indo-British Exploration of Central Asia in the Nineteenth Century," in *Relocating Modern Science* (Palgrave Macmillan: London, 2007): 181-222.
15 Kapil Raj, "When Human Travellers Become Instruments," 221.

evaluated as both a contemporary to the Pundits, and as someone whose role in the expedition establishes continuity with the tradition of native exploration as it existed in South and Central Asia. By drawing this longer trajectory of native exploration and understanding both the break and the continuity occasioned by the Pundits, I expand the definition of what it means to be an explorer in the nineteenth century.

Historians have critiqued the paradigm of exploration in several ways, whether it be of the traveller's gaze, or the politics of knowledge production, or the violence and exploitation that often accompanied it. We also now understand the *terra incognita* to be constructed. Mary Louise Pratt memorably explained the process of "discovering" it: "As a rule the "discovery" of sites like Lake Tanganyika involved making one's way to the region and asking the local inhabitants if they knew of any big lakes, etc. in the area, then hiring them to take you there, whereupon with their guidance and support, you proceeded to discover what they already knew."[16] More recent work on reinterpreting exploration has brought into view not simply how local knowledge was translated and universalized by European explorers, but how fundamentally it shaped exploration. Adam Wisnicki, for instance, shows us, amongst other things, how the East Africa Expedition of Richard Burton and Burton Speke superimposed its itineraries and routes upon long lived Arab-African trading routes, marking "at the minute cartographical level the birth of a new imperial approach to Africa."[17] What Wisnicki demonstrates so beautifully is how European exploration was reinvented for a new phase of imperialism and colonization. And this history is not possible without understanding how exploration and empire worked together,

16 Mary Louise Pratt, *Imperial Eyes: Travel Writing and Transculturation* (Routledge: London, 1992), 202.

17 Adrian S. Wisnicki, "Charting the Frontier: Indigenous Geography, Arab-Nyamwezi Caravans, and the East African Expedition of 1856-59," *Victorian Studies* 51, no. 1 (2008): 103–37, 128.

and how they changed together.

In all of these critiques, the premise of what an explorer does remains static. In a recent reinterpretation of exploration, Dane Kennedy argues for the continuing relevance of the term exploration, whether it be about Columbus or in the context of the nineteenth century.[18] The label of exploration has stuck because, he says, "it has served a larger purpose – to establish a genealogy of exploration that reinforced a sense of European exceptionalism."[19] The question of the Pundits in this paradigm of exploration is a vexing one. They were not quite the myriad collaborators that invariably accompanied explorers. Indeed, native explorers, like their European counterparts, were accompanied by a large party and relied heavily on local labor to act as guides, servants, and general caretakers, as well as on servants or other employees for taking observations and caring for instruments and so on. Because of their training in exploration and as the leaders of expeditions, they necessarily come to be considered as a variation of European explorers, albeit of an inferior kind. The key question when it comes to evaluating the contribution of the Pundits has been to ask whether they were pale substitutes for European explorers who could not venture into these regions (though surely the biggest risk of nineteenth century exploration was venturing into the often hostile "unknown") or did they create knowledge stemming from their own expertise and initiative.

If we see the Pundits as an anomaly – whether as exceptionally-trained or as the first professional explorers – there is a danger of missing the ways in which exploration in South and Central Asia changed in the latter half of the nineteenth century. I argue that the Pundits have to

18 Dane Keith Kennedy, ed. *Reinterpreting Exploration: the West in the World* (Oxford University Press on Demand, 2014).
19 Dane Kennedy, *Reinterpreting Exploration,* 2.

be understood within a longer tradition of native exploration, for the continuities therein far outnumber the ways in which they occasioned a break. Once that is done, we can also better evaluate their contribution to exploration writ large.

Traveller vs. Explorer

Even as I expand who gets to be called a native explorer by extending this nomenclature back into the early nineteenth century over the course of this dissertation, I also seek to define the kind of work undertaken by native explorers. To do this, I want to examine the case of the Pundits, who, as I have mentioned, were recognized by their contemporaries for the precision of their exploration work. Indeed, no account of the explorations of the Pundits was published without being prefaced with the details of, firstly, why the British were unable to venture into the regions being explored, and, secondly, the excellent training native explorers received.[20] This accomplished two things: it explained the need to employ native explorers, and it established the credibility of these proxies. However, as I will examine over the course of this chapter, the Pundits cannot merely be considered proxies for the British. Further, there is a break in the history of native exploration with the Pundits, when the term "native explorer" comes into common usage. Indeed, they were the first to be recognized, recruited, and trained as

20 It is worth noting at this juncture that there were some dissenting voices to this commonly-held opinion, at least in the Royal Geographical Society and other learned societies in India, of the supposed danger faced by the British in exploring Asia. At a reading of a paper written by Montgomerie on the progress of this project of native exploration in 1867, an audience member bought up a memo written by the British Consul in China. This memo took issue with the topographical department that found it necessary to send out agents across the Chinese frontier "in a clandestine manner," and argued that while the "assumption of false characters" would excite suspicion, British travelers with valid passports would not. [T. G. Montgomerie, "Report on the Trans-Himalayan Explorations, in Connexion with the Great Trigonometrical Survey of India, during 1865-7: Route-Survey Made by the Pundit -, from Nepal to Lhasa, and Thence through the Upper Valley of the Brahmaputra to Its Source," *Proceedings of the Royal Geographical Society of London* 12, 3 (1867): 146-75, 171.] Regardless, the "jealousy" of neighboring powers was a common trope in Montgomerie's writing; it prefaced every one of his reports on native exploration in the JRGS.

"explorers."

Thomas George Montgomerie first spoke of his project of native exploration, which led to the creation of the Pundits, at an evening meeting of the Asiatic Society of Bengal in Calcutta in April, 1862.[21] He argued, "Explorations in Central Asia had hitherto been most dangerous to Europeans, but natives of Hindustan went there constantly and returned in safety."[22] The main aim was increased knowledge about Central Asia, and this was to be accomplished by recruiting travelers who were already part of the networks of trade and migration that crisscrossed the region. It is certainly true that, in this period, Indian merchants and traders were continuing unabated trade with China and Central Asia.[23] It was this ease of movement for Indians that Montgomerie hoped to exploit, and his policy of recruitment of native explorers developed on this theme. He sought explorers from border regions, who would speak the language of the region they were traveling to, and in all likelihood, had some other link to the place. But even as he sought out natives with these very desirable qualifications, there was still a ways to go before they could be called explorers.

There was a difference between regular travelers and the explorers that Montgomerie was proposing to send to these regions. The proposal he had put forward was for "native agency" to improve their knowledge of Central Asia, and he suggested to the Asiatic Society that "natives of North India might be trained to take latitude observations and to make rough route surveys."[24] As Montgomerie was proposing this, he was well aware of the most stringent criticism he would

21 "Proceedings of the Asiatic Society of Bengal for April, 1862," *The Journal of the Asiatic Society of Bengal* XXXI 2(1861): 212.
22 "Proceedings of the Asiatic Society of Bengal for April, 1862," 212.
23 Claude Markovits, *The Global World of Indian Merchants, 1750–1947: Traders of Sind from Bukhara to Panama* (Cambridge University Press, 2000); Arup Banerji, *Old Routes: North Indian Nomads and Bankers in Afghan, Uzbek, and Russian Lands* (Three Essays Collective, 2011); Scott Cameron Levi, *The Indian Diaspora in Central Asia and its Trade, 1550-1900* (Leiden: Brill, 2002).
24 "Proceedings of the Asiatic Society of Bengal for April, 1862," 212.

receive from his peers. His appeal for using the untapped resource of "native agency" was followed up with a quick caveat. He said, “The work of such natives would be tested in ground already explored by Europeans, and numerous other precautions might be taken to ensure accuracy.”[25] Whereas he did not claim that natives had never traveled these regions before, since it was precisely this movement he was seeking to exploit, he did claim that they could now be made more valuable as trained observers.

Montgomerie brought home the importance of trained observers to his audience through representing the journey of Abdul Majeed, who had been employed by the Commissioner of Peshawar to carry a letter to the Khan of Kokand, as a missed opportunity for gaining information. Mejid’s route surveys were orally reported and transcribed, so he presumably did not keep a detailed written record of any sort. Montgomerie said of him: “The Moola [referring to Majeed] returned [from Kokand] in safety…he had no interruption, and if he had been able he could have taken latitude observations and made a rough route survey without any danger.”[26] This was then followed up by the example of Jesuits in China training Chinese men for "collecting geographical materials."[27] Captain Montgomerie, went the report, "did not see why the English should not get at least as good work out of some of the natives of Hindostan."[28] The missed opportunity presented by Mejid was with respect to his lack of training, which did not quite qualify him as an explorer.

If Mejid was not quite an explorer, he was certainly lauded in the RGS as a "traveller." His travels had first been cited in the RGS as proof against an “elaborate hoax” being played on the

25 “Proceedings of the Asiatic Society of Bengal for April, 1862,” 212.
26 “Proceedings of the Asiatic Society of Bengal for April, 1862,” 213.
27 “Proceedings of the Asiatic Society of Bengal for April, 1862,” 213.
28 “Proceedings of the Asiatic Society of Bengal for April, 1862,” 213.

society by an unknown German traveler.[29] Henry Rawlinson, member of the Royal Geographical Society who would later go on to be its President, and who did the citing, brought up Mejid in his denouncement of an anonymous German traveler's account published in translation by the RGS. The most suspicious fact about this "so-called German traveler" to Rawlinson's mind was that he did not present the many observations that had to be taken before latitude and longitude were calculated, but only the final determination of the same.[30] Further, he did not mention a single instrument he had been provided with - whether sextant, chronometer, or quadrant - that he might have used to make these observations. Finally, the time he took from place to place did not match up. This is where Abdul Mejid's travels came in as corroboration. In conclusion to his take down of the German traveler's account, Rawlinson read out a report by a "real traveller in these regions," Abdul Mejid.[31] The aim was "to show the difference between bonâ fide statements and ingenious inventions of the German author."[32] The difference that Rawlinson was pointing to lay in Mejid's personal observation from the field. Mejid reported his own route and also the most frequently travelled routes in the region, gleaned from conversations with others who frequently traveled these routes, most likely merchants he met on the road. What he reported was no different from a route survey in the manner of many other native explorers before him. But, as Montgomerie pointed out when proposing his project of native exploration, Mejid was not carrying any instruments and had not been trained in surveying. Thus, even while being an exemplar of a "real traveler," he was lacking that important something that would

29 H. C Rawlinson, "Observations on Two Memoirs Recently Published by M. Veniukof on the Pamir Region and the Bolor Country in Central Asia" *Proceedings of the Royal Geographical Society of London* 10, 4 (1865): 134-153.
30 H. C. Rawlinson, "Observations on Two Memoirs Recently Published by M. Veniukof," 141.
31 Rawlinson, "Observations on Two Memoirs Recently Published by M. Veniukof," 148.
32 Rawlinson, "Observations on Two Memoirs Recently Published by M. Veniukof," 148.

characterize Montgomerie's Pundits.

The vision that Montgomerie articulated for the Pundits was, as Kapil Raj has pointed out, that of "human instruments of precision" who would go where the British themselves were unable to go. Kapil Raj picks up on the key legitimizing strategy employed by Montgomerie, that of giving the Pundits "Anglo-Indian appellations with intellectual connotations as code names" through which accuracy and credibility was bestowed on their work.[33] Code names such as *pundit*, *munshi*, *mirza*, and *mullah* - teachers, scribes, clerics, all professions with long traditions of service to the British - were the codenames of choice for native explorers, with short-lived experiments with giving them numbers ("native explorer no. 9") in the beginning.[34] Raj continues by citing an example of Montgomerie arguing for the parity of knowledge produced by the Pundits and the British to conclude that, "Montgomerie's scheme fed on the dual umbilical cord of the replicability of experiments and on investments of confidence and credibility in native agents, [and] this was only conceivable within institutional traditions built through the preceding centuries."[35] Credibility was certainly central to the trust and confidence reposed in these native agents, yet it was significantly more hard won than Raj will admit in his brief treatment of this extended project of native exploration. Further, there was a specificity to the credibility they built, deriving from a reliance on local, generational, and community-based knowledge that was not well represented in textual forms and "institutional traditions."

There were many other examples Montgomerie could have chosen to illustrate the need for his new project. Native explorers had been making route surveys for several decades now. Many

33 Raj, *Relocating Modern Science*, 220.
34 Raj, *Relocating Modern Science*, 219. See T.G. Montgomerie, "Journey to Shigatze, and Return by Dingri-Maidan into Nepal, in 1871, by Native Explorer No. 9," *JRGS* 45 (1875): 330-49, for an account of the unnamed "native explorer no. 9."
35 Raj, *Relocating Modern Science*, 222.

were well versed in the use of instruments like the compass and sextant and with making calculations for latitude. Yet it was only with the Pundits that these explorers were called "explorers" by their employers, rather than referred to only as munshi, secretary, interpreter, traveler, surveyor, and so on. Key to making an explorer was recruiting the right candidate, who would benefit from all this specialized training.

Recruiting the Pundits

The primary consideration for recruiting candidates for exploration was that they would be able to seamlessly move between British India and its frontiers in South Asia. In that sense, they were an ideal example of the very expansive category of "go-between" as articulated by Simon Schaffer et al.[36] They present as late nineteenth-century examples of this person who is "not just a passer-by or a simple agent of cross-cultural diffusion, but someone who articulates relationships between disparate worlds or cultures by being able to translate between them."[37] At the same time, in pinning down an example of such go-betweens as the Pundits, the very expansiveness of the category works against it. The Pundits inhabited all these dynamics - adapting to local conditions to produce knowledge that travelled far out of the context of its production; working within institutions but also relying on practical, embodied knowledge; moving between worlds but also bound to some specific regions and identities. They certainly provided vital knowledge to the colonial state that might very well be characterized as a "government by go-betweens."[38] And yet, specificity is key. The Pundits' knowledge did not emerge from crossing boundaries and navigating borderlands, as this literature suggests. Their

36 Simon Schaffer, Lissa Roberts, Kapil Raj, and James Delbourgo, eds., *The Brokered World: Go-Betweens and Global Intelligence, 1770-1820* (Science History Publications, 2009).
37 Simon Schaffer et al., *The Brokered World,* xiv.
38 Simon Schaffer et al., *The Brokered World,* ix.

knowledge emerged from their very specific identities, and not so much from inhabiting those marginal, fluid identities that were, ironically, often ascribed to them by the state. The recruitment of the Pundits makes this amply clear.

