Mapping the Linguistic Survey of colonial India, 1886 – 1936.

Philip Jagessar, BA. MA.

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Abstract

This thesis examines the Linguistic Survey's mapping of languages in India under George Grierson. Proposed at the 1886 International Congress of Orientalists, the first decade was spent trying to convince the national and provincial governments in India to finance and assist the Linguistic Survey, which saw Grierson deploying several arguments why it would be in the state's interest to map language. The first chapter outlines those reasons and then demonstrates how the LSI mobilised an informal network of 'surveyors' to map India's languages under seven years. The second chapter studies the maps themselves, looking at the ways in which the LSI tried to overcome the difficulties of mapping something as mutable and inconsistent as language. The diverse range of maps in the LSI suggests that it experimented with different ways of mapping, to avoid the problem of language maps being interpreted as showing defined geographies and 'hard and fast' boundaries. The final chapter considers how the LSI's map of Oriya was deployed by a linguistic movement pushing for statehood as an established and unequivocal geographical reality, contrary to Grierson's written explanation of what a language map could, and could not, represent.

This thesis also proposes three ways of understanding 'mapping' in researching the LSI's mapping of language. Just as Grierson mapped a network of 'surveyors' and established a scalar approach to surveying language, the first chapter maps the LSI's local, national and transnational operation and those informal networks which sustained it. The second chapter establishes a way of mapping the Survey's maps as an experimental exercise. Finally, chapter three maps the political afterlife of language mapping in India and how the LSI's maps were mobilised in regional, national and international debates over Oriyan statehood.

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Abbreviations

Archives

IOR	India Office Records, British Library	London, UK
Mss Eur	Private Papers - India Office Collections, British Library	London, UK
NAI	National Archives of India	New Delhi, India

Linguistic Survey of India (LSI)

Vol.		*Date of Publication*
1.1	Introductory	1927
1.2	Comparative Vocabulary	1928
1.3	Addenda et Corrigenda Minora	1927
2	Mon–Khmer and Siamese-Chinese Families (including Khassi and Tai)	1904
3.1	Tibeto-Burman Family. General Introduction, Specimens of the Tibetan Dialects, the Himalayan Dialects, and North Assam Group	1909
3.2	Tibeto-Burman Family. Specimens of the Bodo, Naga, and Kachin Groups	1903
3.3	Tibeto-Burman Family. Specimens of the Kuki-Chin and Burma Groups	1904
4	Muṇḍa and Dravidian Languages	1906
5.1	Indo-Aryan Family. Eastern Group. Specimens of the Bengali and Assamese Languages	1903
5.2	Indo-Aryan Languages. Eastern Group. Specimens of the Bihari and Oṛiya Languages	1903
6	Indo-Aryan Family. Mediate Group. Specimens of the Eastern Hindi Language	1904
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10	Specimens of Languages of the Eranian Family	1921
11	Gipsy Languages	1922

Note on language

The names of languages and places in India used throughout conforms to how they were known at the time of the Linguistic Survey, rather than their present Romanised form. For example, Oriya is known today as Odia and Orissa is called Odisha, but the former is used in accordance with the historical sources. For the sake of consistency, the names of languages are written in their basic Romanised orthography e.g., Gujarati instead of *Gujarātī*. In addition, the names of languages in the LSI do not always correspond to how they are currently known among linguists or governments, e.g., the Gadaba language in the LSI is more commonly known as Gutob today.

Introduction

On his visit to Ireland on 23 September 2015, the Prime Minister of India, Narendra Modi presented the Taoiseach, Enda Kenny, with a selection of reproduced papers from the National Archives of India. Both related to notable Anglo-Irishmen who had served in India, one being Thomas Oldham of the Geological Survey, and the other being George Grierson of the Linguistic Survey of India (LSI). Although clearly an act of cultural diplomacy, the choice of Grierson is striking. Here we had Modi, who represents a party and ideology which has sought to undermine India's linguistic plurality in favour of a single language, Hindi, presenting the papers of the man who had identified 179 languages and 544 dialects and done more than anyone to highlight India's linguistic plurality. Over the course of researching the Linguistic Survey, however, it has become apparent that many have incorporated their own meaning onto the ambiguities of the LSI, while very few have truly tried to scrutinise the Survey. The tweet which Modi sent on the day he gifted the papers is a case in point of how the Linguistic Survey can be, and has been, mobilised to cultivate a point of view based on a partial reading of the Survey:

> Grierson's Linguistic Survey of India provided 1st scientifically based taxonomy of Indo-Aryan languages.[1]

On the surface, Modi's tweet was a benignly matter-of-fact statement. However, it was selective. The Linguistic Survey of India not only taxonomised the Indo-Aryan languages, but the Dravidian, Sino-Tibetan and Mon-Khmer languages. Modi's tweet ignored the hundreds of millions of Indian citizens who do not speak an Indo-Aryan language like Hindi.[2] Yet Modi was not entirely wrong. The LSI was never a singular scheme but comprised many different surveys, fragmented by language and geography, which Grierson merged into the Linguistic Survey of India. Modi's tweet reminds us that the LSI remains relevant today, but also calls for a greater engagement with, and scrutiny of, the Linguistic Survey as a colonial project and its legacy in India.

[1] The tweet is from Narendra Modi's personal twitter account, dated 23 September 2015. https://twitter.com/narendramodi/status/646668121760075776?lang=en.

[2] Hindi is closely associated with the idea of a Hindu state, but also speaks to broader historical trends where developing a national language is seen as important in fostering a unified national identity. An attempt to enforce Hindi teaching in all schools in India recently reared its head again under Amit Shah, Modi's Home Affairs Minister. For a good news article explaining the issue, see https://thewire.in/education/bjp-rss-hindi-national-language-education.

The Linguistic Survey of India began as an idea proposed at the seventh International Congress of Orientalists in 1886 and formally ended with the publication of the final volume in 1928. In the interim the proposed survey evolved from a scholarly enterprise into a state-sponsored scheme managed by George Grierson and his assistant in India, Gauri Kant Roy. The LSI was incorporated into the machinery of the colonial state as a sub-branch of the Home Department and granted an office in Calcutta, from which Gauri Kant Roy mediated the flow of information and materials between Grierson, who returned to Britain in 1899, and his network of informants and collaborators across India. Yet its financial footprint was small for a colonial survey, which afforded the LSI a greater degree of flexibility, with less interference, to successfully survey, classify and map the languages of India for an audience that not only comprised linguists and scholars, but government officials, military officers and others who needed to know an Indian language (or more) to perform their duties.

However, what constitutes the LSI is not so much the institution itself, but its final product. The outcome of the LSI was eleven volumes (twenty-one when minor volumes and the index are counted) arranged by language group or family, and published intermittently from 1903 to 1928. Each volume methodically incorporated the three 'specimens' of every language or dialect surveyed: a translated *Parable of the Prodigal Son*; translated pieces of prose or verse; and a tabulated list of 241 common words and phrases. Each set of printed specimens was introduced by a brief account of the dialect or language. These specimens were the materials gathered by the LSI's informal network of officials across India, which were then reviewed and edited by knowledgeable collaborators such as teachers and missionaries based in India or scholars active across India and Europe.

I came to this project as someone interested in colonial maps and mapping, but with very little knowledge of language and the Linguistic Survey of India. My initial conclusion after going through the LSI was that maps did not appear to be an intrinsic part of surveying languages, but rather embellishments to complement the substantial linguistic material gathered by Grierson's informants and edited with his collaborators. There were only forty-five maps across eleven volumes (made up of twenty-one sub-volumes), in contrast to the thousands of pages dedicated to text, translated material and tables. As the research went on and I began to investigate the archive, my initial impression was upturned. Mapping – and producing maps that could be read – was a principal raison d'être for surveying languages. The 'Survey' part of the LSI's name, after all, alludes to the older colonial mapping agency, the Survey of India, and its counterpart in Britain, the Ordnance Survey. Unlike other schemes to collect and

compile knowledge, surveys were inherently geographical. The LSI was different from other forms of colonial linguistic outputs, such as dictionaries, grammars and vocabularies, precisely because it was concerned with the geography of languages and dialects and not simply with linguistic forms, philological differences or the historical development of language. The forty-five maps were central to the LSI's presentation – if not framing - of India's linguistic geography, starting from when it was proposed in 1886 to the publication of the final volume in 1928.

Several questions motivated the direction of this research. The first question was how does a survey work in practice, in other words, what makes a linguistic survey? Chapter two explores how the LSI managed to survey most of India between 1898 and 1905 through its use of correspondence and the circulation of knowledge and material. Scale was crucial as Grierson and his assistant in India, Gauri Kant Roy, assembled the LSI from a series of fragmented, local surveys and a borderless transnational survey. Chapter two also addresses why the colonial state supported the LSI and what government stood to gain from surveying and mapping language. Here it becomes evident that the LSI was viewed as an opportunity to observe the linguistic skills of government and address the gaps in knowledge of Indian languages, with the overarching goal of improving administration and governance.

Chapter three addresses the core question of how one maps a phenomenon like language, when its geography is neither discrete nor clearly defined; when speakers move around; and in a region where many spoke more than one language. By reading the maps by themselves, as a series of maps, and contextually, the thesis shows that the Linguistic Survey was experimenting with different styles, techniques, and colours to find the most appropriate way to map language. However, as chapter three goes on to argue, the LSI had to balance the philological understanding that languages can only be mapped approximately with the political preference for knowing exactly where a language was – and was not – spoken. Some, but not all, language maps included well-defined boundaries to clearly distinguish the geography of a language, to which Grierson added instructions explaining the distinction between a language boundary and a political or territorial boundary.

Grierson's concern that a language map could be misinterpreted as a territorial reality came true with the Oriya language movement, who used his map as evidence to claim a separate state of Orissa. Chapter four addresses the legacy of the Linguistic Survey's mapping through the Oriya movement case-study. However, this chapter also engages with a much larger question

about what happens to the map after it is published and how the mapmaker loses control of the map as an object of knowledge. Chapter four argues that the LSI's cartographic logic of approximation endured as subsequent attempts to precisely map where Oriya was spoken failed, and the creation of Orissa in 1936 still left many on the 'wrong side' of the line.

Furthermore, this thesis does not simply examine the history of the Survey's mapping but develops and applies a broader and more ambitious geographical understanding of mapping to present a much more coherent and persuasive analysis of how a scheme like the LSI operated, mapped, and existed within the British Imperial system. This thesis maps three interlinked geographies which constitute the cartographic Linguistic Survey of India and establishes several modes of mapping a scheme like the LSI as a feature of imperial geography. Chapter two, therefore, maps out the rationales, knowledges, and networks – locally, nationally, and internationally – which sustained imperial surveying and the production of colonial language maps. Chapter three focuses on the LSI's maps, mapping the process and pitfalls of delineating language and making a language map. Finally, chapter four charts the political ramifications of language mapping in the last decades of colonial rule, through the employment of the LSI's maps by the Oriya movement, and those against. All three forms of mapping draw on a substantial corpus in the history of colonial mapping, geographies of imperial networks and colonial knowledge, and studies of maps in politics and nationalism. Chapter one begins by reviewing these significant bodies of literature and outlines how one researches – and maps – the Linguistic Survey of India.

1. Reading, researching, and mapping the Linguistic Survey of India

The Linguistic Survey of India is one of those rare designations which neatly encapsulates both orientation and origin. It alerts us immediately to the LSI's interdisciplinary existence as a linguistic, geographical, and colonial exercise. The LSI was outwardly an ambitious study of language – its form, characteristics, and relationships with other languages – and, until recently, the principal scholarly interventions were from linguists or those more broadly interested in South Asian language and linguistics. However, this thesis is not concerned with judging the merits of the LSI as a linguistic exercise, but a study of the rationale and processes of producing knowledge *of* and *through* space via surveys and maps. The LSI was a scheme concerned with, and affected by, space and geography. This research is at the same time a historical geography of linguistic science, a critical history of language maps and mapping, and a study of the colonial production of knowledge and space. By mapping the rationale, knowledge and networks which underpinned and sustained the LSI, it draws on and adds to the great body of literature on the spatial production of knowledge, imperial networks and geographies of science and empire. As an exercise in critically mapping the processes and pitfalls of the LSI's language mapping and mapmaking, this research is inspired by the rich breadth of critical studies of colonial or imperial maps and mapping, but also addresses a glaring gap in analysing and drawing attention to the historical 'language map'. And as a study of the production of knowledge and space in colonial India, this thesis draws on – and contributes to – recent trends in global, networked histories of science, more nuanced postcolonial studies of knowledge and knowledge producers, and a small but growing area of research on colonial linguistics.

Crucially, the research does not end with the production of knowledge but also considers the afterlife of knowledge – how it was used, mobilised and remoulded by other actors, changing the meaning and purpose of knowledge. Mapping did not end with the published map as maps were used and mobilised for different reasons, often political. The LSI's maps were used by the Oriya language movement to assert statehood, just as other maps were both practical and symbolic for many nationalist movements in Asia and elsewhere. But language-based nationalism had to overcome a particular challenge with mapping: languages rarely have precise or discrete geographies. As language maps were mobilised for another purpose, in this

case political, language maps had to be remapped to reflect the aims, ambitions or worldview of its user(s).

Finally, this research challenges geography to address its diffidence to linguistic or language geography, which remains an understudied but significant geographic and cartographic tradition. Grierson and many of his peers would not have seen a distinction between the two. The LSI was envisioned in geographical rather than linguistic terms from the outset. In his foundational statement of intent at the seventh International Congress of Orientalists (1886) in Vienna, George Grierson addressed the necessity of knowing what languages were spoken "throughout India" and urged his colleagues so support a "systematic survey…nearer and further".[1] Grierson understood that language was a phenomenon influenced by geography – through location, proximity, mobility and so forth – just as race, religion or caste might have been seen by his fellow orientalists.[2] This thesis serves as one example of how we might write a history of linguistic geography or language mapping.

Geography, language and mapping in India and beyond: a review

This study is accordingly a historical geography of linguistic science and a critical history of language maps and mapping, which adds to our broader understanding of the geographical production of colonial knowledge and its consequences in late colonial India. The review begins with a brief summary of where linguistics fits in the disciplinary history of geography, and why historical geographers and historians of maps are well positioned to recover the entangled histories of linguistics and geography, which this research does by examining the Linguistic Survey's mapping. However, the thesis is not about linguistic surveys but the Linguistic Survey *of India*, which positions the review in a complex but influential area in the history of cartography – colonial mapping. Therefore, the second section traces the intellectual history of cartography through studies of colonial maps and mapping in India and elsewhere, particularly after the 'critical turn' in the 1980s to recent theoretical developments. The review

[1] As recorded in the *Berichte des VII. Internationalen Orientalisten-Congresses* (Vienna: Alfred Hoelder, 1889), p.63. Grierson also emphasised that a language spoken by people in a given area did not necessarily match the language of the area, in other words, language did not always occupy a fixed space. The International Congress of Orientalists, instituted in 1873, were regular gatherings of predominantly European scholars working on mostly Asian topics including philology and archaeology.

[2] For more on Grierson's views on the geography of Indian languages see, G. Grierson, 'The geographical distribution and mutual affinities of the Indo-Aryan vernaculars', *Calcutta Review*, 202 (October 1895), pp.258-274.

also considers where theory goes from here and what the intellectual 'future' of the history of cartography may hold.

The Linguistic Survey of India, as it came to be formally designated a decade after it was first proposed, also identified it as part of the colonial government of India's wider programme of surveys, notably the cartographic Survey of India, but also the Archaeological, Geological, and similar 'scientific' surveys.[3] Studies of, or involving, colonial surveys have been instrumental in the exploration of colonial knowledge and its importance to sustaining, managing and furthering empire, yet also calling attention to the insecurity of colonial rule and underlining its internal contradictions. The third section, therefore, engages with the literature around surveys and the creation, circulation, and mobilisation of colonial knowledge – particularly linguistic knowledge - through national and transnational state, scholarly and scientific networks, with the active participation of native informants in the production of knowledge. Historical geographers have been particularly influential in developing our understanding of the circulatory nature of colonial knowledge through studies of imperial mobilities and networks, which the third part reviews in more detail.

The fourth section considers the literature around mapping and nationalism, which have often focused on anti-colonial nationalism and the emergence of the post-colonial state in Asia. Part four also reviews the scholarship on language-based nationalism in late colonial and early independence India. Finally, the fifth section includes a biography of Grierson and examines the literature – or lack thereof – on the LSI and how the Survey has traditionally been approached by linguists and more recently a wider array of scholars, foremost in the work of Javed Majeed.

Mapping language onto geography

It might be anachronistic to speak of distinct disciplines but the boundaries between geography and linguistics, or philology as it was more often known, were blurred in the late 19th century. The LSI emerged in a period when language and their dialectal forms were being surveyed in

[3] The Survey of India is traditionally dated to 1767 when James Rennell was made Surveyor General for Bengal. However, the modern Survey of India begins with the appointment of Colin Mackenzie in 1815. The Geological Survey was instituted in 1851, while the Archaeological Survey was created in 1861 under the direction of Alexander Cunningham.

a more systematic manner, particularly in Europe. The oft-mentioned pioneer of the linguistic atlas, Georg Wenker, began his work in the 1870s, but there was a longer tradition of linguistic surveys and maps going as far back as the first half of the 18th century.[4] Some were state programmes, but most were scholarly exercises undertaken in a private capacity or supported by learned societies and universities. More broadly, the 19th century saw the rise of narrative accounts of cultures, including language, and growth in philological work, in the form of dictionaries and grammars, which incorporated geographic information and sometimes illustrative maps.[5] These works were predominantly compiled by philologists or orientalists but by the turn of the 20th century, pioneers of geography such as Friedrich Ratzel in Germany and Paul Vidal de La Blache in France considered language a geographical or spatial phenomenon, culminating in an academic interest in language among cultural and regional geographers during the interwar period.[6] International politics were also influential in the blurring of geography and linguistics as questions over linguistic nations and territories came to the fore, notably in the aftermath of the First World War.[7]

However, only a few decades later some geographers began to note and decry geography's lack of interest in linguistic matters. In 1958, the American cultural geographer Philip L. Wagner challenged the seeming apathy towards language among his colleagues and a year later, in his 1959 Presidential address to the Institute of British Geographers, the Welsh geographer E.G. Bowen argued that language was essential to the study of region and culture.[8] By this point,

[4] The first language maps, not compiled through formal surveys, were the maps in Gottfried Hensel's 1741 *Synopsis Universae Philologiae*. See L. Zeige, 'Northern Europe in Linguistic Maps', in *Geographies of knowledge and imagination in the 19th century philological research on Northern Europe*, (Eds.) J. Grage & T. Mohnike (Newcastle: CSP, 2017), pp.56-84. Wenker, a German linguist born in 1852, is generally considered to be the first to develop a scheme for methodically surveying linguistic differences and compiling the information into a linguistic, or dialect, atlas of Germany.

[5] This was particularly popular in India. Robert Caldwell's, *A comparative grammar of the Dravidian or South-Indian family of languages* (London: Trubner & Co, 1875), began his account of each language with a section outlining its geography. Grierson may have been, or at least claimed to be, the first to synthesise a grammar and vocabulary with a cultural, economic, and geographic study of an Indian region with his *Bihar peasant life* (Calcutta: Bengal Secretariat Press, 1885).

[6] See, F. Ratzel, *Anthropogeographie*, in 2 volumes (Stuttgart: J. Engelhorn, 1882-1891); *Völkerkunde*, in 3 volumes (Leipzig: Verlag des Bibliographischen Instituts, 1885-1888). P. Vidal de la Blache, *Tableau de la geographie de la France* (Paris: Hachette, 1903).

[7] A classic example was Leon Dominian's, *The frontier of language and nationality in Europe* (New York: Henry Holt & Co, 1917). Like many at the time, he proposed that post-War Europe should be reorganised along linguistic lines as this was the least contentious division. Of course, the geographical division of German-speaking populations after WWI between Poland, Czechoslovakia and elsewhere in Eastern and Central Europe became a justification for the Nazi annexation of the Sudetenland and invasion of Poland.

[8] P. Wagner, 'Remarks on the geography of language.', *Geographical Review*, 48:1 (1958), pp.86-97; E. Bowen, 'Le Pays de Galles: Presidential address.', *Transactions and Papers (Institute of British Geographers)*, 26 (1959), pp.1-23.

linguistic geography was mostly isolated as a subdomain of linguistics through branches such as dialectology, areal linguistics, sociolinguistics and, eventually, geolinguistics.[9] The divergence of geography and creation of specialised subdisciplines in linguistics can even be traced to the Congress of Orientalists in Vienna. Although Grierson describes his project in more geographic terms, the German description for the planned survey was "der Sammlung des Materials zur neuindischen Dialectologie" or *'the collection of material on the new Indian dialectology*'.[10] There were attempts in the 1980s to revive interdisciplinary engagement between geography and linguistics, but those attempts were limited and not sustained in the long term. Nevertheless, there are signs that new approaches which draw together the study of geography with linguistic theories and methods are re-emerging.[11] Whether this proves more successful remains to be seen.

This is not to say that *language* has not mattered to geography in a wider sense. Areas which have interested geographers include speech and translation.[12] The last two decades have also seen important critiques levelled at a purportedly 'international' geography which privileges English as the only language of participation, research and dissemination.[13] This has implications for discussions over decolonising geography, which seems fundamentally flawed without acknowledging and embracing other languages. Language has also become a significant abstract or metaphorical concept in geography in its turn towards postmodern and poststructuralist theories, responding to earlier structural approaches. A subtle irony of this turn was that geographers were engaging with, and responding to, theories rooted in Ferdinand de Saussure's ideas on language and signs, yet ignoring his important notes on the geography of language.[14] Nevertheless, the study of how language changes form or meaning in space, or the role of geography in shaping language and linguistic identity, remains a concern of linguists rather than geographers. The thesis engages with this narrower understanding of 'language'.

[9] In one sense they represent different stages in the history of linguistic geography, starting with dialectology, but they also differ in aims, theories and methods. The overarching concern of all is with the operation or evolution of language and dialects in space.
[10] *Berichte*, p.78.
[11] R. Jones & H. Lewis, *New geographies of language: language, culture and politics in Wales* (London: Palgrave Macmillan, 2019).
[12] D. Bissell, 'How environments speak: everyday mobilities, impersonal speech and the geographies of commentary.', *Social & Cultural Geography*, 16:2 (2015), pp.146-164; K. Brickell, 'Towards geographies of speech: proverbial utterances of home in contemporary Vietnam.', *Transactions of the Institute of British Geographers*, 38:2 (2013), pp.207-220.
[13] For a recent review of the issue, see M. Müller, 'Worlding geography: From linguistic privilege to decolonial anywheres', *Progress in Human Geography* (Online, January 2021).
[14] F. de Saussure, *Cours de linguistique générale*. (Eds.) C. Bally, A. Sechehaye & A. Riedlinger (Paris: Payot, 1916). The fourth section covers Ferdinand de Saussure's lectures on linguistic diversity and geography.

The intention of this review is not to outline in detail the entangled history and subsequent divergence of linguistics and geography. That has been addressed in more depth elsewhere.[15] The point is linguistic geography, or the geography of language, is a significant tradition in geography's history and historical geographers, and historians of mapping, are well positioned to excavate and address that tradition, and its legacies, through studies of 19th and early-20th century programmes to classify, regulate and spatially order language in Europe and the colonial world. Crucially, 19th century linguistics (or philology) intersects with geography through surveying and mapping, in schemes such as the Linguistic Survey of India.

An intellectual history of colonial mapping

The history of cartographic scholarship has customarily been divided between the empirical and bibliographical approaches to studying maps which dominated the field in the mid-20th century, followed by the critical 'turn' of the 1980s which challenged the objective and scientific views of maps and mapmakers and emphasised the social and cultural contexts in which maps appear as "a human practice" with its own discourses.[16] One should of course be wary of retrospectively ascribing coherence to intellectual or theoretical shifts in the history of a discipline. As Barnett has written of the 'cultural turn' in geography, they tend to "present academic disciplines as totalities…with its strong undertones of progress…(and) is perhaps an indication that geography is a discipline too small to be comfortable with its own intellectual pluralism."[17] The same could be said for the history of cartography. The development of a new, critical, history of maps is often attributed to the work of Brian Harley which is in itself problematic as it diminishes the contributions of other historians and geographers.[18] Nevertheless, Harley remains – rightly – a significant figure in the history of mapping and a fitting point of departure for any critical review of maps and mapping. Before examining the theoretical shift in the history of mapping, however, we need to briefly consider the prior intellectual history which is instructive as to why colonial or imperial cartography became central to the new, critical histories of maps and mapping.

[15] For a more detailed review: P. Jagessar, 'Geography and linguistics: histories, entanglements and departures', *Geography Compass*, 14:11 (2020).
[16] M. Edney, 'Theory and the history of cartography.', *Imago Mundi*, 48 (1996), p.188.
[17] C. Barnett, 'A critique of the cultural turn', in J. Duncan, N. Johnson & R. Schein (eds.), *A Companion to Cultural Geography* (Oxford: Blackwell, 2004), p.39.
[18] Arthur Robinson, David Woodward, Denis Wood, and a few others were influential in the wave of critical scholarship which appeared in the late 1980s and early 1990s.

The history of maps was for many a story of progress and scientific achievement. As Gerald Crone wrote in his 1953 introduction to the field, "the history of cartography is largely that of the increase in the accuracy with which these elements of distance and direction are determined and in the comprehensiveness of the map content."[19] Maps were considered empirical and statements of fact, with scholarship largely focused on assessing the accuracy of maps, narrative histories of the map and mapmaker, or the artistry and design behind significant maps.[20] Framing such studies was a 'Whiggish' idea of cartography, where maps and mapping were judged to be on a trajectory of progress and improvement, beginning with the Renaissance and culminating in the pinnacle of cartographic science during the Enlightenment. One such example was Leo Bagrow's seminal *History of Cartography*, reworked by R.A Skelton, which traced the history of maps from antiquity to the golden age of cartography in the 17th and 18th centuries.[21] Crucially, the *history* of maps ended in the 18th century. Mapping continued to develop of course, but this was seen as part of a broader technological and scientific modernity and there was an element of chauvinism towards the cheaper, commercially mass-produced and consumed maps of the 19th and early 20th centuries.[22] This was also driven by the unusual and eclectic makeup of the field, which not only comprised geographers and historians, but also map librarians, curators, dealers and collectors.[23] Consequently, a popular form of output was the cartobibliography, systematically compiling the maps of a particular mapmaker or geographical area.[24]

Where did imperial, or more aptly, colonial cartography fit in before the critical or theoretical turn? A disposition towards cartography before 1800 meant the overwhelming focus was on Portuguese and Dutch mapping during the age of Discovery/Exploration and the surveys and

[19] G. Crone, *Maps and their makers: An introduction to the history of cartography* (London: Hutchinson's, 1953), p. xi.
[20] P. Barber, "Context is everything…': Ruminations on developments in the history of cartography since the 1970s and their consequences.', *Imago Mundi*, 72:2 (2020), pp.131-147. A classic example of the highly empirical and analytical scholarship, common at the time, was Fritz Bönisch's, 'The geometrical accuracy of 16th and 17th century topographical surveys." *Imago Mundi*, 21 (1967), pp.62–69.
[21] L. Bagrow, *History of cartography*. Revised and enlarged by R. A. Skelton (Cambridge: Harvard University Press, 1964).
[22] There were some exceptions. Gerald Crone's introduction (1953) included a final chapter on contemporary mapping. Norman Thrower's *Maps and man* (Englewood Cliffs: Prentice-Hall, 1972), which eventually became *Maps and civilization*, comprehensively examined 19th and early 20th century mapping when many others did not.
[23] Barber, 'Context is everything', p.132-133.
[24] M. Blakemore & J. Harley, 'Concepts in the history of cartography', Monograph 26, *Cartographica*, 17:4 (1980), p.33-44. The authors describe such work as 'bio-bibliographical', which is a more apt description.

maps compiled by British, French and other European trading and military expeditions during the formative years of imperial expansion.[25] The 19th century, which in the case of India and elsewhere was the height of British colonial surveying and mapping (and colonial rule more broadly), remained largely but not entirely invisible. The greater focus on Age of Exploration and early imperial mapping has contributed to accusations of Eurocentricity, a field mainly working with European sources and collections and concerned with how Europeans mapped Asia, Africa, and the Americas.[26] This is somewhat of a mischaracterisation. Leo Bagrow, for example, was keenly aware of non-European maps and mapmaking in Asia and beyond which informed his later work.[27] The journal *Imago Mundi*, founded by Bagrow in 1935, later provided a space to decentre some aspects of a predominantly European field, including making map collections in India more visible to international researchers.[28] However, there was also a tendency to mythologise maps and mapping, creating a 'heroic' image of the (mostly) European surveyor, explorer or mapmaker which usually contradicted reality. This was particularly commonplace in historical scholarship on early colonial cartography in India. Reginald Phillimore's magisterial five-volume history of the Survey of India, which covered surveyors such as James Rennell and William Lambton, reads at times like a Victorian adventure novel, compiling stories of young and fearless officers putting their lives at risk to survey hostile and inhospitable regions along the frontier.[29] Many of the overly hagiographic works on surveying and mapping in 19th century India (written in the 1950s and 1960s) were produced by ex-officers and surveyors who had worked in the colonial service towards the end

[25] Crone's introduction, for example, dedicates several chapters to the development of maritime mapping and the cartography of the 'Great Discoveries'. Bagrow's *History of cartography* dedicates a whole chapter to the mapping of America, from its 'discovery' to the colonial era.
[26] Barber, 'Context is everything', p.133.
[27] M. Heffernan & C. Delano-Smith, 'A life in maps: Leo Bagrow, Imago Mundi, and the history of cartography in the early twentieth century', *Imago Mundi*, 66:sup1 (2014), p.48. Bagrow's *History of cartography* included a chapter on Asian cartography including Chinese, Persian, and Indian maps (although it was dismissive of indigenous Indian cartography).
[28] For example, P. Madan, 'Cartographic records in the national archives of India (1700–1900)', *Imago Mundi*, 25:1 (1971), pp.79-80.
[29] R. Phillimore, *Historical records of the Survey of India*, 5 volumes (Dehradun: Survey of India, 1945-1968). For example, Phillimore includes an account of a party of surveyor-explorers who were nearly robbed and killed crossing the territory of the Sikh Kingdom to survey and map the Sutlaj in 1809 (p.63). Another work which did much to romanticise the surveyor was Showell Styles', *The forbidden frontiers: The Survey of India from 1765 to 1949* (London: Hamish Hamilton, 1970).

of British rule in India, such as Phillimore and G. F. Heaney.[30] These works remained some of the more complete histories of colonial mapping in India until the 1990s.[31]

Harley remains the most obvious point of entry for any review into the critical 'turn' in the history of cartography (and colonial mapping) although, as noted before, he was not the only important figure, nor did the 'turn' begin with him.[32] As one of his critics put it, "his predecessors and contemporaries have known perfectly well that cartography works against a background of capitalism, elitism, nationalism, imperialism and religious prejudice."[33] Yet not many had tried to theorise how those backgrounds could be unmasked, leaving Harley still looming over those studying the history of mapping. Many of us either engage with or respond to ideas which can be traced back to his work. Following his research from the 1960s to the 1980s is also instructive about the changing theoretical view of the map and mapping among scholars. Harley's 1968 methodological paper, for example, still considered evaluating the factual accuracy of maps and interpreting the historical evidence they provide a crucial part of map scholarship.[34] However, the same paper began to outline more critical approaches to mapping such as questioning the motivations and intentions of the mapmaker, which were not always singular or obvious, and studying the critical reception of maps in their historical contexts rather than retrospectively. Harley, along with Blakemore, further critiqued the prevailing paradigms in the history of cartography in a special issue of *Cartographica* in 1980 and proposed several possible methodological and theoretical directions for map historians going forward.[35] The two which stand out were the arguments for analysing meaning in every detail of the map, and conceptualising maps as a language.[36] The former was important because it went beyond representation to consider how form, size and where the map was found (e.g. folded in a pocket guidebook) gave meaning to such maps beyond what was actually on the

[30] Phillimore had an extensive career with the Survey of India from 1903 until his retirement in 1934. For more, see his obituary in the *Himalayan Journal* 26 (1965). George Heaney, who wrote and lectured on the history of the Survey (e.g., 'Rennell and the surveyors of India', *The Geographical Journal*, 134:3, 1968, pp.318-325), had been the last colonial Surveyor-General of India and held that position until 1951.
[31] Histories of colonial mapping in Africa followed a similar vein. See, for example, G. McGrath, 'The surveying and mapping of British East Africa, 1890-1946', *Cartographica*, 13:3 (1976), pp.1-118.
[32] One example is Juergen Shulz's 1978 paper on the meaning and functionality of Barbari's view of Venice. See, J. Schulz, 'Jacopo de' Barbari's view of Venice: Map making, city views and moralized geography before the year 1500.', *The Art Bulletin*, 60:3 (1978), pp.425-474.
[33] J. Andrews, 'Meaning, knowledge and power in the map philosophy of J. B. Harley.', in J. Harley, *The New Nature of Maps*, (ed.) P. Laxton (Baltimore: Johns Hopkins Press, 2001), p.31. Originally published in *Trinity Papers in Geography* 6 (Dublin: Trinity College, 1994).
[34] J. Harley, 'The evaluation of early maps: towards a methodology.', *Imago Mundi*, 22 (1968), pp.62–74.
[35] Blakemore & Harley, 'Concepts in the History of Cartography'.
[36] Blakemore & Harley, 'Concepts in the History of Cartography', p.76-106.

map. However, it was in the latter point - that the "*underlying structure*" of a map was language – which represented a theoretical direction cartography was heading towards since the 1970s.

The initial approach to language was very much structural, inspired by linguistic and semiotic theories. Arthur Robinson and Barbara Petchenik argued that a comparative analysis of cartographic signs and symbols would be a more productive way to study maps, building on Jacques Bertin's work on the semiology of mapping which formulated maps as a set of signs and symbols with underlying meaning.[37] Denis Wood has been particularly influential in the semiological approach, arguing that maps are a form of communication that serves a particular interest through selection and signage, yet cultivated to appear neutral and factual.[38] Wood and Fels later expanded on this earlier work by further arguing that maps were not representations but selective assertions through symbols, signs and ancillary information which privileged certain ideas over representation, creating meaning "on the fly".[39] However, the intention is not to dwell on this area of theory since it has been more relevant to modern critical cartography and GIS rather than the study of historical mapping. One exception is John Pickles, whose work traces the development of cartographic "graphism" as a broader thought and practice, which "permeates…the history of our world" in other forms of geographical and spatial representations.[40]

By the end of the 1980s, Harley had developed his thinking further and drew on post-structuralist theory to reframe the nature of maps. The two (but not only) key texts were 'Maps, knowledge and power', published in 1988, and 'Deconstructing the map' a year later. In 'Maps, knowledge and power', Harley drew on Michel Foucault's notion of power-knowledge to argue that the history of mapping was a form of discourse "pervaded by ideology", which embodied the cultural knowledges of the hegemonic state, imperial power or social class.[41] Maps were ostensibly a "language of power", and while they were increasingly accessible as mass-communication evolved, the production of maps remained or became further concentrated

[37] A. Robinson & B. Petchenik, *The nature of maps* (Chicago: University of Chicago Press, 1976); J. Bertin, *Sémiologie graphique. Les diagrammes, les réseaux, les cartes* (Paris: Mouton & Gauthier-Villars, 1967).
[38] D. Wood (with J. Fels), *The power of maps* (New York: The Guilford Press, 1992).
[39] D. Wood & J. Fels, *The natures of maps: Cartographic constructions of the natural world* (Chicago: University of Chicago Press, 2008), p.14ff.
[40] J. Pickles, *A history of spaces: Cartographic reason, mapping and the geo-coded world* (Abingdon: Routledge, 2004), p.22.
[41] J. Harley, 'Maps, knowledge, and power.', in D. Cosgrove & S. Daniels (eds.), *The iconography of landscape: Essays on the symbolic representation, design and use of past environments*, Cambridge Studies in Historical Geography, 9 (Cambridge: Cambridge University Press, 1988), pp.277-312.

under the control of the dominant group. The power of maps was undeclared and could only be "traced in the subliminal geometries, the silences, and the representational hierarches of maps".[42] In terms of imperial or colonial cartography, Harley claimed that maps anticipated empire and supported the *direct* execution of territorial power. For Harley, scholars interested in the history of maps had to recognise the political significance of maps and the constitutive role of the mapmaker in mediating power in society.

If 'Maps, knowledge and power' identified the nature of maps, then 'Deconstructing the map' posed a methodological approach to de-naturalise the map.[43] 'Deconstructing the map' married Foucault's discourse analysis with Harley's interpretation of Derrida's textual *deconstruction*. Building on his previous argument that cartography is discursive, Harley argued maps were cultural texts.[44] This meant that all maps were rhetorical, especially those seen to be scientific, truthful, factual or accurate. The process of making a map – "selection, omission, simplification, classification, the creation of hierarchies" - were rhetorical choices which changed the 'discourse' of the map.[45] Therefore, deconstruction – a deeper reading of the text – would "undermine the surface layer of standard objectivity", and blur the lines between rhetoric and science as map historians considered the social context of maps and not simply content. Crucially, deconstruction would reveal power is exerted *on* and exercised *with* mapping. This internal power, as Harley defined it, is created by the cartographer and the map historian must recognise that "maps embody specific forms of power and authority".[46] Deconstructing the map was more than theory – it would finally allow map history to participate in the wider intellectual and interdisciplinary studies of text, knowledge and power popular at the time.[47] One wonders whether the last point became Harley's evangelical mission. In the same year 'Deconstructing the map' was published, he issued a challenge to historical

[42] Harley, 'Maps, knowledge, and power', p.303.
[43] J. Harley, 'Deconstructing the map', *Cartographica*, 26:2 (1989a), pp.1-20. I borrow the term 'de-naturalise' from Edney, 'Theory and the history of cartography'.
[44] Harley, 'Deconstructing the map', p.8f.
[45] Harley, 'Deconstructing the map', p.11f.
[46] Harley, 'Deconstructing the map', p.14ff.
[47] The other theme of the paper is a critique of the cartographer and their rhetoric concerning 'what maps are supposed to be' ('Deconstructing the map', p.1). He was especially critical of the supposed scientific and objective nature of maps as presented by contemporary cartographers using new technologies such as GIS. As Krygier notes, Harley viewed cartographic technology as elitist and did not trust the 'scientistic totalitarianism' of modern GIS-trained cartographers (see J. Krygier, 'Reflections on JB Harley's "Deconstructing the map".' *Cartographica*, 50:1 (2015), pp.24-27).

geographers in the *Journal of Historical Geography* to treat historical maps less reverently and engage more critically with the history of maps.[48]

The immediate critical response to Harley focused on his interpretation and use of Foucault and Derrida's ideas. Both Barbara Belyea and Wood separately noted that Harley did not use Foucault or Derrida properly, leaving gaps in his arguments.[49] Harley may have succumbed to a primarily US understanding of deconstruction which came to be applied as a critical tool across the social sciences and humanities.[50] Matthew Edney also notes that Foucault's power-knowledge was criticised for being too absolutist which possibly alludes to Harley's rigid understanding of power.[51] A more compelling criticism of Harley was that he could not get past the representational orthodoxy of maps as images in order to radically consider the meaning and nature of maps.[52] That remains a challenge many map historians face. One of the more uncompromising critics of Harley's ideas was J. H. Andrews. As well as pointing out that Harley over-generalised and was often too absolute, he argued that Harley had a rather conspiratorial view of power and appeared to interpret every interaction or context involving maps to be political.[53] Rereading Harley, it does appear that he did not consider the possibility mapping could counter power or reflect the weakness of power. Subsequent research (which will be discussed later) has shown the power behind or emerging from surveys and maps was often fleeting or an illusion, and mapping was unstable, resisted, and fraught with failure – not a mode of surveillance or domination.

Andrews also took exception to Harley's apparent rejection of 'positivist' map history which may have been interpreted as an attack on the orthodoxies of Andrews and his peers.[54] Yet, while recognising he might have over-generalised and ignored what many were already doing, Harley's ideas could be read as challenging the map historian to consider how their positivist approach – 'analysing methods of making, sources of information, influence on other maps,

[48] J. Harley, 'Historical geography and the cartographic illusion.', *Journal of Historical Geography*, 15:1 (1989b), pp.80-91.
[49] B. Belyea, 'Images of power: Derrida/Foucault/Harley', *Cartographica*, 29:2 (1992), pp.1-9; D. Wood, 'The fine line between mapping and map making', *Cartographica*, 30:4 (1993), pp.50-60.
[50] N. Royle, *Jacques Derrida*, Routledge Critical Thinkers (London: Routledge, 2003), p.23. Derrida disliked the term deconstruction and how it came to be deployed by US academics in the 1970s and 1980s.
[51] Edney, 'Theory and the history of cartography', p.189.
[52] Belyea, 'Images of power'; Wood, 'The fine line between mapping and map making'; *The power of maps*.
[53] Andrews, 'Meaning, knowledge and power', p.20-32.
[54] Andrews, 'Meaning, knowledge and power', p.5-7.

use'[55] etc. – might be reconstituting discourses and relations of power rather than confronting them. The debate between 'positivists' and those more critical, to put it crudely, became one feature of theoretical discussion after Harley. Some began to expand the framework of power to include ideology while others further challenged the progressivist idea of mapping.[56] A few began to reassess the apparent disjunction between maps as art and maps as science.[57] Edney also responded to Andrews and other 'empiricists', arguing that theory still mattered to the study and process of "de-naturalising" historical maps and surveys.[58] Edney was particularly correct to point out that if mapping was being studied more contextually and across disciplines, map scholarship would invariably be critical and adopt a more theoretical position which empiricists might deny. More ambitious studies of surveying and mapmaking would have to consider theories of knowledge production, theories of language and semiotics, histories of technology and science, economics, politics etc. – integrating map history into the "general history of humanity in all its aspects".[59] More radical approaches dismissed the relevance or validity of imperial maps as historical documents because they were ideological, some going as far to argue that geographers should disregard maps outright because they never reflect how the average person views or experiences place.[60] Others, notably Jeremy Crampton, further articulated the (now more common) idea that maps are socially constructed and are contingent upon the social, cultural and technical contexts of time and place, so modern maps are not "better", just different.[61] Pickles also argued that map scholars should focus more on the institutional, intellectual and cultural frameworks maps emerge from, and not just power and ideology.[62]

Andrews ended his critique with the caveat that it remained to be seen how influential Harley's ideas would become in the intellectual history of cartography. Three decades later, this new

[55] To borrow from Andrews' critique, p.31.
[56] K. Brealey, 'Networks of power: Cartography as ideology', *Western Geography*, 3 (1993), pp.15-50; M. Edney, 'Cartography without progress': Reinterpreting the nature and historical development of mapmaking', *Cartographica*, 30:2-3 (1993), pp.54-68.
[57] J. Krygier, 'Cartography as an art and a science?', *The Cartographic Journal*, 32:1 (1995), pp.3-10.
[58] Edney, 'Theory and the history of cartography'.
[59] Edney, 'Theory and the history of cartography', p.189.
[60] Bruce Avery considered 19th century maps as nothing more than colonial propaganda or representations of colonial power. See, B. Avery, 'The subject of imperial geography' in *Prosthetic territories: Politics and hypertechnologies*, (eds.), G. Brahm Jr, & M. Driscoll. (Boulder: Westview Press, 1995). Michael Curry suggested geographers should leave behind maps in 'Toward a geography of a world without maps: lessons from Ptolemy and postal codes', *Annals of the Association of American Geographers*, 95:3 (2005), pp.680-691.
[61] J. Crampton, 'Maps as social constructions: power, communication and visualization', *Progress in Human Geography*, 25:2 (2001), pp.235-252; *The political mapping of cyberspace* (Chicago: University of Chicago Press, 2003).
[62] Pickles, *A history of spaces*.

direction has become central to the study of historical maps and surveys. Since the 1990s there has been a flood of scholarship studying mapping and surveying critically and contextually. This is not to say there was a linear link, or cause-and-effect, between Harley's ideas and everything which followed (except, perhaps, through his students and colleagues). Nor is it to suggest that Harley single-handedly changed the discipline. Rather, Harley may simply have explicated a shift which was already happening and framed this new milieu where scholars were thinking more deeply about mapping. The study of mapping and surveying was also moving out of a disciplinary silo and becoming a subject of interest for historians of science, anthropologists, political scientists and others across the humanities and social sciences. Historical scholarship on 19th and 20th century surveying and mapping became less Eurocentric and more global, with critical scholarship increasingly emerging from Asia and Africa. Colonial (or imperial) surveying and mapping has proven a particularly productive area of critical scholarship in the last three decades. This review will mainly focus on colonial India, where the thesis is situated, but also highlight some of the key studies of other colonies or from former colonies. Research on mapping and the emergence of nationalism in former colonies will, however, be addressed in the fourth section which examines the literature on maps and nationalism in India.

One area of critical research has focused on indigenous mapping and tracing native forms of knowledge which informed colonial maps and surveys. This was not entirely new as Louis de Vorsey's 1978 work on indigenous contributions to colonial North American mapping shows.[63] Anthropologists have been particularly interested in indigenous mapping such as Lewis' work on Native American maps.[64] However, Lewis pointed out that a major issue with studying indigenous maps is that there are very few remaining, and those that have are preserved through the encounter with European explorers, which privileges the non-indigenous outsider. Although Lewis focused on smaller and less complex societies, his concern that non-European maps have only survived on European terms could also be applied to the history of native mapping in India. Studies of India's autochthonous maps, and map culture, owe much to the work of Susan Gole who compiled many of the surviving non-Islamic, non-Mughal and non-

[63] L. de Vorsey, 'Amerindian contributions to the mapping of North America: A preliminary view.', *Imago Mundi*, 30 (1978), pp.71–78.
[64] G. Lewis (Ed.), *Cartographic encounters: Perspectives on Native American mapmaking and map use* (Chicago: University of Chicago Press, 1998).

European maps and plans into a comprehensive cartobibliography.[65] Gole's work nonetheless illustrated the problem of the European encounter: most of the autochthonous maps in her cartobibliography are from the 18th century or later, the period when Europeans were making significant inroads in colonising India.

What counts as native mapping in India remains unclear, more often referring to the interaction between imperial cartographic projects and their native subjects and local assistants - not always under British imperial rule. For example, one study has shown the diffusion of cartographic knowledge between local Marathi rulers and the Mughal Empire.[66] Nevertheless, the role of native surveyors and mapmakers under British rule has been a prominent subject of study. The 'pundits' or native explorers who surveyed Central Asia on behalf of the British authorities (immortalised by Kipling) have been written about extensively but not always critically.[67] More recent work has shown how the 'pundit' became instrumentalised by the colonial state and their work routinely rendered invisible in the process of making maps.[68] The extent to which the native surveyor was an active agent in the production of cartographic knowledge for the early Survey of India has also been much debated. Edney argued that cartographic *science*, as it was imagined in the Enlightenment, was set up in the early Survey to distinguish the British officer from the native surveyor who could only perform science with the permission of a British official. Meanwhile the British officer oversaw a service increasingly comprising many skilled Indians, yet who were kept intellectually separate from the practice of cartography.[69] As others have pointed out however, this denied the 'subaltern' surveyor any agency and Kapil Raj has shown that the early Survey was far more collaborative and heavily dependent on local, native knowledge and skills than the purportedly 'European'

[65] S. Gole, *Indian maps and plans: From earliest times to the advent of European surveys* (Delhi: Manohar, 1989).
[66] P. Gogate & B. Arunachalam, B, 'Area maps in Maratha cartography: A study in native maps of Western India', *Imago Mundi*, 50:1 (1998), pp.126-140. The Marathas and Mughals were competing powers in 17th and 18th century India as the Europeans were arriving.
[67] D. Waller, *The pundits: British exploration of Tibet and Central Asia* (Lexington: University Press of Kentucky, 1990); J. Stewart, 'The pundits: surveying the frontiers of India in the Great Game', *Asian Affairs*, 48:1 (2017), pp.90-102.
[68] K. Raj, *Relocating modern science: Circulation and the construction of knowledge in South Asia and Europe, 1650-1900* (Basingstoke: Palgrave Macmillan, 2007). Chapter 6 (pp.181-202) covers the pundits. See also, T. Mathur, *How professionals became natives: Geography and trans-frontier exploration in Colonial India* (Thesis, UMich, 2018).
[69] M. Edney, *Mapping an empire: The geographical construction of British India, 1765-1843* (Chicago: University of Chicago Press, 1997).

science it claimed to be.[70] The subsequent section will delve into broader studies of the native informant as it considers the literature around colonial knowledge in India.

A substantial area of scholarship on colonial mapping has explored how colonial power was exercised through maps and surveys, and how maps were deployed to push, sustain, and reinforce colonial rule. Those studies have commonly interpreted colonial mapping and surveying to be driven by the need to rationalise space and mark out territory for the purpose of imperial management and exploitation, which created a particular – usually fictive – imperial vision of the colony.[71] Such studies have not only concentrated on European imperialism but also mapping by non-European imperial powers, such as Qing China or Imperial Japan, which points to a more global culture of colonial mapping and surveying.[72] Colonial India, particularly through the Survey of India and Great Trigonometrical Survey (GTS), has proven fruitful for critical studies of maps and surveys. Some continued with the theme of conquest, surveillance and colonial administration, while others have examined how maps have been used to legitimise colonial rule in India at different times.[73] Matthew Edney's book on the early Survey and its Trigonometrical mapping, based on his thesis, remains one of the most comprehensive studies of British mapping in India.[74] Edney argued the East India Company's surveys under Rennell and Lambton were driven by the need to legitimise British imperial control by 'constructing' and rationalising a geographic India on liberal European cartographic terms, through the technologically advanced method of triangulation. However, the skills and technology available in India meant the British were never fully able to realise their 'panoptic' ambitions – in a Foucauldian sense – for control and surveillance. Meanwhile, the early survey

[70] Raj, *Relocating Modern Science*. Chapter 2 (pp.60-82) is on British mapping in India. Also, K. Raj, 'Networks of knowledge, or spaces of circulation? The birth of British cartography in colonial South Asia in the late eighteenth century', *Global Intellectual History*, 2:1 (2017), pp.49-66.

[71] They have also been geographically diverse e.g., British Guiana; D. Burnett, *Masters of all they surveyed: Exploration, geography, and a British El Dorado* (Chicago: University of Chicago Press, 2000). West Africa; T. Bassett, 'Cartography and empire building in nineteenth-century West Africa.', *Geographical Review*, 84:3 (1994), pp.316-335. Mexico; R. Craib, *Cartographic Mexico: A history of state fixations and fugitive landscapes* (Durham: Duke University Press, 2004). For a broader edited volume on imperial mapping see, J. Akerman (Ed.), *The imperial map: Cartography and the mastery of empire* (Chicago: University of Chicago Press, 2009).

[72] L. Hostetler, *Qing colonial enterprise: Ethnography and cartography in early modern China* (Chicago: University of Chicago Press, 2001); D. Fedman, 'Japanese colonial cartography: Maps, mapmaking, and the land survey in colonial Korea', *The Asia-Pacific Journal*, 10:52 (2012), pp.1-18.

[73] L. Chester, 'The mapping of empire: French and British cartographies of India in the late-eighteenth century', *Portuguese Studies*, 16 (2000), pp.256-75; M. Mann, 'Mapping the country: European geography and the cartographical construction of India, 1760-90', *Science, Technology and Society*, 8:1 (2003), pp.25-46; M. Bernardo, 'Making territory visible: The revenue surveys of colonial South Asia', *Imago Mundi*, 59:1 (2007), pp.78-95.

[74] Edney, *Mapping an empire*.

was beset with bureaucratic and logistical problems as the British continued to pursue triangulation to signify their superiority and dominance. Edney's work has been criticised for some of its assumptions about British geographical aims and native participation, as well as overly relying on British archives, but Edney decisively located the practice of surveying and mapmaking in India rather than European mapping from afar.[75]

Several subsequent studies have built on or challenged Edney's work. Ian Barrow made the case that British mapping created a historical narrative of territorial possession which legitimised control and helped forge British identity by placing India at the heart of its empire.[76] Kapil Raj challenged the binary argument that either 'European' science spread from the metropole to colony, often forcefully, or that most of colonial science was simply the invisible usurpation of indigenous knowledge. Instead, he argues that new forms of hybrid and changeable knowledge emerged from the interaction and circulation of ideas, material, technology, skills etc. between Europeans and native Indians.[77] The early surveys in India, for example, were far more collaborative and dependent on the circulation of geographical knowledge between active native participants and British officials, creating a much more composite map and image of India. The relationship between native and coloniser was not an even one, but the coloniser was far more dependent on the intermediary than often portrayed.[78] More recent research has increasingly recognised that British officials were fully aware, and even came to accept, the limits and failures of mapping and surveying while the colonial state was less assured, ambitious, and all-seeing than assumed. Thomas Simpson, for example, has shown how the high frontier often proved impossible to map because of the challenging conditions for surveyors, assistants and equipment, which manifested in broader doubts over the overall value of spatial knowledge in colonial India and beyond.[79]

[75] K. Raj, 'Review: Mapping an empire', *The Indian Economic & Social History Review*, 37:3 (2000), pp.361-364.
[76] I. Barrow, *Making history, drawing territory: British mapping in India, c.1756–1905* (Oxford: Oxford University Press, 2003). For a discussion of the indigenous response using maps in their own history-making see, S. Gupta, *Cultural constellations, Place-making and ethnicity in Eastern India, 1850-1927* (Leiden: Brill, 2017).
[77] Raj, *Relocating modern science*; 'Networks of knowledge, or spaces of circulation?'.
[78] See also, K. Raj. 'Spaces of circulation and empires of knowledge: ethnolinguistics and cartography in early colonial India', in P. Findlen (ed.), *Empires of knowledge* (London: Routledge, 2018).
[79] T. Simpson, '"Clean out of the map": Knowing and doubting space at India's high imperial frontiers', *History of Science*, 55:1 (2017), pp.3-36; *The frontier in British India: Space, science, and power in the nineteenth century* (Cambridge: Cambridge University Press, 2021).

The frontier of colonial India has been an area which has consistently highlighted the complexities and unevenness of colonial surveying and mapping as a political project.[80] Another recent trend has been to incorporate maps into the wider body of spatial material culture in colonial India. Nilanjana Mukherjee's recent work has situated maps and the GTS in the broader colonial production of India as an imperial space through cartography, landscape paintings and travel narratives.[81] This points to a broader contextual and cultural position of maps, which map historians have tended to privilege in terms of spatial 'production' but were not the only – and often the least common – way in which space, landscapes and territory were imagined. Keith Lilley has further explored how the GTS has left a material imprint on the modern Indian landscape through the surviving ruins of the towers built for trigonometrical surveying.[82] Mukherjee's earlier work on the GTS points to another area which map scholarship has begun to consider, which is native resistance to surveys and mapping.[83] In this instance, Mukherjee points to the numerous occasions officers of the trigonometrical survey faced local hostility and resistance as the surveyors tried to build their towers. Moreover, resistance to mapping was common across the colonial world. Braun, for example, has shown when 'European' methods of cadastral surveying encountered non-European forms of land ownership and distribution, such as in southern Africa, it frequently led to social and political conflict.[84]

Many of the studies discussed have pursued what Edney called for: working across disciplines, infused with critical ideas, and addressing the contextual complexity of mapping and mapmaking, but grounded in empirical evidence. There is also a noticeable broadening of the map/knowledge/power approach to consider how maps have been received, interpreted, imagined and changed every time they are engaged with.[85] Christian Jacob's ambitious

[80] D. Zou & M. Satish Kumar, 'Mapping a colonial borderland: Objectifying the geo-body of India's Northeast', *The Journal of Asian Studies*, 70:1 (2011), pp.141-170; S. Misra, *Becoming a borderland: The politics of space and identity in colonial Northeastern India* (London: Routledge, 2011); K. Gardner, 'Moving watersheds, borderless maps, and imperial geography in India's Northwestern Himalaya', *The Historical Journal*, 62:1 (2019), pp.149-170.
[81] N. Mukherjee, *Spatial imaginings in the age of colonial cartographic reason: Maps, landscapes, travelogues in Britain and India* (New Delhi: Routledge, 2020).
[82] K. Lilley, 'Surveying empires: Archaeologies of colonial cartography and the Great Trigonometrical Survey of India', in *Mapping empires: Colonial cartographies of land and sea* (Cham: Springer, 2020), pp. 101-120.
[83] N. Mukherjee, '"A desideratum more sublime": imperialism's expansive vision and Lambton's Trigonometrical Survey of India', *Postcolonial Studies*, 14:4 (2011), pp. 429-447.
[84] L. Braun, *Colonial survey and native landscapes in rural South Africa, 1850–1913: The politics of divided space in the Cape and Transvaal* (Leiden: Brill, 2015).
[85] A point made by R. Kitchin & M. Dodge, 'Rethinking maps', *Progress in Human Geography*, 31:3 (2007), p.335.

intellectual history of cartography, for example, considered the reception and user of the map as much the mapmaker.[86] William Rankin has examined how the state's – and our – perception of territory has evolved in the 20th century through the development of technologies like GPS.[87] Recently, however, Edney has argued that map history has not fully moved beyond the Western, normative 'ideal' of cartography which emerged in the Enlightenment.[88] Drawing on much of his work over the last three decades, Edney suggests that "scholars and lay commentators alike have worked hard to erect and maintain a barricade around the normative map by refusing to accept as maps any works that reveal even a hint of the unorthodox".[89] Instead, Edney calls for a processual approach which "pays equal attention to the three processes of producing, circulating, and consuming maps" and methodologically "discern coherent sets of mapping practices."[90] Edney is right to suggest that many map scholars remain wedded to the 'normative' map and he makes an effective case for re-evaluating arbitrary distinctions taken for granted such as the map maker versus map user.[91] Many perform both functions in their everyday lives. Edney concludes with an appeal for map historians to,

> …elucidate the multiple mapping processes deployed across a wide variety of spatial discourses in human societies. Only by careful analysis of the participants in the discourses and of how they produced, circulated, and consumed their maps can we hope to provide valid explanations of the particular forms maps have taken and of the varied roles they have played in human societies, whether in the past, today, or in the future….normative map scholars [should] cease being prescriptivists, who argue that people should make maps in specific and limited ways, and instead become descriptivists, who seek to understand and explain how people produce, circulate, and consume maps according to their discursive conditions.[92]

One could argue this has already been happening in the last few decades as many have already moved on from thinking about 'the map', to the processes and dynamics behind mapmaking

[86] C. Jacob, *The sovereign map: Theoretical approaches in cartography throughout history* (Chicago: Chicago University Press, 2006). Originally published in French in 1992.
[87] W. Rankin, *After the map: Cartography, navigation, and the transformation of territory in the twentieth century* (Chicago: University of Chicago Press, 2016).
[88] M. Edney, *Cartography: the ideal and its history* (Chicago: University of Chicago Press, 2019). Not only map historians, but other scholars and even society at large still holds onto a normative ideal of cartography.
[89] Edney, *Cartography*, p.4.
[90] Edney, *Cartography*, p.44-45.
[91] Edney, *Cartography*, p.234.
[92] Edney, *Cartography*, p.236.

and map consumption.[93] As this review has and will show, an interest in process can be seen from a wide range of scholars who may not be conventional map historians, yet clearly study the historical and contextual processes behind surveying, mapping and mapmaking. Nonetheless, Edney's work bookends a chapter which began with Harley and his peers and sets up the possibility for a much wider reading of mapping and 'map history'.

So where does map history, colonial or otherwise, go from here? In line with the broader humanities and social sciences, the future may lie in turning away from the provincializing of Western cartographic theory and claims, to re-thinking historical mapping "*from* Latin America, *from* Africa, *from* Indigenous places, and *from* the marginalised in the global South, and so on."[94] Decolonial thinking, to borrow and adapt from Radcliffe, does not just critically analyse the legacies of colonialism in how we imagine, describe or map the world but argues that the modern episteme "is always and intrinsically saturated with coloniality", and the job of decolonising is to "place diverse knowledges on a horizontal relation, bringing knowledges from different settings into juxtaposition with each other."[95] Modern critical cartography has begun to consider theoretical and practical ways to decolonise mapping, particularly through the longer tradition of counter-mapping, but also by recentring indigenous cartographic knowledge and making them active participants in mapping and reclaiming toponymy.[96] Map historians have recently begun to cast their eye on the legacies of colonial mapping during and after decolonisation, and examined some of the counterhegemonic mapping which tried to undermine Western forms of representation and models of mapping in the 20th century.[97] Elevating non-Western knowledges of map history, praxis or theory may fulfil what Edney suggests should be a greater concern for the manifold roles mapping has (or has not) played

[93] Mary Pedley's work on the 18th century map trade is one notable example. See, *The commerce of cartography: Making and marketing maps in eighteenth-century France and England* (Chicago: Chicago University Press, 2005).
[94] S. Radcliffe, 'Decolonising geographical knowledges', *Transactions of the Institute of British Geographers*, 42:3 (2017), p.329.
[95] Radcliffe, 'Decolonising geographical knowledges', p.330.
[96] For a statement of intent and innovative approaches to decolonising the map see the recent *Cartographica* special issue on 'Decolonizing the Map', 55:3 (2020).
[97] J. Akerman (Ed.), *Decolonizing the map: Cartography from colony to nation* (Chicago: University of Chicago Press, 2017). Raymond Craib's chapter (1) is a good exposition of how map historians can challenge the imperial cartographic episteme.

across the history of societies. But a more difficult challenge is whether the historical map - and the coloniality of mapping - can be unmapped or even remapped.[98]

This section has outlined the theoretical foundations which the thesis builds on. Nevertheless, there is a gap which has not been addressed so far: research on the history of language or linguistic maps as a type of thematic map. Thematic mapping has, of course, been of great interest to scholars since Arthur Robinson's seminal study on the history of the subject.[99] Of particular interest has been the emergence of state censuses, enumerative methods and ethnographic science in the 19th century, the use of maps (particularly choropleth) to imagine, represent and circulate 'new' data, and the link between such maps with nationalism and nation-building.[100] Some have incorporated a few examples of linguistic maps in their work. Hansen, for example, discusses the impressive *Linguistic map of the Prussian State according to the Census of the Year 1861* by Richard Böckh as an example of how statistical mapping was influential in establishing Prussia's claim to be the home of the German nation.[101] Catherine Dunlop's work on the mapping of the Franco-German borderland stands out, as she includes a thorough interrogation of language mapping in 19th century Europe.[102] Dunlop argues that language mapping and surveying provided alternative ways of imagining borders, territories and nationhood, for example, Alsatian regionalists constructed a specific dialect geography which could not be tied politically to either Germany or France.[103]

Apart from Dunlop's work, there have been very few in-depth studies of historical language maps and mapping by geographers and historians, and certainly far less on language mapping in the colonial world. Arthur Robinson did not even include language maps as a type of

[98] The Linguistic Survey of India is instructive about the challenge of undoing the colonial episteme: the last decade has seen the revival of a bottom-up, people and minority-centred *People's Linguistic Survey of India,* which is certainly more participatory than Grierson's survey, yet has been criticised for being too loose with linguistic methods which renders it less linguistically helpful than the original LSI.
[99] A. Robinson, *Early thematic mapping in the history of cartography* (Chicago: University of Chicago Press, 1982).
[100] On USA: S. Schulten, *Mapping the nation: History and cartography in nineteenth-century America* (Chicago: University of Chicago Press, 2012); Russia: S. Seegel, *Mapping Europe's borderlands: Russian cartography in the age of empire* (Chicago: University of Chicago Press, 2012); Germany: J. Hansen, *Mapping the Germans: Statistical science, cartography, and the visualization of the German Nation, 1848-1914* (Oxford: Oxford University Press, 2015). Baltic nations: C. Gibson, *Nations on the drawing board: ethnographic map-making in the Russian Empire's Baltic provinces, 1840-1920* (Unpublished thesis, EUI, 2019).
[101] Hansen, p.63ff.
[102] C. Dunlop, *Cartophilia: Maps and the search for identity in the French-German borderland* (Chicago: University of Chicago Press, 2015).
[103] C. Dunlop, 'Mapping a new Kind of European boundary: The language border between modern France and Germany', *Imago Mundi*, 65:2 (2013), pp.253-267.

thematic map in his book on the subject. Language mapping (like linguistic geography) has largely been the domain of linguists and dialectologists.[104] Yet much of their work are technical or methodological histories and largely uncritical. Nor is such work concerned with the complex cultural, social and political contexts language mapping emerges in. There remains much to do in terms of untangling the nationalist and colonial motivations behind linguistic surveys and maps, their socio-cultural and political afterlives and their, all too often pernicious, legacies in the 20th century.

Surveys, networks and knowledge

The Linguistic Survey was one of several colonial surveys modelled on the cartographic Survey of India, with its ambition to map all of India. The Geological Survey, established in 1851, was instituted to uncover, survey and map the exploitable natural resources of the subcontinent while the Archaeological Survey (traditionally dated to 1861) set out to excavate, recover and map the antiquities and heritage of India. The colonial surveys, along with the statistical census, have "served to illuminate the colonial power's ideological commitment to, and material motivation for, a sustained engagement with science on a grand (indeed subcontinental) scale, and to demonstrate the manner in which Western science in India might function more in response to local needs than at the behest of metropolitan science."[105] They have also been inseparable from the concept of 'colonial knowledge', or "those forms or bodies of knowledge that enabled European colonizers to achieve domination over their colonized subjects", and the Survey of India, census, and to a lesser extent the other surveys, have been central to studies of the nature, production and mobilisation of knowledge *by* and *for* the colonial state.[106] This section begins by reviewing the different – but overlapping - ways in which surveys have been framed; from hegemonic systems and colonial modalities, to information/surveillance 'orders' which masked the weaknesses of the state; rationalising and mapping difference, yet heavily dependent on local knowledge and active collaboration, creating a more compromised and hybridised form of 'colonial' knowledge.

[104] For a comprehensive linguistic perspective on the history and methods of language mapping see: A. Lameli, R. Kehrein & S. Rabanus, *Language and space: An international handbook of linguistic variation, 2: Language mapping* (Berlin: De Gruyter Mouton, 2011).
[105] D. Arnold, *Science, technology and medicine in colonial India* (Cambridge: Cambridge University Press, 2000), p.40.
[106] P. Wagoner, 'Precolonial intellectuals and the production of colonial knowledge', *Comparative Studies in Society and History*, 45:4 (2003), p.783.

A series of influential studies on how knowledge was gathered, produced and became "cultural technologies of rule" emerged in the late 1980s and 1990s through a group of cultural anthropologists who have sometimes been retrospectively labelled the 'Chicago School' by South Asianists.[107] Drawing on Said's postcolonial framework, Ronald Inden, Bernard Cohn and others articulated how colonial rule was built on the power of 'knowing' and presenting their knowledge as more rational and logical than indigenous, non-Western forms of knowledge. Inden, for example, argued that Indology as a discipline continued to view Indian civilisation as the opposite of the West and depicted India "as inherently symbolic and mythical rather than… rational and logical".[108] Cohn's formulation of knowledge gathering and production was important in connecting surveys to the colonial administration's assumption that India "like others they were governing, could be known and represented as a series of facts" using their "own forms of knowing and thinking".[109] Cohn argued that *language* was the prerequisite knowledge gathered, in order to rule and translate India, before they "could create other forms about the people they were ruling…to classify, categorise and bound the vast social world that was India so that it could be controlled."[110] Cohn defined such projects to collect the facts as 'investigative modalities'. These included historiographic, observational, survey, enumerative, museological and surveillance modalities which produced serviceable knowledge in the shape of reports, statistical tables, histories, gazetteers, maps etc. The colonial surveys were very much part of the 'survey' and 'surveillance' modalities, while the census fulfilled the 'enumerative' ambitions of the state. The 'museological' modality – the idea that India was a landscape of collectable and curious antiquities – was reflected in the work of the Cunningham's Archaeological Survey.[111] Cohn's point about linguistic knowledge being fundamental to other forms of colonial knowledge is interesting when one considers the relative lateness of the Linguistic Survey, which only commenced a century or more after British rule commenced. Rather than systematic or well organised, this points to the haphazardness,

[107] N. Dirks, *Castes of mind: Colonialism and the making of modern India* (Princeton: Princeton University Press, 2001), p.9; R. O'Hanlon, 'Caste and its histories in colonial India: A reappraisal', *Modern Asian Studies*, 51:2 (2017), pp.432-461.
[108] R. Inden, 'Orientalist constructions of India', *Modern Asian Studies*, 20:3 (1986), p.403. Another key point for Inden and those who followed was that the colonial creation of a politically and economically underdeveloped India allowed for the appropriation of power by European scholars and administrators.
[109] B. Cohn, *Colonialism and its forms of knowledge* (Princeton: Princeton University Press, 1996), p.4.
[110] Cohn, *Colonialism and its forms of knowledge*, p.4-5.
[111] Cohn, *Colonialism and its forms of knowledge*, p.9.

incoherence and incompleteness of knowledge held by the colonial state, which did not even have a comprehensive understanding of the subcontinent's languages for much of its rule.[112]

Nicholas Dirks, another member of the so-called Chicago School, examined how the census and anthropological surveys played a significant and far-reaching role in the knowledge production of the modern caste system.[113] He argued that the 1872 and 1881 Censuses were the primary drivers for making caste the fundamental division of India's social structure but were unable to conclusively identify a caste hierarchy. Consequently, the 1901 Census proved decisive in classifying caste through the work of the Census Commissioner, Herbert Risley, an 'expert' on anthropometry and race who introduced a caste hierarchy into the census schedule based on his own anthropological surveys.[114] The 1901 Census would also be important for Grierson, who had difficulties supervising the language section, but diverged from Risley's view that language could be classified on racial terms. One consequence of census classification was the creation of caste associations who protested and challenged their position in the census hierarchy, even launching campaigns to manipulate later census returns (something which would also happen with language in parts of India). Ultimately, the caste question was abandoned in the 1931 Census as it had become too politicised.[115] Dirks was touching on something which some Subaltern Studies scholars were concerned with: the extent native populations could – or did - actively resist the colonial state's knowledge gathering, production and, ultimately, power. David Arnold, for example, argued that Western medicine only successfully operated in "colonial enclaves" such as the barracks whereas it faced resistance in wider India from indigenous forms of medicine and medical practices, which were co-opted, yet presented as 'Western' and differentiated from indigenous practices.[116]

Much of this earlier work was criticised for an excessive emphasis on state power, lack of research into the processes of knowledge creation, and limited focus on active native

[112] This limitation was partly overcome by inventing a linguistic hierarchy in India, with Sanskrit, Hindustani and a few major vernaculars at the top and the rest seen as lesser dialects, while the state made use of native intermediaries to act as translators. The Anglicist position in the early 19th century could also be interpreted as a reaction to this knowledge deficiency; if an English-speaking class of Indians were formed then a comprehensive knowledge of India's languages would – in theory – be unnecessary to rule. For more, see chapter two.
[113] Dirks, *Castes of mind*.
[114] Dirks, *Castes of mind*, p.48-52.
[115] Dirks, *Castes of mind*, p.49.
[116] D. Arnold, *Colonizing the body: State medicine and epidemic disease in nineteenth-century India* (Berkeley: UC Press, 1993).

involvement in the production of colonial knowledge. Another branch – although not in a coherent sense of the word – of scholarship in the 1990s questioned "the assumption that the colonised were mere passive bystanders to the process, and in pointing to significant elements of continuity, epistemic and otherwise, running across the presumed colonial divide."[117] For example, Eugene Irschick argued that the British established themselves in South India not through domination, but in dialogue and collaboration with local landholders and land tenants whose participation produced a new, "historically derived and functional knowledge."[118] Christopher Bayly's work on intelligence-gathering, which touched on the colonial practice of surveying, was particularly important in pushing back against the postcolonialist and more discursive studies of colonial knowledge and power.[119] Bayly agreed to an extent with those who followed Said and stressed the significance of knowledge to the colonial enterprise. British control in India depended on their ability to shape knowledge through the appropriation of native agents and, importantly, the pre-colonial information structures and networks already in place. Where Bayly diverged, however, was in demonstrating that indigenous networks, actors, and bodies of information interacted with the colonial system of knowledge in ways which were more fragmented, pluralistic, uneven and affected by local realities. As Bayly wrote, "colonial discourse must reflect the pervasiveness of Indian agency, of the Indian intellectual challenge", bringing native agency to the forefront of how colonial knowledge was produced in India.[120] Crucially for this thesis, Bayly also argued that colonial knowledge was often unstable, driven by fear, doubt and ignorance, and more often "reflections of the weakness and ignorance of the colonisers than a gauge of hegemony."[121] Appropriating the native 'information order' into the vulnerable and unstable (but often brutal) colonial system of knowledge gathering did not suggest that 'knowledge was power', but that colonial knowledge was frail. Bayly's argument may not seem applicable to the LSI since he focuses on the first century of British involvement in India when it was establishing control, but that sense of frailty and doubt was very much alive, if not more so, in the late colonial period.