Religious identity was central to the recruitment of a native explorer. There was a specific, if unwritten, policy of the Survey of India officials in charge of the Pundits whereby Buddhists were chosen to be sent to Tibet, and Muslims to Afghanistan and other parts of Central Asia. As Colonel Walker explained to the non-specialist RGS audience: "The difficulties [of Europeans exploring Central Asia] were so great that even the Pundits of the survey could only go into a Buddhist country, while for Mahomeddan countries it was necessary to employ Mahomeddans, generally Pathans."[39] This seemed to imply that the barrier to entry for Europeans had its basis in religious intolerance of the majority populations. As far as prefatory explanations for why Europeans were unable to venture into these regions went, they usually took the form of rants on the "jealousy" of Central Asian or Chinese authorities. However, reading Colonel Walker, it becomes clear that there was a subtext of religious intolerance that underlay these explanations. Regarding the religious identity of the explorers themselves, they were often sent disguised as pilgrims to Tibet, and as merchants to Afghanistan and beyond. It was in the intersection of religious identity with other kinds of identity that made up the ideal native explorer – whether it was a "Pundit," "Bhotiya," or "Pathan Sapper."[40]

The very appellation of "Pundit" was a signifier of caste.[41] Henry Rawlinson attempted to

39 T. G. Montgomerie, "Report of the Mirza's Exploration of the Route from Caubul to Kashgar." *Proceedings of the Royal Geographical Society of London* 15, no. 3 (1870): 181-204, 203.

40 A sapper refers more generally to a military official with training in engineering, for instance, the Royal Engineers were also known as the Sappers. In the case of the British Indian army, one belonging to the Corps of Engineers was known as a Sapper.

41 Report of a Mission to Yarkund in 1873, 233, footnote.

explain its meaning to the RGS in London, arguing that Pundit merely referred to an "educated Hindoo."[42] The audience had its share of old India hands that evening. A Mr. Crawford agreed with Sir Henry that a pundit simply meant a learned man, with one critical qualification, "but he must be a Brahmin."[43] That Nain Singh (Figure 9), whose exploration was under discussion that evening, was a Brahmin was not lost on anyone. When the President of the Royal Geographical Society, Roderick Murchison, was going over the accomplishments of the RGS during his annual address, he referred to Nain Singh and his cousin Mani Singh as: "two brothers, intelligent young Brahmins, who had been fully instructed in the use of surveying instruments, to explore this region [Tibet]."[44] The term Pundit, originating from its use for Nain Singh and his occupation as the Pundit or headmaster of a school in his village of Milam in Pithoragarh, came to be retroactively used for all native explorers employed by the Survey of India, irrespective of whether they were Hindu, Muslim, or Buddhist.

42 Montgomerie, "Report on the Trans-Himalayan Explorations during 1865-7,"169.
43 Montgomerie, "Report on the Trans-Himalayan Explorations during 1865-7," 171.
44 Roderick Impey Murchison, "Address to the Royal Geographical Society," *The Journal of the Royal Geographical Society of London* 38 (1868): cxxxiii-xcviii, clxxxi.

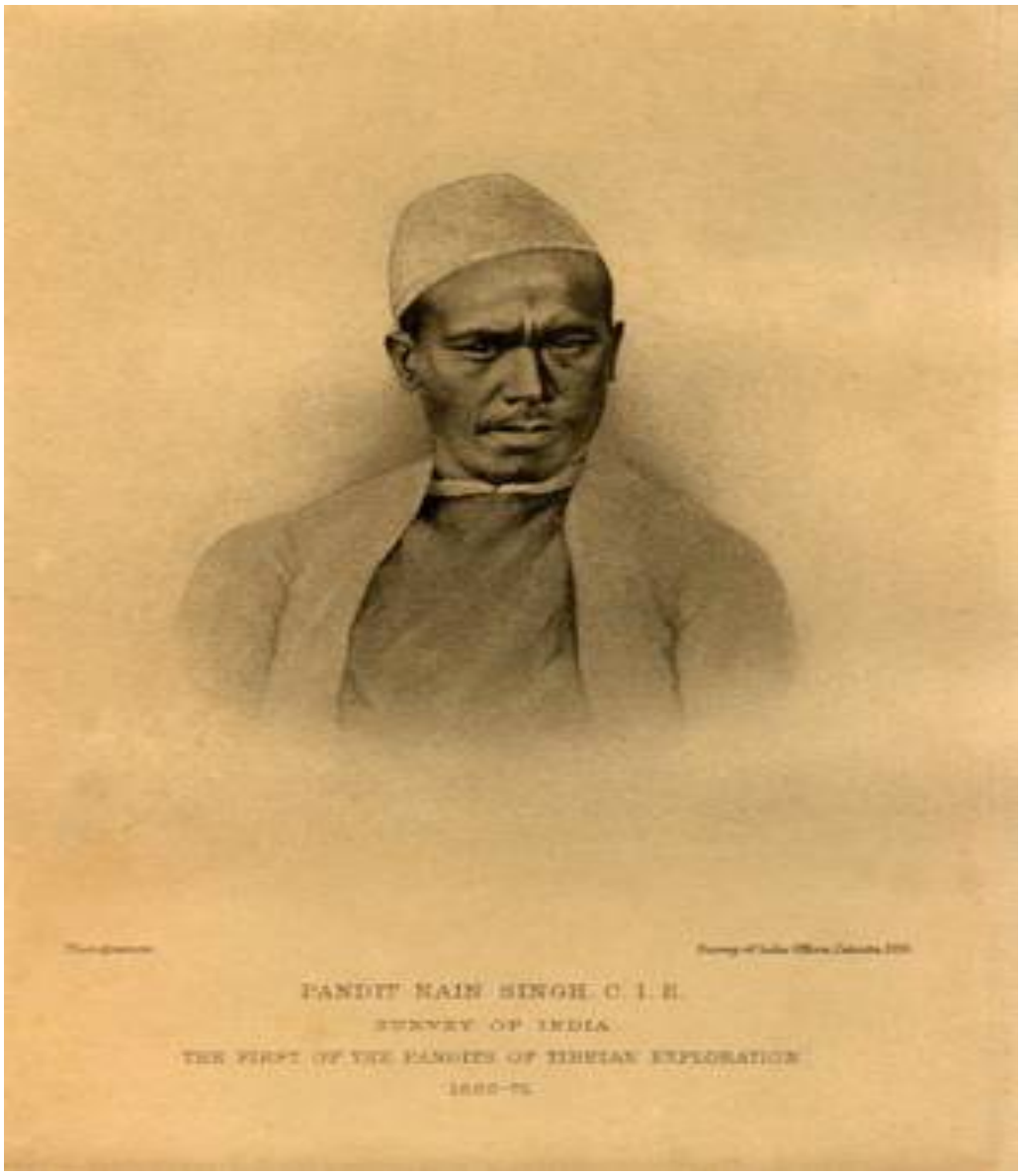

Figure 9 Nain Singh Rawat. Source: Historical Records of the Survey of India, 1915.

Figure 10 Kishen Singh, Explorer "A-K." Source: Historical Records of the Survey of India, 1915.

The "native" in native explorer was clearly marked by the state on the basis of religion, caste, race, and community. In 1873, when Montgomerie was noting down the explorers he had at that moment in employment, he made a list of their names and addresses.[45] Otherwise unremarkable, this handwritten list had brief annotations by the name of each explorer, which, along with their mailing address, noted their caste, community, or regional affiliation. The first on the list, Nain Singh was prefaced as "Semi-Bhotiya." His cousin, Kishen Singh (Figure 10), further down the list, was the only one whose name was unannotated, but Montgomerie noted that his address, and by implication his community, was the same as Nain Singh's. From a different part of Kumaon than Nain Singh and Kishen Singh, was Hurriram from Almora. By his name, in a cramped hand, Montgomerie wrote, "Brahman," and then underneath that, "Pahari from Kumaon." He was also designated as a "Semi-Bhotiya." Edmund Smyth, the official who recommended Nain Singh go join the Survey in Dehradun, also fronted this identification of Nain Singh (and his explorer cousin and nephew) as Bhotiyas as proof of their eminent eligibility for the job.[46] Bhotiyas were suited for exploration in Tibet, he argued, "both on account of their thorough knowledge of the Tibetan language, and also because they had the entree into that country."[47]

Who then were Bhotiyas? Smyth described them as "a peculiar set of people…who inhabit the highest accessible parts of the different valleys in Kumaon and Garhwal."[48] Perhaps the most telling description however, was of their religious practices: "The origin of these people is

45 Memo by Major T.G. Montgomerie dated February 1873, Dehradun Volume 30/2, S.N. 442 (henceforth cited as DDN), NAI.
46 Edmund Smyth, "Obituary: The Pundit Nain Singh," Proceedings of the Royal Geographical Society and Monthly Record of Geography 4, 5 (1882): 315-17.
47 Smyth, "Obituary: The Pundit Nain Singh,"315-316.
48 Smyth, "Obituary: The Pundit Nain Singh,"315.

uncertain; they have Hindu names, and call themselves Hindus, but they are not recognised as such by the orthodox Hindus of the plains or the hills. While in Tibet, they seem glad enough to shake off their Hinduism and become Buddhists, or anything you like." The Tibetan-speaking "Semi-Bhotiya" or Bhotiya, with no strong affiliation to either Hinduism and Buddhism, and who could, most importantly, look like an inhabitant of Tibet, made for a desirable explorer to the region. It was the fluidity in these categories that the British officials sought to exploit when they recruited them.

Nain Singh has left us his own account of what led to his job as an explorer.[49] His diaries, along with accounts of his three big expeditions, detail his early life before he joined the Survey of India. Written in Khadi Boli, a dialect of Hindi, these diaries remained unpublished and were passed down his family for several generations.[50] It was only in the 1970s that two scholars, Uma Bhatt and Shekhar Pathak, got a hold of them and published them in collected form in 2006.[51] In his first diary, Nain Singh writes of his early life, his experience as servant and Tibetan-language tutor to the Schlagintweit brothers on their expedition to Ladakh, his brief tenure as a teacher to young boys who were resistant to learning the nuances of pronunciation of the Hindi alphabet, up to how he got his job in trans-frontier exploration, and his first expedition to Lhasa.[52]

Nain Singh prefaced the account of how he came to be an explorer with a detailed family

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49 Uma Bhatt and Shekhar Pathak, *Asia Ki Peeth Per: Life, Exploration, and Writings of Pundit Nain Singh Rawat,* With Three Original Diaries, "Akṣāṃś Darpan," and Three English Reports (Naintal: Pahar, 2006, Samvat 2063).

50 Bhatt and Pathak, *Asia Ki Peeth Per*, 13. All translations are mine.

51 Shyam G. Menon, "Walking with Nain Singh," *The Hindu*, February 2, 2013 http://www.thehindu.com/features/magazine/walking-with-nain-singh/article4364702.ece; Bhatt and Pathak, *Asia Ki Peeth Per*, 13.

52 Nain Singh Rawat, "Diary 1" in Bhatt and Pathak, *Asia Ki Peeth Per*, 233-290.

history that began with the first of his ancestors who came to settle in the village of Milam in the present-day Indian state of Uttarakhand, which lies on the border with Nepal. There is an element of discovery that animates this history, as Nain Singh detailed a history of Milam that began with it being largely uninhabited before his family came to be settled there.[53] Once settled, Nain Singh explained how his family had participated in trade with Tibet and Tibetans in salt, borax, and wool, and how his ancestor, Dham Singh, had been personally responsible for this trade becoming tax exempt sometime in the early eighteenth century.[54] Intermixed with his family history is an account of the political developments in Kumaon and Tibet, till the annexation of the British in 1814, when the fortunes of the family took a decided turn for the worse.[55] Nain Singh's uncle, who was a prominent figure in Milam and district Jauhar, fell out of favor with the commissioner for Kumaon and Garhwal, and his landholdings were reduced to a single village.[56] Nain Singh was, therefore, born into relatively straitened circumstances on a Wednesday on October 18, 1830. His father died when he was just 8 years old. He left home when he was 22 years old, after a falling out with his step mother, and up till he went to Dehradun in 1864 to be trained as an explorer, his story is one of perpetually struggling to make ends meet. It was Mani Singh, a much wealthier and well connected cousin, who took Nain Singh with him as a servant, when he had been employed by the Schlagintweits on their

53 Nain Singh Rawat, "Diary 1" in Bhatt and Pathak, *Asia Ki Peeth Per*, 236.
54 Nain Singh Rawat, "Diary 1" in Bhatt and Pathak, *Asia Ki Peeth Per*, 244-245.
55 Nain Singh Rawat, "Diary 1" in Bhatt and Pathak, *Asia Ki Peeth Per*, 245. Also see Henry Trotter, whose draft for a citation for Nain Singh read: "It appears that the family were once much more wealthy than at present, and amongst Villages which formerly belonged to them, but of which they were dispossessed by the British govt. shortly after the latter took the country from the Goorkhas were the villages of Goshna Kotál, Teli, Ganagarh Nadh, Búi Pátu, all in the Johar district. Perhaps the Govt. might be disposed to restore some of these to a member of the family who formerly owned them." No Date, DDN 30/2, S.N. 442, NAI.
56 Nain Singh Rawat, "Diary 1" in Bhatt and Pathak, *Asia Ki Peeth Per*, 245-246.

expedition to Ladakh.[57] Nain Singh, however, had to spend several weeks cajoling Mani to take him along, and noted somewhat resentfully, "because in reality, family is family [and] outsiders are outsiders."[58] He did learn some surveying on this expedition - reading the barometer and the prismatic compass, for instance - and he also instructed the Schlagintweits in Tibetan.[59] He eventually got a job as teacher in Dharchula, but he was still finding it very hard to make ends meet.[60] When at a loss as to how he might recover from the load of debt he had accrued, Nain Singh went to Major General Smyth and asked him for any job, with any salary, whether it be the amount considered appropriate for a slave.[61] Smyth recommended him to go to Dehradun, and there he might learn to use the compass, go to Tibet and other kingdoms, and learn how to make a map of these regions.[62] As a plus, Smyth said his cousin Mani could go with him.[63] Both Mani and Nain Singh went to Dehradun to learn "all those things that explorers should learn," though, as I will discuss shortly, eventually it was only Nain Singh who succeeded as an explorer.[64]

In this account of his life, Nain Singh did not emphasize his mobility as much as his rootedness to place as he went about his career as an explorer. When he had joined as headmaster of a school in Dharchula, some distance away from his village, he talked of his *kabila*, sometimes translated as tribe, but here referring to his wife, daughter, and some other members

57 Nain Singh Rawat, "Diary 1" in Bhatt and Pathak, *Asia Ki Peeth Per*, 249-250.
58 Nain Singh Rawat, "Diary 1" in Bhatt and Pathak, *Asia Ki Peeth Per*, 249. Nain Singh wrote: "क्योंकि हकीकत में अपना अपना ही होता विगाना विगाना ही होता."
59 Nain Singh Rawat, "Diary 1" in Bhatt and Pathak, *Asia Ki Peeth Per*, 251.
60 Nain Singh Rawat, "Diary 1" in Bhatt and Pathak, *Asia Ki Peeth Per*, 251-252.
61 Nain Singh Rawat, "Diary 1" in Bhatt and Pathak, *Asia Ki Peeth Per*, 253.
62 Nain Singh Rawat, "Diary 1" in Bhatt and Pathak, *Asia Ki Peeth Per*, 253.
63 Nain Singh Rawat, "Diary 1" in Bhatt and Pathak, *Asia Ki Peeth Per*, 253.
64 Nain Singh Rawat, "Diary 1" in Bhatt and Pathak, *Asia Ki Peeth Per*, 254.

of his family, who also came along with him to his new post.[65] Nain Singh referred to his kabila as extended family at several different points, tracing his ancestry to a time when people who had settled in Kumaon were simply called by the name of the village they settled in. So people from Tola village were Tolias, from Lwa were Lwalis, and Ralamwals from Ralam.[66] Similarly, his extended family he sometimes referred to as Milamwale. Since all these villages were in the district of Jauhar, they could all also be Jauharwale, or people from Jauhar. The closest affiliation that is broad in its scope for Nain Singh is that of *pahari*, or one hailing from the *pahar* or mountain.[67] Yet, even this category of pahari was differentiated – many who could have been called pahari, like Bhotiyas, were observed by him from a distance. When Nain Singh mentioned Bhotiyas, it was when he was well out of Kumaon on his way to Lhasa, and had reached a village inhabited by "Bhotiya log" or Bhotiya people.[68] He spoke of them as people whose manner and speech resembled Tibetans, and they were clearly a people he saw as different from his own kabila, or from Milam or Kumaon. Indeed, we can infer from what constitutes a significant journey in his narrative, and from how he talks of the people he encounters on the way, what was familiar and within the bounds of a (regionally-specific) home and what was not. There was a finality in his diary when he left for Dehradun. He wrote of leaving his kabila and his business in the hands of a cousin in Milam.