A wide range of scholarship has explored the active participation of native agents and collaborative nature of colonial knowledge-gathering and production, such as Peabody's work

[117] Wagoner, 'Precolonial intellectuals', p.784.
[118] E. Irschick, *Dialogue and history: Constructing south India, 1795-1895* (Berkeley: UC Press, 1994), p.114.
[119] C. Bayly, *Empire and information: Intelligence gathering and social communication in India, 1780-1870* (Cambridge: Cambridge University Press, 1996).
[120] Bayly, *Empire and information*, p.314.
[121] Bayly, *Empire and information*, p.143.

on enumeration and the census in precolonial and early colonial India.[122] The participation of Indians in the production of scientific knowledge in India has been a particularly productive area of scholarship in the last decades.[123] As Wagoner points out, those scholars did not differ from the postcolonial and Subaltern scholars on the point that knowledge was fundamental to colonialism but moved away from the native as passive informant, instead arguing they were active participants in the creation of colonial knowledge.[124] More recent research on the roles of Indians in the production of knowledge has extended to the colonial-era railway system and the British 'security state'.[125] Nevertheless, while the significance of native participation in shaping colonial knowledge has moved beyond the passive informant, David Arnold and others have warned against a comforting view of the interactions between coloniser and colonised which denies the power and imbalance in such encounters.[126] More broadly, the colonial surveys remain a meaningful subject to interrogate the production and mobilisation of 'colonial knowledge' in India. These include studies of the early botanical surveys under the East India Company and some recent work by Fuller on the anthropological and anthropometric surveys in late colonial India, which were never formally consolidated under a single national survey as the others.[127] Other research has shown how the frontier was a principal locus for

[122] N. Peabody, 'Cents, sense, census: Human inventories in late precolonial and early colonial India', *Comparative Studies in Society and History*, 34:4 (2001), pp.819-50. Another difference from the Chicago and Subaltern scholars was to include early colonial and precolonial India, rather than the latter half of the 19th century. For a critique of preceding historiography see, R. Eaton, '(Re)imag(in)ing other^{2}ness: A postmortem for the postmodern in India', *Journal of World History*, 11:1 (2000), pp.57-78. For an example of the more collaborative nature in knowledge production, see, M. Dodson, 'Re-presented for the pandits: James Ballantyne, 'useful knowledge,' and Sanskrit scholarship in Benares College during the mid-nineteenth century', *Modern Asian Studies*, 36 (2002), pp.257-298.

[123] For example, P. Chakrabarti, *Western science in modern India: Metropolitan methods, colonial practices* (Delhi: Permanent Black, 2004). Kapil Raj's *Relocating modern science* is another one.

[124] Wagoner, 'Precolonial intellectuals', p.784.

[125] A. Mukhopadhyay, *Imperial technology and 'native' agency: A social history of railways in colonial India* (Abingdon: Routledge, 2018). Mukhopadhyay shows how native Indian rail users and workers shaped the railway system in ways which resist the notion of an advanced technology transplanted from Europe. For the role of native agents in the 'security state', see, J. Hevia, *The imperial security state: British colonial knowledge and empire-building in Asia* (Cambridge: Cambridge University Press, 2012).

[126] D. Arnold, *The tropics and the travelling gaze: India, landscape and science, 1800-1856* (Seattle: University of Washington Press, 2005), p.8-10.

[127] For an account of the early botanical surveys, see, Z. Baber, 'The plants of empire: Botanic gardens, Colonial power and botanical knowledge', *Journal of Contemporary Asia*, 46:4 (2016), pp.659-679. For more on anthropological surveys in the late 19th century, see, C. Fuller, 'Anthropologists and viceroys: colonial knowledge and policy making in India, 1871-1911', *Modern Asian Studies*, 50:1 (2016), pp.217-258; 'Ethnographic inquiry in colonial India: Herbert Risley, William Crooke, and the study of tribes and castes', *Journal of the RAI*, 23:3 (2017), pp.603-621. For an interesting discussion on the role of phrenology in the formation of colonial knowledge, see, K. Wagner, 'Confessions of a skull: Phrenology and colonial knowledge in early nineteenth-century India', *History Workshop Journal*, 69:1 (2010), pp.27–51.

ethnographic surveys and sites of scientific production (and failure).[128] However, apart from the cartographic Survey of India, the preeminent 'survey' of scholarly interest has been the Census of India. Building on Dirks and others, much of the focus on the census and knowledge has been on caste and the mobilisation of census data to manage different groups.[129] Kalpagam's work on statistical knowledge, for example, suggests the census' importance to colonial governance was that it "provided for the first time the possibility of discursively articulating 'society' and social change that was necessary to report on 'moral and material progress.'"[130]

Most would agree that colonial forms of knowledge were not fixed or static but constantly shifting and changing. Where historical geographers have been influential is in studying the circulatory nature of colonial knowledge, and mobilities of ideas and agents across the imperial world. This has been done through the study of imperial 'networks' in the globalising 18th and 19th centuries. Geographers have drawn on some themes which the (so-called) 'new imperial historians' were concerned with, including a greater interest in the impact of colonies on the metropole and a view of empire as "interactive global networks".[131] Geographies of empire have been central to the development of spatial studies of imperialism, in the movement and circulation of knowledge through explorers, travellers, scholars, and in geographical societies.[132] Moving beyond the core/periphery or metropole/colony binary, Alan Lester's work has been instrumental in articulating the geographies of colonial knowledge and ideas – its mobility and scales of interaction - in active global 'imperial networks', where ideas developed in one part of empire informed or influenced ideas in other corners of the imperial

[128] Z. Leonard, 'Colonial ethnography on India's North-West Frontier, 1850-1910', *The Historical Journal*, 59:1 (2016), pp.175-196; O. Sarkar, 'Science, surveying and scientific Authority: The brothers Schlagintweit in 'India and High Asia', 1854–57', *South Asia: Journal of South Asian Studies*, 40:3 (2017), pp.544-565.
[129] K. Walby & M. Haan, 'Caste confusion and census enumeration in Colonial India, 1871–1921', *Histoire sociale/Social history*, 45:90 (2012), pp.301-318; P. Samarendra, 'Census in colonial India and the birth of caste', *Economic and Political Weekly*, 46:33 (2011), pp.51-58. For a discussion on enumeration and population statistics in the broader colonial world see, for example, K. Ittmann, D. Cordell & G. Maddox (eds.), *The demographics of empire; the colonial order and the creation of knowledge* (Athens: Ohio UP, 2010).
[130] U. Kalpagam, *Rule by numbers: Governmentality in colonial India* (MD: Lexington Books, 2014), p.209. By using a governmentality framework, Kalpagam argues the census evolved from a "site of control…to a potent weapon of divide and rule" (p.213.) towards the end of British control.
[131] For a good account of the themes covered by new imperial historians, see, S. Howe (ed.), *The new imperial histories reader* (London: Routledge, 2010).
[132] A notable example is F. Driver, *Geography militant: Cultures of exploration and empire* (Oxford: Blackwell, 2001). See also, M. Bell, R. Butlin and M. Heffernan (Eds.) *Geography and imperialism, 1820-1940* (Manchester: Manchester University Press, 1995); R. Butlin, *Geographies of empire: European empires and colonies, c.1880-1960*. (Cambridge: Cambridge University Press, 2009).

world (and the metropole).[133] Knowledge and ideas are understood to be part of, and transmitted by, 'imperial lives': the encounter, flow and development of colonial knowledge studied through the movement, actions and records of explorers, administrators, writers etc.[134] Historians and historical geographers have expanded the field of imperial 'networks' to consider networks of patronage, networks centred on identity and the transnational movement of officials, governance and scholars.[135]

As well as historical geographers and new imperial historians, historians of science have been important contributors to studies of imperial scientific/scholarly networks. Moving away from the diffusionist view that science spread in one direction from Europe to the rest of the World, and drawing on more conceptual theories such as ANT, historians of science have become interested in how "local meanings and settings interacted with knowledge circulating either across large distances or across geographically close, but professionally distinct, communities, resulting in reconfigured forms or practices."[136] This has seen the emergence of very expansive studies of scientific networks across the British and other empires, but also scholarship on the colonies as a laboratory, tropical medicine and the emergence of global climate observation.[137] Raj and others have also stressed the importance of re-examining the 'go-betweens' or mediators who acted as knowledge brokers in the increasingly complex and transnational, intellectual, scientific and technological networks which developed in the 19th century.[138]

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[133] A. Lester, *Imperial networks: Creating identities in nineteenth-century South Africa and Britain* (London: Routledge, 2001). For an in-depth review of imperial networks in historical geography, see, A. Lester, 'Imperial circuits and networks: geographies of the British Empire', *History Compass*, 4:1 (2006), pp.124-141.

[134] D. Lambert & A. Lester (Eds.), *Colonial lives across the British Empire: Imperial careering in the long nineteenth century* (Cambridge: Cambridge University Press, 2006).

[135] Z. Laidlaw, *Colonial connections, 1815–45: patronage, the information revolution and colonial government* (Manchester: Manchester University Press, 2005); Laidlaw explores the government and personal networks between London and the colonies. A similar theme is covered by C. Prior, *Exporting empire: Africa, colonial officials and the construction of the British imperial state, c.1900-1939* (Manchester: Manchester University Press, 2013). For a study of the imperial scholarly network, see, T. Pietsch, *Empire of scholars: Universities, networks and the British academic world, 1850-1939* (Manchester: Manchester University Press, 2013). An interesting area of imperial network studies has focused on identity, or a particular community, such as Crosbie's work on the Irish colonial network in India. See, B. Crosbie, *Irish imperial networks: Migration, social communication and exchange in nineteenth-century India* (Cambridge: Cambridge University Press, 2011).

[136] K. Raj, 'Introduction: circulation and locality in early modern science', *BJHS*, 43:4 (2010), p.515-516. This volume of the BJHS provides an excellent introduction to networks and circulation in the History of Science.

[137] B. Bennett & J. Hodge (eds.), *Science and empire: Knowledge and networks of science across the British Empire, 1800-1970* (London: Palgrave, 2011); H. Tilley, *Africa as a living laboratory: Empire, development and the problem of scientific knowledge, 1970-1950* (Chicago: University of Chicago Press, 2011); D. Neill, *Networks in tropical medicine: Internationalism, colonialism and the rise of a medical specialty, 1890-1930* (Stanford: Stanford UP, 2012); D. Coen, *Climate in motion: Science, empire and the problem of scale* (Chicago: University of Chicago Press, 2018).

[138] S. Schaffer, L. Roberts, K. Raj & J. Delbourgo (Eds.), *The brokered world: Go-betweens and global intelligence, 1770–1820* (New York: Science History Publications, 2009).

These include the unnamed clerks, translators, writers, scientific assistants, diplomats etc. whose positions were informal and inconsistent – and whose motives were not necessarily aligned with science - yet were immensely important in transmitting and exchanging information which became 'scientific' knowledge or used in empirical scholarship.[139] The Linguistic Survey, which did not employ many assistants for economic reasons, would become dependent on such go-betweens, including missionaries and teachers, to complete its surveying.

The history of imperial science and colonial knowledge forms part of a broader trend in *global histories* of scientific institutions, ideas and networks.[140] However, as Mayhew and Withers have recently pointed out, historians of science have,

> …worked through the rubrics of 'space' and 'place', the former as a more abstract term for a territorial extent and the latter as the lived reality of that territory as experienced by scientific communities. While other spatialized terms have been deployed by historians of science – notably 'networks' and 'migration/diffusion' – scale has been notable for its neglect as a spatial category of analysis.[141]

Withers and Mayhew suggest there is an opportunity for historical geographers to problematise scale in the history of 19th and early 20th century colonial science. As we shall see in the thesis, the LSI overcame its geographical deficiencies by implementing a scaled approach to surveying, bringing the informal surveyors and information they acquired in situ into a global network of linguistic experts.

On the other hand, the processes behind language gathering and production in India has been a more infrequent area of study among geographers, historians and, perhaps surprisingly, linguists. The final section of the review will cover the Linguistic Survey of India but the intention here is to outline briefly the various but often limited ways in which colonial linguistics or philology has been studied. One area of interest to cultural historians has been philology and the colonial construction of *Aryanism* in the late 18th and early 19th century, based

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[139] For more, see, K. Raj, 'Go-Betweens, travelers, and cultural translators' in *A Companion to the history of science* (Ed.) B. Lightman (Oxford: Wiley-Blackwell, 2016).

[140] See, L. Roberts, 'Situating science in global history: Local exchanges and networks of circulation', *Itinerario*, 33:1 (2009), pp.9-30. For a comprehensive global history of science which covers much of what has been discussed here, see, P. Findley (ed.), *Empires of knowledge: Scientific networks in the early modern world* (London: Routledge, 2018).

[141] C. Withers & R. Mayhew (eds.), *Geographies of knowledge: Science, scale, and spatiality in the nineteenth century* (Baltimore: Johns Hopkins University Press, 2020), p.4.

around the work on Sanskrit by scholars such as William Jones and James Prinsep.[142] Much of this research has pointed to the enlisting of Sanskrit into the imperial cultural project which established British legitimacy in India based on an imagined historical 'Indo-European' relationship.[143] Mantena has further argued that philology was closely entwined with colonial history-making in the beginning of the 19th century, particularly in the preservation of old texts, inscriptions and the consolidation of literary canons in languages such as Telugu.[144] Others have explored the colonial legacies of linguistic and cultural *Aryanism* in modern India, particularly in the narratives of Hindu nationalism today.[145]

The role of missionaries and biblical translation remains critical to any study of colonial linguistics, especially in gathering, compiling and producing dictionaries and grammars of lesser dialects and tribal languages across the imperial world.[146] The Linguistic Survey of India, like other linguistic projects in India, would consult material produced by European missionaries (since the 17th century), and enlist missionaries who were stationed across India with intimate knowledge of local languages. One could argue quite convincingly that colonial linguistics was missionary linguistics, with a few notable exceptions. However, the most comprehensive formulation of a history of colonial linguistics can be found in the work of Joseph Errington.[147] Errington identifies several different stages in the development of linguistics under colonialism. The first stage involved the initial linguistic encounter, usually by missionaries but not always, which often resulted in failure along with the cultural destruction of indigenous practices. As imperial rule was consolidated, orientalists and comparative philologists began to study the origins of colonised languages and transpose their work onto the cultural project of empire in order to map out difference between coloniser and colonised, to "chart the long historical trajectory in which imperialism emerged as a natural

[142] William Jones (1746-1796), famous for his role in further developing the Indo-European language thesis, established the Asiatic Society of Bengal as a centre of Oriental research in India. Prinsep (1799-1840), who had deciphered a number of important ancient Indian scripts, founded the eponymous journal of the Asiatic Society.
[143] T. Ballantyne, *Orientalism and race: Aryanism in the British Empire* (London: Springer, 2002); M. Dodson, *Orientalism, empire, and national culture: India, 1770-1880* (Basingstoke: Palgrave Macmillan, 2007); M. 'Translating science, translating empire: The power of language in colonial North India', *Comparative Studies in Society and History*, 47:4 (2005), pp.809–835.
[144] R. Mantena, 'Vernacular futures: Colonial philology and the idea of history in nineteenth-century south India', *The Indian Economic & Social History Review*, 42:4 (2005), pp.513-534; *The origins of modern historiography in India: Antiquarianism and philology, 1780-1880* (New York: Palgrave Macmillan, 2012).
[145] C. Hutton, 'Lost in the hall of mirrors: The linguistics of Aryan as a knowledge domain in colonial and postcolonial India', *Language, Culture and Society*, 1:1 (2019), pp.8-30.
[146] K. Zimmermann & B. Kellermeier-Rehbein (Eds.), *Colonialism and missionary linguistics* (Berlin: de Gruyter, 2015).
[147] J. Errington, *Linguistics in a colonial world* (Oxford: Blackwell, 2008). See also, J. Errington, 'Colonial linguistics', *Annual Review of Anthropology*, 30:1 (2001), pp.19-39.

continuation of the civilisational dynamic."[148] Next were the missionaries and their standardised linguistic work which lent them an authority in the colonial state. Lastly, Errington points to the resistance to standardisation but also the development of 'national' languages under colonialism which would become the language of the newly independent nation. Although Errington focused on Southeast Asia, the same patterns occurred – or even started – in India. Linguists today are certainly becoming more aware of the legacies of colonialism in the discipline and how linguistics owes much to the philological work done in colonial India, Africa and elsewhere.[149] However, this thesis addresses something which Errington and others have only implicitly acknowledged: colonial linguistics was fundamentally geographical, from the circulation of linguistic ideas across the imperial world, to the mapping and surveying of language and the classification and hierarchising of linguistic difference.

Language, maps and nationalism

The final part of this thesis explores the legacies of the LSI's mapping on language nationalism in Orissa and the Oriya movement's successful pursuit of a linguistic province in India, using the LSI's map of Oriya to make their claim. This section of the review focuses on the literature around mapping and nationalism, and the intersection of language and nationalism in colonial India. The visual power of maps or cartographic representations to nationalist movements and in the process of nation-building is a well-trodden subject in history, political geography and political science. Benedict Anderson's pioneering work on imagined communities, for example, included a chapter on maps and the colonial state's imagining of a territory as a bounded, determinate, grid which made it possible for anti-colonial nationalists to shape a 'grammar' of national territory and nationhood.[150] However, this chapter only appeared in the second edition (1991) and owed much to, in Anderson's own words, Thongchai Winichakul's thesis on the mapping of the Kingdom of Siam which was eventually published in 1994.[151] Winichakul introduced the idea of the nation as a 'geo-body', "a man-made territorial definition which creates effects – by classifying, communicating and enforcement – on people, things and relationships…an effect of modern geographical discourse whose prime technology is a

[148] Errington, *Linguistics in a colonial world*, p.89.
[149] The legacies of colonialism in linguistics as a discipline have only recently become a subject of serious enquiry: see, A. Deumert A. Storch & N. Shepherd (eds.), *Colonial and decolonial linguistics: Knowledges and epistemes*. (Oxford: Oxford University Press, 2021).
[150] B. Anderson, *Imagined communities: Reflections on the origin and spread of nationalism*, 2nd edition (London: Verso, 1991), p.xiv.
[151] T. Winichakul, *Siam mapped: A history of the geo-body of a nation* (Honolulu: U. Hawaii Press, 1994).

map".[152] Crucially, the geo-body was about more than geography or territory but a "component of the life of a nation…a source of pride, loyalty, love, passion, bias, hatred, reason, unreason…it also generates many other conceptions and practices about nationhood".[153] Although Siam was never colonised by a European power, a territorial mapping project which started in response to British and French encroachment in Southeast Asia became a project to naturalise the national geo-body, in which the map manifested meanings of nationhood beyond geography, territory and boundaries. Winichakul's work was also important in identifying the social and cultural importance of maps to nationalism in Asia amid the European imperial hegemony across the continent.

The concept of 'geo-body' was taken up by Sumathi Ramaswamy and applied to early 20th century India, where new forms of popular, patriotic and nationalist imagery were appearing in a variety of media which "repeatedly confronted, disrupted and 'deformed'" the state's scientific view of India's territory, through the anthropomorphic and sacred *Bharat Mata* or Mother India shaped like the map of India.[154] These logos of the national geo-body were frequently produced by what Ramaswamy calls 'barefoot cartographers', who often lacked formal training and worked in informal settings such as the bazaar, yet subverted the state produced map of India through the image of Mother India. Ramaswamy challenges Edney's statement that the Indian nationalists "adopted without question" the British geographical conception of India, pointing out this may have been the case for the official, elite nationalist movement but "mere lines on a piece of paper could never be adequate enough…the map form had to be supplemented by something else in order to do the deadly work of patriotism".[155] Whether regional-nationalist movements in Orissa and elsewhere had their own subaltern, 'barefoot cartographers', is an intriguing question but beyond the scope of this research. But Ramaswamy reminds us that mapping and mapmaking not only involved the colonial state or nationalist elites.

Goswami, focusing more on the colonial/national divide, argues that the nationalist naturalisation of India as *Bharat* in the form of *Bharat Mata* was a response to the

[152] Winichakul, *Siam mapped*, p.17.
[153] Winichakul, *Siam mapped*, p.17.
[154] S. Ramaswamy, *The goddess and the nation: Mapping mother India* (Durham: Duke University Press, 2010), p.291. See also: 'Maps and mother goddesses in modern India', *Imago Mundi*, 53:1 (2001), pp.97-114; 'Visualising India's geo-body: Globes, maps, bodyscapes', *Contributions to Indian Sociology*, 36:1-2 (2002), pp.151-189.
[155] Ramaswamy, *The goddess and the nation*, p.292.

contradictions of colonial geography which, on the one hand, deterritorialised India's imperial economy (creating an unconstrained space of capital) and, on the other hand, consolidated territory to monopolise and regulate power through an "elaborate, hierarchical bureaucracy that surveyed, mapped, and measured".[156] By drawing on primordial myths and ancient texts to claim a sovereign past, *Bharat Mata* "powerfully expressed the nationalist fantasy of the territorial displacement of colonial rule in favour of a presumed organic national community."[157] *Bharat Mata* and other configurations of a "territorially delimited and organically constituted national space and economy" mattered to the nationalists because such manifestations produced "a homogenous and singular nationality."[158] The myth of a sovereign or territorial pre-colonial past was not constrained to anti-colonial nationalism but also deployed in regional movements such as the Oriya movement in Orissa. But Goswami also speaks to the idea of a counter-colonial 'cartographic anxiety' among Indian nationalists, a concept introduced by Sankaran Krishna for post-independence India, but subsequently applied to other post-colonies in Asia and elsewhere.[159] Krishna's main point was that India's postcolonial anxieties around sovereignty, territorial integrity and national identity manifested itself in a cartographic discourse of "*inside* and *outside*" – especially along its frontier and borders – which reflected a deeper anxiety "of a society suspended forever in the space between 'former colony' and 'not-yet-nation."[160] This anxiety features in the political discourse of post-independence India which connected national development to secure borders, yet revealed itself in violent ways along the border (with Pakistan, in particular). 'Cartographic anxieties' are also reflected in the policies and practices of the state, for example in the (arbitrary) restrictions on map access or use, and controlling the export of maps outside of India.[161] As Assayag notes, this anxiety is not necessarily unfounded since India has had its territory and borders extensively and violently reshaped under colonial rule.[162]

[156] M. Goswami, *Producing India: From colonial economy to national space* (Chicago: University of Chicago Press, 2004), p.31.
[157] Goswami, *Producing India*, p.203.
[158] Goswami, *Producing India*, p.266.
[159] S. Krishna, 'Cartographic anxiety: Mapping the body politic in India', *Alternatives: Global, Local, Political*, 19:4 (1994), pp.507-521. It has been applied to China, in particular. See special issue on Cartographic anxieties, *Cross-Currents: East Asian History and Culture Review*, 6:1 (2017).
[160] Krishna, 'Cartographic anxiety', p.508.
[161] See, S. Mathur, 'Survey of India maps: (Ir)rationale about restricted maps', *Current Science*, 76:10 (1999), pp.1296–1297.
[162] J. Assayag, 'The body of India: Geography, ritual, nation', *Etnográfica*, 1:1 (1997), p.34.

Some have followed Krishna and focused on the frontier and borderlands as a site where such political and social anxieties play out.[163] Geographers of contemporary South Asia have also drawn on the concept, such a Corbridge and Simpson who incorporated 'cartographic anxiety' in their study of Hindu nationalist mapping.[164] Hindu nationalists are a good example of the 'cartographically anxious' since they have been preoccupied with something more than national space: redeeming an ethnoreligious, territorial Hindudom which has never existed. The cartographic image of *Akhand Bharat* or 'undivided India', which refers to a revisionist geography stretching from Afghanistan to Burma, still features in contemporary Hindu nationalist propaganda but is rooted in the colonial map of India.[165] In particular, some early Hindu nationalists embraced the native princely states as their *cartographic* imaginary for a Hindu nation which were cast as progressive, pure and Hindu spaces in contrast to British territory and regressive Muslim states.[166] Hindu nationalism was only one of a number of different anti-colonial nationalisms which appeared in the latter half of the 19th century. Language-based nationalism, or regionalism, was another.

Studies of nationalism in India (and the colonial world more widely) owe much to Partha Chatterjee's response to Benedict Anderson and others. Chatterjee pointed to a paradox in the European notion of nationalism as it appeared in a colonised society "which sets out to assert its freedom from European domination" but "remains a prisoner of the prevalent European intellectual fashions", and questioned "why is it that non-European colonial countries have no historical alternative but to try to approximate the given attributes of modernity when that very process of approximation means their continued subjection under a world order which only sets their tasks for them and over which they have no control."[167] For Chatterjee, the universalist and rationalist European nationalist thought "rejects and accepts, the dominance, both epistemic and moral, of an alien culture".[168] This was further developed by Chatterjee in a later book where, using Bengal as a case-study, he argued that non-European nationalism

[163] M. Saxer, 'A spectacle of maps: Cartographic hopes and anxieties in the Pamirs', *Cross-Currents: East Asian History and Culture Review*, 6:1 (2017), pp.122-150.
[164] S. Corbridge & E. Simpson, 'Militant cartographies and traumatic spaces: Ayodhya, Bhuj and the contested geographies of Hindutva' in S. Raju, M. Kumar & S. Corbridge (Eds.), *Colonial and post-colonial geographies of India* (London: Sage, 2006).
[165] Assayag, 'The body of India', p.44-45.
[166] M. Bhagavan, 'Princely States and the Hindu imaginary: Exploring the cartography of Hindu nationalism in colonial India', *The Journal of Asian Studies*, 67:3 (2008), pp. 881-915.
[167] P. Chatterjee, *Nationalist thought and the colonial World: A derivative discourse* (Tokyo: UNU & Zed Books, 1986), p.10.
[168] Chatterjee, *Nationalist thought*, p.11.

emerged from an earlier (19th century), inward, cultural and spiritual identity creation set apart from European nationalism and outside the colonial hegemony.[169] The intersection of language and nationalism in colonial India has usually been framed as part of the cultural-national (or regional) identity formation – 'imagining', in a Andersonian sense - during the 19th century, through the recovery and development of native literary and print cultures. The other link between language and nationalism were the politics of language in the national, anti-colonial movement, especially the dispute over Hindi and Urdu and the question of linguistic states as the future political division of India. Scholarship on regional language movements have largely been overshadowed by both, although there are significant convergences between linguistic identity formation, national politics and regional movements pushing for a linguistic territory or state.

The body of research on the role of vernacular languages in cultural and national identity formation under colonialism is too extensive to effectively cover here.[170] There is a common geographical thread which is worth recognising: they have largely focused on regional vernacular languages and literary cultures such Bengali, Tamil and Punjabi. Bengali has been a particularly popular case-study because of the substantial literary culture and print production which emerged in 19th century Bengal.[171] However, there is also a tendency to extrapolate the Bengali case-study as prototypical for the relationship between language and national identity formation under colonialism, which does not always translate to other vernacular literary cultures such as Tamil.[172] Ramaswamy has argued, in the case of Tamil, that the link between linguistic identity and nationalist sentiment has been overstated as part of a "metanarrative" of nationalism which extends as far back as the European Enlightenment and the work of Herder and Fichte.[173] Farina Mir similarly argues that the growth of a vibrant Punjabi literary and print culture in the 19th century did not foster nationalist feeling in the Punjab, in contrast to what

[169] P. Chatterjee, *The nation and its fragments: Colonial and postcolonial histories* (Princeton: Princeton University Press, 1993).
[170] For an expansive study of language and national identity in the subcontinent and elsewhere in Asia, see, A. Simpson (Ed.), *Language and national identity in Asia* (Oxford: Oxford University Press, 2007).
[171] See, for example, P. Sengupta, *Language as identity in colonial India: Policies and politics* (Singapore: Palgrave Macmillan, 2018). There has been some interesting work on the nexus of Bengali-language geographical literature and the construction of Bengali identity; S. Basu, 'The dialectics of resistance: Colonial geography, Bengali literati and the racial mapping of Indian identity', *Modern Asian Studies*, 44:1 (2010), pp.53-79.
[172] Sengupta, *Language as identity*, does this, as a recent example.
[173] S. Ramaswamy, *Passions of the tongue: Language devotion in Tamil India, 1891-1970* (Berkeley: UC Press, 1997), p.5.

happened in Europe as argued by Anderson and others.[174] Regional linguistic identity remains a complicated issue in contemporary India, particularly in states or areas which have had separatist or politico-territorial movements, yet there is also evidence that linguistic identity has not been politically important in contested but multilingual regions like Kashmir.[175]

The national politics of language, particularly within the anti-colonial independence movement, has also been an important area where scholarship on language and nationalism has converged. The two language issues which troubled the independence movement was the Hindi-Urdu debate, which further alienated the Muslim leadership, and the eventual political position of regional and minority languages in an independent India. Much has been written about the construction of Hindi and Urdu national identity and the contested position of each language in nationalist politics.[176] Gould has written about the role of nationalist Hindi literary culture in moulding a "heteroglossia" of nationalism where the literary and political discourse around inclusion and secularism became exclusionary, especially to Urdu and Muslim voices.[177] Rahman makes a similar point about Urdu politics which, although a major administrative language of Mughal and British India, only became politicised under the independence movement by those arguing for minority rights and eventually a separate state for Muslims – even though the only connection between Urdu and Islam was its Perso-Arabic script.[178] Other research has examined Gandhi's views on language as a unifying force, especially using Hindustani to bridge Hindi and Urdu, and his thoughts on integrating provincial languages into a single nation.[179]

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[174] F. Mir, *The social space of language: Vernacular culture in British colonial Punjab* (Berkeley: UC Press, 2010), p.71.

[175] G. Singh & H. Kim, 'The limits of India's ethno-linguistic federation: Understanding the demise of Sikh nationalism', *Regional & Federal Studies*, 28:4 (2018), pp.427-445; I. Khandy, 'No place for 'Kashmiri' in Kashmiri nationalism', *Nations and Nationalism*, 27:1 (2021), pp.260-278. Aligning linguistic identity to a political territory or achieving recognition/autonomy in the form of statehood would seem to matter more for linguistic groups which did not achieve such political recognition post-independence. This will be covered in chapter four of the thesis.

[176] For example, F. Orsini, *The Hindi public sphere, 1920-1940: Language and literature in the age of nationalism* (Oxford: Oxford University Press, 2009); W. Hakala, *Negotiating languages: Urdu, Hindi, and the definition of modern South Asia* (NY: Columbia University Press, 2016).

[177] W. Gould, *Hindu nationalism and the language of politics in late colonial India* (Cambridge: Cambridge University Press, 2004), p.208.

[178] T. Rahman, *From Hindi to Urdu: A social and political history* (Karachi: Oxford University Press, 2011). See also, K. Datla, *The language of secular Islam: Urdu nationalism and colonial India* (Honolulu: University of Hawai'i Press, 2013).

[179] P. Brock, *Mahatma Gandhi as a linguistic nationalist* (Columbia, MO: South Asia Publications, 1995); D. Lelyveld, 'Colonial knowledge and the fate of Hindustani', *Comparative Studies in Society and History*, 35:4 (1993), pp.665-82; 'Words as deeds: Gandhi on language', *The Annual of Urdu Studies*, (2001), pp.64-75.

On the other hand, provincial language politics becomes an issue after the Nehru Report (1928) cemented the idea of linguistic states as a method of overcoming religious and communal divisions in India.[180] Much of the scholarship on the national politics of linguistic states has tended to focus on the early post-independence period in the run up to the States Reorganisation Commission, after the newly independent government had initially declined to reorganise India on linguistic grounds (having already endured Partition).[181] The politics of provincial or regional language-territorial movements in the late colonial period has also - to an extent - been overshadowed by research into earlier periods of linguistic identity formation, with some notable exceptions. Paul Brass' work on the Maithili language movement remains a foundational text for understanding the social and political dynamics of regional linguistic movements in India.[182] According to Brass, the Maithili movement, which sought political recognition and a linguistic state, failed because the demand was principally driven by Maithili elites while ordinary Maithili speakers identified more with geography and caste than language. Linguistic identity, he argued, did not have to correlate with religion or caste and the Maithili elite assimilated religion and caste difference under an imagined linguistic unity. But linguistic movements would invariably fail when religious and ethnic differences were more important than a common language. The failure of the Maithili movement to achieve political recognition until the early 2000s persists as a topic of interest among scholars, especially in India.[183] Other regional linguistic movements such as the Andhra and, what this thesis is concerned with, Oriya (Odia) movements have also been subjects of interest among historians, geographers and political scientists in India.[184] However, this speaks to a larger issue with scholarship on regional linguistic movements: it has not received much recognition outside of India. Research into the Oriya movement is symbolic of this problem which, until very recently, was mostly studied by Odia-speaking scholars, or those based in Odisha, and circulated in regional and

[180] The Nehru Report was produced by Motilal Nehru (father of the future PM, Jawaharlal) and other members of the All Parties Conference in response to the creation of the Simon Commission (covered in chapter four), outlining a future Constitution of India.
[181] Especially Nehru and Ambedkar's views on the issue: R. King, *Nehru and the language politics of India* (Delhi: Oxford University Press, 1998); V. Bharadwaj, 'Ambedkar's paradox of differentiation: Language, nation and recognition of states in post-colonial India', *The Indian Economic & Social History Review*, 52:1 (2015), pp.79–108. The States Reorganisation Commission was established in 1953 with the aim of reorganising the internal administrative divisions of India after independence. The Commission crucially deliberated over how to balance linguistic and cultural demands with protecting India's territorial integrity and unity.
[182] P. Brass, *Language, religion and politics in North India* (Cambridge: Cambridge University Press, 1974).
[183] For example: M. Jha, *Language politics and public sphere in North India: Making of the Maithili movement* (Delhi: Oxford University Press, 2018).
[184] For the Andhra movement see: R. Mantena, 'The Andhra movement, Hyderabad state, and the historical origins of the Telangana demand: Public life and political aspirations in India, 1900–56', *India Review*, 13:4 (2014), pp.337-357.

national journals.[185] In recounting the history of the movement, chapter four will examine in more detail the literature on the Oriya movement.

George Grierson and the Linguistic Survey of India

The final part of the review assesses the literature on George Grierson and the Linguistic Survey of India and considers why, until recently, it was mainly critically received by linguists. Before doing so, this section starts with a biographical account of Grierson's life and work besides the LSI which established his scholarly reputation in India, Europe and elsewhere.

Born in 1851 into a noted Anglo-Irish family, Grierson may not have had to look far for inspiration for the philological and cartographic work which took up three decades of his later career. Earlier generations of the Griersons had established their wealth as Royal Printers in Dublin, which included the printing of atlases. The first George Grierson (c.1680-1753), who moved from Scotland to Ireland in 1703 to become a bookseller and printer, famously printed the first Irish edition of Petty's *Maps of Ireland* (1732) and Herman Moll's maps of Ireland (c.1735). His wife, Constantia Grierson (c.1705-1732), may have been the inspiration for Grierson the philologist. Although from a poor background, she was tutored in five languages including Latin and Greek, and became a highly regarded translator and editor of Latin poetry and literature, many of which were published by her husband. The later Griersons continued the family business in printing atlases as well as books, including the (now rare) *New and Correct Irish Atlas.*[186] By the time our George was born, however, the family had left the printing business and his father – also called George Abraham (the name kept being recycled) - pursued a more genteel legal career as barrister in Ireland.

[185] The recent study being, P. Mishra, *Language and the making of modern India: Nationalism and the vernacular in colonial Odisha, 1803-1956* (Cambridge: Cambridge University Press, 2020).
[186] See, Correspondence (D. Smith), *Imago Mundi*, 39 (1987), pp.91-93. The date of publication is unclear but probably c.1820.