Although it was the historic links that Kumaon had with Tibet that Smyth and Montgomerie hoped to exploit in recruiting native explorers, after reading Nain Singh's account of his family

65 Included amongst them was his wife, six-month old daughter, Govindi, and the then twelve-year-old Krishna, who Nain Singh loved deeply. Nain Singh Rawat, "Diary 1" in Bhatt and Pathak, *Asia Ki Peeth Per*, 252.

66 Nain Singh Rawat, "Diary 1" in Bhatt and Pathak, *Asia Ki Peeth Per*, 236.

67 See Nayanika Mathur, *Paper Tiger: Law, Bureaucracy, and the Developmental State in Himalayan India* (Cambridge University Press, 2016) on the significance of pahari and its difference to *maidani,* the latter referring to someone from the plains.

68 Nain Singh Rawat, "Diary 1" in Bhatt and Pathak, *Asia Ki Peeth Per*, 258.

and ancestral history, it becomes clear that trade had dropped off in the past several decades and his family had taken to livestock farming rather than trading. He, however, does record a long history of movement and trade between Tibet and Kumaon and clearly the inhabitants of these regions enjoyed an easy intercourse in his telling. The real worry on his travels, more than his instruments being discovered, as it was with Pema and Ugyen Gyatso, was about meeting people in Tibet who were only too familiar with people from Jauhar. Indeed, this fluidity of identity that allowed for Nain Singh to pass in Tibet often worked against his safety and longevity as a native explorer rather than in favor of it.

If the "Bhotiya" was the ideal explorer for Tibet, the "Pathan" was the same for Central Asia. The category of Pathan, however, had a lot more negative characteristics attached to it by the British. There were two "Pathans" in Montgomerie's list – Hyder Shah, codenamed "the Havildar," and Naick Guffoor Khan of the Sappers, who, as Montgomerie noted faintly in pencil, travelled with Hyder Shah.[69] Colonel Walker complained about the particular difficulties of recruiting a man for the North West Frontier of British India, and recounted to the RGS their many "disappointments."[70] One man, "being a Pathan, had a blood feud in his family," and had been murdered "no sooner [than] he got out of British territory."[71] Walker, who was Superintendent of the Great Trigonometrical Survey, and would later be appointed Surveyor-General of India in 1878, was particularly interested in recruiting them. As he wrote to the Commander-in-Chief of the Armed Forces asking for another "Pathan Sapper" for employment in explorations: "I am informed that some of these Pathans are qualified and anxious for

69 Memo by Major T.G. Montgomerie dated February 1873, DDN 30/2, S.N. 442, NAI.
70 T. G. Montgomerie, "Report of the Mirza's Exploration of the Route from Caubul to Kashgar," *Proceedings of the Royal Geographical Society of London* 15, 3 (1870): 181-204, 203.
71 T. G. Montgomerie, "Report of the Mirza's Exploration of the Route from Caubul to Kashgar," 203.

employment of this nature."[72] However, he continued on their peculiar suitability: "For mountain regions inhabited by a treacherous Mohammedan population, men of great physique, great courage and considerable intelligence, are required; and Pathans, as a rule, have lots of pluck and nerve, but ninety-nine out of a hundred do not know how to read and write. It is therefore particularly difficult to make a beginning with them."[73] Their lack of formal education was not the only problem. Walker was convinced that Hyder Shah was cooking his observations. He wrote to Montgomerie in England, and the latter reported that he, too, had been dissatisfied with the observations that Hyder Shah had taken in the past.[74] Shah was apparently unable to identify the right stars from which to take astronomical observations, at which point Montgomerie said: "I gave it up and told him I must have better work another time…thinking the fault lay in his having been kept so long in Peshawar and Cabul, that he had forgotten how to do it. But this cooking is, I suppose at the bottom of it…It is the Pathan blood coming out."[75] At other moments, these officials also referred to Pathans as "childish" and "untrustworthy."[76] Regardless of education or training that native explorers received, Montgomerie and other colonial officials routinely resorted to essentialist explanations for any disappointment or

72 Col. J.T. Walker, R.E., Supdt., Great Trigonometrical Survey of India to Col. The Hon'ble F.A. Thesiger, C.B., Adjutant-General of the Army, Simla, dated 14th September 1869, Foreign/Genl. A/ 3-5, February 1870, NAI.

73 Walker to Thesiger, 14 September 1869, NAI.

74 T.G. Montgomerie to J.T. Walker, 22 April, 1875, The General J.T. Walker Collection, Royal Geographical Society-Institute of British Geographers (henceforth cited as RGS-IBG).

75 Montgomerie to Walker, 22 April 1875, Walker Collection, RGS-IBG.

76 Walker wrote of explorer Abdul Wahad, "Like most Pathans he is very childish, and he wants to get his reward before he has done his work. I feel certain that if he gets what he wants he will do no work, and therefore he must be managed tentatively, in order to get something out of him in return for all the pay and training we have been giving him at Dehra for some months past." J.T. Walker to Reverend Jukes, Peshawar, 14 February 1878, DDN 30/2, S.N. 442, NAI.

deception they would practice.

The question was not simply of finding the right man and giving him the right training, as British officials anxiously reiterated. There is no better example than the contrast between Nain Singh and his cousin Mani Singh. From Nain Singh's diaries it is clear that it was his connection to cousin Mani Singh that was critical to being hired by the Schlangintweits first, and then being referred onwards till he joined Montgomerie in Dehradun. Adolf Schlagintweit, in his reference for Mani Singh, wrote glowingly of him as "remarkably clever and intelligent."[77] Not only was Mani to be "trusted with accounts much more than the Hindustanees" but he had also "acquired a very good knowledge of several scientific instruments, and I hope that he may be still of use to us by making observations and geological collections in some parts of Thibet which we could impossibly [sic] visit otherwise."[78] Further, he had already identified Mani to carry out an independent expedition to Tibet. He wrote: "There is another plan which I have discussed and arranged with Manee at great length, that is, to go to Eastern Thibet and Lassa for making geographical observations, this would be indeed of great importance for us and I am perfectly convinced that Manee if he earnestly wishes to go, can make the journey without any real obstacles."[79]

Nain Singh was something of a postscript to this plan. Schlagintweit continued, "I have instructed Manee to go if at all possible this season from Gartok, and to take with him one of his

77 Extract from a demi-official letter from Mr. Adolphe Schlagintweit to B.W. Colvin Esq., dated 16th January 1857. Suggestions of the Asiatic Society solicited for the guidance of the scientific expedition proposed to be sent into Chinese Tartary, Foreign/Part A/ 244-250, May 1861, NAI.

78 Adolphe Schlagintweit to B.W. Colvin, dated 16th January 1857, Foreign/Part A /244-250, May 1861, NAI.

79 Adolphe Schlagintweit to B.W. Colvin, dated 16th January 1857, Foreign/Part A /244-250, May 1861, NAI.

relations called Nain Singh, a very sharp young fellow who has learned with us to read instruments, a little map making and a little English writing."[80] This letter was forwarded to Captain Smyth, who was planning an expedition to Tibet, and who would then go on to recommended both Mani Singh and Nain Singh to Montgomerie for transfrontier exploration.[81] Smyth, when writing at the death of Nain Singh, also mentioned Mani as being "far superior to Nain Singh in position, wealth and intellect, and might have done well, but unfortunately he was too well off in his own country to take to the rough life of exploration."[82] Montgomerie, too, always insisted on the voluntary nature of this profession, writing to Walker about one of the Sappers he was sent, "I have several times explained to him that his taking up the duty was to be a voluntary act on his part, and he said that he fully understood that it was so, and that he wished to be employed on an exploring expedition."[83] Exploration was hazardous, rough, and demanding, and Nain Singh, the most famous of the native explorers, was not even the best man for the job. There remained an element, beyond the reach even of essentialist explanations of capability, that created an ideal native explorer. The next step of training them, once a suitable candidate who could travel through these regions at will was recruited, might then transform these candidates into an ideal native explorer.

Training the Pundits

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80 Adolphe Schlagintweit to B.W. Colvin, dated 16th January 1857, Foreign/Part A /244-250, May 1861, NAI.

81 Suggestions of the Asiatic Society solicited for the guidance of the scientific expedition proposed to be sent into Chinese Tartary, Foreign/Part A/ 244-250, May 1861, NAI; also see Edmund Smyth, "Obituary: The Pundit Nain Singh."

82 Smyth, "Obituary: The Pundit Nain Singh," 316.

83 Major T.G. Montgomerie, R.E., to Col. J.T. Walker, R.E., Supdt., Great Trigonometrical Survey of India. Entertainment of the services of a second Sapper for Explorations in Central Asia. Foreign/Genl. A/3-5, Feb 1870, NAI.

A large part of this reputation of the Pundits as "scientific observers" and different from their predecessors came from the instruments they carried and the kinds of knowledge these instruments made possible. The sextant represented the basic principles that Montgomerie had decided for choosing which instruments could be used for trans-frontier exploration. It was compact, thus easily concealed, and easy to use. When the Pundit Nain Singh was exploring gold fields in Tibet, the "master of the gold field" searched his belongings and was particularly struck by the workmanship of the box he carried.[84] Nain Singh reported his anxiety at this incident, which nevertheless passed without event, since the sextant, lying concealed in the false bottom of the box, went undiscovered.[85] Using the sextant on land meant also making arrangements for an artificial horizon - carrying a measure of mercury that was then poured out into the wooden bowl usually carried by Buddhist pilgrims to receive food - against which to measure angles from the sun or the stars. Not all explorers carried them - for instance, Ugyen Gyatso did not have a sextant with him. However, most of the Pundits did. Perhaps the most common sentence in the diaries of the explorers was the name of the place they stopped at, along with the requisite "latitude and boiling point observations were taken."[86] Explorers also always had a compass, sometimes concealed up their sleeve for easy and frequent consultation. They had used compasses for decades past, for calculating due north and for assessing the direction of their march. To the compass, a clinometer might be attached, to find out the slope of the road. Finally, Montgomerie recommended the use of boiling-point thermometers, which could be used to determine altitude.

84 Montgomerie, T. G. to Roderick Murchison, 24 January 1869, JMS/11/66, RGS-IBG.
85 Montgomerie to Murchison, 24 January 1869, RGS-IBG.
86 See Report on Pandit Kishen Singh's Explorations in Great Tibet and Mongolia, by J.B.N. Hennessey in *Records of the Survey of India* 8, Part 2.

Montgomerie estimated that native explorers would require about eight months of training to master the use of these instruments along with the following “primary objects." These were to observe:

1st - The latitudes of important points.

2nd - The heights of ditto.

3rd - A rough route survey from point to point.

4th - An Account of each march and of each remarkable place visited.[87]

As with many visions of the colonial state, there was a considerable difference between policy and practice. The actual length of training varied considerably, simply because many of the native explorers first employed by Montgomerie already had some experience of exploration or belonged to a family of native explorers. There was the first of the Pundits, Mohammed Hameed, who, according to Montgomerie, “did not understand even the meaning of latitude,” and only knew the position of the Pole Star when he went for his first expedition to Yarkhun.[88] He was shortly followed by Nain Singh, who had been in the business of exploration for a while, having travelled with the Schlagintweit brothers in the 1850s, before he was recruited by Montgomerie. Nain Singh and his cousin Kishen Singh were the best known of the Pundits, with a long tradition of service in matters of exploration. Kishen Singh’s father Devi Singh had travelled with William Moorcroft (and Mir Izzet Ullah), and with Henry Strachey in the 1810s.[89] This is not to say that their training in surveying was entirely circumstantial and context-dependent.

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87 T.G. Montgomerie to Secretary, Asiatic Society of Bengal, July 28th, 1862, Proceedings of the Asiatic Society of Bengal for March 1863, *The Journal of the Asiatic Society of Bengal* 32 (1863): 175-178, 175.

88 T. G. Montgomerie, "On the Geographical Position of Yarkund, and Some Other Places in Central Asia," *The Journal of the Royal Geographical Society of London* 36 (1866): 157-72, 167.

89 Colonel R.H. Phillimore, *Historical Records of the Survey of India 1844-1861*, Volume V, RGS-IBG.

The one account we have of native explorers' own perspectives of the kind of knowledge that an explorer should definitely have was the manual Nain Singh wrote, published by the Survey of India in 1871.[90] Titled *Akṣāṃś Darpan* or "The Mirror of Latitudes," it was subtitled "On the Topic of Deriving the Date and Latitude."[91] It was styled as a guide for a person who, in Nain Singh's opinion, regardless of whether they live in the remotest of jungles or busiest of cities, should have some measure of knowledge of the world in which they live. Along with the general reader, *Mirror of Latitudes* would have been extremely useful for a native explorer. Indeed, even the most knowledgeable person would likely not have needed to know how to calculate latitudes from a sextant or altitude from a boiling point thermometer. Nain Singh raised those general questions for the knowledgeable person, interspersed these detailed instructions for making surveys, and, over the course of this slim manual, which was a little over twenty pages, also answered them. These included how to calculate the date and day of the week according to the English (solar) calendar from the lunar calendar and vice versa; the shape of the earth, its division into hemispheres, and which hemisphere we live in; the mechanics of the monsoon, how rainbows are formed, and the composition of the color spectrum; and the earth's atmosphere and its role in creating clouds, rain, snow, hail, frost, and the blueness of the sky. From the year that Nain Singh had spent in Dehradun in 1863, "learning all that an explorer should know," it had been a steep learning curve to authoring this manual in 1870.[92]

In comparison to the other standard manual of the day, Thuillier and Smyth's *Manual of Surveying for India,* first published in 1851 with a third edition in 1875, Nain Singh's manual

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90 Nain Singh Rawat, "Akṣāṃś Darpan" (अक्षांश दर्पण), in Bhatt and Pathak, *Asia Ki Peeth Per*, 375-396, 375. All translations are mine. Thanks are due to Professor Thomas Trautmann with help in transliterating the title of Nain Singh's manual.

91 Nain Singh Rawat, "Akṣāṃś Darpan," in Bhatt and Pathak, *Asia Ki Peeth Per*, 376.

92 Nain Singh Rawat, "Diary 1" in Bhatt and Pathak, *Asia Ki Peeth Per*, 254.

presumed very little prior knowledge of geography.[93] *Mirror of Latitudes* relied on his reader possessing a certain facility with basic mathematical functions, but, other than that, an interested reader might only require reading and writing skills. Thuillier and Smyth's *Manual of Surveying for India*, large parts of which were written by another, still more prominent, Indian official of the Survey of India, Radhanath Sickdhar, built upon older English manuals on trigonometrical surveying, mathematical instruments, geography and so on. The authors noted in their forward the large lacuna in these existing works, apparent to any surveyor in India, namely that: "scarcely one of the many English works on Geodesy extant, touch on, or afford any practical insight into, the system of Survey as carried on, and as peculiarly applicable to this country [India]."[94] There was another problem: neither this manual, nor Colonel Andrew Waugh's 1865 *Practical Instructions for Conducting Trigonometrical Survey Operations*, had much to say about the particularities of trans-frontier exploration. And all these books were clearly earmarked for British or European surveyors, and they often gave explicit directions on how to manage native assistants. For instance, Thuillier and Smyth provide a handy guide to the hierarchy of surveyors in their general guidelines: "[W]here the Surveyor himself does not take a part in these duties [personal supervision], and animate his European and East Asian Assistants by example, it will be found that they, in turn will devolve all the laborious and irksome duties on the Native Assistants, who soon become careless and indifferent when they find themselves uncontrolled."[95] Here, the European supervisor is the ideal reader. Nain Singh, in contrast, was

93 R.B. Smyth and H.L. Thuillier, *Manual of Surveying for India, detailing the mode of operations in the Revenue Survey of Bengal* (Calcutta: Thacker, Spink and Co., 1851); R.B. Smyth and H.L. Thuillier, *Manual of Surveying for India, detailing the mode of operations in the Trigonometrical, Topographical and Revenue Surveys of India* (Calcutta: Thacker, Spink and Co., 1875).
94 Thuillier and Smyth, 1851, v.
95 Thuillier and Smyth, 1851, 238.

speaking exclusively about exploration by native explorers.

The instructions that Nain Singh offered were relevant only to native explorers: how to derive the day and date on the English calendar from the lunar calendar and vice versa. Nain Singh was using the lunisolar Vikram Samvat calendar, commonly used by trading communities in North India, and seeking to teach his reader its conversion into dates in English or the Gregorian calendar used by the British. Although, said Nain Singh, both a fool and a wise person could see an almanac or ask someone what the date in English was, not everyone could derive the date of the lunar calendar, or the day of the week, or the date on the English calendar without consulting an almanac.[96] Indeed, even in his diary, when he mentioned the date of his birth in 1830, he noted that it fell on a Wednesday, as if he was compiling a route survey.[97] He would also often recite the list of towns he passed through when recounting a journey that made up the substance of route surveys. In these diaries, written after he had become an explorer, he was thinking like an explorer in calculating the day of his birth, and in recounting all the towns and cities he travelled to in all the many journeys he took before he became an explorer. He was also familiar with the Arab lunar calendar, and gave the example of the 24th day of the month or the ninth day of the waning moon, which, according to the Arab calendar, would be the 22nd of the month.[98] The conversion from Indian to English calendars was the first point of instruction in his manual, even before he went on to explain that the earth is round, like a ball. Native explorers would be moving between these two or three calendars - Vikram Samvat, English, and Arab -

96 Nain Singh Rawat, "Akṣāṃś Darpan," in Bhatt and Pathak, *Asia Ki Peeth Per*, 375.
97 Nain Singh Rawat, "Diary 1" in Bhatt and Pathak, *Asia Ki Peeth Per*, 246.
98 Nain Singh Rawat, "Akṣāṃś Darpan," in Bhatt and Pathak, *Asia Ki Peeth Per*, 377

and this would likely have been the first thing they learned as they went about getting training in exploration at the Survey of India.

Nain Singh not only put down in writing conversions between Indian and English calendars but also made a distinction between Indian inventions and British ones. Before he went on to a discussion of the sextant that native explorers needed to know the use of, he first went into detail about an instrument used for calculating latitude invented by "Hindustani scholars."[99] This contraption, which he called the *nalika bandhan yantra*, was likely a kind of quadrant that, when pointed to the north star, would indicate the angle of the north star relative to the northern horizon, and hence its altitude. As Nain Singh explained, if you stand at the equator, the north star will appear exactly on the horizon. Similarly, if you stand upon the north pole, the north star will be directly above or at 90°. This instrument would allow you to measure the altitude of the north star wherever you were on the earth, and thus your latitude. The discussion of this instrument was a segue into the niceties of calculating latitude through the pole star, and explaining the concept of meridians, leading into a much more detailed discussion of how to use the sextant. But before he went to the sextant, an invention of the wealthy and powerful East India Company ("*Sarkar Daulatamdar Angrez Bahadur"*), he mentioned again this invention of Indian astrologers, which produced only a rough estimate of latitude.[100] The sextant, in contrast, could derive the latitude of places from the sun or stars, and also could be used for calculating distance and the height of mountains. Along with the sextant, Nain Singh further credited the invention of the barometer and boiling point thermometer to the English, writing: "Just like the English have invented the barometer to know the heaviness and lightness of air, they have also

99 Nain Singh Rawat, "Akṣāṃś Darpan," in Bhatt and Pathak, *Asia Ki Peeth Per*, 379.
100 Nain Singh Rawat, "Akṣāṃś Darpan," in Bhatt and Pathak, *Asia Ki Peeth Per*, 380.

invented an instrument called the thermometer to know the cold and heat."[101] "Invented by the English" was qualified to the three instruments for which instructions were included in this manual - Nain Singh was likely aware that their provenance was murkier - but these were the three key instruments whose use had to be mastered for trans-frontier exploration.

This manual was intended specifically for native explorers employed in trans-frontier exploration. The only other instrument routinely carried by them was the compass (Figure , which was probably considered by Nain Singh to be too basic to merit a mention, as was the case in most manuals. Further, whereas other manuals were geared mainly towards revenue and topographical surveys, trans-frontier exploration did not get its own manual until 1914, derived from a chapter in an 1891 manual on topographical surveying.[102] As the author, Colonel Gordon, explained, trans-frontier surveying differed from other kinds of surveying in that it was either for geographical or military purposes, and the time and movement permitted to a surveyor are limited.[103] Further, he said, "there is not the same necessity or possibility in such reconnaissances for the minute accuracy which should characterize a topographical survey."[104] By the early twentieth century, Gordon was recommending extending a trigonometrical survey into the frontier regions, and only recommended a traverse survey in case of a breakdown in the former. The instruments that an explorer would carry with him would include a theodolite and

101 Nain Singh Rawat, "Akṣāṃś Darpan," in Bhatt and Pathak, *Asia Ki Peeth Per*, 389.
102 St. G. C. Gore, *Hand-book of Professional Instructions for the Topographical Branch*, Survey of India Department, 2nd edition [with correction slips], V/27/420/29, 1896, IOR; Survey of India, *Trans-frontier Reconnaissance* [Chapter 7 of the *Handbook of Topography*], Prepared by Colonel Gordon (Calcutta, 1914); Second Edition, *Trans-frontier Reconnaissance* [Chapter 7 of the *Handbook of Topography*] (Calcutta, 1924); Third Edition, *Trans-frontier Reconnaissance* [Chapter 7 of the *Handbook of Topography*] (Dehra Dun, 1934), V/27/420/38, IOR.
103 Gordon, Trans-Frontier Reconnaissance, 1914, 1.
104 Gordon, Trans-Frontier Reconnaissance, 1914, 1.

plane table, along with chains for most accurate measures of distance from point to point. This was far from being the case when Nain Singh wrote his manual in the 1870s, and the only instruments they carried were the compass, sextant, thermometer, and occasionally a barometer. Further, a large part of Nain Singh's instructions were geared towards taking latitude and altitude when in the mountains, and there was an element of his personal experience of the mountains. For instance, Nain Singh mentioned in relation to light and its relation to air, "whosoever has climbed a high mountain knows that the higher he climbs, the darker the sky appears to their eye."[105] Such was his instruction, reaching out to the reader to imagine journeys he had taken. His examples invariably drew on places in Kumaon, Nepal, and Tibet, and the furthest west he went was Shimla, in present-day Himachal Pradesh, making it clear to the reader, had they any doubt, that these were the regions best suited for the lessons gained from his instruction.

Figure 11 A photograph of Sarat Chandra Das, Nain Singh's compass, and a Tibetan prayer wheel lying on a map of the Tsangpo valley as drawn from Nain Singh's survey, published in 1874. Source: Royal Geographical

105 Nain Singh Rawat, "Akṣāṃś Darpan," in Bhatt and Pathak, *Asia Ki Peeth Per*,388.

Society-Institute of British Geographers Images, www.images.rgs.org.

One way to understand this manual is to emphasize the act of translation that Nain Singh was performing here. When explaining names of instruments or concepts, he would often provide several versions of the term. If the equator was *vishuvad*, it was also *naraksh*, both originating in Sanskrit, and used interchangeably by him.[106] He mediated between several languages at any given moment. For instance, declension was explained in English, Farsi (*mayal*), and Hindi (*jhukav*).[107] For certain metrics that would have to be noted down by explorers in their notebook, he was careful to distinguish between, say, boiling point observations and simply temperature, so there was no possibility of mistaking the difference in these operations.[108] Further, if we read his explanation of each instrument "invented by the English" as a reference to instruments of which he, and presumably other native explorers, would be unaware, then this manual may be read largely as an act of translation. However, Nain Singh was already conversant with the compass and barometer, from his travels with the Schlagintweit brothers. Each explorer certainly came to the Survey of India with differing levels of expertise, as Montgomerie and other British officials were fond of pointing out, and Nain Singh after his explorations had become a mentor and trainer to the next generation of explorers.[109] This manual covered all that native explorers

106 Nain Singh Rawat, "Akṣāṃś Darpan," in Bhatt and Pathak, *Asia Ki Peeth Per*, 379.
107 Nain Singh Rawat, "Akṣāṃś Darpan," in Bhatt and Pathak, *Asia Ki Peeth Per*, 383.
108 Nain Singh Rawat, "Akṣāṃś Darpan," in Bhatt and Pathak, *Asia Ki Peeth Per*, 391.
109 Trotter wrote of Nain Singh, "He has ever since been in the employment of the G.T. Survey Dept. and when not employed in actual explorations has been used in training young surveyors." Nain Singh not only trained other explorers, but as in the case of helping with Kishen Singh's explorations, he had the following responsibilities:
"Nain Sing proposes to go to Almora and to take Krishna with him in order to make the following arrangements -
It is not known by what route Krishna has to go to to the Shúkpú Country; it is desirable that he should consult the men he proposes engaging as servants and as soon as the route is settled, information will be sent to the Superintendent.

heading out in trans-frontier exploration needed to know. Given the long tradition of native exploration recounted in this work, Nain Singh's manual exemplifies the systematization of training that was a hallmark of the Pundits, rather than a pioneering project in the art of exploration.

Evaluating the Pundits as Explorers

The very word "Pundits" quickly came to signify in Survey of India literature "the term by which it has been customary to designate natives employed by the Great Trigonometrical Survey on Trans-Frontier Explorations."[110] As we have now seen, though obscured by this generic definition, the explorers who were collectively called the Pundits were recruited strategically, trained in a more systematic fashion in using surveying instruments, and sent out on explorations on their own. How to evaluate the work they then produced continues to be debated by historians.

In assessing the work performed by native explorers, the debate has hinged on whether they were merely proxies for the British or were creating knowledge in their own right. This was the question that was also at the heart of the contemporary debate on whether Nain Singh's gold medal from the Royal Geographical Society was deserved or not. There was much bitterness amongst British officials, who were split into two camps.[111] On one side was Henry Yule, who had nominated Nain Singh to the RGS, citing Nain Singh's many achievements in adding to their

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Nain Singh has also to engage the servants for Krishna, and to send for a Lama from Tuck-la-Khar who knows the Shúkpú language.
Nain Sing has likewise to get suitable Lama clothes for all the party."
See DDN 30/2, S.N. 442, NAI.

110 Report of a Mission to Yarkund in 1873, Under the Command of Sir T.D. Forsyth with Historical and Geographical Information regarding the Possessions of the Ameer of Yarkund (Calcutta: Foreign Department Press, 1875), V/27/69/33, IOR, 233. (Henceforth cited as Report of a Mission to Yarkund.)

111 Rutherford Alcock, President, R.G.S to Lord Lytton, Viceroy of India, May 28th 1877, DDN 20/1087.

"knowledge of the map of Asia," and arguing that it would be a mistake to consider him a "mere topographical automaton."[112] This is a phrase cited by historians as proof of the innovative knowledge produced by the Pundits as validated by Yule. However, there were a chorus of voices in opposition, who wanted Henry Trotter to receive the medal, arguing that Nain Singh's work had no meaning without its "utilization" by officials like him at the Great Trigonometrical Survey.[113] Whereas Yule is quoted repeatedly, Montgomerie, who had started the entire project of the Pundits, is not. He was very much in the Trotter camp as when he wrote privately to Walker, "I am amused at Nain Singh being made a member of the new order, he really as you say has no claim to anything of the kind & it is absurd to give it to him."[114] Montgomerie also had a more explicitly political objection: "What would the other members Rajas &c say if they really knew what he [Nain Singh] was it wd. put most of them out of conceit with it altogether & I fancy it is mistakes of this kind that mar all these things."[115] The assumption here is that if the traditional allies of the British, rajas and princes, got to know that Nain Singh was a mere headmaster from a village in Kumaon, the prestige of the award of this medal would be irretrievably lost. He demonstrates an understanding that the RGS medal was far from being a recognition of some inherent merit in the work performed by explorers. Separation between European and native explorers was key to the logic of this enterprise.