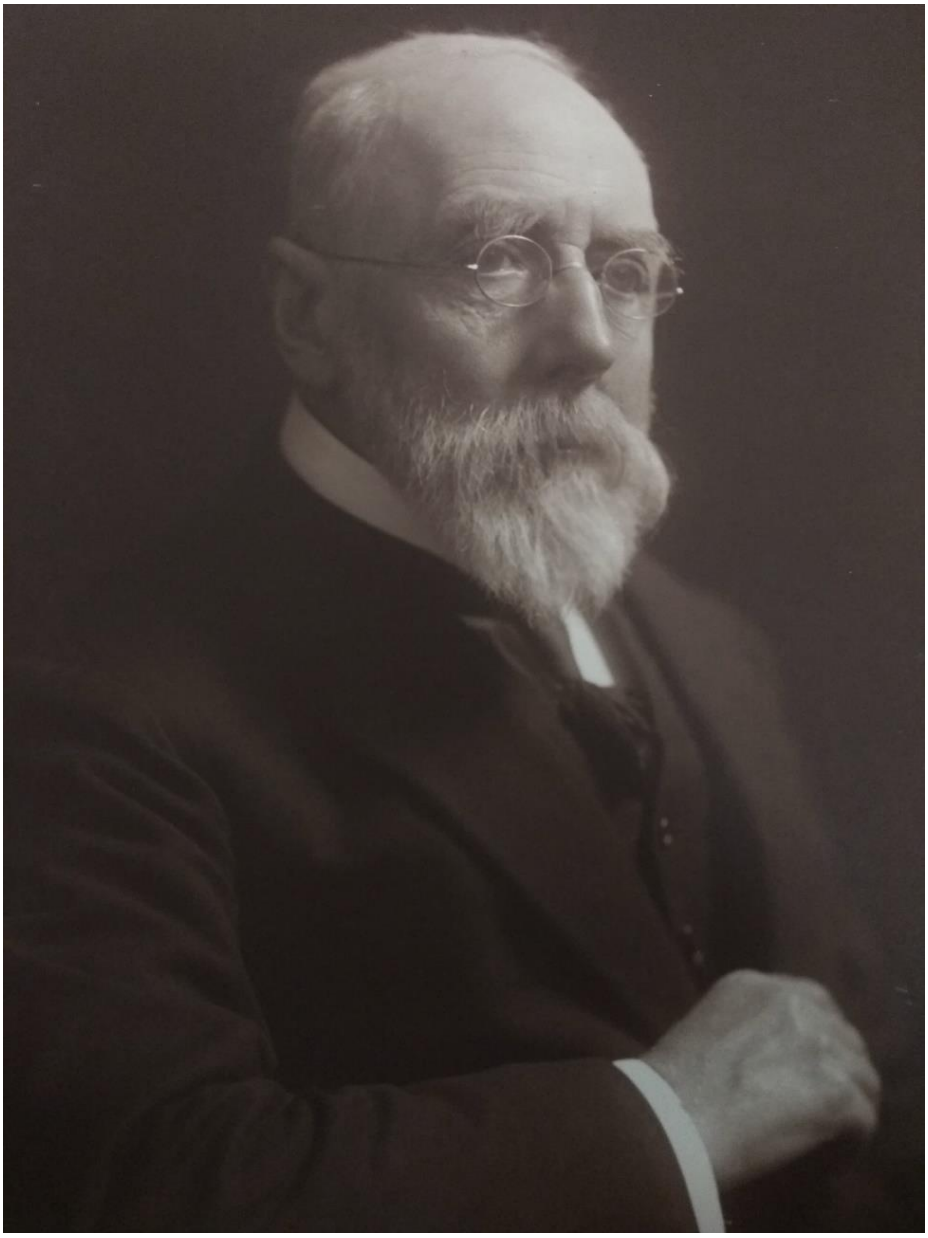


Figure 1: Portrait of George A. Grierson (c.1920s). Source: Royal Asiatic Society, London

Grierson, like many of his Anglo-Irish peers, was sent across the Irish Sea for his education in Britain. After finishing his schooling, he returned to Ireland and entered Trinity College, Dublin in 1868 to study mathematics, a subject which might explain his subsequent methodical approach to surveying but was also necessary for his ambitions to join the Indian Civil Service (ICS).[187] The Indian Civil Service had only recently (1855) been set up as an open competition for administrative posts in the East India Company and, after 1858, British India. Grierson entered and passed the ICS entrance exam in 1871 and then returned to Trinity College to finish his two-year probation. Trinity was one of four institutions (the others being Cambridge,

[187] Mathematics was the subject with the most possible marks in the Indian Civil Service entrance exam.

Oxford and London) where future civil servants could undertake their probation which was spent on law, economics and learning a (or more than one) vernacular language of India.[188] It was during his time at Trinity College that Grierson developed a great interest in Indian languages under the influence of Robert Atkinson, a philologist and Sanskritist, who Grierson later suggested was the inspiration behind the LSI. Grierson clearly had an aptitude for Indian languages, winning prizes for his work on Sanskrit and Hindustani.[189] On completing his probation in 1873, he left to start his civil service career in Bengal.

Between 1873 and 1898 (when officially employed to supervise the LSI) Grierson served in Bihar, a constituent part of Bengal at the time, and worked his way up the ICS ladder from Assistant Magistrate and Collector (based in Patna) to his final position as Opium Agent for Bihar.[190] Grierson's administrative career was rather unremarkable, or at least very conventional, but it provided him with the time and means to pursue his other vocation: philological research. His early work focused on the languages and literature from his area of deployment, mainly Bihari, Bhojpuri and Maithili.[191] As a junior officer Grierson was expected to travel around the region which afforded him the opportunity to survey and gather information and material on the languages, culture and society of Bihar. This material formed the basis of his first significant work, *Bihar Peasant Life*, which established his scholarly reputation in orientalist circles.[192] His attendance at the 1886 congress in Vienna – where he proposed a linguistic survey of India – was partly to promote his recently published book. Like many orientalists and philologists, Grierson was concerned with more than language or literature, showing an interest in archaeology, ethnography and history. What is more remarkable is the prodigious amount of work he continued to publish while managing the LSI full-time from 1898 onwards. Grierson's geographic scope expanded in this time, developing an interest and expertise in Kashmiri and other languages from the North-West Frontier Province, while also becoming fascinated with the history of Indian religions and the 'Gipsy'

[188] S. Sen, 'George Abraham Grierson, 1851-1941', *Hermathena,* 172 (2002), p.43.
[189] Sen, 'George Abraham Grierson', p.46.
[190] For a full record of his career in India, see the India List which was published every year by the India Office. The position of Opium Agent in Bihar was one of the highest ranking positions in the Bengal Civil Service, overseeing the regulation of the provincial Opium trade.
[191] For a complete bibliography of Grierson's work see, E. White, 'Bibliography of the Published Writings of Sir George A. Grierson', *Bulletin of the School of Oriental Studies*, 8:2/3, (1936), pp.297-318.
[192] *Bihar Peasant Life* was prepared in 1885 under orders of the Government of Bengal, foreshadowing the LSI which was both a government sponsored exercise and a work of scholarship.

languages of India.[193] Grierson continued to publish papers for a few years after the LSI was completed in 1928, however deteriorating health affected his work and he mostly retired from scholarly and public life in the remaining decade before his death in 1941.

Grierson returned to Britain in 1900, soon after becoming officially assigned to the LSI, settling in Camberley, Surrey with his wife Lucy (whom he had married in 1880). She seems to have been a capable linguist herself, frequently helping Grierson compile and edit material for the LSI while he was troubled with recurring eye problems.[194] Grierson also became involved in consultations over standardising the transliteration of languages in Roman script through the work of the Royal Asiatic Society and the International Phonetic Association. However, Grierson's enduring legacy was the Linguistic Survey of India for which he received an Order of Merit in 1928, sixteen years after being knighted in 1912. He was also remembered for his support of aspiring orientalists and linguists, particularly from India, for whom Grierson's home in Camberley became, as one obituary put it, a "place of pilgrimage" up until his death in 1941.[195]

The initial response to the LSI was overwhelmingly positive and scholars of South and Southeast Asian languages valued the amount of linguistic information gathered.[196] The LSI was referred to by linguists such as Murray Emeneau at Berkeley, who notably conceptualised the Indian subcontinent as a *sprachbund* or linguistic area in the 1950s.[197] However, many also noted the errors and limitations which were inevitable for a survey which took over three decades to complete in a period when linguistics evolved into a more scientific discipline.[198] In particular, academic linguists dismissed the LSI's approach of using non-linguists to gather material. Emeneau, in his 1955 presidential address to the American Oriental Society, suggested that the LSI could not be "trusted as accurate".[199] The LSI was respected for its ambition and remained a useful but flawed source for linguists in India, especially as attempts

[193] See bibliography by E. White for examples of Grierson's wider range of scholarly interests, including the archaeology of Buddhist sites in Bihar.
[194] Her work compiling an index of English-Gypsy words was published in the *Indian Antiquary* (vol. 15) in 1886.
[195] R. Turner, 'Obituary: Sir George A. Grierson', *Journal of the Royal Asiatic Society*, 73:4 (1941), p.386.
[196] See, for example, Edward Gait's review in the *Journal of the Royal Asiatic Society*, 61:2 (1929), pp.348-352.
[197] M. Emeneau, 'India as a linguistic area', *Language*, 31:1 (1956), pp.3-16.
[198] This was already noted when the LSI was published. See, T. Bailey's review in the *Bulletin of the School of Oriental Studies*, 5:1 (1928), pp.193-196.
[199] M. Emeneau, 'India and linguistics', *Journal of the American Oriental Society*, 75:3 (1955)., p.152.

to revive the Linguistic Survey after independence never fully materialised.[200] Siddheshwar Varma's critical summary of the LSI in 1972 articulates the LSI's later position as a linguistic source: it "offers an extensive material for the study of various stages in the development of language" and "opens vast possibilities for the future historical reconstructions of languages", but "this work is disappointing in several respects…the material received from hundreds of untrained people is often hopeless for scientific purposes" and Grierson's "treatment of this material is often a dilettante's approach which cannot stand the test of linguistics".[201]

Perhaps unsurprisingly, linguists have predominantly engaged (critically or otherwise) with the LSI. Scholarship on the Survey as a colonial project, let alone a mapping one, have been scarce until recently. A small body of research has emerged which has considered the language ideologies and coloniality of Grierson's surveying.[202] This area of research is still predominantly from a linguistic perspective and limited to the published volumes for evidence, with little regard for the archival material. The first comprehensive intellectual and cultural history of the LSI only appeared very recently with Javed Majeed's two-volume study of the Survey.[203] This work is ground-breaking, not only in its comprehensive treatment of the LSI, but in its use of the archival material as well as published survey. Majeed's work is very expansive and covers several different strands of the LSI, from its knowledge production to its politics of language. The purpose here is not to provide a detailed review of the work – that has been done so elsewhere.[204] Instead, the intention is to highlight the key ideas which this thesis builds on and the gaps in Majeed's work which are addressed by this study of the LSI's mapping.

Majeed's fundamental point in the first volume on the Survey's knowledge production is what he terms the LSI's "idiom of doubt", which contradicts the idea of colonial surveys as a language of command as Cohn and others ascribed to them.[205] In detailing the ways in which

[200] See, P. Pandit, 'The Linguistic Survey of India – Perspectives on language use' in *Language Surveys and Developing Nations*, (Eds.) S. Ohannessian, C. Ferguson & E. Polome (Arlington: CAL, 1975), pp.71-85.
[201] S. Varma, *G. A. Grierson's Linguistic Survey of India: A summary, part 1* (Hoshiarpur: Panjab University, 1972), p. 1-2.
[202] H. Carlan, '"In the mouth of an aborigine": Language ideologies and logics of racialization in the Linguistic Survey of India', *IJSL*, 252 (2018), pp.97-123; R. Mesthrie, 'Transcending the colonial? Colonial linguistics and George Grierson's Linguistic Survey of India', in *Colonial and decolonial Linguistics: Knowledges and epistemes* (Oxford: Oxford University Press, 2021).
[203] J. Majeed, *Colonialism and knowledge in Grierson's Linguistic Survey of India* (Abingdon: Routledge, 2019a); *Nation and region in Grierson's Linguistic Survey of India* (Abingdon: Routledge, 2019b).
[204] See my review in in the *Journal of Historical Geography*, 65 (2019), pp.97-99.
[205] Majeed, *Colonialism and knowledge*, p.206.

the LSI gathered, edited and deployed linguistic knowledge, Majeed argues that the LSI's authority lies in its ambivalent and ambiguous 'idiom of doubt' which "reflects the nature of its work in a complex linguistic environment with problematic and inadequate material…its affiliation to a disciplinary field where knowledge was in a flux and development, with new material coming to light" and "it is the Survey's acknowledgement of its shortcomings and provisionality which bolsters its authority rather than any expressed sense of the mastery of India as a linguistic region."[206] As Majeed notes, the key word deployed in much of Grierson's discussions on numbers, for example, is 'approximate' which aptly describes the LSI's ambiguity.[207] This thesis takes on the idea of the 'idiom of doubt', provisionality and approximation by arguing that the LSI's approach to mapping was itself a source, and not just a symptom, of doubt and approximation which was subsequently reflected in the Survey's cartographic experimentation. Surprisingly, Majeed does not carry this point on in his chapter on mapping languages and limits himself to what Grierson maps, without considering the why and how of language mapping.[208] Majeed's discussion of the Survey's geography is also constrained by a greater focus on the blurring of the national and international with less discussion of the (very) local geographies crucial to the LSI's knowledge gathering, production and mapping.

Another significant gap in Majeed's work which this thesis addresses is the relationship between survey and state. Majeed includes a chapter on the relationship but relies on the correspondence in the British Library which only allows for an incomplete and one-sided picture of the LSI's interactions with, and position within, the colonial state. As the methodology subchapter will outline, the National Archives in India includes material on the internal dynamics, financing and management of the LSI as a 'government' survey and provides a more complete picture of what was happening between 1886 and 1896 than the British Library does. This is not a critique of Majeed's work since he could not hope to cover everything in the first comprehensive treatment of the LSI. His work will remain the starting point for any study of Grierson and the Linguistic Survey. The thesis builds on the foundation of Majeed's work to produce a more in-depth geographical study of the LSI and its mapping.

[206] Majeed, *Colonialism and knowledge*, p.206.
[207] Majeed, *Colonialism and knowledge*, p.204.
[208] Majeed, *Nation and region*, pp.56-72.

Conclusion: a geographic and linguistic survey

Majeed's work has stimulated a lively response, particularly in India where the LSI has lived on among linguists and language organisations. Ayesha Kidwai recently wrote a thought-provoking and refreshingly honest self-criticism of linguists in response, pointing out that so many have worked with or referenced the LSI without ever engaging deeply with the Survey as a cultural and colonial project.[209] Majeed's work has also revived the LSI as an object of study outside of India. But the question remains why the LSI faded as a subject of scholarly interest after the Second World War. The Berkeley linguist, Murray Emeneau, may partly be responsible. In his Presidential address to the American Oriental Society, Emeneau dismissed the LSI as a "partial success" which produced "material inadequate for either descriptive or comparative purposes".[210] The LSI quite quickly became outdated and less valuable as a source of linguistic knowledge.

Emeneau was far more positive about the LSI as a geographic project stating that the "Survey does roughly map out language and dialect areas which can be visited to produce more adequate treatment."[211] The LSI's mapping proved more enduring in the decades after Grierson's death. Interestingly, Emeneau also noted that the LSI was an "experiment in dialect mapping", which this thesis goes on to argue. Although he was incorrect to describe the LSI's work as dialect mapping – the LSI mapped languages *and* dialects - he correctly observed that its mapping was experimental. However, it seems that the description of the LSI as an experimental geography was used disparagingly, to dismiss it as a linguistic project. Emeneau was wrong to separate geography from linguistics. As Kidwai points out, the linguistic knowledge produced by the Survey endures in the social and political geographies of contemporary India.

Tracing the cartographic Linguistic Survey: a method

The foundation for this project was archival research undertaken between September 2018 to October 2019. Most of that time was spent at the British Library, sequentially going through the LSI files and private papers of Grierson at first and then moving on to the materials related

[209] A. Kidwai, 'Life to Indian languages: A linguist responds to Javed Majeed's study of Grierson's Linguistic Survey of India', *Economic and Political Weekly*, 55:42 (17 October 2020).
[210] Emeneau, 'India and linguistics', p.152.
[211] Emeneau, 'India and linguistics', p.152.

to the Oriya movement and the creation of Orissa (Simon Commission and Orissa Boundary Committee files, petitions, reports of various enquiries, and records of legislative debates). I visited India for around six weeks in January and February 2019, spending most of that time in Delhi visiting the National Archives of India, and briefly in Bhubaneswar at the Odisha State Archives, looking into the Oriya language movement. Other archives visited later in 2019, but proving less relevant to the research, were the Royal Asiatic Society, SOAS and University of London archives in London, and the Cambridge South Asian Archive.

Undertaking archival research to uncover the rationale, process and reception of mapping is a laborious task. I am inclined to agree with Edney that while our ambition might be to "pursue precise, micro-level analyses that sustain meaningful historical and cultural interpretations", in practice that can be difficult and time-consuming, requiring "a great deal of archival sleuthing and careful data collection that [does] not promise much obvious intellectual return."[212] Researching maps and mapping at great length and in detail, across an archive which is located in Britain and India, can also set oneself up for failure since "we cannot hope to analyse all of the innumerable spatial discourses that need to be studied in this precise manner."[213] Moreover, the Linguistic Survey of India archive is not a map archive, or the archive of a mapmaker or map publisher, at first glance. The materials, correspondence and documents which relate the LSI's mapping and mapmaking are hidden among the "unruliness" of Grierson's self-archiving.[214] However, that unruliness may have preserved some of the rough maps discussed in chapter three, because the maps in the file with the Map Publication Office correspondence were destroyed at some point.[215] My job was to trace the fragments of cartographic reasoning and mapping practices across the LSI archive, in Britain and in India. The first part of this methodology traces the formation and current state of the LSI archive as it exists in the British Library (London) and the National Archives of India (Delhi), followed by a brief overview of the archival sources for the Oriya movement case-study. The second part of this section will then consider my approach to, and difficulties faced in, tracing the mapping process: from the LSI's rationale for mapping language, to their production, and finally their reception and legacy

[212] Edney, *Cartography*, p.45.
[213] Edney, *Cartography*, p.45.
[214] Majeed, *Colonialism and knowledge*, p.189.
[215] The Map Publication Office (MPO) was part of the Survey of India. As well as publishing its own maps, the MPO was responsible for publishing maps ordered by other agencies and branches of government.

outside the LSI. The second section also addresses my contextual reading of language maps and interpretation of the LSI as a linguistic atlas.

It would not be wrong to characterise the LSI material on mapping to be fragmented, partial, incomplete and "littered with holes and missing pages", especially in comparison to the abundance of linguistic material.[216] To overcome this I drew on the idea of 'tracing', specifically tracing the map. The idea of 'tracing' is one which historical geographers have employed to pull together the "fragments and shards" and connect "the range of globally scattered (archival) traces that remain into fragmentary biographies…demonstrate[ing] how lives can be deployed in spatially complex ways".[217] Lambert's characterisation of the methodological 'trace' as "a heuristic device, almost a form of qualitative 'sampling', that enables the historian to follow a thread through the labyrinthine complexities of a global empire" is particularly apt since the LSI comprised a complex transnational, national and local network of actors involved in the whole process of surveying and mapping; by tracing fragments along those networks, the research begins to piece together the lives and afterlives of the LSI's mapping.[218] The notion of a 'life' or biography is also helpful. Much of the methodological discourse around 'traces' are found in the networked geographies and biographies of mobile imperial actors, ideas and, potentially – I would argue - maps.[219] Treating the map as biographical also allows us to sort and scope when we are presented with an abundance of archival material, as is the case with the Linguistic Survey material in London and Delhi.[220]

I would suggest that the archive is itself a geography which helps us to trace the map. In one sense this is quite literal. The current LSI archive is not only demarcated by metropole and colony, but by administrative jurisdiction in India and even by continent. But as researchers new to an archive, we approach archival research like we might a foreign country. But instead of the map, there is the catalogue; instead of grids or coordinates, there is a collection reference; instead of contours, there are file names. The archive is often a circumscribed collection, like a bounded geography. But it also permits the potential exploration of traces external to the

[216] S. Mills, 'Cultural–historical geographies of the archive: Fragments, objects and ghosts', *Geography Compass*, 7 (2013), p.703.
[217] C. McGeachan, 'Historical geography II: Traces remain', *Progress in Human Geography*, 42:1 (2018), p.136-7.
[218] D. Lambert, 'Reflections on the concept of imperial biographies: The British case', *Geschichte und Gesellschaft*, 40:1 (2014), p.30.
[219] See McGeachan, 'Historical geography II'.
[220] J. Hodder, 'On absence and abundance: biography as method in archival research', *Area*, 49 (2017), pp.452-459.

collection, if one can chart those connections. Why does this matter? It is through the archive or collection that we can *unmap* the historical map. By tracing and uncovering the cartographic 'fragments or shards', we *unmap* the historical map by unravelling the reasons, assumptions and knowledges which drove and sustained the mapping and mapmaking process. And by (re)assembling the fragments and shards, we can reveal the ideas, practices, and methods – whether flawed, speculative, or otherwise - behind the LSI's mapping and see how, and why, its maps have been read and mobilised in different ways.

Three archival perspectives

Although described as a single 'archive' thus far for convenience, this is intentionally misleading on my part. Where an archive begins and ends is probably unanswerable in many cases and is certainly true of material pertaining to Grierson and the LSI. He communicated with many individuals and institutions across Europe and India, and some of that correspondence survives in other archives and collections including at the Royal Asiatic Society and, what was in his time the School of Oriental Studies (today SOAS). The core material, which we might collectively term the Linguistic Survey archive, resides in the British Library (BL) as part of the former India Office records. This collection has been split into two, one being Grierson's private papers and the other being the material connected to the Linguistic Survey's work. I will delve into their arrangement in more detail below but the main point to raise at this stage is that the two are very much blurred and indistinguishable at times. These materials were self-archived by Grierson and his secretary, E. H. Hall, during the latter years of his career and after the survey had been completed, remaining in broadly the same configuration today as when the files were donated to the India Office. I would disagree with Majeed's assertion that archivisation only began after the completion of the LSI in 1928. Someone as methodical as Grierson, or his assistant, likely kept his correspondence and notes in some sort of orderly system during his career, considering the quantity of material circulated and gathered. Where Majeed is correct in his more complete summary of the LSI material in London, is in describing the LSI's self-archiving as messy and arbitrary which "eschews creating an illusion of totality" or certainty, overwhelming the published volumes when considered together.[221]

[221] Majeed, *Colonialism and knowledge*, p.188.

However, Majeed and all other research on the Linguistic Survey hitherto have not explored the third constituent of the LSI archive: the material inherited by India after independence and deposited in the National Archives of India (NAI) in Delhi. Not only does this part of the investigation distinguish the research from previous studies by working with the material in Delhi alongside those in London, I also think Majeed may have drawn a different conclusion about the arbitrariness of the LSI 'archive'. Putting all three constituent parts together creates a sense of a 'method in the messiness', with each part reflecting a different perspective on the Linguistic Survey. On the one hand there are the private papers of Grierson in the BL, comprising his personal and scholarly relations and interactions which often, but not always, overlapped with his work for the LSI. Then there is the institutional archive, also in the BL, which incorporates the correspondence and material gathered by and for the Linguistic Survey. The third part of the archive which survives in India is the formal, government files on the LSI, which provides a colonial state's perspective on the management, financing and operation of a linguistic survey. The latter archive lends a new understanding of the LSI's position in the broader colonial programme of scientific surveys and points to the government's greater role in shaping what would become the Linguistic Survey of India.

The 'state' archive: the national and provincial governments

After independence, India inherited the records from the former Imperial Record Department which was rebranded the National Archives of India (NAI) but remained at the same site as the old record office in the middle of Lutyens' Delhi. However, not all government records were kept in the former Imperial Record Department. It took several years for the NAI to acquire the old records – many of which were stored in basements and certainly forgotten about - of former colonial departments such as Home, Political and the myriad of agencies which were subordinate to them.[222] A body of material called the Linguistic Survey of India files seems to have been inherited from the Home Ministry (the successor to the Home Department) in the 1960s but in a terrible state. Due to their deteriorated condition, these files are mostly inaccessible to researchers. The NAI has begun a programme to digitise their collection which remains the best hope for making these files publicly available for future research on the LSI.

[222] S. Roy, 'The National Archives of India during 1947', *Bulletin of the IHR*, 23:68 (1950), pp.200-202.

On the other hand, the Home Department records contains an ample body of material on the LSI – archived among the general administrative records – comprising internal memos, demi-official correspondence, circulars, and intra-departmental communication. This material is valuable because it covers the period between Vienna in 1886 and the early 1890s (absent in the LSI archive in London) and captures the internal dynamics and discussions between Grierson, different departments in central government, and the provincial governments over financing, scope and aims.[223] From this material we get a picture of a survey which nearly fell through, Grierson's frustrations, financial pressures, provincial resistance to the scheme, and internal lobbying for and against the survey. Crucially this material enables us to begin to answer what the government's rationale for surveying and mapping language was, how the LSI tapped into the government's network of officials across the subcontinent, and where the LSI fitted in the broader programme of surveys in colonial India.

Using the material in Delhi and connecting it with the archive in London means that this thesis brings the early years of the LSI to light for the first time and examines the colonial government's perspective and influence on linguistic surveying more closely. Majeed inevitably could not do so by simply working with the material in the BL. Visiting the NAI was also an opportunity to delve into the colonial government's files on the Oriya language movement and the creation of Orissa. Much of the material in this area can also be found in the British Library but interestingly, the NAI has a lot of files concerning the aftermath of the creation of Orissa whereas the India Office material mostly stops at 1936. Once Orissa was created – which did not settle the matter for many communities inside and outside Orissa – London largely left the issue in the hands of the government in Delhi.

The 'institutional' archive: Linguistic Survey

If the material in Delhi reflects the state's perspective, then the Linguistic Survey files in the India Office Records, now at the British Library, could be described as the institutional or organisational archive. The Linguistic Survey, unlike other colonial surveys, is arranged under its own class (IOR/S) rather than part of the departmental records of the India Office. This speaks to what Majeed describes as the 'in-betweenness' of the Linguistic Survey which was

[223] The question is whether Grierson had any of this material to begin with, whether he got rid of/lost it, or whether he left it out when archiving.

neither fully part of nor fully independent from the colonial state. Its position defied arrangement within the framework of government and is separately classed, yet the LSI remains part of the imperial archives. The Linguistic Survey of India records (IOR/S) encompasses the correspondence, notes and documents connected with the work of the Linguistic Survey of India, (roughly) delineating the institutional material from Grierson's other scholarship. The second part of IOR/S are the gramophone records associated with the survey. In total there are 396 files under IOR/S, 154 of correspondence and 242 gramophone records.

Two aspects to the collection immediately stand out. Firstly, although the overall date range is 1890-1938, most files are dated from 1896-1928 which approximately matches the timeframe of the LSI. Secondly, the records are arranged by geography, from larger collections covering Europe and India as a whole, to files of correspondence and material from different provinces (Bombay, Bengal etc.) and Princely States or agencies (e.g., Rajputana, the Berars). The extent of the survey's coverage could be plotted by mapping the different provinces and regions covered in the archive. This arrangement was not simply for clarity. As the subsequent chapters will explain, the LSI surveyed and organised languages on top of the administrative geography of India, which is also reflected in how the archive is ordered. Even the LSI's Census of India collection is subdivided by correspondence to the census officials in each province and agency of India. However, a closer examination of the Linguistic Survey files points to the messiness and arbitrariness of archiving at times, with some correspondence archived here – especially under 'Europe' – yet seemingly unrelated to the LSI. This raises the question of where the institutional archive ends and the private or personal archive begins, particularly for a venture which was entirely directed by Grierson and a few assistants.

The 'personal' archive: George Grierson

The third part of the LSI archive are the materials collected under the private papers of George Grierson, catalogued under Mss Eur E223 (all private papers in the India Office Records are catalogued as Mss Eur). Unlike the Linguistic Survey records which were probably sent to the India Office during his lifetime, these were donated after his death in 1941. The collection is chiefly made up of Grierson's scholarly articles, notes, pamphlets, and his official and private correspondence. The records cover a much longer timeframe, from 1885 to right before his

death in 1940, which clearly reflects his much longer career as a linguist and orientalist. His private correspondence is overwhelmingly scholarly or related to other intellectual and cultural pursuits - we do not get more than a cursory appreciation for Grierson's early career in India, his work as a civil servant and his personal life. This is very much the private papers of a linguist and orientalist, rather than an administrator or someone with an active life outside of work.

The private papers also blur the boundaries between the Linguistic Survey and his other scholarly pursuits, which may not be entirely surprising considering how much of his career was spent on scholarship. For example, several files of LSI correspondence appear under his private papers, possibly because they were missed when they were originally archived. The financial records of the LSI are also among his private papers. It is possible that Grierson did not want the LSI archive – as a companion to the published volumes – to include unnecessary administrative material. Nevertheless, the arrangement of the LSI files and private papers indicates that Grierson, with his assistant, tried to order, organise and delineate the LSI and non-LSI material. That was never fully achieved which suggests an acknowledgement that the Linguistic Survey could never be entirely separated from his other linguistic work. His correspondence with Aurel Stein epitomised how haphazard that distinction could be since Stein proved to be a very important source of linguistic material for the LSI but was archived under his private correspondence.[224] Majeed is right to suggest that the well-organised volumes of the LSI "did not emerge from an unpublished archive" but "rather generated the unpublished archive" and the published volumes can sometimes be lost amid investigating all the material generated.[225] However, the starting point for researching the LSI's mapping is not the archive, but the published maps themselves.

Researching the Linguistic Survey's maps

This section reflects on my approach to researching the LSI's published maps, tracing and retracing why the Survey mapped, how it mapped and made maps, and what influenced and governed its mapping through the fragments - drafts, sketches, correspondence and notes – in

[224] Although Aurel Stein (1862-1943) is more famous for his expeditions and research in Central Asia, he also travelled extensively in the Punjab, NWFP and Afghanistan where his contacts and local knowledge proved valuable to the LSI.
[225] Majeed, *Colonialism and knowledge*, p.189.

the archive. Furthermore, this research does not stop there but traces the reception, interpretation, and mobilisation – the afterlife - of the 'final' map, by following the map as it departs the unpublished archive and published LSI. In practice, this research begins by unmapping the Linguistic Survey's maps through the archive but interprets and remaps the fragments to argue that mapping language was central to the Linguistic Survey's mission while the maps remained anchored to the Survey's logic even when the Oriya language movement tried to co-opt and naturalise the language map of Oriya.

Practice

As scholars of maps, we sometimes overstate the importance of the contexts and processes behind a map – which we search for in the archive – without foregrounding our initial reading or response to the map. This might partly be a consequence of research which has tended to focus on well-known maps which everyone has seen. But as map scholars, our interrogation of context, rationale and process starts from observing and questioning what we see when we unfold or open the map for the first time. The point of departure for this research were the forty-five maps published across the eleven volumes of the LSI. I started off by compiling an informal cartobibliography of the LSI's maps. Cartobibliographies are still useful tools for gathering metadata – printer, date, source of base map etc. – and drawing out some initial conclusions on consistency, style and which languages are or are not mapped. Reading the LSI volumes along with the cartobibliography, it was immediately apparent that a smaller number of diagrammatic maps sit alongside a larger number of systematic, 'cartographic' descriptions of each language which forms part of the Survey's language mapping. The definition of what constitutes a map was expanding from the outset.

I had no plan for tackling the LSI material in the British Library except to go through the 154 IOR files and around 250 Mss Eur E223 files in sequential order, as they appeared in the catalogue. This was particularly driven by an awareness acquired early on that the evidence for mapping and mapmaking was very fragmentary, scattered among the extensive LSI files and private papers. A significant issue with researching maps is that much of the material behind mapmaking is ephemeral. Drafts are destroyed, plates are cleaned, sketches lost, correspondence and notes gotten rid of, and so forth. The LSI archive is upfront about its impermanence: Grierson's file of correspondence with the Map Publication Office lists many

drafts and proofs which no longer survive, and Grierson later mentions in passing that the original maps had been destroyed.[226] The other problem is that Grierson evidently retained correspondence which he felt was relevant to the LSI as a linguistic, not mapping, project. The minutiae of mapping and mapmaking only survives in fragments to be pieced together. The aim here was to trace the drafts, sketches, notes and correspondence which remain, often between the lines and requiring a closer reading of the text, to pull together these fragments into a story of why the LSI mapped, how it mapped and how those maps were used by others. Moreover, if the archive aligns with the geography of the LSI, it made sense to trace those geographies – international, national, or local – through the whole archive as it had been put together by Grierson.

My research at the National Archives of India had its own problems. After finding out that the LSI files there were inaccessible due to their state, the plan was to investigate the Home Department material on Grierson and the LSI which were helpfully indexed. However, several files could not be viewed because of their state or returned with the dreaded "not transferred" (which seems to be a catch-all term for a file which cannot be found or is incorrectly listed). Nevertheless, what was found in India proved worthwhile: the colonial government's role behind the Survey's mapping could be traced in the archives in Delhi. Visiting the archives in India was also the starting point for research into the Oriya movement and the creation of Orissa. One issue here was language. The vernacular Oriyan newspapers and magazines are some of the best sources for the everyday politics of the movement.[227] English material on the Oriya movement cover more of the formal politics of the movement, which can be found at the British Library. In this case archival research was far more conventional, reading through the debates, petitions and enquiries/commissions, and taking notes of material referring to the Linguistic Survey, maps, and territorial politics.

Interpretation

I have so far explained how the archival research was tackled. How to interpret the Linguistic Survey and its archive is a different matter. The initial reading of the published maps was

[226] IOR. S/1/2/6. Correspondence with Superintendent, Map Publication Office.
[227] See P. Acharya, *National movement and politics in Orissa, 1920-29.* SAGE Series in Modern Indian History, 9 (New Delhi: SAGE Publications, 2008). The first Oriya newspaper was *Utkal Dipika*, founded in 1866. Vernacular newspapers played an important role in the organisation of the movement, circulating news and information among members.

important because it helped to understand the audience of language maps and how differently language maps can be received and interpreted. Language maps, after all, assume a certain degree of linguistic *and* geographic knowledge (e.g., 'the Bihari dialect of *x* is found *y*') yet the Linguistic Survey's audience were certainly not only linguists or those with on the ground knowledge of the languages being mapped (and even less likely the native speaker of the language). My initial response to the LSI's maps, appreciating their aesthetic qualities without knowing much about what was being mapped, embodies the response many would have to these maps. It is the questions which are raised on seeing the LSI's maps – why languages are mapped and how are they mapped – which framed the direction of the research.

The research also reads across the whole Linguistic Survey rather than focusing on individual maps. The LSI is not simply interpreted as a collection of individual maps but as a linguistic atlas, or a series of maps associated through purpose. Interpreting the LSI as an atlas does not mean that the maps are uniformly connected to each other or are characteristically similar. In fact, as this thesis later argues, the LSI is unusual in its cartographic heterogeneity which defies categorisation. Rather, what binds these maps into an atlas is that they present different ways – or attempts - to map language but with the underlying logic that languages are mappable with certain limitations. And by reading across the LSI volumes and the archival material, this thesis has a much broader interpretation of what constitutes a language map. Not only are the published maps and sketches, proofs and manuscripts all language maps, so are the geographic or cartographic descriptions and notes comprehensively found in the published volumes and scattered throughout the correspondence between Grierson and his network of 'surveyors'.

Finally, the Linguistic Survey's mapping of languages is also interpreted in its cultural and political context. The LSI did not emerge in a vacuum but in a period when linguistic geography was flourishing and new language surveys and techniques were being tested, especially in Europe. Some of those ideas can be found in the LSI's mapping. But the Linguistic Survey also existed in a uniquely colonial context where human features, especially race, were being categorised and mapped using novel cartographic techniques developed in the 19th century. Late 19th century India saw a flurry of activity where language, religion, caste and race were being mapped. By contextualising the reasons for, and processes behind, the Linguistic Survey's maps we are also able to trace their legacy and afterlife, in this case, whether Grierson's mapping left an imprint in the maps which created Orissa. A contextual reading of

the Linguistic Survey and its mapping depends on the archive to establish those links and trace the rationale, ideas, and processes behind language mapping in late colonial India.

Language mapping in colonial India: a genealogy

If we are to take a processual and contextual approach to studying maps, then we must acknowledge maps do not emerge in a vacuum but build on or respond to a longer tradition of mapping and mapmaking. The Linguistic Survey was not the first to map the languages of India, although it could claim to be the most comprehensive. This section will briefly trace the history of language maps in colonial India from John Beames' *Outlines* to the language map prepared for the Calcutta International Exhibition in 1883, a few years before Grierson attended the International Congress of Orientalists to announce his plan for a survey.

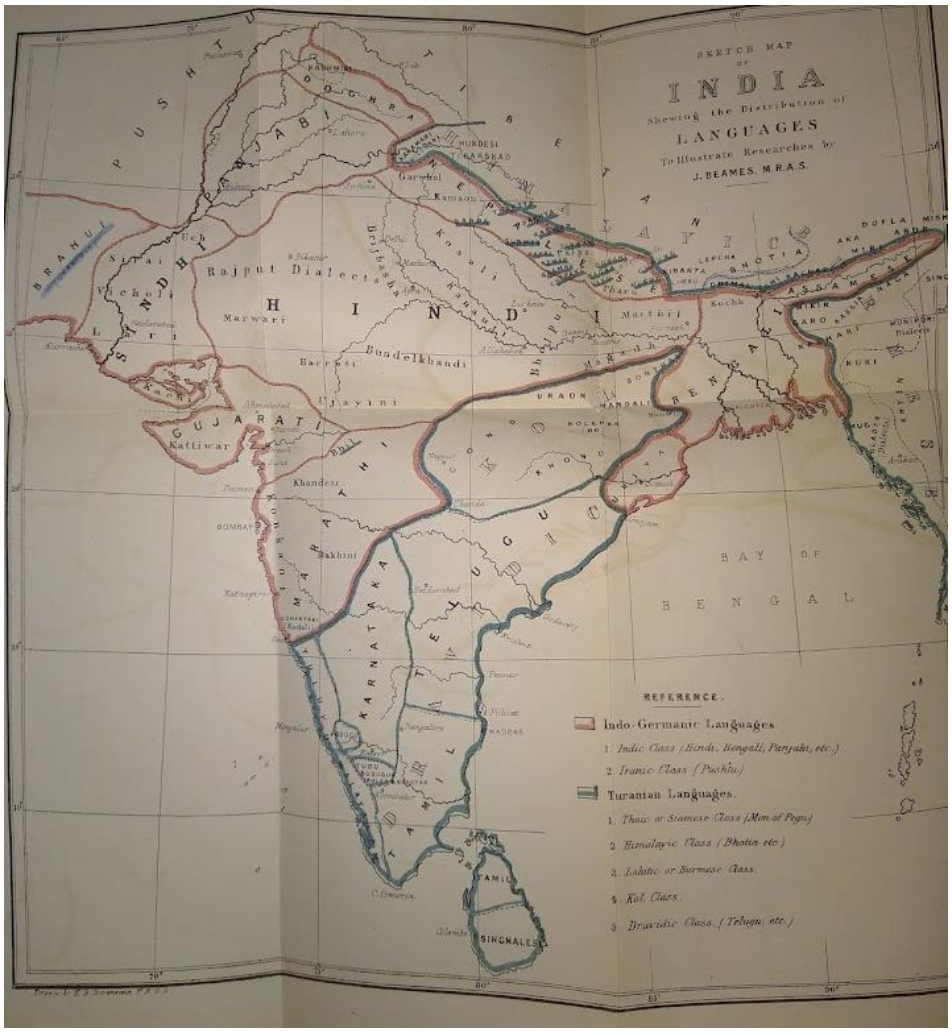


Figure 2: 'Sketch map shewing the distribution of languages' by John Beames.
Source: *Outlines of Indian Philology* (London: Trubner, 1868).

Philological works were understandably the main source of geographical information and language maps before the Linguistic Survey. Whereas earlier philologists, such as William

Jones and James Prinsep, were mainly concerned with classical languages such as Sanskrit and the Prakrits, by the 1860s and 1870s a series of condensed linguistic 'surveys' were published, summarising the prevailing linguistic situation in India. John Beames' *Outlines of Indian Philology*, published in 1867, was one notable example which included a map 'shewing the distribution of Indian languages' (Fig.2).[228]

Beames' summary and map are relatively useful for understanding how limited European knowledge of India's languages were at the time. Beames' summary only identified around 100 languages and dialects, compared to the 179 languages and 544 dialects which the LSI later surveyed. The map also charts the now obsolete division of India's languages between two major groupings – the Indo-Germanic and Turanian families. The former eventually came to be known as the Indo-Aryan or Indo-European family but the Turanian family, proposed by F. Max Muller and others, was largely discredited by the time Grierson arrived at Vienna.[229] Beames' map, however, showed promise in its attempt to map linguistic taxonomy, using different colours to map the geographical range of language families and printed text to situate languages and dialects.

However, the most significant philological 'survey' of India's languages before the LSI was Robert Needham Cust's *A Sketch of the Modern Languages of East Indies*, published in 1878.[230] Needham Cust, like Grierson, was an administrator in India who became interested in philology. This could explain their mutual concern for identifying and surveying the prevailing linguistic situation of India, which they would have understood as being of great value to administration. Needham Cust's summary was impressive since it did not confine itself to India but also covered Southeast Asia, with a vast improvement on Beames' estimates. Needham Cust identified 243 languages and 298 dialects across India, Southeast Asia, Indonesia, and the Philippines. More pertinently, two maps made by Needham Cust and another philologist, E. L. Brandreth, were included in the book. The first map was a 'Language map of India and its Border lands' (Fig. 3).

[228] J. Beames, *Outlines of Indian philology* (London: Trubner, 1868). Beames (1837-1902) belonged to an earlier generation of philologists who were also members of the Indian Civil Service. Beames' expertise in the Indo-Aryan languages was seen as authoritative early on in Grierson's career.
[229] For more see, P. Sridharan, '"Agglutinating" a family: Friedrich Max Müller and the development of the Turanian language family theory in nineteenth-century European linguistics and other human sciences', Unpublished Dissertation, PSU (2018). Paper 4341.
[230] Published by Trubner (1878).

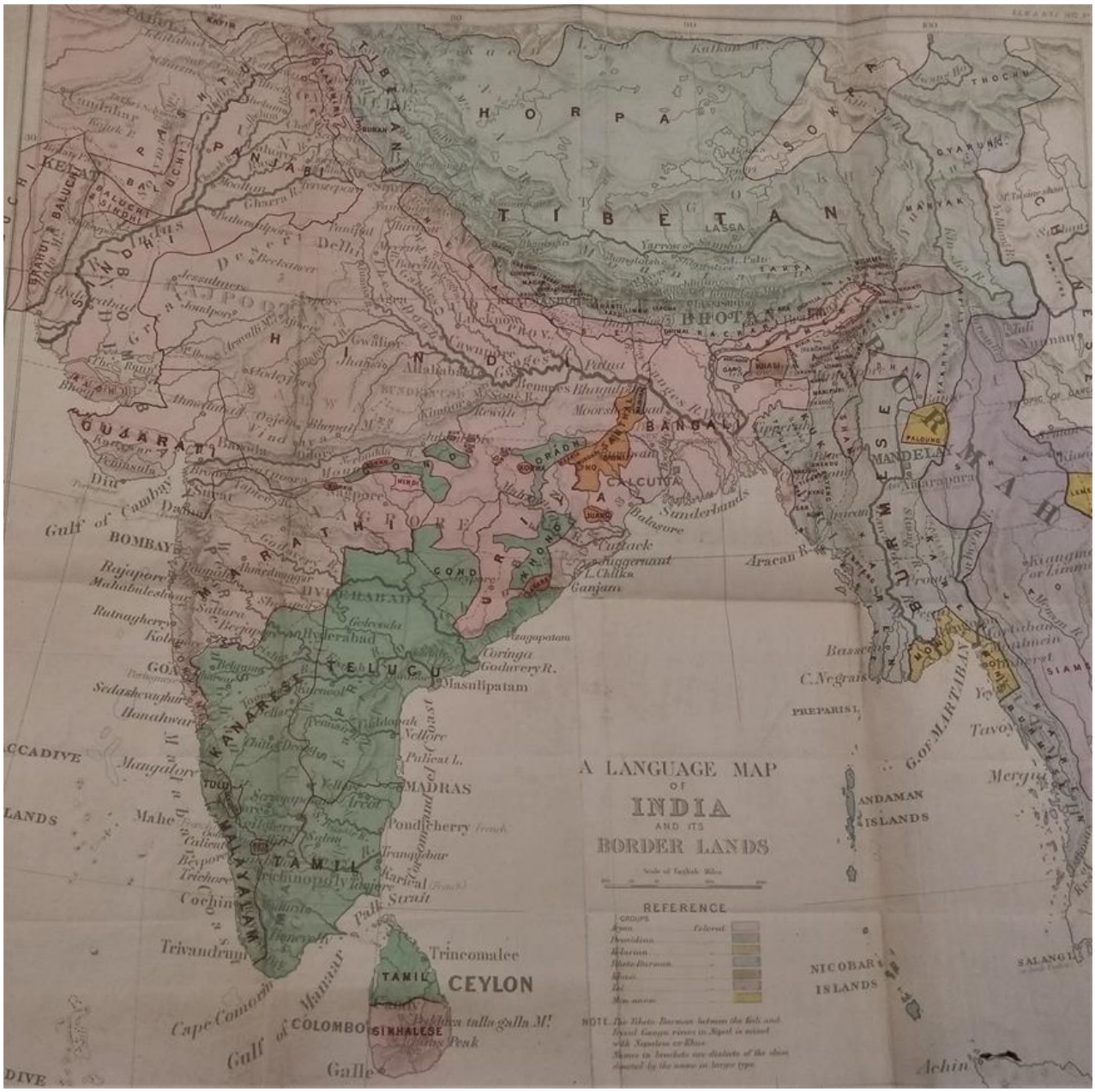


Figure 3: 'A Language Map of India and its Border Lands', by R. N. Cust and E. L. Brandreth. Source: *A Sketch of the Modern Languages of East Indies* (London: Trubner, 1878).

We begin to see a method of mapping languages materialise with Needham Cust's map which the Linguistic Survey would inconsistently persist with. Firstly, the use of distinct vivid colours to differentiate languages would continue under the Linguistic Survey. Secondly, the names of languages were printed in red which is something the Linguistic Survey also did on many of its maps. Intriguingly, Robert Needham Cust left Grierson his notebook with all the comments

from reviewers who were sent a draft of his summary and maps.[231] From the notebook we clearly see another pattern in language mapping emerging, which is the circulation of map proofs to be reviewed and edited by someone with more relevant knowledge or expertise. For example, Needham Cust is informed by a Mr. Venkat Rango Katti that his boundary lines for Marathi and Konkani are off by a substantial number of miles and corrects the map for him.[232] Needham Cust, like Grierson, depended on local knowledge to map the languages of India.



Figure 4: 'Language map of India'.
Source: CMS, *The Church Missionary Atlas*, 6th ed. (London: Seeley, Jackson, and Halliday, 1879).

[231] Mss Eur. E223/12. Notebook presented by Robert Needham Cust to Grierson (d.24/2/1898).
[232] Mss Eur. E223/12. Venkat Rango Katti to Govnt. Bombay (d.13/8/1879).

The impression that a common standard for mapping languages had been established is further evident in another important source for India's linguistic geography: missionary atlases. Missionaries were some of the best sources on Indian languages, acquired in their pursuit of converts and through a systematic programme of Bible translation. Their knowledge of where languages were spoken were often compiled into language maps featured in mission atlases.[233] The 'Language map of India' (Fig. 4) from the 1879 Church Missionary Society (CMS) atlas is remarkably similar to Needham Cust's language map of India. Not only are language areas mapped using vivid colours (notably using shades of pink for Indo-Aryan languages on both), but language names are also printed in red.

Both Needham Cust and the Church Missionary Society demonstrated that there was scope to map the languages of India more precisely and comprehensively. However, Needham Cust also recognised that the number of languages and dialects were being severely undercounted in India.[234] Perhaps as a direct consequence, the 1881 Census was the first to include a language question. This was the first full and synchronous census and the Government of India appear to have been eager to publicise their entry into statistical modernity by promoting the achievements of the 1881 Census internationally. Ahead of the Calcutta International Exhibition, which ran from 1883-1884, a map 'Illustrating the Distribution of Languages' (Fig. 5) of India was prepared by the Survey of India for the Exhibition.

The map produced for the 1883 International Exhibition drew on the newly acquired language data from the 1881 Census to present the state's statistical achievement in cartographic form. This surviving copy is uncoloured, but others – which were possibly displayed or sold at the Calcutta Exhibition - may have been coloured like Needham Cust's map. Like the previous examples, this map continued to use red for the names of languages. Unlike Needham Cust's map, however, the Exhibition map clearly outlines linguistic boundaries in red.

[233] For more on missionary linguistics see, Zimmerman & Kellermeier-Rehbein, *Colonialism and missionary linguistics*.
[234] Cust, *A Sketch*, p.153-154.

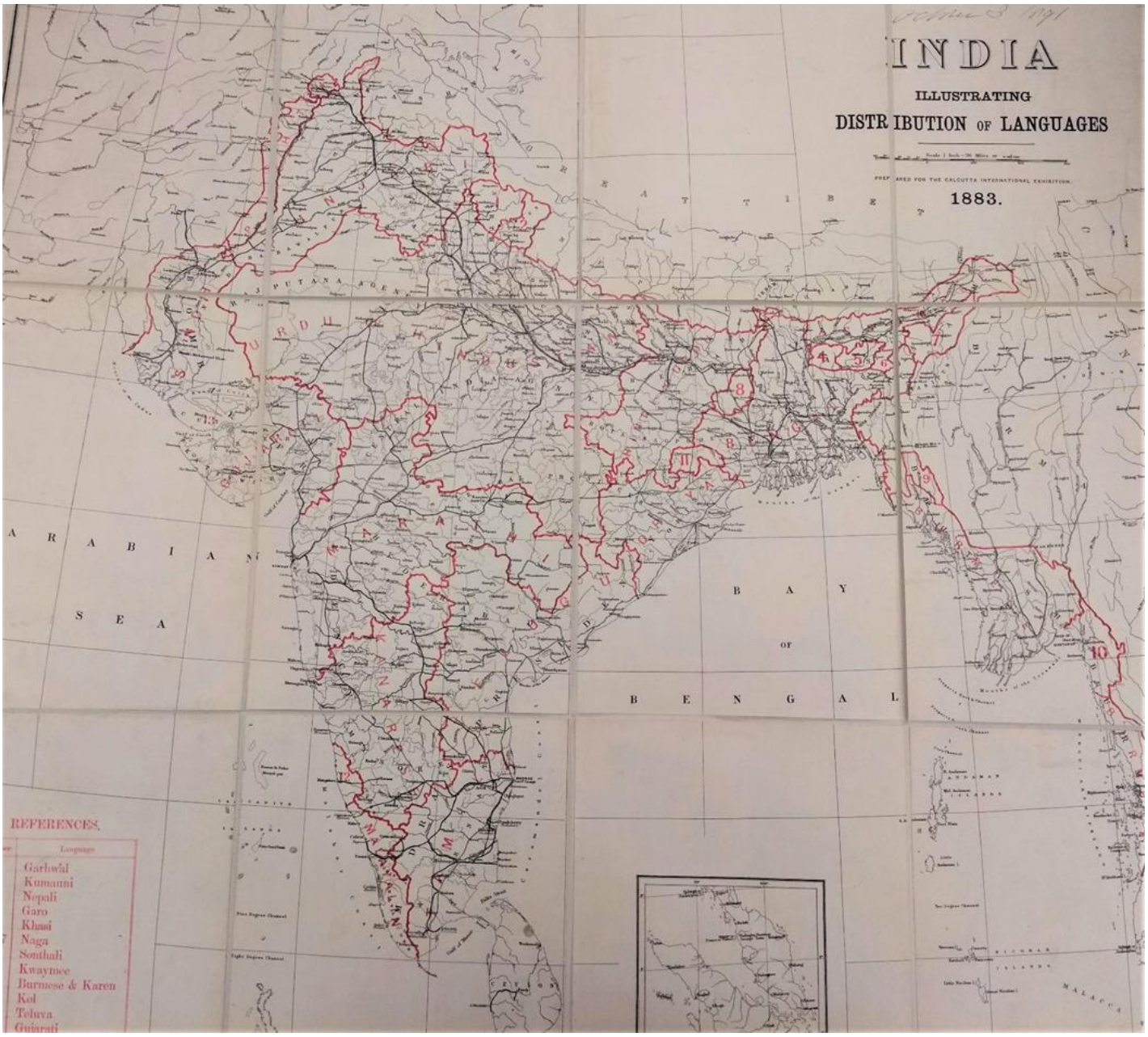


Figure 5: Map 'Illustrating the Distribution of Languages'. Prepared and lithographed by the Survey of India (1884) Source: British Library. OIH 409.54.

The 1881 Census confirmed Needham Cust's suspicion that many languages in India remained unknown. Rather than acknowledge this deficiency, the Calcutta Exhibition map masked the government's lack of knowledge of India's prevailing linguistic situation. It is in the aftermath of the results of the 1881 Census and Needham Cust's plea for a more systematic survey when George Grierson arrives in Vienna, in 1886, with a plan to undertake one. As this section has summarised, Grierson did not draw up his proposal *ex nihilo* but built on a longer tradition of surveying and mapping languages in India.

2. The Linguistic Survey in India

Introduction

The Linguistic Survey emerged out of a longer tradition of philological observations and enquiries which began to map the languages of India. By the late 1870s and early 1880s, however, the colonial government's knowledge of the subcontinent's languages was increasingly being questioned and tested. In concluding his sketch survey, Robert Needham Cust stated that much of what he summarised was "untrodden ground… a result of mere surface knowledge" and called for scholars and governments to "organise some scheme of general co-operation…a work, in which a number of co-operators, and central points of reference, are required" to further study the languages of the subcontinent.[1] The results of the 1881 Census, which confirmed Cust's view that the state confused, miscalculated and knew very little of the languages of India, were a surprise to many in government.[2] Grierson arrived at the International Congress of Orientalists in Vienna (1886) seeking a formal resolution for the first systematic and comprehensive linguistic survey in India, which he needed in order to convince the Government of India to support and fund such an expansive endeavour.

However, it took nearly a decade for the state to approve a linguistic survey and in the interim the LSI nearly failed to get off the ground. The first part of this chapter recounts those difficult intervening years between Vienna and the start of the LSI, based on the material from the National Archives of India in Delhi. This is a story which has not been told before, missing from Majeed's comprehensive study of Grierson and the LSI. Those intervening years mattered to what eventually became the Linguistic Survey of India, especially in understanding the government's rationale for supporting a survey and why mapping became a fundamental part of the LSI's programme. The second part of the chapter considers the reasons for the LSI from the perspective of government and what it stood to gain from a linguistic survey. In doing so, we see Grierson, with the crucial support of other scholars and allies in government, implicitly outline in his correspondence several reasons for a survey, including geopolitical urgency, remedying the results from the 1881 Census, and improving the linguistic ability of

[1] Cust, *A Sketch*, p.149-154.
[2] The Report of the 1881 Census points to a general confusion around what constituted a language or dialect, what the primary language of those enumerated was, and significant failings in the language data which the enumerators collected.

officialdom. While a linguistic survey would be of immense scholarly value to philologists and linguists, this argument was never central in the case put forward to the national and provincial governments.

The reasons why the Linguistic Survey was eventually approved are never made clear but Grierson's perseverance and substantial alterations lay the foundations for the LSI to operate "in the grey area between officialdom and 'private scholarship', balancing both against each other, forging relationships with people in and out of officialdom to keep the Survey afloat."[3] It might not have been evident at the time, but the formative years after Vienna were vital to the later success of the endeavour as Grierson was able to tap into and assemble a governmental and non-governmental network of officials, agents, officers, scholars and missionaries, while remaining largely insulated from political machinations and government interference that affected other surveys such as the census. The final part of the chapter examines how Grierson used this network of officials and non-officials to survey, through correspondence and circulation, most of the subcontinent in under seven years. This chapter maps the reasons, ideas and methods which effected and sustained the networks that constituted the Survey's shifting and uneven geography, yet enabled it to identify, fix, and map the languages of India.[4] What becomes apparent is that the LSI was not a single survey, but a fragmented scheme of multiple surveys at different scales – local, national, and transnational – reassembled by Grierson into the final, published, Linguistic Survey of India.

Governing the Linguistic Survey (1886 – 1898)

Armed with a unanimous resolution supporting a "deliberate systematic survey of the languages of India" from his peers at the 1886 International Congress of Orientalists in Vienna, Grierson may have hoped that the Government of India and its constituent provinces would have agreed wholeheartedly to the endeavour and swiftly moved forward with the survey.[5] As a fifteen-year veteran of the Indian Civil Service he may not, however, have been surprised by the protracted and often indecisive process of setting up the Linguistic Survey of India which

[3] Majeed, *Colonialism and knowledge*, p.69.
[4] This approach merges work on the geographies of imperial networks and mobilities and studies critically examining the production, circulation, and mobilisation of knowledge through surveys and other 'scientific' schemes under colonialism, which have been reviewed in detail in chapter one. See section titled, *Surveys, networks and knowledge*.
[5] *Berichte*, p.63. See note 1 in the first chapter.

went through alterations, and near terminations, before tacit government approval in 1896. The years between 1887 and 1896 were a frustrating period for Grierson as he had to overcome financial constraints, provincial hesitance, scholarly scepticism and government dithering in order to gather support and commence preparations for a comprehensive survey of India's languages and dialects. This was not atypical for a colonial survey in British India. The older Survey of India and the Archaeological Survey of India share strikingly similar chaotic beginnings, interruptions and false starts due, more often than not, to financial impediments and inconsistent support from government.[6] Nevertheless, the intervening years between Vienna and finally being approved by the Secretary of State for India were decisive in shaping the structure, method and success of the Linguistic Survey of India.

Uncertain beginnings

The initial reaction in India upon Grierson's return from the International Congress of Orientalists in 1886 was overwhelmingly positive and he, along with Rudolf Hoernle, were formally congratulated by the governments of India and Bengal.[7] The proposal that emerged out of Vienna was for two concurrent projects, one being a survey and the other being a search for historical vernacular manuscripts so a corpus of Indian philological material could be assembled. The initial priority appears to have been the latter since it was already ongoing to a limited extent. A search for Sanskrit manuscripts had already begun on a provincial level in 1881, however Grierson pressed J. P. Hewett, then under-secretary to the Home Department, to extend the search to vernacular manuscripts led by the Education Department and supervised by regional linguistic experts.[8] Sir James Peile, the former Governor of Bombay and member of the powerful Governor-General's council, forwarded Hewett's (and Grierson's) proposals to formalise the acquisition of vernacular manuscripts to the Finance Department with his full support, adding,

> the exploration of the really national vernacular dialects of India and their scientific treatment by comparative philology is, in my opinion, a work of some political

[6] For the early history of the Survey of India see Edney, *Mapping an empire*; for the Archaeological Survey of India see D. Chakrabarti, *A history of Indian archaeology: from the beginning to 1947* (New Delhi: Munshiram Manoharlal Publishers, 1988).
[7] NAI. Home/Public A/June 1887/311-329. Rudolf Hoernle, a German philologist based in India, joined Grierson in proposing the scheme for a linguistic survey. However, Hoernle does not get involved with the later design and implementation of the LSI which suggests it was always Grierson's plan.
[8] NAI. Home/Public A/June 1887/311-329 (d. 6/12/1886).

> importance as well as one of literary interest, because its results will bring the official class into easier and closer communion with the people who are now held at arm's length by the use of what is virtually a foreign tongue. The advantage in regard to vernacular education will also be great and I have always been strongly impressed with the provincial literature as tending to keep alive a provincial sentiment instead of a tame monotonous centralization.[9]

These same arguments would later be deployed in favour of a linguistic survey, but Peile's comments also foreshadowed the Survey's tension with, yet fundamental role in, entrenching politico-linguistic regionalism.[10] At this stage Grierson appears to have been more focused on the search for untranslated vernacular manuscripts which involved identifying and acquiring texts found in religious settings, private collections and elsewhere. The proposal was to have Grierson deputed in each province for a set period of time in order to supervise the systematic search for manuscripts. However, this was deemed too time-consuming and expensive, so Grierson remained in his role as Joint Magistrate and Deputy Collector.[11] The search for vernacular manuscripts was viewed primarily as the responsibility of private scholars and institutions, notably the Asiatic Society in Bengal which continued to collect, translate and publish manuscripts as part of their *Bibliotheca Indica*. Grierson would also help the Asiatic Society edit some manuscripts in the early 1900s.[12]

The decision to drop government funding for a systematic search of vernacular manuscripts would have been influenced by the comments of W. W. Hunter, whose expert opinion on the whole plan was sought by Peile on behalf of the Government of India. Hunter's recently completed first edition of the comprehensive *Imperial Gazetteer in India* was one of the templates for the Linguistic Survey and the scale of his work, which took over two decades to complete, rendered him qualified to review the Vienna resolution on behalf of government. Hunter was sceptical of the project in its totality, writing, "I think they contemplate a somewhat too wide area of research for Government to undertake, unless it is prepared to meet a considerable expenditure", and suggested that while the search for vernacular manuscripts was worthwhile, "editing and translating… is laborious work which in my opinion falls within the province of private scholarship aided and encouraged by the Universities rather than the sphere

[9] NAI. Home/Public A/June 1887/311-329 (d. 12/4/1887).
[10] Addressed in chapter four on the Oriya language movement.
[11] NAI. Home/Public A/ June 1887/311-329 (d. 20/4/1887).
[12] Mss Eur. E223/208. Corr. Asiatic Society of Bengal (1899-1923), for more.

of direct state effort."[13] Hunter encouraged Peile to incorporate institutions such as the University of Calcutta into the greater project which, by his estimates, would reduce the cost from Rs. 40,000 to Rs. 25,000 per year, a substantial saving for government.[14] Hunter was far more sympathetic to the idea of the state funding a survey of the prevailing languages and dialects of India, led by Grierson. He suggested a less costly and more efficient approach would be to establish a network of "officers and missionaries and native scholars in each province" who could work autonomously, following Grierson's instructions to collect the necessary information.[15]

While Hunter's opinion would have been held in high regard, any decision to be made on the future of the Linguistic Survey could not only be decided by the central authorities in Calcutta. Grierson would have known that the "real administration of India is vested in the local governments; for all practical administrative purposes they are the major, and the Supreme Government is the minor quantity."[16] In September 1888, a circular from the Lt.-Governor of Bengal was sent to all the provinces and princely states of India, from Baluchistan to Burma, seeking their co-operation and financial support for a survey.[17] Grierson proposed a complex structure at this stage with two General Directors – one for the Aryan languages, the other for Dravidian – and fourteen provincial directors under the supervision of the Aryan director. In a move to neutralise any accusations that this scheme would be dominated by Bengal, Grierson did not put himself forward to be the General Director, even if he personally thought himself the right candidate. Schoolmasters would be the main source for linguistic information, a method akin to, if not modelled on, Georg Wenker's dialect survey in Germany a decade earlier.[18] The circular included an observation from the Director of Public Instruction in Bengal

[13] Mss Eur. E223/272. W. Hunter to J. Peile (d. 14/2/1887).
[14] Mss Eur. E223/272. W. Hunter to J. Peile (d. 14/2/1887). The University of Calcutta operated like the University of London, responsible for granting degrees among constituent colleges across Bengal Province. Hunter was evidently referring to the various colleges in the province who could have surveyed the prevailing linguistic situation in their respective areas.
[15] Mss Eur. E223/272. W. Hunter to J. Peile (d. 14/2/1887).
[16] *U.K. Parliamentary Papers.* Minutes of the Select Committee on Finance and Financial Administration of India, 1873, XII, p.64. Evidence given by C. E. Trevelyan (25th February 1873). For more on the division of government, especially in the early 20th century, see S. Legg, 'Dyarchy: Democracy, autocracy, and the scalar sovereignty of interwar India', *Comparative Studies of South Asia, Africa and the Middle East*, 36:1 (2016), p.52.
[17] NAI. Home/Public A/February 1895/253-279. Circular (d. 13/12/1889). Why the circular goes through the Government of Bengal and not the Government of India is unclear. Since Grierson was part of the Bengal services, it is possible that he sent the circular via his direct superiors out of convenience or protocol.
[18] NAI. Home/Public A/February 1895/253-279. Circular (d. 13/12/1889).

and, more importantly, a financial estimate for the whole endeavour – a total of Rs. 363,800 for three years.

The response from the provincial governments was overwhelmingly unfavourable, mostly driven by financial concerns. The prospects for support were not helped by Bengal, a wealthier province, only contributing Rs. 45,000 towards the total.[19] Hyderabad, Berar and Punjab had no funds available to contribute and Assam could only contribute around Rs. 11,000 due to financial difficulties. The princely states were also either unwilling, not in a position to contribute towards the costs, or, in the case of Gwalior and Baroda, only willing to contribute in co-operation with the neighbouring British province (e.g., Bombay). There were some small exceptions, with the Begum of Bhopal set to contribute Rs. 1000 and the Raja of Chattarpur also prepared to support the scheme. A reluctance to spend money was unsurprising considering that some states in Central and Eastern India were still recovering from famines in the late 1870s and the Government of India had been running deficits for several years.[20]

Not all of the provinces rejected the proposal based on costs. Bombay was willing to contribute over Rs. 30,000 for three years but as an honorarium upon completion of the work.[21] Grierson rejected this idea outright on the basis that it would not attract the right volunteers and, for the sake of consistency, the survey would require "official discipline."[22] The Central Provinces declared that they were willing to contribute Rs. 15,000 towards the total but had no specialist with the requisite skills and the NWP & Oudh declined to support on the grounds that the dialects of their province had supposedly already been surveyed and they had very little extant literature of philological value, misunderstanding the purpose of Grierson's proposal. A more insightful suggestion from the Central Provinces was to appoint the assistant directors according to language group rather than geographical region or province, anticipating the contradictions in surveying and mapping languages along political lines.[23]

[19] NAI. Home/Public A/February 1895/253-279. Circular (d. 13/12/1889).
[20] J. Richards, 'Fiscal strains in British India, 1860-1914', *XIV International Economic History Congress,* (Helsinki, 2006) [working paper]; L. Davis & R. Huttenback, *Mammon and the pursuit of empire: The political economy of British imperialism, 1860-1912* (Cambridge: Cambridge UP, 1987).
[21] NAI. Home/Public A/February 1895/253-279. Circular (d. 13/12/1889).
[22] NAI. Home/Public A/February 1895/253-279. Grierson to Hewett (d. 15/1/1890).
[23] Interestingly the response from Burma was that it was too early to attempt a survey there. And if one were to go ahead it should be a separate survey to the one in India. In the late 1920s, L. F. Taylor attempted to conduct a Linguistic Survey of Burma, modelled on the lines of the LSI, which ultimately failed because of political interference and cultural conflicts between Taylor and Burma Research Society. For more information see; C. Boshier, 'Leslie Fernanes Taylor and the 'lost' linguistic and ethnographical Survey of Burma', *The SOAS Journal of Postgraduate Research*, 6 (2014).

The strongest criticism against the proposal came from Madras. They were not prepared to contribute funding since there was no suitable agency to supervise the scheme but, above all, there was very little input from the chief Dravidian scholars who would need to set their own lines of enquiry.[24] Madras was also unconvinced that a survey could be completed in three years and any extensions would increase the financial burden. Madras would remain outside of the approved, and much-changed, Linguistic Survey a decade later even though other initially hesitant provinces such as the NWP & Oudh were included. The reasoning is unclear, but part of the answer might lie with the issue of a survey dominated by primarily Indo-Aryan scholars, with Madras being sensitive to the marginalisation of Dravidian scholarship and languages.[25]

Madras was also left out of the Linguistic Survey for financial reasons. The circular indicated that the provincial governments were only able or willing to fund a quarter of the total expenditure at most and Hewett wrote to Grierson that it was very unlikely that the Finance Department would be willing to fund the rest.[26] Grierson advised Hewett that he was willing to leave out an unenthusiastic Madras to reduce the cost of the scheme from c. Rs. 350,000 to c. Rs. 250,000 but would still require central government to provide over half of the funds.[27] However, the proposals appear to have been shelved by government and a year later Grierson articulated his fears that the Linguistic Survey had been indefinitely postponed to Charles Lyall, the recently appointed Home Secretary to the Government of India.[28] Although sympathetic, Lyall's response suggested it was not only financial constraints but struggles with recruitment and lack of personnel in the ICS that hampered plans for a linguistic survey.[29]

Census, catalogues and U-turns

From 1890 to 1895 plans for a linguistic survey were largely suspended, at least from the point of view of government. In the interim Grierson was promoted in 1890 to Magistrate and Collector at Howrah and continued his philological and scholarly pursuits. He was invited in 1894 to represent the University of Calcutta, the Governments of India and Bengal and the

[24] NAI. Home/Public A/February 1895/253-279. Circular (d. 13/12/1889).
[25] Majeed (*Nation and region*, p.124-128) points out that Grierson had a very Aryan-centric view of India, although he was more open about Dravidian influence on Sanskrit than his peers. Whatever the reason for Madras' refusal to participate, the Government of Madras certainly saw themselves as the principal state supporter and promoter of Dravidian scholarship in India. For more see T. Trautmann, *Languages and nations: The Dravidian proof in colonial Madras* (Berkeley: UC Press, 2006).
[26] NAI. Home/Public A/February 1895/253-279. Hewett to Grierson (d. 26/12/1889).
[27] NAI. Home/Public A/February 1895/253-279. Grierson to Hewett (d. 15/1/1890).
[28] NAI. Home/Public A/February 1895/253-279. Grierson to Lyall (d. 18/1/1891).
[29] NAI. Home/Public A/February 1895/253-279. Lyall to Grierson (d. 10/3/1891).

Asiatic Society at the tenth Congress of Orientalists in Geneva.[30] At the conference Grierson presented a paper on Ashokan inscriptions but provided no update or report on the current situation regarding the survey.[31]

Grierson still had support for the scheme in some quarters of the Home Department, with the results of the 1891 Census reaffirming the need for a systematic survey of languages and dialects under state direction. The Census Commissioner report, released in 1893, described the confusion surrounding the linguistic situation in India and called for a complete survey, stating that,

> An operation of that description can only be conducted by a skilled philologist, who knows exactly the lines on which information should be collected, so that the results may be susceptible of comparison over the whole of India. It is hardly necessary to add that he must have a practical knowledge, too, of the country and its inhabitants, and should not work from books alone…For this task a single inquirer, and he a specialist, seems necessary, for the path of the philologist in India is so full of the pitfalls of incomplete data, false analogy, question-begging titles, and imposing speculation, that only a highly competent scholar can expect to thread his way by it successfully.[32]

Jervoise Baines, the Census Commissioner, was clearly referring to Grierson in his description of a skilled philologist who also had practical knowledge of India as a veteran civil servant. If the 1881 Census had surprised the administration in terms of how little they knew about the languages and dialects of India, the 1891 Census painted a more complex picture of severely underestimated numbers, dying languages and the conflation of language, place and caste or race. The 1891 Census started to link language to geography, asking whether the household language was local or not, and noting that identical dialects were appearing in "localities far apart."[33]

[30] Mss Eur. E223/272. Invitations (d. 26/6/1894; 24/8/1894; 2/4/1894). The 10th ICO introduced a section on "Oriental Geography and Ethnography" for the first time and was co-convened by the linguist Ferdinand de Saussure. Ethno-linguistic geography was becoming a more prominent interest among scholars at this time because of novel surveys being undertaken in Europe and the US.
[31] International Congress of Orientalists. *Actes du dixieme Congres international des orientalistes. session de Geneve, 1894,* Vol. 1-4 (Leiden: E. J. Brill, 1895-1897).
[32] J. A. Baines, *General report on the Census of India, 1891* (London: HM Stationary Office, 1893), pp.130-131.
[33] Baines, p.131.

The reaction to Baines' intervention is not recorded but Grierson would certainly have felt vindicated by the results of the Census and the public call for a systematic survey. Whether or not the Government of India were swayed by the report is questionable but, in January 1895 J.P. Hewett proposed on behalf of Grierson, a narrower and less expensive project to complement the enumerative Census. The new plan was to compile a *catalogue raisonné* of the languages and dialects of India which would be funded by government and done under the authority of the Asiatic Society in Calcutta.[34] It was estimated to cost around Rs. 2,000 per annum for three years from 1895-1898, an insignificant amount compared to the original scheme. Grierson would supervise, on behalf of the Asiatic Society, the collection of language lists from each district and source a translated specimen of each language once the list had been compiled.[35] Proposing a *catalogue raisonné* was a concession to the financial concerns of Calcutta, limiting the scope to the collection of a single translated text in each language by using government officials in situ instead of employing someone in the provinces to do so. A *catalogue raisonné* would be enough to construct a more complete picture of India's complex linguistic situation, which the 1881 Census uncovered, and the 1891 Census established. However, surveying and mapping the distribution or geography of languages was beyond the purpose of a *catalogue raisonné.* It would only be a compiled list or index of all the languages in India while private scholarship would be responsible for any further investigation into each language. Grierson may have reluctantly submitted the idea for a *catalogue raisonné* to Hewett but the plan was cautiously approved by the Home Department in 1895. The plan to have the Asiatic Society manage the project appears to have been dropped by early 1896 and the scheme fell directly under the authority of the Home Department, supervised by Grierson.