When native explorers, as they occasionally did, travelled together with British officials, the

112 Alcock to Lytton, May 28th 1877, DDN 20/1087.
113 Clements Markham to J.T. Walker, May 1877, Walker Collection, RGS-IBG.
114 Montgomerie to Walker, 18 January 1878, Walker Collection, RGS-IBG. Montgomerie had already received a gold medal by the RGS for his survey work with the Great Trigonometrical Survey in Kashmir in 1865.
115 Montgomerie to Walker, 18 January 1878, Walker Collection, RGS-IBG.

specific work performed by native explorers becomes clearer in relation to that performed by British explorers. Henry Trotter explained the relationship between his work and that of the "Great Trigonometrical Survey's 'Pundits'" during a diplomatic mission to Yarkand in 1873.[116] He wrote, "I should explain that in making my plans I was guided by the peculiar nature of the survey work generally done by these natives."[117] While the Pundits made traverse surveys using the compass, calculated latitude using the sextant, and kept a running tally of their steps to calculate distance, Trotter could devote himself to checking and re-establishing several points via astronomical observations using his theodolite. When considering his "contributions to science and geography" in this expedition, he spoke of his astronomical observations and the occasional surveying through the plain table along with the Pundit's own observations as "the basis on which the whole of the Pundit's traverses have been built up."[118] To this he added some older geographical knowledge by British officials, and undoubtedly drew from the journey of the first Pundit, Abdul Hamid (whom he did not mention), to then make a "map more accurate and complete than anything yet published."[119] The work of the Pundits and Trotter is hard to distinguish based on such a map - to make traverse surveys from point to point, you need the astronomical observations that will fix one point before you can find and fix another.[120]

However, there were aspects of this work that were relegated almost exclusively to the

116 Report of a Mission to Yarkund, 235.
117 Report of a Mission to Yarkund, 236.
118 Report of a Mission to Yarkund, 236.
119 Report of a Mission to Yarkund, 238.
120 It is worth mentioning here that Trotter received a gold medal from the Royal Geographical Society of London for this expedition in 1878, "For services to Geography which resulted in the connection of the Trigonometrical Survey of India with Russian Surveys from Siberia." See "Gold Medal Recipients," *RGS.org*, October 9, 2009, https://www.rgs.org/NR/rdonlyres/C5962519-882A-4C67-803D-0037308C756D/0/GoldMedalrecipents.pdf

Pundits. Whereas Trotter had limited himself to fixing points, the Pundits set about calculating the distance between various such points and drawing up a route survey as they moved from point to point. Distance was calculated through pacing, a standard method that had been in use for over a century. It consisted of calculating every double step to give a close estimate of the distance. The mainstay of calculating distance in trigonometrical surveys and revenue surveys, using a chain, was not an option in trans-frontier exploration. It is worth noting that even though the chain was used to calculate distance in revenue surveys, pacing was still used for making resurveys for recalculating revenue until late into the nineteenth century, as in Punjab.[121] Instead of performing a laborious and unnecessary complete resurvey, patwaris (revenue assessors) were taught how to measure plots through pacing and use local measures of distance like the *kadam* or step. Unless there was a significant difference from the original revenue map of the village, there was no need to then do a full resurvey of the lands. In the absence of using the chain, pacing was the method that yielded the least margin of error. The average length of a pace would be 30 inches, and a man could be expected to cover more than 3 English miles per hour.[122] Pacing then was a well-established method in different kinds of surveying, and for trans-frontier exploration it had the added advantage of being unobtrusive for when the Pundits branched off to run a survey.

Pacing was also onerous and repetitive. In a discussion of Kishen Singh's travels in Afghanistan, Colonel Walker wrote of the Pundits:

> They were marvellously accurate observers, and would go out of an evening and sit

121 W. M. Coldstream, "Indian Maps and Surveys," *Journal of the Royal Society of Arts* 74, no. 3822 (1926): 299-320, 318.

122 James Henry Lefroy, *A Handbook for Field Service; Or, Field Pocket-Book* (Woolwich: 1862), Third Edition, First Published in 1854, 232.

> patiently and watch the stars as they culminate one after the other, and wait for hours getting all the data necessary for the accurate determination of the latitude; but without the faintest notion of how to deduce the result – which the officers take very good care not to teach them.[123]

Inflected here with the tropes of the clever and skillful native, not to be trusted beyond what was absolutely necessary, this statement was a fairly typical representation of how the work of native explorers was framed by the British officials. Walker here touched on a frequent complaint made by surveyors in any part of the world - the burden of taking repeated, accurate measurements. This was a responsibility that seemed to usually devolve to natives. In the absence of any clear professional qualifications that could set apart a native explorer, there was a surfeit of such essentialist explanations, which attributed to them a greater patience or tolerance for repetitive work that would be delegated by a British official.

Such considerations of native difference were central to the recruitment and deployment of native explorers. At the same time, there was very little consistency in contemporary assessments by British officials of the relevance of the Pundits. Henry Rawlinson (soon to be President of the RGS) acknowledged the long history of "native assistance" to the British from the early days of empire, but described it as primarily for the purpose of collecting "political and statistical information."[124] He credited Captain Montgomerie as the first person who "appreciated the capacity of the natives as scientific observers, and discovered that they could use a sextant and a theodolite as well as Europeans."[125] This, he argued, was a most valuable discovery. He was wrong on several counts. As per the unsaid rules of the RGS (discussed in Chapter 3), to

123 J. T. Walker, "Four Years' Journeyings Through Great Tibet, by One of the Trans-Himalayan Explorers of the Survey of India," *Proceedings of the Royal Geographical Society and Monthly Record of Geography* 7, 2 (1885): 65-92, 87.
124 T. G. Montgomerie, "Report on the Trans-Himalayan Explorations during 1865-7," 168.
125 T. G. Montgomerie, "Report on the Trans-Himalayan Explorations during 1865-7,"168-169.

articulate in meetings or writing the political information that inevitably accompanied geographical knowledge would have been decidedly awkward. Natives had undoubtedly been employed for collecting political information, but it had also been twinned with geographical knowledge for decades past. Further, the theodolite was rarely carried by native explorers, as it was of little use in trans-frontier exploration, where most of the observations were taken in relative secrecy - not always possible with even a "pocket theodolite." Rawlinson, however, was neither a surveyor nor much of a traveller, and his experience of India was limited. Even as he historicized "native assistance," he was merely citing the most-repeated praise that was bestowed on the Pundits - that they were the first of such "scientific observers" and had specialized training in using surveying instruments.

Colonel Walker had a more accurate take than Sir Henry Rawlinson on the relevance of the Pundits. Even though Walker and Montgomerie had been suspicious of Hyder Shah's observations, his explorations were published and generated a lot of discussion at the RGS. Walker, after discussing the difficulties of employing and training Pathans, as discussed above, assessed Hyder Shah's expedition to Chitral, in modern-day Pakistan, and still further north to Fayzabad, in Afghanistan, in light of what was added to geographical knowledge. He said, "[T]he advantages of these explorations consisted in their furnishing portions of a framework within which all the different physical features of the country would be subsequently fitted…Hitherto, although we have had numerous descriptions of the geography of portions of the country, we have had no means of fitting the details together."[126] He did not deny the significance of taking observations and "fixing" trigonometrical positions across different points.

126 T. G. Montgomerie, "A Havildar's Journey Through Chitral to Faizabad in 1870," *Proceedings of the Royal Geographical Society of London* 16, 3 (1871): 253-61, 260.

However, to merely have a close estimate of the latitude, longitude, and altitude of several scattered points without any way of connecting these points through a continuous survey was meaningless. As he explained in more detail:

> [T]hough we possessed accurate determinations of the positions and heights of a number of mountain peaks, yet they were insufficient for the basis of a map, until we were able to send some one into the country to explore it, and to fix the position of important points — as, for instance, Chitral — with reference to the mountains which had been trigonometrically fixed: when this combination of work was done, a fairly accurate map might be produced, and every additional route survey would add precision to our geographical information, as well as increase its amount.[127]

Here is the most basic articulation of why native explorers were sent out again over a repeatedly reformulated *terra incognita*. Earlier exploration had also consisted of approximating latitude and longitude, along with descriptions of the physical geography, ethnography and so on. However, running a continuous traverse survey meant taking many of those existing points, and connecting them. As Montgomerie instructed the first Pundit, "I…desired he should simply record the bearing and direction of the road as far as he could see along it at one time, and with his watch note the time he marched in that direction."[128] Starting with a point well established by astronomical observations, explorers would calculate the bearings of the next point they could see, using a sextant. As they started on their day's journey, they would then calculate how much time or the number of paces from start to finish. This would be repeated as often as possible, connecting newer points, which often represented town and cities, through a continuous survey. Even when such a strict traverse survey was not always possible, the far more frequent calculations of these points on the road certainly made possible a greater accuracy as regards

127 T. G. Montgomerie, "A Havildar's Journey Through Chitral to Faizabad in 1870," 260.
128 T. G. Montgomerie, "On the Geographical Position of Yarkund," 163

distance. This was undoubtedly a much desired outcome, but connecting points on a map was significantly more important than adding more points. It was the knowledge of the terrain, what might be found on the way from one point to another, that was critical to the work of native explorers. This knowledge that could only be ascertained by actually traveling through these regions. More skills than merely reading the sextant or thermometer were required here – the explorer had to have an eye for detail and had to have intimate knowledge of what constituted geographical knowledge desirable to the state.

When explorers were sent out on explorations, there was a lot of room for improvisation and creativity within the broad instructions they were given. Even if native explorers were not taught to derive longitude, they were very clear on what constituted "new" exploration. Ata Mohammed, referred to as "the Mullah," was sent on an expedition to explore the Indus more closely, "furnished with a sketch map in which the British frontier, and the lines of road that have already been surveyed and marked in red."[129] Further, wrote Henry Trotter in this memo, "It has been explained that the survey of all roads within the *terra incognita* - not marked in red ink is valuable."[130] Sent off with a map where old lines of exploration had already been marked, these explorers were probably also handed maps where they had to then fill out the *terra incognita* through their own enquiries and efforts. Much of this consisted of going to a region, finding out the different routes crisscrossing this *terra incognita*, deciding which route might be best for exploration, and then setting out.[131] On their return, the value of their expedition was calculated

129 Memorandum by Henry Trotter, 25th August 1875, DDN 30/2, S.N. 442, NAI.
130 Memorandum by Henry Trotter, 25th August 1875, DDN 30/2, S.N. 442, NAI.
131 See, for instance, T. G. Montgomerie, and Pundit, "Report of a Route-Survey Made by Pundit, from Nepal to Lhasa, and Thence Through the Upper Valley of the Brahmaputra to Its Source," *The Journal of the Royal Geographical Society of London* 38 (1868): 147-148, for an account of choosing a route.

by differentiating how much of it was new/old. Thus, when The Havildar returned, Walker estimated that he had done "660 miles of new work & 290 miles of old work," up to a total of 950 miles.[132] Walker performed similar calculations for Ata Mohammed, and others, in order to decide whether they deserved a gratuity or not. Writing that it was not promised to Ata Mohammed when he set out, it would however "insure [sic] good work in future & although the man has said nothing about it I question whether he will incur the risk of traversing those trans. Indus frontiers without more certain prospects of liberal reward."[133]

Native explorers also suggested new lines of exploration. This was arguably less frequent, and it was only someone as accomplished as Nain Singh, who suggested a whole new ground for exploration, or someone as educated and committed to building a career in exploration as Sarat Chandra Das (discussed in the Chapter 3). Yet, suggesting new lines for exploration is one step in a native explorer's larger understanding of what constituted a *terra incognita* for geography. Nain Singh had retired from exploration but was training younger native explorers when he wrote to Walker suggesting a new route for exploration.[134] Walker, who was on leave in England, responded: "You tell me you are desirous of having a survey made of Calanuk, in Central Asia, which will add much desirable information to the existing geographical knowledge of the country."[135] Walker wrote that he would be glad to take this up, and asked more of Nain Singh:

> But first it will be necessary for you to furnish me with full details of the operations which you think you will be able to undertake, stating clearly what new and unsurveyed

132 Colonel Walker to Henry Trotter, 27th August, 1875, DDN 30/2, S.N. 442, NAI.
133 Walker to Trotter, 27th August, 1875, DDN 30/2, S.N. 442, NAI.
134 J.T. Walker, Brighton, to Nain Singh, Almora, 13th July, 1876, DDN 30/2, S.N. 442, NAI.
135 Walker to Nain Singh, 13th July, 1876, DDN 30/2, S.N. 442, NAI.

> country you propose to send the explorers into. For instance, could they survey either of the routes from the Himalayas to Lob Noor, and thence on to Khamil; then down to Ko Ko Noor, and finally Westwards towards Khoten, along the plains on the northern side of the Kuenlun Range? This, or a part of it, would be very valuable, as the country is all new - and unexplored. Write and tell me clearly what you think you can get your men to do, and send your letter through Captain Thuillier, who is officiating for me, in order that he may know all about your proposals, and help you to modify and alter them if necessary. I do not want any re-explorations in old country, but only new explorations in new country.[136]

Walker was asking Nain Singh to provide adequate training to these explorers, to assess their capabilities, and to ensure that there was no old exploration. The key to the genre of exploration literature was to establish newness, to make a claim for new and unsurveyed country that could then be brought into the realm of known geography. Nain Singh, responding to Walker, laid out a plan for exploration starting from Lhasa, complete with which principal towns to visit, and which route to take from one place to another, as from Lob-nor lake: "The town of Khoten is in West from Lob-nor but I am not sure if there is any communication between these places. This can only be known at the spot."[137] With the experience of three big expeditions behind him, he knew there were decisions that could only be made in the moment. He conjectured on the existence of a lake on one the routes, which could possibly be surveyed, and recommended that the survey proceed to the town of Ziling or Siling on the border with China, which, he said, was famous for its horses, "which are of a best kind."[138] He proposed that the survey end here, "as the field of work I have described would take at least 3 years."[139] He ended by arguing that, "if done it will

136 Walker to Nain Singh, 13th July, 1876, DDN 30/2, S.N. 442, NAI.
137 Nain Singh to J.T. Walker, 11th October 1876, DDN 30/2, S.N. 442, NAI.
138 Nain Singh to Walker, 11th October 1876, DDN 30/2, S.N. 442, NAI.
139 Nain Singh to Walker, 11th October 1876, DDN 30/2, S.N. 442, NAI.

be a great achievement and quite new exploration."[140] A few years later, Sarat Chandra Das would also propose a new field of exploration, writing to a British official asking for permission to explore the mountainous region between Peking and Kashmir, which he called a "*terra incognita* to the civilised world."[141] These regions, he wrote, "remaining, even in the nineteenth century, unknown and unapproachable, dead, as it were, to Science, I, after long and mature thought, made up my mind to discover the treasure that may be concealed therein."[142] Nain Singh was speaking from long experience of being an explorer and could speak with authority of what might be a "valuable acquisition" to science. Sarat Chandra Das was likely speaking from the reading in geographical literature he had already accomplished during his training in engineering. Regardless, both were well aware of this critical requirement of being an explorer – the existence of a *terra incognita*.