This was not the end to the government's vacillation on the matter. The archive presents a rather confused story from 1896 to 1898 when the *catalogue raisonné* develops into what would become the Linguistic Survey of India. What can be gleaned is, once more, costs and the debate over Grierson's role nearly derailed the planned Linguistic Survey. In June 1896 Grierson asks Hewett, who had recently been promoted to Secretary to the Home Department, to be placed on 'special duty' so he could complete the editing of the specimens for the catalogue on a full-time basis.[36] Grierson, however, had very recently been promoted to the high-ranking role of Opium Agent in Bihar and government were opposed to any suggestion

[34] NAI. Home/Public A/February 1895/253-279. Hewett to HD (d. 25/1/1895).
[35] NAI. Home/Public/December 1895/159-160.
[36] NAI. Home/Public A/February 1896/192-196. Grierson to Hewett (d. 10/6/1896).

of temporarily leaving such a position. Moreover, the Government of India did not have the funds to employ Grierson on 'special duty' and suggested that the job of Opium Agent did not preclude him from editing the specimens in his spare time. The answer from government, forwarded by Hewett to Grierson, could not have been more emphatic,

> In reply to your letter of the 10th instant, I am desired to say that it is not contemplated by the Government of India that you should be placed on special duty for the purpose of editing and arranging the specimens of Indian languages and dialects which are being collected…the Government were only prepared to sanction, for the purposes of the enquiry, and expenditure not exceeding Rs. 2000/- annually for a period of three years. The Government of Bengal has not at present many senior officers under it, and the Government of India could not, even were there no financial difficulties in the way, ask the Lt.-Governor to spare your services for employment on special duty. In these circumstances, I am sorry to say that there is no prospect of your being placed on special duty. The Government of India cannot therefore ask you to do more than complete the first stage of the enquiry unless, as Opium Agent in Patna, you find you have time to further advance the work than you now think possible.[37]

It should be noted that the correspondence from the Home Department designates the plan a 'Linguistic Survey' rather than a catalogue, which acknowledged that there was the possibility of more than one stage to the enquiry. Grierson likely had support from senior officials in the Home Department for a more extensive survey but the Government of India, with the Finance Department, would only support the narrower *catalogue raisonné* on the terms set out in 1895. The pre-survey was entitled a *Survey of Vernacular Languages in India* in government correspondence.[38] On the other hand, the scheme was already being called the Linguistic Survey in the widely circulated newspaper *The Pioneer* by late 1897.[39]

The inter-departmental friction between Home and Finance came to a head in 1897. The Home Department passed on Grierson's request for a greater financial allocation and more flexibility than the Rs. 2000 (on top of his ICS salary) he was strictly bound to under the terms set a year before.[40] Completing a year of work drawing up the list of languages and preparing specimens

[37] Mss Eur. E223/272. Hewett to Grierson (d. 26/6/1896). For more on the role of Opium Agent, see J. Richards, 'The opium industry in British India.' *The Indian Economic & Social History Review* 39:2-3 (2002), pp. 149-180; J. Richards, 'The Indian empire and peasant production of opium in the nineteenth century', *Modern Asian Studies,* 15:1 (1981), pp. 59-82.
[38] NAI. Home/Public/May 1897/303-312.
[39] Mss Eur. E223/272. Extract, *The Pioneer* (d. 3/12/1897).
[40] NAI. Home/Public/May 1897/303-312.

for translation confirmed that the current allowance could not cover all the unplanned and extra costs of the scheme. The Finance Department responded strongly to Grierson's request for more financial flexibility and support.

> Mr Grierson, I'm afraid, wants a sort of blank cheque. This we cannot do, nor can we 'place any sum at his disposal.' If he gives us a definite estimate…we can consider it, sanction it and give him power to incur expenditure within these limits. But he must begin by giving a reasonable estimate and showing that it is so…Mr Grierson no doubt knows the ordinary rules of Government business. His mistake lies in thinking that when an officer is given special work, he is exempted from all our business-rules and practices.[41]

The Home Department under Hewett continued to push for extra funding for Grierson and made the case for a reasonable discretionary allowance to buy books and stationery of Rs. 250, which the Finance Department accepted.[42]

At this point Grierson would have been more convinced this was a task for government and not private scholarship and, to get the necessary financial and administrative support, needed to be employed directly by government and full-time on the task. In a letter to Hewett in December 1897, Grierson makes the case for being put on "special duty" by the Government of India by arguing, "I could complete it more satisfactorily and quickly than most officers, for I have gained a considerable connection amongst local scholars all over India, with whom I am on friendly terms, and who would be ready to aid me at any critical points."[43] Not only was Grierson the best person to navigate the domains of government and scholarship, he was a critical piece in putting together the regional, national and international networks which would form the Linguistic Survey. Hewett and the Home Department appear to have completely supported the plan for a comprehensive survey and agreed to lobby the Government of India to put Grierson on 'special duty with the Linguistic Survey of India'.

In February 1898, the government reversed their stance on whether Grierson could be fully assigned to managing the LSI, but with certain conditions. Grierson had gone on furlough in 1897 from his position as Opium Agent while making preparations for the Survey, so the Government of India suggested he should be paid an honorarium in instalments at each stage

[41] NAI. Home/Public/May 1897/303-312.
[42] NAI. Home/Public/May 1897/303-312.
[43] Mss Eur. E223/272. Grierson to Hewett (d. 4/12/1897).

of the Survey, on top of his furlough pay, rather than being employed on duty.[44] Hewett asks Grierson to suggest an amount for the honorarium and propose a budget and timeline for the Survey's completion based on the money already spent on collecting the rough lists of languages since 1896. Grierson responded with some reticence regarding the size of the honorarium except that his length of service and seniority should be accounted for as well as an appropriate amount provided to support his spouse. He was far more critical regarding the idea of paying by instalments as "it is one whole and can only be completed at one time".[45] The timeframe was set again at three years to collect and edit specimens while the budget was estimated at Rs. 2000 per year. On the 25th of February 1898, Hewett wrote to Grierson that the Government of India were prepared to recommend to the Secretary of State in London that Grierson should be temporarily appointed on "Special Duty with the Linguistic Survey of India" with a budget of Rs. 2000 p/a, to commence in the autumn under the supervision of the Home Department.[46] Grierson accepted these terms the next day although sought permission to start sooner as he had already been on furlough.[47] A few weeks later Hewett responded that he could do so and informed him that it had been decided that the Linguistic Survey office would be based in Calcutta, and Simla during the summer months.[48]

Grierson had to wait for final approval from the Secretary of State for three months, a period which was particularly frustrating. In a letter to his friend and colleague Charles W. Bolton, the Chief Secretary of Bengal, Grierson admitted that he would consider retiring early if the Secretary of State did not approve the LSI after previous interruptions.[49] Compounding his frustrations was the start of his health problems while awaiting ratification, writing "Hewett writes to me that the order of the Secretary of State about my proposed special duty will probably arrive next week. They will have been so much delayed and my eyes have already suffered so much from this heat…if the orders are in the affirmative, I shall go to Simla at once…if on the other hand, the answer of the S. of S. is in the negative, I shall go on furlough as soon as I can arrange for a berth in a steamer."[50]

[44] Mss Eur. E223/272. Hewett to Grierson (d. 3/2/1898).
[45] Mss Eur. E223/272. Grierson to Hewett (d. 7/2/1898).
[46] Mss Eur. E223/272. Hewett to Grierson (d. 25/2/1898). The Secretary of State for India was the Cabinet minister responsible for India and Burma in Westminster. Lord George Hamilton, a Conservative, was the Secretary of State in 1898.
[47] Mss Eur. E223/272. Grierson to Hewett (d. 26/2/1898).
[48] Mss Eur. E223/272. Hewett to Grierson (d. 12/3/1898).
[49] Mss Eur. E223/272. Grierson to Bolton (d. 2/3/1898).
[50] Mss Eur. E223/272. Grierson to… (d. 29/4/1898).

Finally, in May 1898, Grierson received word that the Secretary of State had officially sanctioned his special duty, becoming the *Superintendent of the Linguistic Survey of India*, with a personal stipend of Rs. 2000 per month for two years.[51] This decision was far-reaching. Although the Linguistic Survey positioned itself in the intermediate space between scholarship and government, its day-to-day operation, let alone the ability to survey and map the languages of a subcontinent, could not happen without the financial support and personnel afforded by the state. Government support, however, came with departmental oversight. Financial statements were provided to the Comptroller of Indian Treasuries each year while Grierson had to gain permission from his superiors to extend his deputation beyond three years and then after his retirement from the civil service in 1903. Such oversight was to be expected for any new department or agency within government, and the LSI was henceforth deemed to be a sub-branch of the Home Department. If, as Dirks suggested, the colonial archive is not only a repository of documents but a historical document itself then the archive is quite telling about organisational position of the Linguistic Survey in India.[52] Until 1898, files and correspondence related to the Survey were indexed under a personal name, 'Mr. Grierson', but from 1898 onwards correspondence was filed under 'Linguistic Survey of India', recognising the LSI's status as a sub-branch of government.

Governing rationale for the Linguistic Survey

The difficulties faced in getting the project funded and off the ground were largely played down – or forgotten – once the Linguistic Survey proceeded. Thirty years later Grierson presented a significantly abridged and far more linear account of the events leading up the start of the Survey in the *Introductory* volume of the LSI.[53] However, the question which emerges out of this preliminary period and remains unclear is why the *catalogue raisonné* plan was dropped and the Government of India changed its position on sanctioning and completely financing a Linguistic Survey of India. Part of the answer certainly lies in the paring down of the original plan to reduce expenditure and due to the robust support of allies within government.

[51] NAI. Home/Public/June 1898/62-73.
[52] N. Dirks, 'Annals of the archive: Ethnographic notes on the sources of history' in, *From the margins: Historical anthropology and its futures*, (ed.) B. Axel (London: Duke University Press, 2002), p.62.
[53] LSI, Vol 1.1 *Introductory*, p.17. It is interesting to note the ambiguity in the start date of the Survey. Grierson adopts 1894 as a retrospective date, whereas the correspondence indicates that it still took until 1898 to finalise financial matters and establish Grierson's role, which is the date often used in the literature. Arguably, it makes more sense to consider 1896 the start date since this was when the preliminary lists were circulated to the provinces.

Moreover, as explained in the previous section, the 1891 Census reaffirmed the pervasive lack of knowledge regarding the languages and dialects of India and further justified the need for a systematic survey.

Nevertheless, Grierson also deployed several other arguments to press the case for a Linguistic Survey in India which emphasised its utility to the state. Some of these arguments employed anecdotal accounts of miscommunication between locals and officials in judicial and educational settings, while other arguments capitalised on the geopolitical situation beyond the North-West frontier and the international reputation of India's scholarship. However, a more incisive argument for the Linguistic Survey focused on its internal, rather than external, importance to colonial rule. This argument referred to the (apparent) decline in language skills among government and military officials, with its ramifications for governance, education and rule of law, and implied the Survey could assess the imbalance of linguistic knowledge within government and across India in order to address those gaps. Mapping languages, from the perspective of the internal argument, was more about mapping the unknown, misattributed or ignored languages of India – and gauging the extent of the state's knowledge of those languages – rather than mapping those already known and well-understood.

Perhaps unsurprisingly, the records do not indicate which argument was most influential in swaying the Government of India. None of these arguments may have mattered as long as the proposal remained unfeasible and expensive to the regional and central governments. However, the disparateness of the arguments alludes to the 'idiom of doubt' that underpins the Linguistic Survey of India.[54] The LSI never settles on a precise purpose and promotes itself as a government survey, work of scholarship, or repository of information when it suited, in contrast to the cartographic Survey of India, for example, which had a specific and circumscribed mission.

Geopolitics and international reputations

Writing to Charles Lyall in early 1891, Grierson warned government that the 'Germans' had started to work on the Baluchi language along the Persian frontier with India. Grierson was certainly referring to philologists as German scholars were particularly noted for their expertise

[54] To borrow from Majeed.

in Iranian languages.[55] But his warning may have capitalised on growing concerns in India about German intrigue in Central Asia and Afghanistan.[56] This was not the first time Grierson urged government to support the Linguistic Survey out of geopolitical considerations. Only a year earlier, in his retort to the regional governments, Grierson emphasised the strategic importance of linguistic knowledge to the state and the military suggesting the Indian army would immeasurably benefit from a better understanding of the languages and dialects of Nepal and those along the Himalayas.[57] Grierson would have been aware of unsuccessful British diplomatic overtures across the Himalayan frontier in Tibet which eventually culminated in a mission in 1903-04 to force the Tibetans into an economic and diplomatic relationship with India.[58] What linked Tibet and the Himalayan frontier to the areas where Baluchi was spoken was their geopolitical importance – and perceived vulnerability – in the Anglo-Russian rivalry overshadowing Central Asia, and in particular Afghanistan, during the 19th century. It was only a year before the Oriental Congress in Vienna when Russia and Britain came close to a full-blown war over Afghanistan and, whether or not Grierson intended to do so explicitly, this argument for a Linguistic Survey profited on Calcutta's (and London's) fears of a Russian threat to India.[59]

The importance of exploration, geographical knowledge and topographic mapping during the 'Great Game' is a well-trodden subject but often overlooked is the attention placed on gathering linguistic information by the same spies or explorers. Sir Henry Rawlinson, the principal advocate for preventing Russian expansion in Asia and also a prominent philologist, wrote in his seminal anti-Russian polemic *England and Russia in the East* (1875) on the need to acquire knowledge of, and train Indian officers in, local Afghan languages and dialects "for those

[55] C. Jahani, *Standardization and orthography in the Balochi language,* Acta Universitatis Upsaliensis; Studia Iranica Upsaliensia 1 (Uppsala: Uppsala University, 1989), p.11. Balochi is a north-western Iranian language spoken in parts of Pakistan, Afghanistan and Iran.

[56] NAI. Home/Public A/February 1895/253-279. Grierson to Lyall (d. 25/1/1891). See J. Stone, 'Bismarck and the Great Game: Germany and Anglo-Russian rivalry in Central Asia, 1871-1890.' *Central European History*, 48:2 (2015). Stone suggests that Germany saw an opportunity to check Russian and British power, and further their own interests, by meddling in the Anglo-Russian rivalry playing out in Central Asia. Indeed, the 'Great Game' was such a convenient rivalry for Germany that it was assumed by many at the time to be the handiwork of Bismarck himself (Stone, p.152).

[57] NAI. Home/Public A/February 1895/253-279. Grierson to Hewett (d. 15/01/1890).

[58] I use the term 'mission' lightly. By all measures it was a classic imperialist invasion to force Tibet to open up to British trade and supervision, under the pretence of preventing Russian designs on the isolated Himalayan region. For a good account of the invasion see A. McKay, 'The British invasion of Tibet, 1903-04', *Inner Asia*, 14:1 (2012), pp. 5-25.

[59] The Panjdeh Incident in 1885 was a skirmish on the undefined Afghan border with Central Asia that nearly led Britain to declare war on Russia. Diplomacy ended the threat and led to negotiations to settle the Afghan-Russian border, a key strategic aim for Britain. For more see F. Kazemzadeh, *Russia and Britain in Persia, 1864-1914: A study in imperialism* (New Haven: Yale University Press, 1968).

delicate and important political duties…which Indian experience alone was hardly a sufficient qualification."[60] Although beginning his philological career focused on Bihari and other languages of Eastern and Central India, Grierson eventually expanded his expertise to the languages within and beyond the North-West Frontier. Besides the Linguistic Survey, his private research into the Kashmiri and the Dardic languages inserted Grierson into a network of military and non-military explorer-scholars who were operating across Central Asia and who became important experts and 'surveyors' for the LSI. These included Laurence Waddell, a military doctor and Tibetan specialist who joined the infamous Younghusband expedition to Tibet, and David Lorimer, an officer in the Corps of Guides who later resided and travelled around the NWFP, studying the culture and languages of the region.[61] Perhaps the most famous correspondent of Grierson who was entangled in the 'Great Game' was the Hungarian-born archaeologist Aurel Stein. Grierson and Stein would later collaborate to publish an account and map of the Torwali language, but Stein also proved to be an invaluable source for languages in the Punjab, NWFP and Afghanistan during the course of the LSI.[62]

These links with Stein, Lorimer, Waddell and others were seemingly only established once the LSI commenced so it was likely that Grierson was lobbying the Government of India in the early 1890s using nothing more than common knowledge about British affairs in Central Asia. But the later correspondence with Aurel Stein alludes to why geopolitical arguments may have held sway in some quarters of the Government of India. Following his third expedition which ended in 1916, Stein wrote to Grierson that he had come across a "Pamir linguistic survey" on his way back from Samarkand and Bukhara conducted by a group of Russians under the guidance of the French linguist and explorer Robert Gauthiot.[63] By this time both parties had come to a mutual agreement regarding the Russian-Afghan border along the Pamir Mountains, yet it is not difficult to imagine that if a Russian-sponsored linguistic survey had happened over

[60] H. Rawlinson, *England and Russia in the East: A series of papers on the political and geographical condition of Central Asia*, 2nd edition. (London: John Murray, 1875), p.109.
[61] The Corps of Guides was a special regiment responsible for protecting and defending the geographically complex North-West Frontier of India. Some of the best accounts of the lives of these scholar-surveyor-explorers can be found in popular non-fiction such as the work of Charles Allen and Peter Hopkirk.
[62] See, Mss Eur. E223/323-324. Grierson and Stein jointly published through the Royal Asiatic Society, *Torwali: An account of a Dardic language of the Swat Kohistan* (London: RAS, 1929).
[63] Mss Eur. E223/323. Stein to Grierson (d. 29/2/1916). Stein was recounting his third expedition that took him to the Persian border via Samarkand and Bukhara. This 'survey' he came across was probably the Robert Gauthiot and Ivan I. Zarubin (a Russian Iranist) expedition in 1914 to survey the languages and ethnography of the Pamir Mountains (in modern-day Tajikistan). Before completing the survey, Gauthiot returned to France to serve during WWI and died from injuries sustained during the war in 1916. See R. Gauthiot, 'Resultats du voyage au Pamir (Asie centrale)', *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres*, 58:6 (1914), pp.579-582.

twenty-five years earlier, it would have alarmed the hawkish military officers and politicians in Calcutta and London.[64] Grierson may not have bluntly made a strategic argument for the LSI but, knowing that languages often transcend political boundaries, a survey would inevitably capture linguistic information along – and beyond - the Indian frontier. Some in government would certainly have understood that a linguistic survey was strategically convenient as it could gather intelligence and map the languages spoken in Persia, Afghanistan, Tibet and even Southern China. As will be further discussed in the next chapter, this is evident in the maps which extend their coverage beyond the border, reframing the LSI as not simply a survey *of* or *in* India but a transnational survey (a good example being the map of Balochi, which the Germans were working on).

Significant constituencies within government, namely the military, may have been persuaded to press for a linguistic survey on geopolitical grounds. However, frontier provinces and agencies such as the NWFP and North-East Frontier (Assam) were not more inclined to support the LSI than those in central India so this argument was not decisive in the regions most affected by 'Great Game' politics. On the other hand, the rationale for a survey based on its value to international scholarship took aim more broadly at the Government of India's global standing and reputation for supporting research. In response to further delays to his deputation in early 1898, Grierson presses Hewett by writing,

> I do not wish to boast but I can assure you that the completion of the Survey is eagerly looked forward to by the leading Philologists of Europe. When it is completed, it will be one of the most important works about Indian languages, which has ever issued from press. Do not take what I say as gospel but ask any competent person. If it is done successfully the credit will be much more due to the Government of India which enabled me to carry it out, than mine.[65]

By referring to an amorphous, worldwide community of scholars - the 'Philologists of Europe' - Grierson evidently tried to impress on government the international expectations behind the survey and that India's reputation for supporting scholarship was on the line.[66] How effective this appeal was is debatable. The Asiatic Society, museums and other learned societies in India

[64] The Pamir Boundary Commission of 1895 set the Afghan-Russian border along the Pamir Mountains, establishing Afghanistan as a buffer between the Russian Empire and British India.
[65] Mss Eur. E223/272. Grierson to Hewett (d. 7/2/1898).
[66] The "Philologists of Europe" also included those European philologists living and working in universities, museums and religious missions in India. 'Europe' would later expand to include American and Canadian linguists and, one could argue, Western-educated Indian scholars.

had a well-established reputation internationally in philology, archaeology and the natural sciences.[67] Yet the government's record in supporting research remained patchy and provincialised apart from the major surveys (SI, GSI etc.) which had clear administrative, military and economic benefits and were therefore deemed worthy of funding.[68] This could explain why the *catalogue raisonné*, supervised by the Asiatic Society, was alternatively proposed since 'surveys' were precisely state endeavours in India.

Grierson did not simply invoke India's international standing but also appealed to a sense of pride, if not patriotism, that overlapped with geopolitical concerns, writing,

> it is hardly creditable to English rule in India that other nations are doing in India what we should be doing ourselves. It is the French Government who deputed the late Professor Darmesteter to Peshawar that we owe our first scientific account of the Pashtu language. It is to the Russians that we owe our knowledge of Newari, on the principal languages of Nepal…again it is through subventions of the Bavarian Government that the late Professor Burkhard's valuable essays on Kashmiri have been published, also in the German language.[69]

This statement did not necessarily reflect Grierson's private opinion on the matter since he placed much emphasis on his relations with international scholars and would later depend on French, German, Norwegian and other Europeans to complete the Linguistic Survey of India.[70] Rather, Grierson's statement was a tacit move to 'nationalise' an international project – making the LSI a project *of* and *by* British India - directed not only to Calcutta but London, the centre of British-rule. In practice, nationality appears to have mattered little when it came to linguistic research in India. The central and provincial governments had a track record of supporting and employing non-British scholars across various institutions such as the noted German Sanskritist, Georg Bühler, a colleague of Grierson who put forward the motion for the survey

[67] D. Arnold, *Science, technology and medicine in colonial India* (Cambridge: Cambridge University Press, 2000), p.28. Although their reputation took a while to establish. British scholars in India often felt they were not given due respect compared to their peers in Britain in the early decades of colonial science.
[68] D. Kumar, 'Emergence of 'scientocracy': Snippets from colonial India', *Economic and Political Weekly*, 39:35 (2004), p.3894. Kumar points out that science remained provincialised in India until the 20th century due to an attitude which favoured applied results to solve an immediate problem rather than invest in research to push the boundaries of learning. Grierson would have been pushing against such entrenched views in his arguments for the Linguistic Survey.
[69] NAI. Home/Public A/Feb. 1895/253-279. Grierson to Lyall (d. 1891).
[70] Grierson also showed deference to earlier linguistic work by non-British scholars. For example, in recounting the history of linguistic research in the *Introductory* volume of the LSI (1.1), he recognised the important contributions of German, French and Russian scholars to the study of Indian languages. Grierson could not be accused of favouring British scholarship – and scholars – ahead of non-British work.

in Vienna.[71] Yet paradoxically, by appealing to nationalist and 'imperial' sentiments for a Linguistic Survey of India, it also circumvented provincial resistance which was more concerned with regional dynamics than international issues. In response to the views of the provincial governments, Grierson reminded the 'Imperial Government' that it should also contribute financially out of "Imperial interests" which were not just confined to India.[72]

Miscommunication and multilingualism

Geopolitical arguments, and to a much lesser extent India's reputation internationally, were not justifications that could be unilaterally considered by the government in India. The Secretary of State for India, the India Office and Foreign Office in London were ultimately responsible for setting imperial or international policy whereas Calcutta was expected to administer decisions made in Britain and provide advice.[73] The central and provincial authorities were, on the other hand, responsible for internal matters such as education, law and order and day-to-day administration where knowledge of languages were essential for colonial governance.[74] However, the proposal for the survey came at a time when the old linguistic order, and the assumptions that drove language policy and organisation since the days of Company rule, had eroded. While the Census revealed the limits of linguistic knowledge, the Macaulayan view of vernacular education held less sway and the linguistic ability of junior officers starting their ICS careers were being re-examined in light of problems on the local and provincial levels. The figure of the colonial officer not able to communicate with a native (and vice-versa) became a symbol for the failure of language policy and education, positioning the LSI as a solution to the problem and a means towards more efficient colonial rule.

From the outset, the principal argument for a linguistic survey was its practical benefit to "bring the official class into easier and closer communion with the people who are now held at arm's length." This argument in favour of the survey was elaborated in Vienna. In front of an audience

[71] Georg Bühler moved from Gottingen to become the Professor of Oriental Languages at Elphinstone College in Bombay, a role he remained in for nearly two decades before returning to Germany. His prolific work translating Sanskrit texts established him as a leading philologist until his mysterious death in 1898.
[72] NAI. Home/Public A/Feb. 1895/253-279. Grierson to Hewett (d. 15/01/1890).
[73] S. Mahajan, *Foreign policy of colonial India 1900-1947* (Abingdon: Routledge, 2018).
[74] It should be noted that British India's constitutional arrangement – including the role of the provinces and supreme government - changed during the LSI's lifetime with the Montagu-Chelmsford Reforms in 1919. Even the LSI's own administrative position changed when it moved from the Home to Education Department in 1912.

of orientalists, Grierson emphasised practical reasons ahead of scholarly value, declaring that there,

> is no reason why the European official should not learn the vernacular *patois* or language (I care not what it is called) of the district committed to his care. This has hitherto been a practical impossibility to the average official…. The magistrate need no longer have recourse to an interpreter, and can now, after minimum expenditure of labour, converse with a witness in the latter's mother tongue.[75]

Reiterating the urgent need for a survey in response to provincial resistance to the plan, Grierson pointed out its importance by writing,

> It is freely admitted that there are many scores of tribes throughout India each only speaking a language which is unintelligible to the various government officials with whom it may come into contact. I may cap this with one instance gathered from my own experience. Some years ago a European was tried…for an alleged murder in Tirhut. The witnesses were farmers…who spoke what is known to every planter as Goanwaru and not an official in the High Court could understand them…yet it was a dialect of about seven millions of people.[76]

Grierson would often return to anecdotal accounts of officials not understanding locals to strengthen the argument for a linguistic survey, although the LSI would itself be afflicted by the same problem when it came to collecting specimens.[77] These anecdotes were certainly embellished at times to grab the attention of government. They typically pinpointed the problem of not understanding vernacular languages in the pursuit of law and order where language barriers could be a matter of guilty or not guilty and even life or death. Like many others in the colonial bureaucracy, Grierson had worked as a district magistrate and the image of the junior official unable to communicate with locals would have registered on many levels of government.

Nevertheless, Grierson was not inventing a problem. A century of British control had not markedly improved the linguistic capabilities of non-native officialdom. This was partly a fault

[75] Mss Eur. E223/299. Grierson's note to Vienna Congress, 1886.
[76] NAI. Home/Public A/Feb. 1895/253-279. Grierson to Hewett (d. 15/01/1890).
[77] LSI, 1.1. *Introductory,* pp.18-19. Grierson gives a humorous account of one instance when the Survey had to deal with this problem. An official in one of the Himalayan districts returns to Grierson a strange name for an unknown Tibeto-Burman dialect which even Tibetan experts were perplexed by. After asking the official to make further inquiries, it turned out that what he had heard and recorded was "I don't understand what you're driving at" in the unknown dialect.

of underestimating the number of languages and dialects in India. But the problem was mostly a consequence of misguided, contradictory and sometimes calamitous language policies implemented under the EIC and then continued under Crown rule. Colonial language policy was largely a legacy of two decisive EIC Acts, the English Education Act (1835) and Act No. 29 of 1837. The former, famously drawing on Macaulay's memorandum against native forms of education, aimed to establish an English-educated class in India at the expense of an 'oriental education'.[78] Although the final act did not end support for the study of elite languages such as Sanskrit and Persian (against Macaulay's wishes), education in the vernacular languages was largely ignored. There were attempts to rectify this shortcoming with Wood's Despatch (1854), which came to a compromise of allowing vernacular education in schools (to advance European learning of course). However, the long term effect was that English was privileged to the detriment of other languages, leading Curzon to declare "ever since the cold breath of Macaulay's rhetoric passed over the field of Indian languages and textbooks, the elementary education of the people in their own tongue has shrivelled and pined."[79] On the other hand, Act 29, which officially abandoned Persian as the administrative language of Bengal in favour of regional languages such as Bengali, Urdu and Oriya, set a precedent for the rest of India that established the vernaculars as the language of local and provincial rule.[80] In practice, Act 29 did not always lead to a sensible language policy and invariably privileged one language to the detriment of another, creating an artificial hierarchy and geography, but Act 29 did promote the idea that good governance meant being able to communicate directly with those governed.[81]

The contradiction with the Acts was, on the one hand, the Macaulayan model aimed to create an English-speaking class of intermediaries to bridge British officialdom and its native subjects, whereas Act 29 necessitated an appropriate understanding of the vernacular language(s) spoken where the official was posted. Macaulay had a substantial say in the implementation of the open recruitment system for the Indian Civil Service in the 1850s which was designed with his principles in mind, favouring candidates who scored well in Greek, Latin

[78] S. Evans, 'Macaulay's Minute revisited: Colonial language policy in nineteenth-century India', *Journal of Multilingual and Multicultural Development*, 23:4 (2002), pp.260-281; T. Rahman, 'British language policies and imperialism in India', *Language Problems & Language Planning*, 20:2 (1996), pp.91-115.
[79] Cited in Evans, 'Macaulay's Minute revisited', p.277.
[80] For more on Act 29 see, F. Mir, 'Imperial policy, provincial practices: Colonial language policy in nineteenth-century India', *The Indian Economic and Social History Review*, 43:4 (2006), pp.395-427.
[81] Orissa and the Oriya-language movement were a prime example of the problems these imposed hierarchies created. This will be extensively covered in chapter four.

and the major European languages.[82] Sanskrit and Arabic were the only 'oriental' languages to feature, the two supposed linguistic cornerstones of Indian civilisation, and both languages were given far less weight than European languages. A future official was only introduced to a vernacular language during their probation – gradually reduced from two to one year - when they would be trained and examined on their ability in the languages of their future province (usually Hindustani and the regional vernacular e.g., Bengali in Bengal).[83] The linguistic competency of civil servants was mixed. Some, like Grierson, clearly had an aptitude for languages and developed a lifelong interest in them that went beyond any practical needs, but many others only learned Hindustani (Hindi or Urdu) to a basic level needed for governing. Reviews of ICS recruitment in the 1870s and 1880s picked up problems with vernacular training but did very little to change things apart from a few minor adjustments. The Salisbury review in 1875 revealed a decline in probationers studying extra languages, with the minimum requirement being "an elementary knowledge of one of the vernacular tongues".[84] In the early 1880s, the Public Service Commission (Aitchison Commission) was set up to tackle growing discontent among native Indians who were unfairly prevented from competing equally in the civil service examinations because they did not have access to the same European and classical education as British candidates in England and Ireland. Key demands included weighting Sanskrit and Arabic equally to Greek and Latin and adding vernacular languages on a par with European languages. The commission decided against including vernacular languages and, by the time its recommendations were implemented in 1892, there were no changes to the weighting of Sanskrit and Arabic.[85]

[82] P. Vasunia, 'Greek, Latin and the Indian Civil Service.' *The Cambridge Classical Journal*, 51 (2005), pp.35–71. The maximum number of marks awarded to Sanskrit and Arabic were 375, compared to 750 for Greek and Latin. By 1893, Sanskrit and Arabic were increased to 500 each but Greek and Latin were still left at 750 each. Vasunia suggests that the language part of the open-examination model was designed to favour Oxford candidates, most of whom had read Greats. Between 1892 and 1914 nearly 50% of recruits came from Oxford, proving the success of favouring Greek, Latin and other European languages.

[83] E. Blunt, *The Indian Civil Service* (London: Faber and Faber, 1937), pp.200-202.

[84] *The selection and training of candidates for the Indian Civil Service, PP 55* (1876), Cd. 1446, 305. The review showed that that numbers passing an extra language exam, on top of two required, declined from 27 in 1865 to 12 in 1871. From 1872, only one vernacular language exam had to be passed and this resulted in only 8 candidates examining in more than one extra language. The reason for the review was a concern that too many candidates were just training to pass exams and not actually acquiring a substantive understanding of what they were being examined on.

[85]Vasunia, 'Greek, Latin and the Indian Civil Service', p.51. The government's attitude would also have been coloured by wider political and cultural issues in India regarding the everyday use of vernaculars. The Vernacular Press Act was passed in 1878 to curtail criticism of British policies in native-language newspapers and although it was repealed soon after (1881) because of public anger, it hardened views for and against a liberal approach towards vernacular usage.

By the turn of the century, the decline among junior officers was significant enough for Grierson to state that "the average knowledge of the local vernacular among Civil Servants is less than what it was say fifteen or twenty years ago".[86] Grierson was certainly guilty of having a rose-tinted view of his own generation seeing that the Salisbury inquiry took place when he had been a junior civil servant. However, the situation came to a head during Curzon's viceroyalty (who had criticised Macaulay's legacy) with government directed to gauge the extent of linguistic knowledge in the services.[87] The Board of Examiners was asked in 1903 to return its statistics on vernacular language uptake as far back as 1865 and provide an annual report on language exams, something the Board had not done since its inception.[88] Grierson, in his capacity as the superintendent of the LSI, was also asked by the Civil Service Commissioners his opinion on reforming language preparation and training. His view on the matter fell somewhere in the middle. On the one hand, Grierson pointed out that the decline happened once probation had been reduced from two to one year, which was an unfairly short time to properly learn a vernacular, while the method of teaching was too focused on trivial technicalities and not the basic principles of a language. On the other hand, Grierson was wary of making the teaching of vernaculars paramount, to the detriment of learning classical, linguistic and literary history which was "essential for those who will have the government of India in their hands…a certain familiarity with the literature of the people of the country is absolutely necessary."[89]

Declining linguistic standards in the civil service may have been a pivotal rationale for the LSI in the eyes of the provincial and central governments. A systematic linguistic survey was an opportune moment to gauge the extent of linguistic knowledge among civil servants at the local and provincial level who were tasked with surveying language. Operating as a form of internal surveillance, therefore, the LSI would not only be mapping the limits of the state's knowledge of Indian languages and dialects but also uncover geographical gaps in linguistic knowledge. In other words, which local administrations had a weaker understanding of their principal vernaculars and whether the language of governance matched the demography of the area.

[86] IOR. S/1/3/1. Note from Grierson (d. 26/10/03).
[87] Whether or not he was directly involved in raising this matter, Curzon was concerned about a decline in competent Europeans being selected. Curzon's main worry – which underscored his critique of Macaulay - was that too many native candidates were beating out British candidates in the English examination and he was anxious about what this meant for the racial makeup of the service. Vasunia (p.64) points out that this fear was overblown but showed how wary government was of making it any easier for Indians to join the ICS.
[88] NAI. Home/Examinations A/March 1903/21. Dep. Sec Home Department to Sec. Board of Examiners (d. 12/03/1903).
[89] Mss Eur. E223/227. Grierson to Civil Service Comm. (d. 14/05/1905).

Grierson evidently kept track of the linguistic ability of his specimen collectors – with enough information to spot regional differences - even though he was not explicitly asked to do so. In response to Bengal's enquiry about the state of their provincial services, Grierson wrote:

> Of late years, through the operations of the Linguistic Survey, I have been placed in a position to gauge the knowledge of local vernaculars possessed by district officials as a body. I have had correspondence regarding language with every district officer north of the Vindhyas and with a great many south of that range…so that, with a fair degree of accuracy, I automatically became aware of the knowledge of local vernaculars possessed by local officials in northern India. This was not however part of my business…I accepted the information given to me and the specimens, and did the best I could with them…But, as the work went on, comparisons were forced upon me and, with great regret, I was compelled to acknowledge the inferior nature of the specimens sent (with a few notable exceptions) from my old province. This, it must be observed, does not merely apply to the general knowledge of the vernaculars of the province by Indian Civilians but to a want of familiarity with the local patois by *all* executive officers. Only a few officials of the Lower Provinces seemed to have more than a hazy idea of what the peculiarities of their respective local dialects were.[90]

Grierson went on to add that while the authorities should not expect their administrators to be like 'Mezzofanti,' the bare minimum should be an ability to speak to a group of villagers in their district without the need for a translator.[91] Fortuitously for the provinces, the LSI would be able to furnish them with the necessary linguistic and geographical information so the authorities could identify which languages or dialects were most commonly used in the locality where an official was to be assigned. Linguistic surveys could optimise colonial rule.

In fact, the tangible benefits of the LSI to government were outweighed by its cultural and intellectual importance. The LSI provided a comprehensive overview of the languages of India but not enough material to learn them properly – that was the job of other linguists who, from Grierson's point of view, would be spurred on by the Survey's results to study and publish grammars, dictionaries and textbooks of India's little-known languages and dialects.[92] A more fundamental issue was that as more and more dialects were classified, it exacerbated the

[90] IOR. S/1/3/1. Note from Grierson to Govnt. Bengal (d. 26/10/03).
[91] Giuseppe Mezzofanti was a 19th century Italian cardinal and renowned polyglot, who apparently spoke at least 30 languages fluently.
[92] See for example, IOR. S/1/9/16. Grierson writes to H. James that the LSI was an opportune moment to have specialists examine less well-known languages such as the Khandeshi language in Bombay Province.

perception of declining standards and did not necessarily clarify the linguistic situation. Languages overlapped political boundaries and many districts were made up of communities speaking different dialects, so it was unrealistic to expect an official to be able to communicate directly with all. Translators were still an essential cornerstone in colonial India.[93] Nevertheless, during the latter years of the survey, when it steadily transitioned from government survey to a scholarly project, Grierson continued to consider its practical utility to the state from helping train junior officers to improving the educational system in India. The justification for gramophone recordings, for example, was that they could be sent to Britain to help immerse future civil servants in a language (although this reason for the gramophone scheme may have partially been responsible for the failure of the Linguistic Survey of Burma).[94] As a final nod to government support after the LSI was completed in 1928, Grierson proposed a plan to publish the first two hundred pages of the *Introductory* volume as a pocket guidebook on Indian languages to be distributed to new civil servants and offered for sale to the general public.[95] The Government of India agreed to the plan but it was never realised.

A 'practical' Survey?

The Linguistic Survey was a measured rebuke to Macaulay's vision for an Anglicised India, yet also confirmed the success of creating an English-speaking class of Indians. Grierson placed considerable blame on the spread of English in administrative work since most native assistants and clerks could competently write and communicate in English.[96] The onus should instead have been on British officialdom to learn to communicate in the vernacular of the communities under their charge. Reluctantly accepting the new status quo, Grierson would later imply that the true justification for the LSI was to mask the government's lack of concern for languages and dialects, writing "of course Government has no idea of attaching any literary value to the specimens of the non-standard dialects of Khassi. All that is desired is to record their forms, for philological purposes, before they die out as they are destined to do".[97]

[93] For an excellent study of the cultural importance of translation to imperial rule in India see, M. Dodson, 'Translating science, translating empire: The power of language in colonial North India', *Comparative Studies in Society and History*, 47:4 (2005), pp.809-835.
[94] Mss Eur. E223/227. Grierson discussed plans to use gramophone recordings as teaching material with the Civil Service Commissioners. It appears that the Government of Burma considered the idea of only collecting gramophone records as a cheaper option (IOR. S/1/13/2).
[95] Mss Eur. E223/266; E223/243. Internal Communication from Sec. High Commissioner for India (d. 11/11/1929). The failure to realise the plan was probably due to Grierson's retirement and failing health.
[96] IOR. S/1/3/1. Note from Grierson (d. 26/10/03).
[97] IOR. S/1/1/9. Grierson to H. Roberts (d. 29/05/1901).

But Grierson also thought government should be invested in acquiring knowledge of the vernaculars and minor dialects, rather than rely on English, because of its vital role in educating and managing the population. Grierson echoed the Orientalists of the early nineteenth-century when he argued in favour of using vernacular text-books in Bengal, but only ones that had been checked by a European who knew the language, for "no native, however highly educated…can judge properly as to whether, according to *English ideas*, a book is suitable".[98] The LSI was not simply an opportunity to make the governing bureaucracy more effective, it would also inculcate European ideas more efficiently by overcoming the additional step of having to teach English to the native population. The pedagogical role of the LSI might explain why it was moved from the Home Department to Education Department in 1912.

Why the Government of India eventually allowed the Linguistic Survey to proceed is still a matter for debate. In his introduction to the LSI, Grierson vaguely mentions that the Survey moved ahead once it "came within the region of practical politics", suggesting their stance changed once government could envision tangible benefits from surveying and mapping languages. It is also no coincidence that government became more supportive of the scheme soon after the results of the 1891 Census were published in 1892-1893, which confirmed that very little was known about the languages and dialects of India. What is undeniable is that the scheme was only deemed feasible once costs had been drastically reduced. That suited both government and the Linguistic Survey in hindsight. The LSI's financial footprint was small enough that it was granted a greater degree of flexibility to operate and manage its own finances, with less cumbersome interference from government. In return, the Government of India would be able to survey, map and remedy its inadequate knowledge of the country's languages and dialects cheaply and efficiently, since the LSI relied chiefly on voluntary labour to collect and edit specimens. By operating in the 'grey area' between government and scholarship, Grierson was able to tap into and bring together the government's infrastructure in India – the officers, magistrates, surveyors, printers etc. – with "the Philologists of Europe" and others such as missionaries, into a network of 'linguistic surveyors' who would systematically identify, establish and locate the languages and dialects of India. Assembling this network was the first step.

[98] IOR. S/1/2/10. Grierson to Dir. General Education, India (d. 9/9/1904). My emphasis in italics.

Assembling and operating the Linguistic Survey (1896 – 1928)

Grierson and his allies persevered for over a decade to get the scheme approved in India and London. However, a large tract of British India was left out and although it continued to be identified as the Linguistic Survey of *India*, this was a misnomer. Its geographical scope was constrained, leaving out the largest and third-largest presidencies (provinces) by area, Burma and Madras, and two of the three largest princely states in Hyderabad and Mysore.[99] Madras eventually softened their position on the Linguistic Survey and supported the collection of gramophone records in the 1910s, while leaving out Burma was a fortunate move considering the problems with the later Linguistic Survey of Burma. The LSI did not hide its truncated geography. The first map the reader comes across in the LSI is a printed inset map of India with the areas surveyed shaded in grey and those areas not surveyed left in white (Fig. 6). But neither did the Survey embrace or qualify its incompleteness. The same map is small and crudely drawn, not intended to be memorable or the focus of the reader's attention. This was to be a Linguistic Survey of India, after all, not just a part of India.

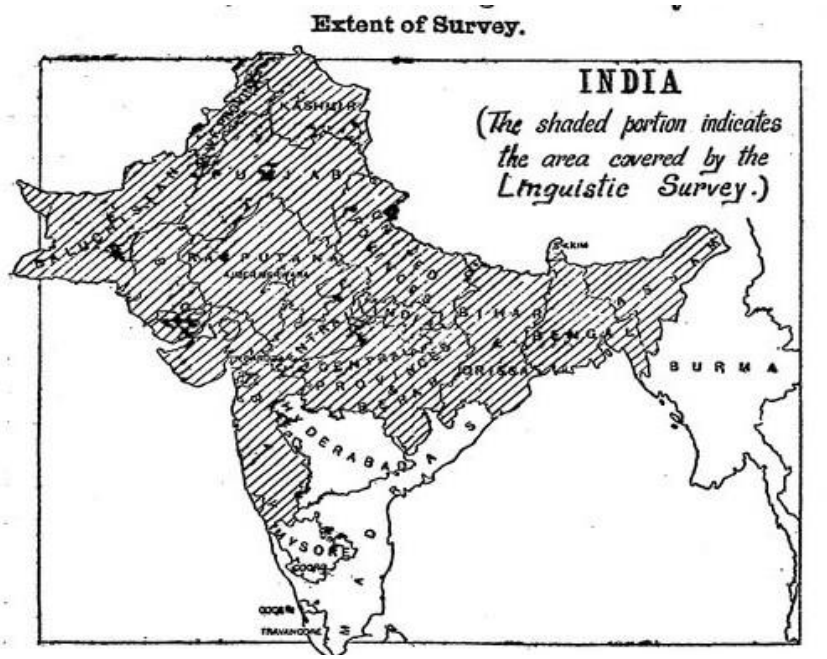


Figure 6: 'Map showing the Area covered by the Linguistic Survey'.
Source: LSI, 1.1, *Introductory* (1927), p.25.

[99] Approximately a third of British India was not part of the Linguistic Survey of India. Mysore and the smaller state of Travancore were the southernmost, major princely states. They were likely left out for practical reasons since it was difficult to include them while the closest province, Madras, was not part of the LSI. Why Hyderabad was left out is more puzzling. The Nizam's government would later show a keen interest in Grierson's work and tried to recruit him to write the language section for their Encyclopedia of India (Mss Eur. E223/246. Corr. 12/5/1917). The Nizam would even attempt to buy part of Grierson's library after his retirement from the LSI.

Having established the geographical scope and financial boundaries for the Survey, Grierson could begin his preparations. The progress of the LSI can be roughly divided into three periods. The first, which could be described as the pre-Survey, lasted approximately from 1896 to 1898. At this stage Grierson put in place the infrastructure needed to operate the LSI, recruiting a clerk with a fixed address at the Home Department in Calcutta (Simla during the summer months) and assembling the lists of officials to be contacted about acquiring information and specimens. The preliminary steps also included drawing up a register of attested languages in each district or agency, where the official would be tasked with identifying, confirming and compiling the list of languages and dialects spoken in their district. The second stage of the LSI, roughly 1898 to 1905, was the principal surveying stage. At this point the three specimens were acquired (a translated text for comparison, a piece of verse or prose, and a list of common words) and languages mapped, a process undertaken through correspondence and the circulation of forms and maps. The final stage, which began as soon as the first specimens were acquired and lasted until the final volume was published in 1928, involved the classification and editing of specimens and the preparation of maps and texts to be printed, resulting in the eleven volumes (divided into twenty-one sub-volumes, including an index) which make up the published results of the Linguistic Survey of India.

These periods were approximate since much of the work overlapped, a reminder of what Majeed termed the Survey's 'messiness'.[100] Editing started as soon as the first specimens were returned in 1898. However, some of the more difficult ones to acquire were only returned years later, if at all. The LSI's progress hinged on the pace at which specimens were collected and returned by the official or time taken by the expert tasked with reviewing and editing material. This in turn meant that volumes were not prepared and published sequentially but rather according to which volume's material had been classified, edited and proofed promptly. On the other hand, what these approximate stages reflect is the integrating of government networks with linguistic and scholarly circles, the latter of which gradually supersedes the former in importance by the third phase of the LSI. At the centre of this web of informants was Grierson and his assistant, Gauri Kant Roy, who facilitated the circulation of material and knowledge among the actors who constitute the Linguistic Survey. Grierson was fundamentally an 'armchair surveyor', whose geographical position remains relatively stable if distant (beginning in India until 1900, when he settles in Britain), while the geography of the

[100] Majeed, *Colonialism and knowledge*.

'surveyors' and informants are constantly shifting and reassembled from the local to provincial, from India to Europe and *vice-versa*.[101] Therefore, critical to the Linguistic Survey – its surveying method - is the circulation of material and knowledge through correspondence. Forms are sent by Grierson to officials who collect the specimens themselves or by corresponding with other informants in their districts (teachers, subordinate assistants etc.), before returning to Grierson once completed. In turn, Grierson forwards specimens and other material to be edited or checked by experts in the language or dialect. This diverse group of 'experts' comprised scholars, missionaries, military officers, teachers and so forth, located across India, in Europe and elsewhere. There was an ongoing process of circulation throughout the life of the Linguistic Survey. Ideas, materials and maps were recirculated and rechecked for discrepancies or inaccuracies, a rudimentary form of peer-review, until what remained was a 'collection of facts, not of theories".[102]

The LSI did not have much of a physical presence in India or Britain nor did it employ many people, yet by assembling and merging an informal network of 'surveyors' and contributors, and principally using the postal service, the LSI managed to survey most of India in five years to seven years. The LSI achieved this by conducting three parallel surveys at different scales. On one level, linguistic material and information is circulated transnationally, in Europe and across borders. Then there is the circulation of material and information on a national or India-wide basis, where Grierson would lean upon the provincial governments to provide forms and instructions or make enquiries using their own established network of correspondents. Finally, this process was replicated at the local level. Once a Deputy Commissioner or District Collector received instructions to collect a specimen or search for information, they would usually correspond with local contacts in their districts such as school principals, pandits, subordinate (usually native) assistants, even their personal friends, to furnish or acquire the necessary information.[103] Because the LSI operated along existing political geographies – the province, the district, the princely state, Persia (etc.) – the surveying process is fragmented. Structurally, there was not a singular Linguistic Survey of India, but multiple, smaller, linguistic surveys

[101] The practice of 'armchair geography' is something which historical geographers have recently begun to re-evaluate. See N. Cox, *Armchair geography: speculation, synthesis, and the culture of British exploration, c.1830-c.1870*. Unpublished thesis, University of Warwick (2016).
[102] LSI, 1.1 *Introductory,* pg.21.
[103] Officials were especially inventive when collecting gramophone records. Prisoners were sometimes recorded because they were the only speaker of a dialect available to an official, who might otherwise have to travel far or to remote areas with heavy recording equipment. Using correspondence to survey a language was far less arduous than moving and setting up equipment to capture short recordings of spoken language. The gramophone records are not within the purview of this research, but they provide a useful context to the collection of textual specimens.

which come together to make the LSI. However, fragmenting the Survey along pre-existing administrative geographies led to problems in classifying and mapping as dialects and languages rarely correlate with political space.

Compiling lists, mapping correspondents (1896 – 1898)

Although the financial details and his position had not been settled by 1896, Grierson was able to move forward with planning and setting up the LSI. This period was governed by three questions that needed to be answered further than in the initial proposal for the scheme. Firstly, what type of specimens would be collected? Secondly, who would collect the information? And most importantly, what languages and dialects were there to collect specimens of? The initial plan was to collect two specimens.[104] The first specimen was a set text that would be translated for comparative study. The second specimen would be a piece of prose, verse or song in the original language or dialect along with an English translation. The pieces of prose or verse chosen would be at the discretion of the 'surveyor', although they were asked to return a few different options and Grierson would select one to be printed. Grierson chose the *Parable of the Prodigal Son* as the set text to be translated, ostensibly because the short text contained enough grammatical variation to capture different tenses, cases and pronouns. The Parable had long been used as a tool to collect and compare dialects in Europe for the same reason.[105] However, adapting a European model to India proved to be more controversial since the chosen set text was from the Bible. It was pointed out to Grierson that the Parable included references to pigs and the slaughter of calves which were sensitive topics among Muslims and Hindus in India. The Resident in Nepal, a Hindu state, asked to have a different set text used to avoid offending Hindus in Nepal and India. The response from Rajputana Agency was even stronger, asking Grierson to drop the use of any Bible passage which might "give rise to a suspicion that the linguistic survey is connected with missionary or religious work".[106] Grierson did not drop

[104] The term 'specimen' is the LSI's usage. Grierson understandably sought to exude a scientific authority to the LSI by using a term more often applied to the natural sciences. However, depersonalised terms such as 'specimen' were commonly ascribed to the human world in the era of racialized colonial ethnography. See for example, G. Prakash. 'Science "gone native" in colonial India', *Representations* 40 (1992), pp. 153-178.
[105] It appears to have first been used in France. Between 1806-1812, the French administrator and statistician Charles Coquebert de Montbret and his son Eugene surveyed the dialects of Napoleonic France by asking regional prefects to return a translated Parable of the Prodigal Son of each dialect in the area they supervised, a process mirrored by the later Linguistic Survey. See, C. Hamans, 'The return of the prodigal son', *Scripta Neophilologica Posnaniensia,* 27 (2017), pp.103-116.
[106] NAI. Foreign/Internal B/April 1896/324-328. Memo (Feb 1896); letter from A.G-G Rajputana (d. 23/3/1896).

the Parable but demonstrated the characteristic flexibility of the LSI by dropping the reference to the slaughter of calves.

At some unclear stage, Grierson decided to include a third specimen to the list. This was a standard list of 241 words to be translated, based on an earlier list by George Campbell used in India at the time (with some additions).[107] The three specimens fulfilled two important scholarly aims for the LSI. The set text and word list would systematize the languages and dialects of India and allow scholars to compare and cross-examine variations and similarities. The collection of a piece of prose, verse or song would be an example of the language or dialect in its everyday form and usage, archived in the LSI for posterity.

The second issue was who would collect the specimens. From the outset, civil servants were considered the most efficient way to gather information and source specimens. Scholars, missionaries, teachers and other private actors were "not trained in the school of official discipline".[108] All the efforts invested in getting government support was to guarantee use of the government's infrastructure and tap into its network of officials, which would – in theory - ensure uniformity in the collection process. They had fixed headquarters so even if the official were replaced or executing their duties away in the field, the correspondence would reach an assistant or subordinate officer in the district or agency. A private individual, on the other hand, could move position or address with very little notice. It also helped reduce the critical issue of costs. Officials were expected to gather the material on a voluntary basis as part of their duties, whereas private actors may have demanded some form of payment or expenses for collecting specimens.[109] Finding the officials who would become the LSI's voluntary 'surveyors' proved to be an easy task by drawing on another significant list – the civil lists of the central and provincial governments. These lists, released at regular intervals, were a directory of gazetted officers and their ranks. Grierson used the civil lists to map out a network of correspondents who were notified through circulars sent, on behalf of Grierson, by the provincial or central governments, beginning in 1896.[110] The process of surveying by correspondence was

[107] The list of words that Grierson adapted was first published in the appendix (A) of the *Journal of the Asiatic Society of Bengal* in 1866 (35:2, pp. 201-204).
[108] NAI. Home/Public A/Feb. 1895/253-279. Grierson to Hewett (d.15/01/1890).
[109] NAI. Home/Public A/Feb. 1895/253-279. Grierson to Hewett (d.15/01/1890). He also suggests financial rewards would induce the "wrong types" to volunteer. The use of honoraria became a greater issue during the editing and proofing phase of the LSI, which relied more on private work.
[110] It appears that an announcement was also put out in the newspapers. The *Pioneer* article from 3rd December 1897 included a paragraph referring to a search for "enthusiastic souls" willing to assist the Linguistic Survey for no remuneration.

practically established at this point. Once the officials responded to the circular they were put in direct contact with the Superintendent of the Linguistic Survey (or at least in contact with the LSI's office in the Home Department).

Deciding what would form the basis of the Survey and who would be recruited as 'surveyors' were easier matters to decide. A more pressing issue was knowing what languages there were to acquire specimens of. Grierson only had previous scholarship and the census to go on, both of which were proven to be deficient. The solution was to compile an initial rough list of languages. Each official would be asked to note down the names of known languages in their district which Grierson would use to compile a province-wide preliminary list, cross-referenced with information from the Census and scholarship. Repetitions, which inevitably occurred in areas with overlapping languages, would be consolidated or eliminated. The LSI's *modus operandi* took further shape at this stage. Grierson was fully aware that officials did not necessarily know all the languages of the area under their charge so they would also use correspondence to circulate forms and gather information "filled up for me by some intelligent person well acquainted with the local modes of speech."[111] However, he was concerned that relying on non-linguists to compile a near-complete preliminary list could create an unbalanced picture if officials incorrectly recorded or identified a language or dialect.[112] Grierson stressed in his instructions circulated along with the forms that he expected,

> it will be clearly understood that the name which I want entered are the names of genuine local dialects. In some parts of India people are more or less bilingual. A man will speak one language in his own house, and amongst his familiar friends and other another language, a kind of court language, when talking in the city bazars, in a public court or to a superior. It is the former language which I wish to have recorded. The other may be recorded too provided its use if carefully stated but the important one is the home-language spoken in the country away from the cities.[113]

Grierson would later be troubled by the actual naming of languages but at this stage the main concern was identifying and compiling regional language lists.[114] In fact, much of the

[111] NAI. Foreign/Internal B/June 1896/300-303. Circular to Political Officers (d. 19/05/1896).
[112] Which would later be criticised by linguists, such as Siddheshwar Varma in his 1972 summary of the LSI.
[113] NAI. Foreign/Internal B/June 1896/300-303. Circular to Political Officers (d. 19/05/1896).
[114] In the *Introductory* volume Grierson recounts another humorous anecdote about the problem of identifying a dialect. In this case, the speakers did not know the name of their own dialect but knew the name of the neighbouring dialect. Because of this each person kept pointing the official to keep going further onto the next locality until the official "lands in the Rajputana desert, where there is no one to speak any language at all." (p.19).

preparations for the LSI involved the drawing up of lists. The production of colonial knowledge has sometimes been described as ruling by numbers or statistics but in the case of the LSI it might be more aptly described as governing by lists. [115] Before he could even start surveying, Grierson had to compile a list of specimens, a list of correspondents and a preliminary list of languages. Yet, these lists were temporary to the LSI once they had fulfilled their purpose and very few examples have survived in the archive.

One set of returned preliminary lists which have survived are from the Deputy Commissioner, Chhindwara District (part of Narmada Division in the Central Provinces). This set provides an insight into the fragmenting of the surveying process and the consolidation of the preliminary list by the Linguistic Survey.[116] The Deputy Commissioner, R. H. Ryves, compiled the list of languages (Fig. 7) of Chhindwara District using the Census and settlement reports, identifying the name of the dialect, which language it was a branch of, and a rough estimate of the number of speakers. Ryves apparently contacted local informants to confirm their identification, showing an awareness of differences between a dialect and a language. However, he also recorded languages which Grierson crossed out as non-native based on geographic probability (such as fifteen Punjabi speakers) or demographic likelihood (Ryves recorded one speaker of Canarese in Chhindwara).[117]

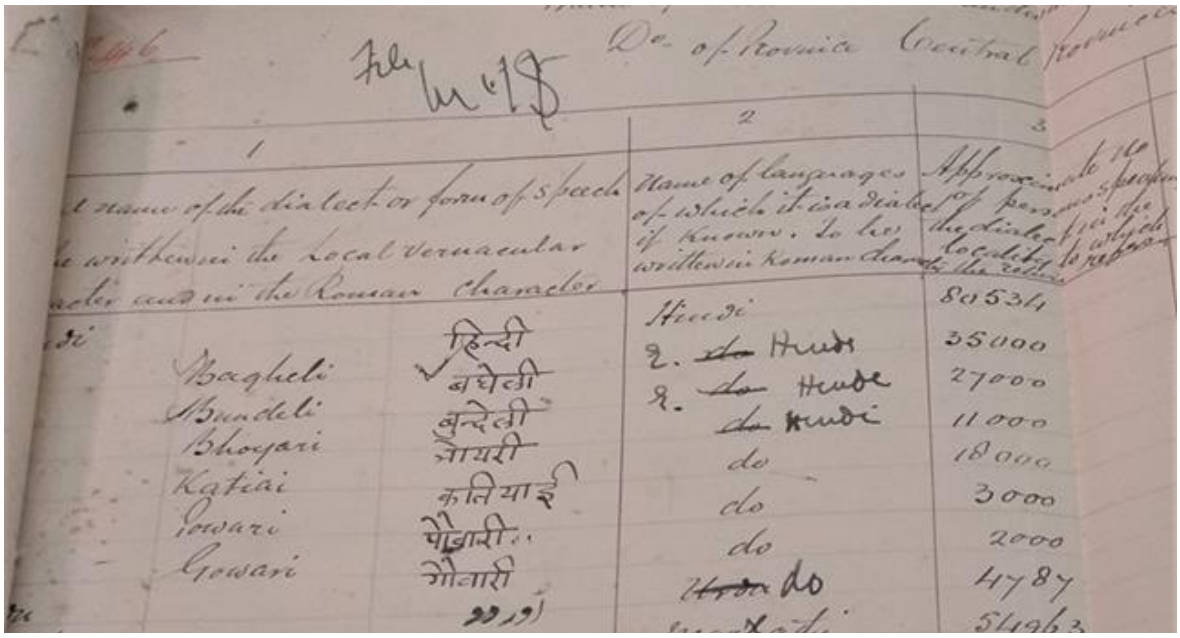


Figure 7: Part of R. H. Ryves' list of Chhindwara languages (1896). Source: British Library (IOR. S/1/7/3).

[115] For example, U. Kalpagam, *Rule by Numbers.*
[116] IOR. S/1/7/3. Dep. Commissioners, Chhindwara (1896-1899). The Deputy Commissioner was the senior official in charge of a district, subordinate to the larger divisional authorities. These titles varied by district however, with Collector sometimes used instead of Deputy Commissioner.
[117] IOR. S/1/7/3. List from Ryves (d. 1896).

On the other hand, the LSI's consolidated list (Fig. 8) showed a more methodical and scaled approach to identifying language (dialect – language – group – family) and geographical position (Province – Division – District).[118] For example, a Chhindwara dialect of Bagheli is classed as an East-Central, Indo-Aryan language and identified on the list as spoken in Chhindwara District, Narbada Division, Central Provinces (Bengal). What the preliminary lists were beginning to do was map languages onto a defined – but fragmented - political geography.

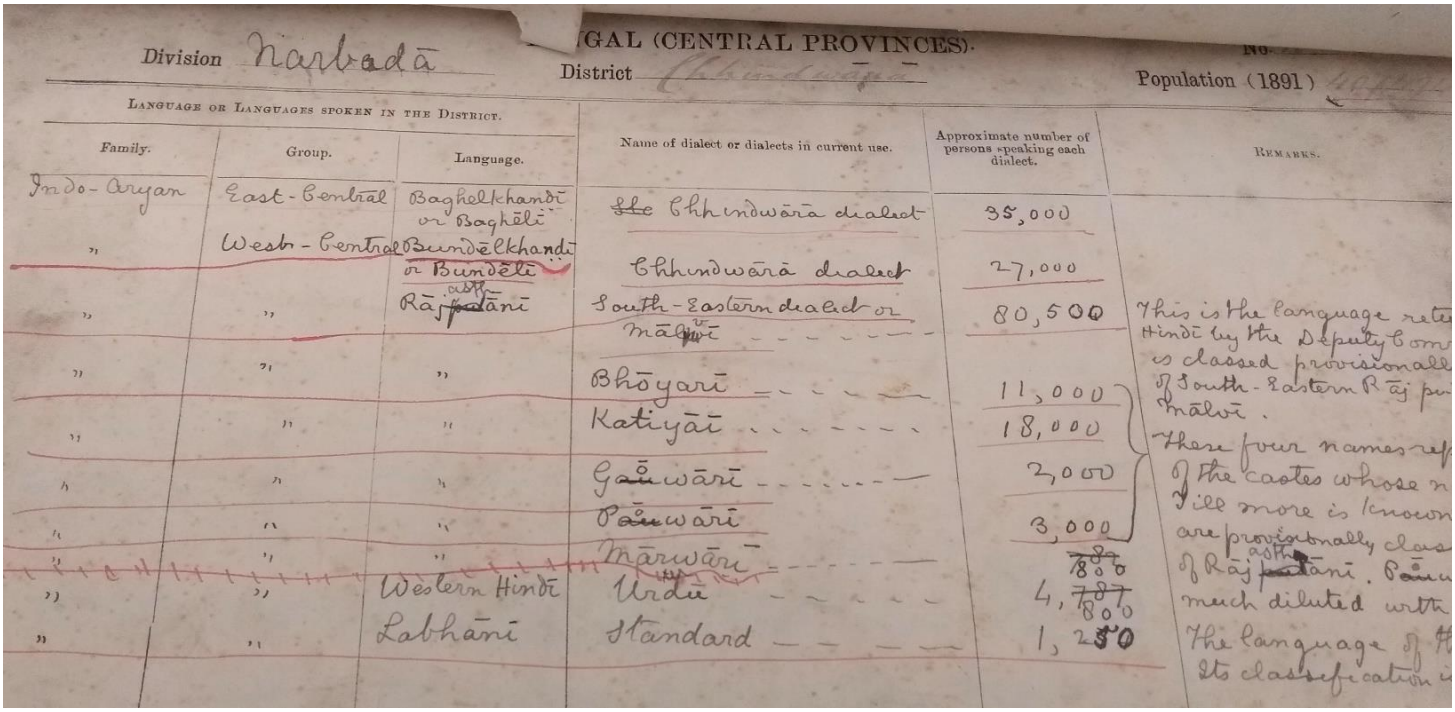


Figure 8: Consolidated list of languages in Chhindwara (undated). Source: British Library (IOR. S/1/7/3).

Copies of the modified Parable were also provided to officials to be translated. However, Grierson could not simply circulate a Hindi or Urdu version, let alone an English one, since many communities could not speak, nor read or write, those languages. To resolve this, Grierson had the Parable translated into 65 common vernacular languages on the assumption that the translator would likely be literate and multilingual, knowing at least one of them. In order to ensure the widest coverage, the 65 languages were chosen on the basis of geographical reach rather than numerical size.[119] As it was a Biblical text, Grierson relied prominently but not entirely on the British and Foreign Bible Society and missionaries across India to source

[118] IOR. S/1/7/3. Preliminary list (undated).
[119] Out of the 65 translations; 41 were part of the Indo-Aryan family, 4 were Munda, 16 Tibeto-Burman, 3 Tai and 1 Khasi.

the translations (or translators) of the Parable.[120] Although the compilation of the Parable in 65 languages might have been preparatory work for the LSI, even a rehearsal for the specimen collection phase, it was evidently considered useful to make them available for public appraisal. The translated Parables were compiled and published by the Government Printing Office as the *Specimen Translations in Various Indian Languages* (1897). A short review praising the work appeared in the *Athenaeum*, which may have helped lobby the Imperial Government in London to speed up their approval of Grierson's appointment as superintendent of the LSI.[121]

Since correspondence was to be the principal method for surveying languages and dialects, the final step was to recruit an assistant tasked with receiving, logging and circulating material. Grierson requested an assistant from the Home Department to be seconded to the Linguistic Survey who was competent in Hindi and Urdu. The Home Department notified Grierson in early 1896 that the only clerk available and able to work in both languages was Gauri Kant Roy, who was willing to be seconded to the Linguistic Survey of India.[122] Gauri Kant Roy would remain at the Home Department for the duration of the LSI's progress, becoming a dependable liaison for the exchange of correspondence and material. Having a stable point of contact would prove to be important during the height of the surveying phase as Grierson returned to Europe in 1899 on the advice of his doctor, moving around for nearly a year until settling in Surrey in October 1900.[123] However, Gauri Kant Roy was more than a passive, intermediary or 'native' clerk. He was recruited and given authority by Grierson to manage the gathering of specimens, applying pressure on officials across India to hurry up.[124] Moreover, Kant Roy actively participated in negotiating and constructing linguistic taxonomies by organising and logging the specimens as they were returned, before forwarding the consolidated material to Grierson in London.[125] Gauri Kant Roy, like many other Indians

[120] LSI, Vol 1.1 *Introductory*, p.19.
[121] Mss Eur. E223/272. Note from the Athenaeum (d. 2/10/1897). The writer did not try to disguise their advocacy for the planned survey, writing, "it is earnestly hoped that no temporary embarrassment will hinder the Government of India from fully carrying out the great work of which the present volume is a promising instalment, a full linguistic survey of our Indian Empire."
[122] NAI. Home/Public A/February 1896/192-196. Internal memo (d. 8/1/96).
[123] IOR. S/1/2/4. Grierson note to Gauri Kant Roy (3).
[124] IOR. S/1/2/4. Note from Gauri Kant Roy (d. 2/8/1900). Kant Roy even threatened to sack editors who did not complete their work in time.
[125] The lists and logs Gauri Kant Roy put together for Grierson can be found in IOR. S/1/2/4. Gen. Corr. with LSI Office (1899-1907).

involved with the Survey, were active participants in the construction of linguistic knowledge which emerged from the LSI.[126]

Surveying India: national, local, and transnational (1898 - 1905)

As stated earlier, the three stages to the LSI are a rough and retrospective delineation of a process which was not uniform. By the time his deputation was confirmed in 1898, Grierson had already acquired several translated Parables and, in some cases, samples of verse or prose. The Collector of Chittagong not only returned a translated Parable in 'Chittagong' speech (a dialect of Bengali) in 1896 but also over 60 proverbs in the same dialect, with the possibility of gathering up to 300 different proverbs.[127] However, most of the surveying activity occurs from 1898 onwards following the circulation of instructions, forms and translations to the districts and princely states. Surveying, as already established, was through correspondence and how it ideally operated was as follows: Grierson would send out forms (list of words, the Parable) along with instructions explaining what needed to be collected but left the question of how specimens would be collected up to the official. The official then returned the collected specimens to Grierson via Gauri Kant Roy in Calcutta. Once the specimens had been returned, editing and classifying could begin. Yet the process was far from straightforward and depended on the ability and urgency of the official to complete surveying in a timely and precise manner. The following section will examine in more detail how surveying worked in practice through the scalar approach of the Linguistic Survey, from the national, to the local, to the transnational.

National Survey

The preliminary compilation of language lists enabled Grierson to assemble and mobilise a network of officials in the provinces who would act as the LSI's 'linguistic surveyors', remotely supervised from Calcutta and Simla. These 'linguistic surveyors' were volunteers in terms of not being remunerated for their services, but who were compelled to assist the LSI as part of executing their duties once the provincial authorities had approved Grierson's request to gather specimens. Grierson was tactful enough to politely ask for the assistance of the official

[126] Gauri Kant Roy was another example of why earlier generations of South Asian scholars wrongly downplayed the active, sometimes subversive, role of Indians in constructing colonial knowledge as outlined in the literature review.
[127] Mss Eur. E223/272. Collector of Chittagong to Grierson/HD (d. 24/5/1896).

tasked with gathering the specimens but emphasised that he had been authorised by the national and provincial governments to do so.[128]

It was established early on that the geographical constituent of the Linguistic Survey of India – the scale at which dialects and languages would be surveyed - was not the province or division, but the smaller administrative unit of the district. Those tasked by the Linguistic Survey of India to gather the specimens were political officers managing the districts – or equivalent subdivision – of British India, namely the Deputy Commissioners, District Collectors, or others of a similar grade. Instructions and forms to collect pieces of translated prose or verse, the Parable, and the list of 241 words were sent directly to district officials once a rapport had been established through the drawing up of lists.[129] It made sense to employ the administrative district as the constituent unit of a national survey when considering the parameters imposed on the Linguistic Survey, namely time, money and linguistic detail. The smaller territory of a district could be surveyed more swiftly and lessen costs yet capture more detailed information, especially less widely spoken dialects, than a survey undertaken at the provincial level.[130] And, in theory, each political district had a competent, educated and 'disciplined' official who could follow the instructions sent by Grierson to collect each linguistic specimen. However, the power and authority to mobilise officialdom was still mediated by the provincial governments even if the LSI bypassed them to survey and map the languages of India. Grierson, for instance, had to request permission from the Government of Bombay to use their officers before he could proceed with the collection of specimens from the districts in Bombay Province and the Princely States under Bombay's authority.[131] This is not to suggest that provincial officials and the governments of Bombay, Bengal, and elsewhere did not assist in collecting specimens, reviewing material or providing information, but the scale at which languages and dialects were surveyed was the district.