And indeed, although Nain Singh and Sarat Chandra Das, who published his own travelogue, were some of the most famous, they were not the only ones identifying new lines for exploration. Native explorers, given instructions like "take a different line of exploration on your way back" from their proposed destination, were consistently making such choices while on their expeditions. One explorer, Lala, wrote to the British official in charge of his expedition, asking whether he should go by another route if the one he had been told to take was not possible.[143] The officer could only respond, "You ask me to give you orders on this your enquiry: I cannot comply for I do not understand your enquiry & it is necessary that you should carry out the orders I gave you at Mussooree & which you wrote down & read out to me, without being

140 Nain Singh to Walker, 11th October 1876, DDN 30/2, S.N. 442, NAI.
141 Sarat Chandra Das, Autobiography, Narrative of the Incidents of my Early Life (Calcutta, 1969), 29.
142 Sarat Chandra Das, *Autobiography,*30.
143 Hennessey to Lala, 3rd December 1877, DDN 30/2, S.N. 442, NAI.

confused by new versions of those orders. Keep to the orders you have already received & carry them out to the best of your ability."[144] Indeed, in this case, it is unlikely that even Nain Singh could have given a better answer. These were the kinds of dilemmas that explorers faced frequently. They oftentimes would have to chart out new itineraries on the fly, even if they had memorized the orders given at the beginning of their exploration in Dehradun or Mussoorie at the Survey of India. If we take the identification of *terra incognita* and charting out a new route as a benchmark for an explorer, then, by any measure, Nain Singh as well as others could be considered not "mere topographical automatons."

Conclusion: After the Expedition

If we take for granted that native explorers were creating the kind of newness desirable to the colonial state, the question then becomes, was it even possible to recruit and train a person for this enterprise? Colonel Gore had a slightly different take on the difficulties of hiring natives for transfrontier exploration, especially in mountainous regions: "Nobody but a surveyor who has taken part in that sort of work [exploration in the North West frontiers of British India]… can thoroughly realize what it means to carry on a continuous running triangulation in a mountainous country of that nature and under those climatic conditions."[145] He continued on the big and small issues that would come up: "The day is always too short for the work to be done; the cold is such that the fingers get numbed and refuse to do their work, and one's moustache, if one incautiously bends low enough to touch the instrument, freezes on to the theodolite instantly."[146] He then

144 Hennessey to Lala, 3rd December 1877, DDN 30/2, S.N. 442, NAI.

145 Frank Younghusband, Ronald MacDonald, Colonel Gore, and Douglas Freshfield, "Exploration and Survey with the Tibet Frontier Commission, and from Gyangtse to Simla Viâ Gartok: Discussion," *The Geographical Journal* 26, no. 4 (1905): 391-95, 393.

146 Frank Younghusband, et al., "Exploration and Survey with the Tibet Frontier Commission, and from Gyangtse to Simla Viâ Gartok: Discussion," 393.

went on to the peculiar difficulties in recruiting "border men who have sufficient intelligence" for trans-frontier exploration.[147] About their abilities as observers, he said: "Though, properly speaking, they could not map, they kept a field-book in which they recorded their observations, and a note-book in which they jotted down what sort of things occurred to them; but the sort of things that occurred to them would never occur to a man who wanted to make a map."[148] In contrast to Colonel Walker, who had argued that native explorers could be taught exactly as much as was required for the purposes of the British, here Colonel Gore was of the opinion that some things could not be fixed by education and training.

The relative lack of professional requirements for surveyors and explorers meant that there were few defined milestones to mark. Surveying schools had been set up as far back as in the late eighteenth century, but they were geared towards revenue surveying. There was a renewed push towards formal education in surveying in the latter half of the nineteenth century, where local officials like *Amins*, *Butwars*, and *Patwaris* were targeted for an education in basic surveying.[149] However, as Colonel Gore, amongst others, had said, trans-frontier exploration was a wholly different enterprise to revenue surveying. So far, I have highlighted how, even as more systematic guidelines for recruitment and training were developed by Montgomerie and his successors for trans-frontier explorers, there was one aspect of exploration that remained solely within the purview of the colonial state: how the narrative of exploration was drawn up for

147 Frank Younghusband, et al., "Exploration and Survey with the Tibet Frontier Commission, and from Gyangtse to Simla Viâ Gartok: Discussion," 393.
148 Frank Younghusband, et al., "Exploration and Survey with the Tibet Frontier Commission, and from Gyangtse to Simla Viâ Gartok: Discussion," 394.
149 "Proposal for opening out Survey Classes at a few of the chief schools in the districts, called for from the Board of Revenue and the Registrar of the High Court." Education Proceedings 19-20, Dec 1871, West Bengal State Archives.

circulation among scientific audiences.

I have already discussed the process of producing an article for the RGS in the previous chapter, where I show how these articles became a way for British officials to obscure the political underpinnings of exploration, seen most clearly in their editing of the reports of native exploration. But even before these articles were written, narrative reports were drawn up from oral accounts given by explorers on their return from exploration, and they were the key site for British officials to present the explorations of native explorers as a result of their own enterprise and thoughtful execution. These narrative reports nevertheless provide us with critical information on what kind of geographical knowledge made up what I call known geography.

When the earliest of the explorers who would later be incorporated within the Pundits, Mohammed Hameed, was murdered on his very first expedition, Montgomerie was sent the papers he had kept while exploring the "Trans-Indus frontier of the British Empire." From the observations the explorer had noted down, he published in the *Journal of the Royal Geographical Society* an account of the journey and especially his calculation of the longitude of Yarkhand.[150] But he noted: "Though the moonshee's papers, &c., were untouched still the value of the work is much diminished by the want of those explanations which can be obtained only from the recorder, and no doubt a great deal of unrecorded information is altogether lost."[151] It was this unrecorded information that would then be folded into the narrative that was produced by British officials. It was not enough to simply have the observations they had made along the road.

Colonel Walker talked of the narrative production process that began once the explorers

150 T. G. Montgomerie, "On the Geographical Position of Yarkund."
151 T. G. Montgomerie, "On the Geographical Position of Yarkund,"162.

returned from their travels:

> The explorers, though intelligent and skilful observers, are not capable of writing an account of their travels, at least, in a form that would be suitable for publication, though sitting by your side they will give you a most interesting narrative of their adventures and journeys, and the people and places they have visited. Thus, on their return they have to be taken in hand, and questioned and listened to, and their narrative has to be translated into English and written down; simultaneously their latitudes and height determinations are worked out, and their field books are plotted in sections. Finally, a summary and general discussion of the results of the exploration is made by the head of the office to which they are attached.[152]

This was a process that could take several months, and its ideal result was that article for the Royal Geographical Society, where the reception of such narratives received great acclaim from fellow surveyors and explorers in London. Thus, the President, Henry Rawlinson again, could remind the meeting that "A-K [Kishen Singh] was really General Walker's own creation."[153] This conclusion might be borne out of Walker's ownership over Kishen Singh's explorations in the narrative he drew up. Walker was carrying on in a tradition established by others before him, as he acknowledged their work in producing these narratives: "It was in doing this for Nain Singh's explorations that first Colonel Montgomerie, and then Major Trotter, were so successful in producing interesting narratives that the enterprising village schoolmaster came to be regarded as an educated traveller."[154] The leap from merely "enterprising" to "educated" consisted not only of polishing the narrative produced by native explorers, but actually giving them meaning they would otherwise not possess.

The narrative report of the travels of Ugyen Gyatso and Pema, written up by Thomas Holdich, is a particularly good example of the genre of these heavily-mediated reports. A

152 T. G. Montgomerie, "Report on the Trans-Himalayan Explorations during 1865-7," 80.
153 J. T. Walker, "Four Years' Journeyings Through Great Tibet," 92.
154 J. T. Walker, "Four Years' Journeyings Through Great Tibet," 80.

believer in atmospheric prose, Holdich's voice often took over from Ugyen Gyatso to imagine the scene:

> Dumo Tso impressed him [Ugyen Gyatso] greatly; its deep, still waters embosomed among mighty cliffs – the silence which hung over the stupendous crags which encircled it, broken only by the hoarse roar of falling masses which ever and anon thundered down the mountain sides into its depths, associated in his mind with traditions of demons and genii who inhabited the lake…struck his superstitious mind with unwonted awe.[155]

Even as he seemingly entered and read the mind of this explorer, Holdich was quick to separate the superstitious from the merely romantic. This was an explicitly geographical account. As Holdich explained, "It is impossible in a geographical narrative of this description to give in detail the Tibetan legends and tales collected by the Lama in Lhasa."[156] He also edited out "quaint stories of Tibetan manners and customs," which nevertheless showed that "there is as much, if not more, freedom accorded to the women in Tibet as to those of any European kingdom."[157] Indeed, more women make an appearance in this narrative than in all others put together, and part of this might be to do with the fact, as Holdich noted, that "it is surprising how many of these friends [who they stayed with on their expedition] were of the gentle and more hospitable sex."[158] The presence of Pema, so critical to the credibility of their disguise as pilgrims, would undoubtedly have contributed to their greater interaction with women. Holdich concluded the report by writing: "Thus ends one of the best records of Tibetan travel that has yet been achieved by any agent of the Survey of India."[159] Holdich later faulted Sarat Chandra Das's

155 Report on the Explorations in Sikkim, Bhutan and Tibet, 23.
156 Report on the Explorations in Sikkim, Bhutan and Tibet, 33.
157 Report on the Explorations in Sikkim, Bhutan and Tibet, 28.
158 Report on the Explorations in Sikkim, Bhutan and Tibet, 22.
159 Report on the Explorations in Sikkim, Bhutan and Tibet, 27.

account of his travels with Ugyen Gyatso to Tibet for precisely that quality that Holdich has emphasized in Ugyen Gyatso's account – romance.[160] Writing in a review of Das's travels, he said: "We do not *see* Tibet as we follow the daily footsteps of the two travellers [Das and Ugyen Gyatso] from monastery to monastery…Ugyen Gyatso had much more romance in his composition but his is another (and more interesting) story."[161] The information in these reports embraced any number of topics, ranging from myths and folk stories, ethnographical detail of all the regions explorers passed through – most of which was edited out in the writing. Indeed, if it had not been for the peculiar nature of these reports – always based on oral interviews – we may have not received a sense of all that was edited out from a narrative of exploration, including its romance that Holdich was trying so hard to recoup in Ugyen Gyatso's account.

Addressed to an audience of future travelers and explorers to the region, Holdich included details with a view to aid these prospective journeys. This ranged from information like the quality of the roads, or the particular ferocity of "packs of hungry dogs that infest the purlieus of every Tibetan town," or the efficacy of various disguises in getting past border officials.[162] Thomas Holdich had a writing style that blurred his strong editorializing with direct quotations from Ugyen Gyatso (he never directly reported from what Pema said). Phrases like "Ugyen Gyatso says," or "he mentions willows being abundant on the river bank," or "The Lama's description of his experiences in crossing the pass is amusing," point to the role and responsibility of Holdich, not only to accurately represent the information, but also to point out all that was relevant for adding to the reader's geographical knowledge.

160 T. H. H. "Tibet." *The Geographical Journal* 20, no. 6 (1902): 640-41.
161 T. H. H. "Tibet," 640.
162 *Report on the Explorations in Sikkim, Bhutan and Tibet*, 30

The geographical narrative, and not the map, highlighted the key component of the knowledge brought back by native explorers – physical geography of the region – which is also why the oral interview was so critical. Montgomerie could not do much with Mohammed Hameed's notebooks other than to attempt an estimate of the elevation of Yarkhun, which would, less than a decade later, be decided by the Forsyth Mission, which included Nain Singh, among other Pundits. Henry Rawlinson, complimenting Montgomerie's work, pointed to a key error that resulted from merely taking the measurement of points – especially in the mountains. He told a meeting that was discussing The Mirza's explorations from Kabul to Kashgar, "Explorers who…merely took the angles of high peaks from a distance and fixed the watershed of the range accordingly, were almost always in error, because the culminating peaks were usually on transverse ridges."[163] The most valuable contribution of The Mirza's explorations, said Rawlinson, had been "the discovery that the Pamir highlands were not, as had been supposed, a transverse range joining the Himalaya with the Tian Shan Mountains, to the north, but were, in fact, a prolongation of the axis of the Himalaya."[164] And this was in opposition to the theories of perhaps the explorer who had started it all, Alexander von Humboldt.[165]

These were the kinds of details that Pema contributed to the narrative built upon Ugyen Gyatso's travels, along with the names that she remembered so well to include. These details of physical geography were what could only be gleaned through actually travelling in the regions you were exploring. In this sense, the term "explorer" was only given to travellers. The paradigm of European exploration attached to it the pressures of establishing a *terra incognita* before you

163 T. G. Montgomerie, "Report of the Mirza's Exploration of the Route from Caubul to Kashgar," *Proceedings of the Royal Geographical Society of London* 15, no. 3 (1870): 181-204, 200.
164 T. G. Montgomerie, "Report of the Mirza's Exploration of the Route from Caubul to Kashgar," 200.
165 T. G. Montgomerie, "Report of the Mirza's Exploration of the Route from Caubul to Kashgar," 200.

could be called an explorer. Many of the Pundits had been travelling these regions before they were recruited and trained as explorers. As they brought more and more regions into the realm of known geography in their capacity as explorers, they also revealed the path it took to become an explorer, and the other kinds of knowledge made possible by it – that of the physical geography of the region – all too often subsumed under the contested "terra incognita." If we shift the definition of explorer to account for the many said and unsaid requirements they had to master rather than the dubious newness they had to establish, we can then understand both the kind of knowledge they produced and evaluate what meaning it held. Geographical knowledge was not just an accretion of more and more regions being explored and joined through surveys. It was a matter of understanding what it took to adapt to this peculiarly European paradigm of exploration to local geographies and conditions while also seeking to understand and expand geographical knowledge.

CONCLUSION – TWO OBITUARIES

In 1923, a contemporary observer of exploration in India, Kenneth Mason, wrote an article on native explorers for the Royal Geographical Society. His piece commemorated the death of Kishen Singh and began as follows: "Pandit Kishen Singh, or Krishna ("A-K" of the Survey Records), the last survivor of the old Indian explorers, died in February 1921, and his death marks the close of a romantic chapter of the Survey of India and of Asiatic Exploration."[1] More than commemorating the death of an individual explorer, Mason was marking the death of the category of native explorer.

The romance of the native explorer had already given way to the prosaicness of the "native sub-surveyor" by the end of the nineteenth century. This transition is seen most clearly in the work of the Afghan Boundary Commission, a joint British and Russian effort set up after the Second Anglo-Afghan War to demarcate the boundary between Russia and Afghanistan.[2] Forming part of the commission were several natives of both India and Afghanistan with the official designation of Native Sub-Surveyor, who worked under the leadership of Colonel

1 Kenneth Mason, "Kishen Singh and the Indian Explorers," *The Geographical Journal*, Vol. 62, No. 6, (Dec., 1923), 429.

2 For the geographical results of the mission see T. H. Holdich, "Afghan Boundary Commission; Geographical Notes." *Proceedings of the Royal Geographical Society and Monthly Record of Geography* 7, no. 1 (1885): 39-44. doi:10.2307/1800334 and "Afghan Boundary Commission; Geographical Notes. II." *Proceedings of the Royal Geographical Society and Monthly Record of Geography* 7, no. 3 (1885): 160-66. doi:10.2307/1800387.For an account of Thomas Holdich's time with the Afghan Boundary Commission see his unpublished memoir, "Life Story," n.d., Holdich Papers, Cambridge South Asian Archive, Center for South Asian Studies, University of Cambridge.

Thomas Holdich and two other British officers.[3] Included amongst them was one of the Pundits, Ata Muhammad, who had explored parts of Afghanistan under the codename "The Mullah."[4] Of him, Holdich wrote:

> Ata Muhammad is not a trained surveyor. He belonged to the school of "explorers" when he joined the Commission and can hardly even yet be said to be a good plane-tabler. He can compute a little and he knows a little English. He is a valuable assistant in the exploring ranks of the survey, though his special line of work has on this Commission been rather superseded by more regular plane-table surveys.[5]

The distinction between exploration and surveying was never more clear than in this paragraph. By surveying, Holdich meant triangulation by plane-table and theodolite, instead of the more provisional route surveys that were routinely carried out by the Pundits and other native explorers. That distinction, which had existed so far between British India, mapped through triangulation, and its frontiers, mapped through exploration, was beginning to collapse altogether. The "exploring ranks" of the survey, as Holdich argued, were merely laying the ground for the triangulation which was to follow, limiting the significance of that work to brief reconnoitering. The labors of former native explorers now consisted of a new line of work subsumed under the category of "native sub-surveyor." Buried in bulky commission reports, their work could no longer be considered a new addition to the geography of the region.[6] Here then is a more immediate obituary to the native explorer.

With the shift in European exploration from Asia and Africa to the Arctic and Antarctic in the

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3 "Rewards to Native Sub-Surveyors who accompanied the Afghan Boundary Commission," Foreign/Frontier A/9-22, May 1887, NAI.

4 See Derek Waller, *The Pundits*, 94-98, for Ata Mahomed's work in Afghanistan.

5 Major Holdich to Col. Sir J.W. Ridgeway, Commissioner for Delimitation of the Afghan Frontier, 11 July 1886, No. 10, Foreign/Frontier A/9-22, May 1887, NAI.

6 See T. H. Holdich, "Afghan Boundary Commission; Geographical Notes" and "Afghan Boundary Commission; Geographical Notes. II.".

early twentieth century the link between travel and exploration in the subcontinent lost its preeminent position among geographers.[7] Whereas the genre of travel writing grew apace, exploration in Asia in the twentieth century went entirely vertical, being now concerned with scaling mountains that had never been scaled before by Europeans.[8] Within Asia, there were no *terrae incognitae* left to explore, previously blank spaces on European maps had been vanquished by the increasing power of the British to triangulate and survey regions it had only been able to explore or reconnoiter in, in the past. By the end of the nineteenth century, the British in India had entered into a flurry of measured, precise boundary-making, and geographic expertise was vested in the commissions that activity required.[9] Being able to survey where only exploration had been possible before, the native explorer seemingly died out along with the vanishing *terra incognita*. However, here I argue that the conditions for the death of the native explorer were already present before *terra incognita* disappeared entirely.

In the case of Afghanistan, the Afghan Boundary Commission of 1884-86 had transformed

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7 See Mary Louise Pratt, *Imperial Eyes: Travel Writing and Transculturation* (London, New York: Routledge, 1992), 216; Roy Bridges, "Exploration and travel outside Europe (1720-1914)," in Peter Hulme and Tim Youngs, *The Cambridge Companion to Travel Writing* (Cambridge: Cambridge University Press, 2002), 66-67; Introduction of James S. Duncan and Derek Gregory, *Writes of Passage: Reading Travel Writing* (London, New York: Routledge, 1999).

8 See Lachlan Fleetwood, ""No Former Travellers Having Attained Such a Height on the Earth's Surface": Instruments, Inscriptions, and Bodies in the Himalaya, 1800–1830," *History of Science* 56, no. 1 (October 5, 2017): 3–34, https://doi.org/10.1177/0073275317732254 for an account of the longer history of this obsession with verticality and its global dimensions.

9 In 1916, in an address to the Royal Geographical Society, then Colonel Holdich remarked: "This is an age of boundary making, of partitioning and dividing up territory, and it has by no means come to an end yet…All sorts of countries, under all sorts of governments, from the black barbarism of Central Africa to the hot-house civilization of South America, have been subjected to the process, and of all of them may the same thing be said, *i.e*. that the process of frontier defining has resolved itself into a strictly geographical problem." In Thomas H. Holdich, "Geographical Problems in Boundary Making," *The Geographical Journal* 47, no. 6 (1916): 421-36, 426, doi:10.2307/1779240. He was talking at the end of the Scramble for Africa, looking back on almost three decades of constructing boundaries across the British Empire and the world.

the frontier into a border. The Durand Line, marking the border between British India and Afghanistan, and that continues to be the disputed border between Pakistan and Afghanistan, was established in 1896. There was a long history behind the process of transforming a frontier that allowed for mobility into a border on a map demarcating imperial spheres of influence. Even before the British won control over Afghanistan's foreign relations as an outcome of the Second Anglo-Afghan War of 1878-80, their dispute with Russia over influence in Afghanistan was ongoing. The contention hung on the status of Badakshan. A treaty of agreement was signed between Russia and Britain in 1873, recognizing Badakshan as belonging to the Amir of Afghanistan, and not to Bukhara, as Russia had hoped due to their influence with its Amir. The British, hastily marshalling both geographical and historical evidence for their claim, asserted that the "best authority for the statistics on Badakshan," - Pundit Munphool - had the right idea of the northern boundary, and it had been confirmed by Faiz Buksh.[10] Further, the Oxus River or Amu Darya was to be considered the boundary between Bukhara and Badakshan, and not only did they enclose Faiz Buksh's report from the 1870s in support of this claim, but also harkened back to the 1812 travels of Mir Izzet Ullah in supporting the historicity of this claim.[11] These earlier experts and explorers, resurrected to demonstrate continuity in the British claim for control over this territory, were ultimately superseded by the institution of the Afghan Boundary Commission of 1884-86.

The plane table and the theodolite, rolled all across British India and most of the Princely States during the Great Trigonometrical Survey was finally going to be used in Afghanistan. In

10 "Report on Badakshan, Balkh, and Bokhara by Faiz Buksh, Moonshee," Foreign/Sec./31C, April 1872, NAI.

11 "Report on Badakshan by Faiz Buksh," Foreign/Sec./31C, April 1872, NAI.

consequence, the Native Sub-Surveyors in the Afghan Boundary Commission were required to master the set of skills involved in Triangulation. Thomas Holdich, while lukewarm about the suitability of native explorer Ata Muhammad in the Afghan Boundary Commission, was glowing in his recommendation of native sub-surveyor Heera Singh. Heera Singh was elevated much above his peers, characterized by Holdich as a "first-rate geographical explorer with the plane table," "fair observer" with the theodolite, with "considerable mathematical talent," and, finally, a "most capable linguist in a country in which all languages were new to him."[12] Heera Singh could be left in charge of operations, and often was, holding his own against the Russian topographers who were making their own corroboratory surveys. The challenges of triangulating mountainous frontier spaces and the "empiricist delusion" of triangulation notwithstanding, there was little need for explorers' route surveys in the face of a ¼-inch map.[13]

This is not to say that native sub-surveyors were interchangeable in ways that native explorers were not. If it was simply training in the theodolite and plane table that was required, there were now surveying schools set up that would provide surveyors by the dozen. Holdich pointed out the need for retaining Heera Singh's services, calling upon his own twenty years of experience in the Survey of India, "of which the last 8 have been spent on the frontier."[14] It was his contention, "natives possessing the requisite qualifications are exceedingly rare."[15] This was prompted by his reflection on the state of affairs in trans-frontier surveying. He wrote: "I also

12 Major Holdich to Col. Sir J.W. Ridgeway, 11 July 1886, No. 10, Foreign/Frontier A/9-22, May 1887, NAI.
13 Edney, Mapping an Empire, 30.
14 Major Holdich to Col. Sir J.W. Ridgeway, 11 July 1886, No. 10, Foreign/Frontier A/9-22, May 1887, NAI.
15 Major Holdich to Col. Sir J.W. Ridgeway, 11 July 1886, No. 10, Foreign/Frontier A/9-22, May 1887, NAI.

take this opportunity of pointing out that the survey of trans-frontier districts has now reached a stage which is altogether beyond simple exploration, and requires the trained skill of experienced surveyors to render into mapping fit for military purposes."[16] It was not explorers like Ata Mahomed who would be able to provide this essential service, but surveyors like Heera Singh.

The distinction was a fine one – plane tabling as a technology was hardly new, and its use in frontier and often mountainous regions was a decided challenge. Indeed, Heera Singh had long been involved in survey work, as Holdich mentioned his experience with the Survey department dating back to the first Afghan campaign in 1839-42.[17] Experience with triangulation was an overriding concern for suitability, and yet, the value of such skilled surveyors like Heera Singh really did lie in the reliable accuracy of their work, unlike that of the work of native explorers that called on many other skills than the fine technical work of observation by plane table and theodolite, rendered into a military-grade map.

Between the explorer, who was not quite a "trained surveyor," Ata Mahomed, and the exemplary Native Sub-Surveyor Heera Singh was the example of Yusuf Sharif, who combined these two roles with remarkable ease. Sharif had long been employed on trans-frontier expeditions but was also part of the Afghan Boundary Commission as a native sub-surveyor. Holdich spoke of him as, "at present only an excellent geographer, a fairly good draftsman, and a good linguist," though it seemed that he had "no mathematical knowledge," and very little on the use of the theodolite or "the nature of computations."[18] Nevertheless, after the Commission

16 Major Holdich to Col. Sir J.W. Ridgeway, 11 July 1886, No. 10, Foreign/Frontier A/9-22, May 1887, NAI.
17 Major Holdich to Col. Sir J.W. Ridgeway, 11 July 1886, No. 10, Foreign/Frontier A/9-22, May 1887, NAI.
18 Major Holdich to Col. Sir J.W. Ridgeway, 11 July 1886, No. 10, Foreign/Frontier A/9-22, May 1887, NAI.

concluded, Sharif was promoted from Native Sub-Surveyor to Assistant Surveyor, given the title of "Khan Bahadur," and continued his survey work in Afghanistan.[19]

Sharif was part of the "Rectification Party" put together to reexamine the work of the Commission. The officer in charge, in a recommendation for Sharif, wrote of the inaccuracy of a portion of the British ¼-inch map and his reliance on Sharif to fix it, writing: "My confidence in Yusuf Sharif's professional ability enabled me without checking the erection of pillars [for the purpose of triangulation] to engage to furnish a correct edition of the ¼-inch map before leaving."[20] A second official wrote to the Surveyor-general, in relation to possible rewards for Yusuf Sharif, who had, "in addition to the work he did with the Rectification party, [brought back with him] valuable additions of geography of country of which we know little or nothing."[21] A third official commended Sharif for his "great ability in turning what was merely intended for permission to make a route reconnaissance into sanction for a square survey which he executed – and I think he deserves full recognition for it."[22] A "square survey" would mean more detail than a reconnaissance, and would have allowed for the making of a rough map based on the route survey rather than the latter, which would involve a survey primarily with a view to military needs like foraging, movement of troops, principal routes, length of marches and so on. Not only

19 "Rewards to Native Sub-Surveyors who accompanied the Afghan Boundary Commission," Foreign/Frontier A/9-22, May 1887, NAI.
20 Major Peacocke, R.E., to Secretary, Foreign Department, 22nd January 1888, Foreign/Frontier A/41-43, November 1888, NAI.
21 "Grant of a khilat of Rs. 3,000 to Assistant Surveyor Yusuf Sharif," Foreign/Frontier A/41-43, November 1888, NAI.
22 "Grant of a khilat of Rs. 3,000 to Assistant Surveyor Yusuf Sharif," Foreign/Frontier A/41-43, November 1888, NAI.

had he been part of the boundary commission then, he had also made a survey beyond the new boundary of Afghanistan adding his bit to the known geography of Afghanistan.

The distinction between the Pundits and an explorer like Yusuf Sharif was in the expanded space made for the latter in the colonial bureaucracy, that, ironically, curtailed any reward or recognition they might have received as explorers. This was made clear in the debate that raged between the Revenue and Agriculture and the Foreign Departments as well as the Survey of India regarding what sum to allow Yusif Sharif as a pension and reward for his effective service.[23] Major Peacocke, the officer who had recommended Sharif for reward because of his exceptional survey and exploration work, had talked to Yusuf Sharif about what kind of reward he would prefer.[24] Peacocke reported to the Foreign Department that " [Sharif] would prefer that any reward that the Government might think fit to confer should take the substantial form of a money bonus or *jagir* (gift of revenue of land) instead of departmental promotion or decorations."[25] In other words, having performed the twenty-one years of service with the Survey of India, and rising to the level of Assistant Surveyor, along with being decorated as "Khan Bahadur," Yusuf Sharif was well acquainted with what constituted a meaningful reward.

The question of pension, starting at one thousand rupees per annum, was briefly debated between the various departments. The comparison was made with Kishen Singh, and the reward he received of "proprietary rights in a village yielding an income of about Rs. 750 a year," and it

23 "Grant of a khilat of Rs. 3,000 to Assistant Surveyor Yusuf Sharif," Foreign/Frontier A/41-43, November 1888, NAI.
24 Major Peacocke, R.E., to Secretary, Foreign Department, 22nd January 1888, Foreign/Frontier A/41-43, November 1888, NAI.
25 Major Peacocke, R.E., to Secretary, Foreign Department, 22nd January 1888, Foreign/Frontier A/41-43, November 1888, NAI.

was concluded that one thousand might be "too liberal" in comparison.[26] The Finance Department demurred at the "unusual" nature of this reward, arguing that "this is not the sort of man to whom a jagir would be given," and recommending departmental promotion instead.[27] The Surveyor-General had already rejected that possibility, since to elevate him even within the three scales of Assistant Surveyors would have meant superseding the claims of fourteen others who had seniority. After briefly debating five hundred rupees per annum, and several back-and-forths about both the suitability of departmental promotion as reward and the impossibility of making it happen, eventually a lump sum payment was decided upon. Instead of the one thousand rupees that Yusuf Sharif would have received per annum in the initial proposal, he was eventually awarded with a lump sum payment of three thousand rupees.[28] This amounted to Rs. 233 per annum based on calculations of age and seniority.[29] Thus, Sharif, who was likely hoping for a reward similar to Kishen Singh's jagir instead of the lump sum payment, at least avoided the marginal gains of a departmental promotion and an empty title, though the eventual amount was significantly less than what Kishen Singh was awarded. Although both Kishen Singh and Yusuf Sharif were employees of the Survey of India, the debate on the latter's pension made it clear that once located within the bureaucratic category of "Assistant Surveyor," there was little

26 "Grant of a khilat of Rs. 3,000 to Assistant Surveyor Yusuf Sharif," Foreign/Frontier A/41-43, November 1888, NAI.
27 "Grant of a khilat of Rs. 3,000 to Assistant Surveyor Yusuf Sharif," Foreign/Frontier A/41-43, November 1888, NAI.
28 "Grant of a khilat of Rs. 3,000 to Assistant Surveyor Yusuf Sharif," Foreign/Frontier A/41-43, November 1888, NAI.
29 "Grant of a khilat of Rs. 3,000 to Assistant Surveyor Yusuf Sharif," Foreign/Frontier A/41-43, November 1888, NAI.

possibility of realizing the financial rewards that had previously been awarded to native explorers like Kishen Singh.

Kishen Singh, Yusuf Sharif, and Heera Singh were three contemporaneous explorers with markedly different career trajectories and corresponding salaries. As I argued in the last chapter, colonial administrators reduced the contribution of the Pundits from native explorers possessing a large degree of autonomy and knowledge to a status linked to the accuracy of their observations. This laid the ground for native explorers to be subsumed within the colonial bureaucracy as native sub-surveyors, even when they, on occasion, did some work of exploration. Nudged along by the disappearance of the *terra incognita*, the conditions for the death of the native explorer had already been determined by a colonial state that had steadily been invisibilizing their contribution to geography.

The work of native explorers was now to be regularized on the model of the engineering corps like the Royal Engineers. A class in military surveying had been established at the Thomason Engineering College in Roorkee in 1888.[30] As the military department wrote to the Secretary of State in 1898: "A class for some years has been established at Roorkee in which native soldiers are trained in Military surveying; this instruction is carried out in the interest of the army in general, but its principal object is to provide the Quartermaster-General's Department with military reconnoiterers both in peace and war."[31] It was these Roorkee-trained soldiers who made up the Guide Corps, and who were deployed in military actions of the British Army across the world. As Richard Drayton and Helen Tilley have shown, the dramatic growth

30 "History of Indian Institute of Technology, Roorkee," IIT Roorkee, last accessed on March 18, 2017, https://www.iitr.ac.in/institute/pages/History.html.

31 Military Department Letter to Her Majesty's Secretary of State for India, No. 144, dated the 15th of September 1898, L/MIL/7/7087, IOR.

of colonial technical services in the early twentieth century became a key site for scientific research and the development of scientific disciplines.[32] The always precarious native explorers were largely subsumed within the colonial bureaucracy and military, and exploration was decoupled from surveying.

Nor was the separation of exploration from surveying limited to Afghanistan. The frontier in Tibet had also come into the realm of "known geography." The deeply controversial 1904 British mission to Tibet led by Francis Younghusband had conducted a triangulated survey from Darjeeling to Lhasa, but the geographical results were overshadowed by a distressing lack of *terra incognita*. As the surveyor, Colonel Ryder, attached to the expedition wrote in his article for the RGS's *The Geographical Journal* in 1905:

> It has been said that the geographical results of the expedition to Lhasa have been disappointing. No one was better pleased than myself that this was in a sense true. Our knowledge of the country lying between our frontier and Lhasa depended chiefly on the surveys executed by different explorers trained by and working under the supervision of officers of my department, the Survey of India. They worked under extraordinary difficulties, and in great danger of their lives. That when at last we have been able to carry through a regular and systematic survey of the country, we have not been able to find that the rough maps prepared from these explorers' surveys were in any important points other than very fairly accurate, reflects the very highest credit on these men, notably the late Pandit Nain Singh and the explorer A-K, the latter of whom is still alive. In place of these rough maps, we have now an accurate survey of the country traversed by the expedition.[33]

Ryder was resigned to the fact that the results of the survey were no more than a corroboration of the accurate work of Nain Singh and Kishen Singh, almost two decades after the

32 Richard Drayton, "Science, Medicine, and the British Empire," In *The Oxford History of the British Empire—Historiography, Volume 5*, edited by Robin Winks, 264–76. London: Oxford University Press, 1999; Helen Tilley, *Africa as a Living Laboratory: Empire, Development, And The Problem Of Scientific Knowledge, 1870-1950* (University of Chicago Press, 2011).

33 C. H. D. Ryder, "Exploration and Survey with the Tibet Frontier Commission, and from Gyangtse to Simla Viâ Gartok," *The Geographical Journal* 26, no. 4 (1905): 369-91, 369.

latter had made his last trip to Lhasa. Ryder was also generous in acknowledging the only new addition to the geography of the region was done by Sub-Surveyor Dalbir Rai who performed a survey on his own in Bhutan.[34] Much like in the case of Holdich and his work with the native explorers in the Afghan Boundary Commission, the work of native explorers in such expeditions left little possibility to distinguish oneself individually as a native explorer or indeed, an explorer of any repute. Whereas it was still possible for Sir Francis Younghusband, who led the 1904 expedition, to call himself an explorer as he did, he too is now remembered as "the last great imperial adventurer."[35] The next account of a journey to Lhasa that would garner the kind of publicity that narratives of exploration usually enjoyed was that of Alexandra David Neel, the first British woman to travel to Lhasa in 1927.[36] Although David Neel was part of an influx of European travelers in Tibet in the early twentieth century, we get no travel account of any Indian there till the 1920s.[37] Younghusband, credited by his peers in the RGS with the "Unveiling of Lhasa," had also marked the end of exploration in Tibet.[38]

If exploration during the nineteenth century had been a driving force shaping the study of geography, the process of creating a seemingly empirical, matter-of-fact discipline required

34 Ryder, "Exploration and Survey with the Tibet Frontier Commission," 371.
35 Patrick French, *Younghusband: The Last Great Imperial Adventurer* (Vintage, 2016).
36 See Sara Mills, *Discourses of Difference: An Analysis of Women's Travel Writing and Colonialism* (Psychology Press, 1993) for an excellent analysis of Alexandra David-Neel's book, *My Journey to Lhasa* (1927).
37 This refers to Rahul Sanskritayan's wide travels in Tibet and China. Sanskritayan was a reputed scholar of Sanskrit and authored a prolific body of work that included a five-volume autobiography, travelogues of journeys to several countries in Asia, as well as other literary and non-fiction work. He was not trained in surveying.
38 Thomas Holdich, Thomas Gordon, Douglas Freshfield, Henry Howorth, and Frank Younghusband, "The Geographical Results of the Tibet Mission: Discussion." *The Geographical Journal* 25, no. 5 (1905): 493-98, 495.

stripping the political underpinnings of information gathered by explorers. By following native explorers and their contributions to geographical knowledge, I have tried to understand the process of delinking geography from the political context of its development. With the death of exploration, geography had now moved under the influence of colonial technical officials, out of the hands of explorers like Kishen Singh and into the neat tables of textbooks in schools and universities.

APPENDIX I – LIST OF NATIVE EXPLORERS IN THE EIGHTEENTH AND NINETEENTH CENTURIES

S.N.	Year of First Expedition	Name/Pseudonym of the Native Explorer	Regions Explored	Notes
1	1773-4	Gholam Mohamed	Bengal, Deccan India	Employed by Colonel Camac to provide a route survey from Bengal to the Deccan.
2	1799	Mirza Mughal Beg or Moghal Beg	Punjab, Pakistan (Chitral and Multan)	Employed by Sir Francis Wilford to provide a route surveys for his *Map of the Countries West of Delhi*.
3	1807	Anonymous "Brahman"	Source of the Ganges	
4	1812	Mir Izzet Ullah	Ladakh; Pakistan (Yarkhun); Uzbekistan (Bukhara)	Employed by William Moorcroft. His travel were published as "Travels beyond the Himalaya" in various journals.
5	1812-13	Harkh Dev Pundit	Western Tibet	Employed by William Moorcroft.
6	1813	Anonymous "Brahman"	Ladakh, Western Tibet	Employed by James Anthony Hodgson.
7	1832	Mohan Lal	Punjab, Sindh, Afghanistan, Turkmenistan, Uzbekistan (including Balkh and Bukhara)	Travelled with Sir Alexander Burnes and Dr. James Gerard on various expeditions and made independent shorter expeditions.
8	1832	Mohammed Ali	Punjab, Pakistan, Afghanistan, Uzbekistan (Bukhara)	Native Surveyor attached to the mission of Sir Alexander Burnes to

				Kabul, Balkh, and Bukhara.
9	1830s	Shahamat Ali	Punjab, Pakistan, Afghanistan	Employed by Claud Wade.
10	1846	Ahmed Shah Nakshah Banda	Ladakh, Pakistan (Yarkhun).	Made a route survey from Leh to Yarkhun.
11	1855-57	Dolpa Singh	Ladakh, Pakistan.	Employed by the Schlagintweit Brothers on their explorations.
12	1858	Mani Singh	Ladakh, Tibet	Employed by the Schlagintweit Brothers and later by Thomas Montgomerie as part of the Pundits.
13	1858	Nain Singh	Ladakh, Tibet	First employed by the Schlagintweit Brothers, then recruited by Thomas Montgomerie as "Chief Pundit." Received medal from the Royal Geographical Society in 1877. Trained other explorers for the Survey of India.
14	1860	Abdul Mejid	Uzbekistan (Kokand)	Provided a route survey from Peshawar (Pakistan) to Kokand (Uzbekistan), travelling across the Pamir range.
15	1865	Pundit Munphool	Pakistan (Gilgit, Chitral); Afghanistan and Tajikistan (Badakshan); Uzbekistan (Bukhara).	
16	1865	Ghulam Rabbani	Afghanistan (Kabul) and Tajikistan (Badakshan); Uzbekistan (Kokand, Tashkent, Bukhara).	Companion of Pundit Munphool.
17	1860s	Mohammed Amin	Pakistan (Gilgit,	

			Chitral); Afghanistan and Tajikistan (Badakshan)	
18	1860s	Mahomed Hussain	Pakistan (Gilgit, Chitral); Afghanistan and Tajikistan (Badakshan)	Accompanied Pundit Munphool.
19	1850s and 60s	Faiz Buksh	Afghanistan (Kabul) and Tajikistan (Badakshan); Uzbekistan (Kokand, Tashkent, Bukhara)	
12	1863	Abdul Hameed or Mahomed Hameed	Ladakh, Pakistan (Yarkhun)	First of the Pundits.
13	1865-66	Chhumbel	Nepal and Tibet	Accompanied Nain Singh on his expedition to Lhasa.
14	1856-58	Lama Serap Gyatso	Nepal and Tibet	
15	1868	Hari Ram	Nepal and Tibet	
16	1868	Kalian Singh	Tibet	
17	1868-69	Mirza Shuja	Ladakh, Pakistan (Yarkhun), Afghanistan (Kabul, Kashgar)	
18	1869-	Kishen Singh	Nepal and Tibet	Cousin to Nain Singh
19	1870	Hyder Shah	Pakistan, Afghanistan	
20	1871-72	Hari Ram	Ladakh, Nepal, And Tibet	
21	1873-74	Ata Mahomed	Pakistan, Afghanistan, Tajikistan, Uzbekistan	
22	1874	Abdul Subhan	Pakistan, Afghanistan, Tajikistan, Uzbekistan	
23	1875-76	Lala	Tibet, Pakistan	
24	1875-76	Sayid Amir		
25	1878-79	Nem Singh Kinthup	Tibet	
26	1878-81	Mukhtar Shah	Pakistan, Afghanistan, Tajikistan, Uzbekistan	
27	1879	Rinzin Namgyal	Sikkim, Bhutan, and Tibet	
28	1879	Sarat Chandra Das and Lama Ugyen Gyatso	Tibet	

29	1887-88	Sukh Darshan Singh	Nepal and Tibet	
30	1880-84	Kinthup	Tibet and China	Traced the course of the Tsangpo River.
31	1883-84	Lama Ugyen Gyatso and Pema	Tibet and Bhutan	
32	1884	“The Hakim”	Nepal and Tibet	
33	1891-92	Ata Ram	Tibet	Traveled in Tibet, 50 miles north of Nain Singh's route of 1874. Made a traverse survey from Leh, Ladakh to Batang in China.

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BL	British Library	
	IOR	India Office Records
	Add. Mss.	British Library Additional Manuscripts
	Mss. Eur.	India Office Private Papers
NAI	National Archives of India	
	DDN	Dehradun Volumes of the Survey of India
		Records of the Survey of India
		Private Papers
	Foreign	Foreign Department Files
RGS	Royal Geographical Society-Institute of British Geographers	
	JMS	Journal and Manuscripts
		Colonel J.T. Walker Collection
		Reginald H. Phillimore, *Historical Records of the Survey of India* 5
WBSA	West Bengal State Archives	
		Delhi College Correspondence
		Bengal Political Proceedings

Asiatic Society, Kolkata
Cambridge South Asian Archive, Center for South Asian Studies, University of Cambridge
India International Center Library, Himalayan Club Collection, New Delhi

Digital Archives and Databases

Biodiversity Heritage Library
British Library Newspapers
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