Surveying the princely states, which existed under a different political arrangement with the British Crown, was different.[132] As already noted, in some cases Grierson needed permission

[128] IOR. S/1/2/1. Corr. from Educational Department, Bombay (d. 9/1/1900); NAI. Foreign/Internal B/June 1896/300-303. Circular addressed to political officers (d. 19/5/1896).
[129] Direct in terms of named addressee. Correspondence would still have been circulated via the Home or Foreign Departments and Provinces.
[130] Although it must be pointed out that a district in British India was much larger territorially compared to its European counterparts e.g., counties in Britain or departments in France.
[131] IOR. S/1/2/1. Corr. from Educational Department, Bombay (d. 9/1/1900).
[132] Although the British exercised suzerainty over them, the princely states retained control over their internal affairs. In practice, however, the relationship between the British authorities and the native states was very uneven and could do very little to resist interference.

from a province such as Bombay to survey the princely agencies under their authority. In the case of more autonomous states such as Kashmir, Nepal or conglomerate agencies such as Rajputana, which had direct relations with the Governor-General of India (and ultimately the Crown), Grierson corresponded with the Political Agents or Residents through the Foreign Department which maintained the external relations of British India.[133] The extent to which the Political Agent or Resident could operate freely to survey and gather material varied, depending on internal politics, their relationship with the native authorities and the importance of the state. In the case of Kashmir, the Resident needed permission and assistance from the Darbar (court) to collect linguistic specimens for the LSI, which Grierson recognised by thanking the Darbar through the Resident.[134] In other cases the Political Agent would direct Grierson's correspondence to an official in the native state who was better situated to help the LSI, for example the Munsiff (chief judge) of Jodhpur State.[135] Sometimes the LSI established a direct rapport with the principal minister or chief of a princely state, especially where there was scholarly interest or expertise, such as the Diwan of Cooch Behar, Kalikka Das Datta.[136]

Surveying the Hyderabad Assigned Districts (or Berar) was less straightforward since it was unclear whether the region fell inside or outside the geographic scope of the LSI. The region was nominally under the sovereignty of the Nizam of Hyderabad, whose state fell outside the purview of the LSI, yet administered by the British (until 1903, when Berar was formally incorporated into the Central Provinces as Berar Division). It appears Grierson corresponded with the Assistant to the Resident, W. Haig, in a private capacity to investigate the possibility of a relationship between the Bhil languages spoken in Western India and the Korku languages spoken in the region, avoiding the need for a formal collection of specimens.[137]

[133] For example, NAI. Foreign/Internal B/April 1896/324-328. Internal memo (d. 9-10/2/1896). There was a clear distinction through whom the LSI disseminated information - Home corresponded with British India, and Foreign corresponded with native states, frontier agencies and external interests. The Foreign Department was further split into a Frontier and External branch. In 1914, the department was reorganised into the Foreign and Political Department, with Political managing the relations with the Princely States while Foreign dealt with external relations (see Mahajan, *Foreign policy of colonial India*).
[134] IOR. S/1/12/1. Corr. Grierson to Sir Adelbert Talbot (d. 15/3/00).
[135] IOR. S/1/10/1. Corr. Grierson to Munsiff of Jodhpur (d. 1899). Grierson was making enquiries about the Marwari language in Rajasthan.
[136] IOR. S/1/3/12. Corr. with Diwan of Cooch Behar (d. 4/5/1900-26/11/1900). The Diwan was the Chief Minister to the Maharaja of Cooch Behar State, which was located near Darjeeling, south of Bhutan. Grierson asked him to review the proofs of the Garo language specimens which appear to have been of interest to the Diwan.
[137] IOR. S/1/8/2. Corr. with First Ass. to the Resident, Hyderabad. (d. 5/2/1902 – 9/9/1902). Haig asked Mr. Charles, a missionary working among the Korkus, who suggested that there was no connection between the languages.

The princely states revealed the uneven, yet adaptable, approach of the national survey. Though the ideal unit for surveying languages and dialect was the administrative district, the discrete political geography of the native states required a more flexible approach to collecting information. In practical terms, surveying the languages and dialects of vast, mountainous territories such as Nepal or Kashmir was very different than surveying a district such as Cuttack in Orissa. Even the linguistic uniformity of a district, like the disciplined uniformity of the district official, proved to be illusory. Each district had a different linguistic situation, some with many different languages, others more homogenous. And, as will be covered later, the time it took to collect and translate specimens, and the quality of the returned material and information varied between neighbouring districts and native states.

What was conspicuously absent from the Linguistic Survey of India were surveys of urban settlements: the many cities and towns scattered across the subcontinent. For Grierson, the multilingual milieu of a city was inauthentic, places where speakers would use "another language, a kind of court language when talking in the city bazars, in a public court or to a superior" and the dialects to be surveyed were the "home-languages spoken in the country away from the cities."[138] The logic for the survey was to capture the essential forms of languages which, for Grierson, could not be found in towns. Instead, Grierson elevated the rural, peasant Indian as more linguistically authentic than the urban, bilingual speaker in his work. After all, it was his study of rural Bihar which established his scholarly reputation in India and Europe. Grierson's position on surveying cities was also utilitarian. In his experience, the languages spoken in urban centres were usually the lingua franca (or an adaptation of one) of the region, while the "local idiom" was only spoken at, or nearer to, home – a home assumed to be away from the city, in the surrounding region or even another part of India.[139] If one of the aims of the survey was to map the "home" of a language, it was more pragmatic to survey a language or dialect closer to its geographic root and discount the mobility of speakers.[140]

Despite Grierson's indifference towards the linguistic merit of urban India, the city and town could not be more important to the Linguistic Survey of India. The LSI's 'linguistic surveyors' – Collectors, Magistrates, and similar – were based in and operated from municipal settings. Cities and towns were also the places where universities, museums, schools and other sources

[138] NAI. Foreign/Internal B/June 1896/300-303. Circular addressed to Political Officers (d. 19/5/1896).
[139] LSI, Vol 1.1 *Introductory*, p.23.
[140] In practice this meant Grierson's first approach was to an official nearest to where the speakers of a dialect were known to live. This would prove difficult for nomadic communities who seasonally migrated. See later for more.

for translators, reviewers and language experts for the Linguistic Survey were to be found.[141] Whereas the LSI intended to survey the languages of the hinterland, it was through the cities and towns of India that knowledge and specimens were being circulated and classified. And at the centre of the LSI's operations was the metropolis of Calcutta and seasonal capital Simla.

It would not be incorrect to characterise the LSI as a centralised project at the national level. Unlike the decennial census, which was organised on a provincial basis, and the Survey of India, which had a provincial service, the Linguistic Survey was entirely managed by Grierson and Gauri Kant Roy - with some support from the Home Department - from their offices in Simla and Calcutta. Before 1899, Grierson was based mostly in Simla for health reasons while Gauri Kant Roy followed the seasonal switch of government. Once specimens were gathered and translated by the 'surveyor', they were returned to Gauri Kant Roy at the Home Department who logged what had been collected – keeping track of which specimens still had to be returned - before forwarding it on to Grierson.[142] Gauri Kant Roy's role becomes more integral once Grierson left India for Europe in late 1899, whereas Grierson becomes a more peripheral figure in managing the surveying phase. Gauri Kant Roy would spend time organising material and arranging the specimens before they were posted to Grierson via the India Office in London.[143] One could reasonably argue that from 1899 until the final specimens were returned, Gauri Kant Roy's desk was the epicentre of the Linguistic Survey's national operations, brokering the flow of information between the local official and Grierson in Britain.

Although a centralised approach may have been foisted upon it because of financial and personnel constraints, having a settled locus for the LSI enabled most regions to be surveyed within seven years. Communication infrastructure – the postal service, railways – were better developed in India by the turn of the 20th century so surveying through correspondence was a less protracted proposition than even a few decades earlier.[144] However, conducting a survey across the subcontinent had its pitfalls, with correspondence being lost from time to time. The list of words and sentences completed by Tika Ram for the Deputy Commissioner of Simla

[141] Many specimens – and later gramophone records – were also sourced from urban settings such as police stations, prisons, and courts.
[142] IOR. S/1/2/4. General Correspondence with Calcutta/Simla office of the LSI. (d. 23/11/1899-19/12/1907). Several logs are found in the office correspondence.
[143] IOR. S/1/2/4. Postage costs were also a reason for compiling and organising the returned specimens before sending it on to the India Office in London.
[144] Bayly's representation of the colonial postal service as a failed enterprise has been influential in perceptions of the postal system however, as Frost points out, Bayly's work ends in 1870 which presents an incomplete picture. By the turn of the century the British administrative state had made many improvements to the postal service and, although it remained relatively slow, it was far more reliable. See M. Frost, 'Pandora's post box: Empire and information in India, 1854–1914', *The English Historical Review*, 131:552 (2016), pp.1043-1073.

never reached Gauri Kant Roy nor could be found, an ironic circumstance considering this was from the same district where he was based.[145] In another case a set of Tibetan specimens from Laurence Waddell, the only copies Grierson had, went missing somewhere in the offices of the Home Department after being sent back by the Government Printing Office in Calcutta.[146] Missing specimens were not the only problem the LSI had to contend with. Not all specimens were returned in a timely manner, if at all. The detailed logs kept by Gauri Kant Roy show that by December 1902 several districts had not yet returned a part or complete set of specimens. The district of Ferozepore in Punjab, for example, still had not returned two specimens for the Baori dialect and a complete set for Bagri, Rathauri and Sasi.[147] Another undated record of specimens due, tabulated by district and native state, indicates that the LSI failed to acquire specimens of numerous dialects across India.[148] The reasons why mainly lie at the local level which will be explored in more detail in the following section. But what can also be surmised from annotations in the logs is that Grierson no longer needed specimens of several listed dialects. Once it was linguistically established that a dialect or language overlapped the jurisdiction of more than one district, it was unnecessary for duplicate specimens to be sourced. For example, Bagri (an Indo-Aryan language spoken in the Punjab) was listed in five districts, but specimens were no longer requested from each jurisdiction.[149]

Grierson also embraced other sources to overcome the unevenness of specimens being returned, showing an amenability to changing the survey's modus operandi when necessary. Grierson wrote to Lorimer in 1900 that he was grateful to receive a set of Ormuri specimens which had proved difficult to source from an unknown correspondent.[150] The Home Department also helped procure specimens for the Linguistic Survey using their own staff and contacts. Grierson remained receptive to material sent to him after the primary stage of surveying was completed between 1903 and 1905. He was sent notes in 1912 about a new dialect of Kachin (today known as the Jingpho languages) encountered on the Burmese frontier by an official in the Department of Commerce and Industry exploring the region.[151] Grierson was also prepared to disregard the 'voluntary' part to incentivise the return of rarer or more

[145] IOR. S/1/2/4. From Dep. Commissioner, Simla to Grierson (d. 10/12/1902).
[146] IOR. S/1/2/1. From Hewett to Grierson (d. 10/01/1901).
[147] IOR. S/1/2/4. List of specimens still due from various districts (c. 1903).
[148] IOR. S/1/2/5. List of specimens still due (d.?). The date in unclear since it is catalogued in a file that begins in 1908 but appears to have been compiled earlier. It was likely to have been used by Grierson to keep track of specimen returns.
[149] IOR. S/1/2/5. List of specimens still due from the Punjab Province.
[150] IOR. S/1/2/9. Grierson to Lorimer (d. 30/5/1900).
[151] IOR. S/1/2/2. Letter from Dept. Commerce and Industry to Grierson (d. 3/6/1912). What the official was doing in the region is unclear but probably related to economic matters.

difficult to survey language material. For example, he was willing to pay 10 rupees each for 20 languages to a Mr. Joshi, who was tasked by the Collector of Belgaum to prepare specimens of the district for the LSI, explaining that "they will all be of great value, and doubly so in consideration of the fact that the Bombay officers have as a rule failed to get specimens of any of the rarer languages…all the languages mentioned are extremely rare, and of most of them I have not got a single specimen."[152]

The LSI also pushed the boundary of its original parameters by sourcing material and information in regions not part of the Survey. The search for information from the Hyderabad Assigned Districts was one such instance, but Grierson also asked the Government of Madras to acquire specimens of two Munda languages, Gadaba and Sabara.[153] The Munda languages were a good example of the incongruous geography of language and administration since they were mainly spoken in parts of Bengal, which fell under the purview of the LSI, but were also spoken in pockets of northern Madras, which was not part of the Survey's coverage. Nevertheless, Grierson was prepared to deviate from the mandate agreed with the Government of India in order to complete the Munda section of the Linguistic Survey.

Local Survey

While the administrative district or native state was the scale at which India's languages and dialects would be principally surveyed, how – and from whom – specimens were to be collected was largely left at the discretion of the local official. Grierson's instructions simply explained what needed to be collected and how the specimens had to be formatted by "some intelligent person well acquainted with the local modes of speech in the area".[154] This was a pragmatic decision – in theory - since the local official knew their district better than Grierson and, even if they knew very little of the languages, would know who to contact to find out more. Grierson would have been familiar with the workings of a district having served as an official at one point before working his way up the Bengal service. Leaving the how and from whom at the discretion of the official also made sense since each district and native state had a different linguistic, demographic and geographic situation.

[152] IOR. S/1/2/4. Note from Grierson to Gauri Kant Roy (d. 17/9/1901).
[153] IOR. S/1/13/4. Grierson to Government of Madras (d. 11/12/1902). Perhaps surprisingly, Madras agreed to collect the specimens but they only returned a partial set a year later. Gadaba is today known as Gutob and Sabara is the Sora language.
[154] NAI. Foreign/Internal B/June 1896/300-303. Circular to Political Officers (d. 19/5/1896).

What occurred at the local level was a replication of the national survey. Rarely was the District Collector or Deputy Commissioner preparing the material themselves, although some did have linguistic expertise. Instead, officials, and often subordinates, would correspond and obtain specimens from knowledgeable informants in their district. These were usually native Indians working in the local educational service. For example, the Kunbau specimens returned by the Collector of Satara to Grierson were prepared by the local Educational Inspector.[155] Similarly, the Collector of Belgaum was helped by the Assistant Master of a high school in Belgaum, H. G. Joshi, to compile a more detailed list of dialects and prepare specimens for Grierson.[156] In some cases there were linguistically proficient junior officials who could collect and prepare the specimens. Again, these were usually native rather than British. Abdul Hakim Khan, a deputy of the Assistant Political Agent of Dir, Swat and Chitral (on the frontier with Afghanistan) was commended and rewarded financially for his work drawing up the specimens of 15 regional dialects and languages. The Chhindwara dialects were collected by the Extra-assistant Commissioner, Gopal Rao Dougre.[157] One issue that transpired from surveying by district, however, was the availability of someone in place who could translate or prepare specimens. The Deputy Commissioner of Raipur informed Grierson that he could find no one in his district to work on the Gondi language, so an assistant had to be found in the neighbouring district of Bilaspur.[158]

Where officials did play an important role was to make 'enquiries', in other words, visiting communities and surveying languages in the field. Ensuring such enquiries were conducted in a timely manner proved difficult, however. Officials had other duties to carry out and crises relegated the importance of collecting linguistic specimens. It took the Assistant Commissioner of Hyderabad, Captain W. Haig, over two years to gather the necessary information because of a famine in the region.[159] Collecting specimens from remote, tribal regions proved particularly

[155] IOR. S/1/9/11. Collector of Satara to Grierson (d. 6/1903). Kunbau is the Kunbi language spoken in Maharashtra today.
[156] IOR. S/1/9/12. Corr. with Collectors of Belgaum and Ass. Master, High School (d. 7/11/1899-1/1/1905). An interesting geographic-economic debate occurs in the correspondence with Joshi and Grierson. He makes the case that surveying nomadic and tribal groups deserves higher remuneration because it costs more to search for and travel to remoter areas to collect specimens. Grierson was not convinced but the interaction is a reminder why the original plans for the LSI asked for a small group of professional 'surveyors'.
[157] IOR. S/1/2/1. Grierson to Risley (d. 8/12/1902). The Home Department were unwilling to reward Abdul Hakim Khan in case it set a financial 'precedent' however Grierson pushed to have him rewarded with spare funds for his outstanding work sourcing and preparing specimens; For Gopal Rao Dougre see, IOR. S/1/7/3. Ryves (Deputy Comm. Chhindwara) to Off. Special Duty, LSI (d. 30/4/1898).
[158] IOR. S/1/2/4. Note from Gauri Kant Roy to Grierson (d. 20/3/1901).
[159] IOR. S/1/2/1. Home Department to Grierson (d. 12/5/1900). Haig could not carry out 'linguistic research' due to the famine.

challenging, often being characterised as areas hostile to outsiders. Tribal communities were described as "naturally shy" and only willing to share information with economic inducements.[160] An expedition to the 'Bebejiya Mishmis' was apparently unable to gather information about their language because of open hostility, which may not have been surprising considering the mission was a military one.[161] The Deputy Commissioner of the Naga Hills was more brusque, writing to Grierson that he had come across the 'Yachumi' tribe on a tour but could not get more information about their language because "they were unfriendly and had to be punished".[162] The topography of remote areas also made it difficult to pursue field enquiries. The failure to acquire some specimens of languages in the Naga Hills (the mountainous border between Assam and Burma) was put down to the difficulties reaching or contacting those areas.[163]

Another challenge was surveying mobile, nomadic communities that existed across India.[164] The Deputy Collector of Belgaum reported that the Mamlatdar (Tehsildar) of Parasgad was unable to gather information from the nomadic Kaikadis because they "were temporarily living in the Taluka when the original return was furnished [but] are not to be found anywhere".[165] The Kaikadis would in theory turn up in another district or native state but it was not guaranteed other officials were aware that they had not been surveyed properly. As far as can be told, district officials and political agents did not collaborate directly with each other without being mediated by Grierson and Gauri Kant Roy in Calcutta. Indeed, jurisdiction was often observed. The Deputy Commissioner of Bannu pointed out to Grierson, through the missionary Theodore Pennell, that the Ormuri speaking community were not to be found in his district but in the nearby Tank district.[166]

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[160] IOR. S/1/2/4. LSI memo (d. 8/5/1901).
[161] IOR. S/1/4/1. Sec. to Chief Commissioner, Assam to Grierson (d. 15/5/1900). For more about the expedition see R. Bezbaruah, 'Mitaigaon outrage and the Bebejiya Mishmi expedition, 1899-1900', *Proceedings of the Indian History Congress*, 54 (1993), pp.416-422.
[162] IOR. S/1/4/10. Captain Woods to Grierson (d. 13/7/1900). The Yachumi are better known as the Yimchunger, one of the many Naga tribes that straddle modern India and Burma.
[163] IOR. S/1/4/13. Letter to Grierson (d. 1/4/?).
[164] Nomadic groups were often referred to as 'criminal tribes' due to the colonial state's deep mistrust of their occupations and mobility, and were among the most harshly regulated communities in India. The Criminal Tribes Act of 1871 not only tried to immobilise them but also regulate their personal and public relations. See, J. Hinchy, 'Conjugality, colonialism and the 'criminal tribes' in North India', *Studies in History*, 36:1 (2020), pp.20–46. That legacy of criminalisation remained in post-independence India which continued to stigmatise nomadic communities and regulate their movement. See, D. Bajrange, S. Gandee & W. Gould, 'Settling the citizen, settling the nomad: 'Habitual offenders', rebellion, and civic consciousness in Western India, 1938–1952,' *Modern Asian Studies*, 54:2 (2020), pp.337–383.
[165] IOR. S/1/9/12. Deputy Collector, Belgaum to Grierson (d. 7/11/1899). A mamlatdar was a revenue collector, a name inherited from the Mughal era.
[166] IOR. S/1/6/12. T. R. Pennell to Grierson via Dep. Commissioner (d. 16/12/1899).

As pointed out earlier, the incongruity of linguistic and administrative areas often left the LSI with more than one option for sourcing information. The Collector of Ahmednagar was unable to get information about four languages in the district, but Grierson managed to acquire information about three from elsewhere. However, the correspondence suggests that the Collector *would* not, rather than *could* not, collect information on the fourth language, forcing Grierson to go to his divisional superiors to compel the Collector to do so.[167] From the number of districts which failed to return partial or complete sets of specimens, it seems - for a myriad of undisclosed reasons - local officials could not or would not survey languages in their areas, or at least not at the pace expected by the LSI. Surveying could not be enforced because it remained voluntary, and the use of discretionary payments confirmed the LSI sought to induce the prompt return of specimens. The unevenness of specimen collection at the local level had an impact on the progress of the LSI. For example, Grierson reluctantly postponed the Gujarati section in 1903 to give the Collector of Land Revenue, Bombay, more time to send him the notes he had prepared on the language.[168]

The decisive relationship at the local level was between official and 'surveyor'. Occasionally these roles crossed over but more often the official was an intermediary, circulating material and information between the national (the LSI) and surveyors who gathered the facts and prepared the specimens. Moreover, they were chiefly native Indians rather than Europeans.[169] Much has been written about the role of the 'native informant' in gathering and shaping colonial knowledge but Majeed makes a compelling argument that the LSI is a project of joint authorship between Grierson and a network of experts.[170] However, Majeed limits his argument to the editing, writing and publication process when – at each scale - surveying itself was a process of joint authorship in which the surveyor and official, with the linguistic expert, are concurrently producing or co-creating knowledge of India's languages and dialects. In this process Indians were not just passive instruments but active participants in the surveying and mapping of Indian languages. While some remain unnamed, others like Abdul Hakim Khan or H.G. Joshi were rewarded and recognised for their contribution to the LSI.[171] A more challenging question to address is if those who are surveyed participate in the joint authorship

[167] IOR. S/1/9/1. Grierson to Commissioner, Central Division, Bombay (d. 24/2/1902).
[168] IOR. S/1/9/2. Grierson to Collector of Land Revenue, Customs and Opium, Bombay (d. 2/2/1903).
[169] The literature around native informants and the co-production of colonial knowledge can be found in the *Surveys, networks and knowledge* section of the first chapter.
[170] Majeed, *Colonialism and knowledge*, pp.212-242.
[171] For example, the unnamed 'gentleman' who prepared a specimen for A. Simcox, the Assistant Collector of Khandesh. IOR. S/1/9/16. Simcox to Grierson (d. 22/1/1903).

of the survey's knowledge. After all, the surveyors were themselves not always the source of specimens but gathered or translated material from unnamed informants whose words comprise the LSI's knowledge. To paraphrase Spivak, we know those surveyed have spoken yet know very little who they are. They encounter the surveyor locally but are no longer heard once their language has been identified and categorised by the national Survey. Yet what they uttered remains the cornerstone of the Linguistic Survey's knowledge.[172]

Transnational Survey

Lastly, the LSI could be characterised as a transnational survey, one that extended beyond India. In the same way dialects overlapped districts and princely states, languages were not confined to international boundaries. Most of India's upper boundaries along the North-West Frontier and Burma had only been settled a few years before the LSI commenced, and the demarcation of frontiers rarely accounted for shared ethnic or linguistic identity. A good example was the well-known Durand line between Afghanistan and the North-West Frontier which split the Pashtun-speaking areas in half.[173] Some of the major language families of India extended beyond the subcontinent, notably the Indo-Iranian languages to the Northwest and Tibeto-Burman languages to the Northeast. Many closely related languages straddled the frontiers. Any systematic survey along India's political frontier would invariably capture information about the languages beyond them because communities crossed boundaries, while languages did not stop at a political boundary and often shared mutual characteristics with those on the other side of an artificially drawn line.

An important reason for gathering information from outside of India was to learn more about the languages that straddled the border areas. A good example of a language that fit this description was Balochi, the main language spoken in Baluchistan Agency but which also extended into Southeast Persia, then ruled by the Qajar Dynasty. The method for surveying transnationally matched that of the national and local surveys: correspondence with officials better situated to collect information. Grierson needed information about how far east Balochi was spoken in Persia and contacted the primary government official in the region, the Political

[172] The gramophone recordings of the LSI may hold the key to finding out more about those surveyed. We know, for example, that some of the recordings were made by prisoners jailed in police stations because they were more accessible than travelling to a remote area with a large recorder.
[173] Upper Burma was only annexed in 1886 after the Third Anglo-Burmese War. The Durand Line Agreement, which established a border between India and Afghanistan, was only signed in 1893, followed by a series demarcation surveys between 1894 and 1896.

Resident in the Persian Gulf.[174] The Political Resident was unable to provide detailed information, likely because he was based even further east in Bushehr, so forwarded Grierson's request to the British Consul in Seistan which was closer to the Balochi speaking area of Persia. The British Consul was able to furnish Grierson with the information he needed. Although the LSI was surveying foreign territory, it was also a territory the British were politically and geographically invested in. The British had established a significant presence and influence over the Persian borderlands to protect their interests, couched in diplomatic terms as a check against the Russian threat. Although transnational, the LSI could also be viewed as part of British India's hegemony over the region. The Consul in Seistan was one of many British officials stationed along the Persian frontier with roles not entirely different from their colleagues in the frontier agencies of India.[175]

Grierson also welcomed the return of specimens of newly discovered languages, even when it was unclear whether the speakers were part of India or not. The Deputy Commissioner of Naga Hills, Captain A. E. Woods (the same D.C. who had to "punish" the Yachumi), sent Grierson specimens of two unknown languages of tribes "that inhabit country right outside British Territory in the Tita Valley".[176] However, Woods was quick to add that the area had not yet been surveyed, so whether the tribes were part of India or not remained undecided. The implication from Woods was that the tribes may yet become part of "British Territory". Frontier regions also posed specific difficulties for the collection of specimens. They were transitional areas where the colonial state was unable to exercise consistent authority or control, even in jurisdictions within the limits of British India. Sending out a junior official to survey languages was not always practical or advisable. Consequently, the LSI came to rely on military expeditions and travellers to furnish the necessary specimens from such areas, such as Laurence Waddell's material from his travels along the Tibetan frontier (that eventually goes missing) or the Tirahi specimens collected by Aurel Stein along the frontier with Afghanistan.[177]

The central issue behind transnational or more aptly, *transfrontier*, surveying was defining the limits of 'India' as a linguistic rather than political geography. The LSI does not cover all of

[174] IOR. S/1/15/1. Grierson to Political Resident in the Persian Gulf (d. 25/2/1918). One could theoretically argue that this was not transnational in administrative terms since the Political Resident in the Persian Gulf was subordinate to the Governor-General of India. Yet in practice the Political Resident had a lot of freedom to manage affairs in the Gulf and they were considered geographically distinct regions of the Empire.
[175] For more on British interests and influence over late 19th century Persia, particularly through India, see H.L Stebbins, *British imperialism in Qajar Iran: Consuls, agents and influence in the Middle East* (London: IB Tauris, 2016).
[176] IOR. S/1/4/10. Captain Woods to Grierson (d. 13/7/1900).
[177] IOR. S/1/12/5. Grierson to S.E Pears (d. 4/7/19).

India - the India part was already compromised by leaving out most of the South - yet the LSI surveyed and mapped languages beyond India. For the LSI, political frontiers were not linguistic frontiers, and it became important to distinguish a 'linguistic India' from a 'political' or 'territorial' India in its mapping. The following chapter will chart this in more detail.

Classifying, proofing and publishing (1898 – 1928)

Once the language lists had been drawn up and specimens returned, Grierson was able to begin assembling and editing all the linguistic data into the eleven volumes which comprise the LSI. While surveying took around five to seven years to finish, publishing the results took nearly thirty years, making it the longest stage of the whole Survey.[178] However the length of time preparation and publishing took obscures the large gaps between some of the volumes. Volumes two to seven, and part of volume nine, were published before 1910. The first part of volume nine and volumes eight, ten and eleven were published from 1916-1922. The *Introductory* and *Comparative Vocabulary* volumes were published last in 1927-1928.

There were many reasons for the intervals. The need to repeatedly verify information, delays in the return of reviewed proofs and difficulties classifying certain languages dragged out the process. The Survey's centre of gravity also gradually shifted to Europe, with Grierson based in Surrey, and corresponding with scholars in India and across Europe overextended the LSI. As the LSI became more international, proofing, editing and publishing becomes more protracted. Above all, Grierson's health began taking its toll with the deterioration of his eyes.[179] Major events of the 20th century also caught up with the Survey. World War I delayed progress, cutting off relationships with scholars in Europe (especially Germany) and impeded communication with India.[180] However, if one were to ask Grierson the reasons for the gaps,

[178] However, completing it in thirty years was more remarkable when compared to the later attempt to revive the Survey. In 1984 the LSI was revived under the modern Census bureau in India but only managed to survey more than a third of India in three decades. There were also plans to fund a new Linguistic Survey of India in 2007 but those were shelved soon after in 2010. In fact, the only successful modern survey inspired by the original is the People's Linguistic Survey of India (2010-) which has had no government involvement. However, it shares a lot in common with Grierson's survey such as relying on volunteers and scholars to collect and write up information.

[179] See for example IOR. S/1/2/5. Grierson to Gauri Kant Roy (29/4/1910). Majeed writes much more on Grierson's eyes as a metaphor.

[180] The war also affected the progress of collaborative European projects which Grierson was working on such as a chapter for the *Grundriss der indo-arischen philologie* which had been started by Georg Buhler in 1896. See also Mss Eur. E223/336. Grierson to Professor Wackernagel (28/6/20), for more on Grierson's personal feelings about the war and its effect on relationships with German scholars.

he would point to the Government Printing Office in Calcutta.[181] Grierson's frustrations with the printers jumps out of the archive, not only in terms of what was written, but the sheer quantity of correspondence between Grierson, government, and the printing office. Frustrations arose out of delays in printing proofs, frequent typographic errors which kept reappearing even after corrections and the lack of typesets needed to print certain languages.[182] Remarkably, certain typesets of common Indian scripts were not readily available in India – or at least not cheap enough - and had to be sourced from Germany and France (such as the Taliq type for Persian scripts).[183] Grierson expressed his frustrations with the Printing Office quite bluntly, writing "if each of these three volumes takes seven years to print, there is not much chance of the Survey being completed in my lifetime".[184]

The aim of this section is not to cover the minutiae of the years spent reviewing, classifying and publishing results. However, this stage was important in developing a surveying praxis which also governed the LSI's mapping. Linguistic material and information were persistently recirculated and re-examined until what remained was "a collection of facts, not of theories". Once specimens started to return, Grierson began recruiting assistants to 'prepare' specimens for reviewing. These assistants were recruited among clerks in the provincial governments, such as V. B. Ranade, who had been the copyist to the Deputy Commissioner of Balaghat. They were not linguists per se but had transcribing skills which were necessary to convert handwritten material and received training on how to format and transliterate specimens.[185] In modern terms, we might describe their role as data cleaners and formatters. But they also acted as Grierson's eyes, keeping track of which specimens had not yet been returned.[186]

Once the specimens were transcribed and correctly formatted, they were ready to be proofed. The circulation of proofs paralleled the circulation of forms and instructions. Proofs were sent back to the same correspondent – district official, political agent, and so on – who was asked

[181] The Government Printing Office was responsible for printing all official government publications including the Linguistic Survey. It was headquartered in Calcutta although there were branches in other major settlements including Simla.
[182] See, IOR. S/1/2/1 and 1/2/2. Correspondence with Government of India (1890-1928), for more on Grierson's frustrations with the printing office. The Government Printing Office could be forgiven for some delays because the LSI volumes were complex, and in some cases a different typeset was needed from one page to the other. However, Grierson's frustrations were also justified when the Printing Office kept misplacing papers and repeating the same printing mistakes.
[183] IOR. S/1/1/24. Grierson to Drugulin of Leipzig. (d.1904-1914). Finding the right Persian type delayed printing by eight years.
[184] IOR. S/1/2/2. Grierson to Government of India (d. 17/12/16).
[185] IOR. S/1/2/4. Gauri Kant Roy to Grierson (d. 4/7/1900). They took leave from their duties a month at a time and were also paid for their services.
[186] IOR. S/1/2/4. V. B. Kanade to Grierson (d. 9/4/1902).

to have someone knowledgeable review the material. For example, Grierson sent the Oriya proofs to the Magistrate-Collector of Balasore with the proviso that the proofs be "corrected by a good local scholar". The local Deputy Inspector of Schools, Rama Nath Das, was asked to do so and returned the Oriya proofs with his corrections.[187] Importantly, proofs were reviewed by multiple experts rather than one. The Oriya proofs were also corrected by the head of Cuttack Training School, Madhu Sudan Rao.[188] The comments from M. Nyayaratna regarding the Bengali proofs gives a good indication of what sort of issues were being corrected. Nyayaratna suggested the translated Parable was too idiomatic and made changes to the phonetic transcription.[189] Crucial to the review process was ensuring proofs were recirculated until Grierson and the reviewer were satisfied with the results. Logs kept by Gauri Kant Roy record that some dialects were proofed more than twice. The Angami proofs were reviewed three times, from 6th October 1899 to 10th May 1901, with the number of pages covered by the dialect increasing from six to thirty-eight.[190] In effect, the LSI was an ongoing dialectic between the national and local. By recirculating the proofs - checking for errors, spotting discrepancies, and opening it up to criticism – the outcome arrived at would be, from the point of view of Grierson, factual.

Through the process of recirculation, the LSI also expands its network of correspondents beyond officialdom and those connected to the local bureaucracy. Acknowledging that linguistic expertise was not temporally or spatially confined to the 'home' area of a language, experts that had formerly lived or worked on a language were asked to assist in reviewing proofs. These were often, but not always, Europeans who had lived in one part of India before moving to another region or back to Europe. For example, the Reverend H. Roberts was asked to proof the Khassi section, having formerly been a headmaster in the Khasi Hills of Meghalaya and written a grammar of the language.[191] Experts were found in diverse settings. The Garo proofs were sent to the Diwan (Chief Minister) of Cooch Behar who, as far as can be told, personally reviewed the proofs. Moreover, recirculating material also overcame the limits or

[187] IOR. S/1/3/6. Grierson to Magistrate-Collector, Balasore (d. 8/2/1901); Magistrate-Collector to Grierson (d. 9/4/1901).
[188] IOR. S/1/3/5. Corr. to Grierson (d. 29/4/1901).
[189] IOR. S/1/3/11. Mahesachandra Nyayaratna to Grierson (d. 10/1/1901). He also suggested that the piece of verse or prose, in this case songs, were changed too much by the translator so that meaning was lost.
[190] IOR. S/1/2/1. Progress of the Miscellaneous Dialects of the Linguistic Survey from 12th September 1899.
[191] IOR. S/1/1/9. Corr. with Reverend H. Roberts regarding the Khasi section (d. 1900-1904). Roberts had written *A Grammar of the Khasi Language* (1891).

gaps of individual expertise. Grierson freely admitted to correspondents in Assam that he needed their assistance because of his own lack of expertise in the languages of the region.[192]

The latter point speaks to another consequence of the LSI unaddressed so far. The LSI did not simply identify the colonial state's defective knowledge of Indian languages but also the superficiality of European scholarship. In correspondence with John Henry Hutton, who explained that he had less expertise in the Sema and Chang languages of the Nagas, Grierson concedes that in his experience Europeans know very little about the languages of Assam.[193] There is an underlying tension in the LSI between European knowledge and its clear inadequacies in understanding Indian languages. On the one hand, the LSI was humble about the limits of European knowledge and what European 'experts' could achieve, relying on and promoting native expertise in much of its work. On the other hand, the LSI was still shaped by a Western ethos of classification and hierarchisation and positioned the European linguist or philologist as the authority on languages and most qualified to undertake sophisticated linguistic research.[194] The search for an assistant linguist to edit the non-Indo-Aryan volumes encapsulated the latter sentiment; Grierson's search extended all over Europe, via different institutions and universities, rather than India. Meanwhile, he rejected an application from Gauri Kant Roy to assist in editing the volumes even though he was evidently competent and experienced.[195]

Insufficient expertise was the reason for recruiting another linguist to help edit the LSI. While Grierson felt capable of editing the six volumes that comprised the different branches of the Indo-Aryan languages, the other five – including the Tibeto-Burman, Munda and Dravidian language families – were to be edited by an assistant more competent in one or more of those language groups. In 1900, Grierson contacted Professor Windisch in Leipzig about recruiting an assistant who had expertise in Dravidian languages, two other Indian languages and the classical languages of Sanskrit and Persian, for a salary of £200 per annum (an additional £25 if the candidate knew Tibeto-Burman).[196] Grierson was eventually directed to the Norwegian Indologist, Sten Konow, who had recently been promoted to *docent* at the University of Oslo.

[192] IOR. S/1/4/4. Grierson to Captain Gurdon (d. 5/7/1901).
[193] IOR. S/1/4/14. J. H. Hutton to Grierson (23/6/1922); Grierson to Hutton (d. 25/7/1922). The Sema language, a Tibeto-Burman language spoken in Nagaland, is today known as the Sumi language.
[194] Evident in the historical introduction to linguistic research in India which only featured Perso-Arab and European scholars from William Jones to 'Russian investigations,' in LSI, 1.1 *Introductory*, pp.1-17.
[195] IOR. S/1/2/4. Grierson to Kant Roy (d. 11/11/1900). Grierson rejected Gauri Kant Roy on the grounds that his application was received too late, and he could not afford to move him and his family to Britain. Grierson may have been too polite to say he was unqualified but that did not appear to be the case.
[196] IOR. S/1/1/3. Grierson to Professor Windisch (d. 8/2/1900 & 30/9/1900).

Konow proved to be a capable assistant to Grierson, whose support in compiling and editing the Tibeto-Burman, the Munda and Dravidian, and other volumes earned him respect in orientalist circles.[197] However, Konow was not originally recruited to work on the Tibeto-Burman languages. Through Windisch, Grierson recruited August Conrady, a Sinologist based at Leipzig. Conrady embodied the disadvantage of editing and compiling the LSI remotely. In 1903, Grierson anxiously contacted Windisch on how to get in touch with Conrady, who had suddenly left for China without returning the LSI papers sent to him nor having completed his work on the specimens which had been paid for in advance by the Government of India.[198]

Conclusion

The experience of August Conrady disappearing without finishing his work did not deter Grierson from corresponding with scholars all over India, Europe and even North America to assist with the Survey. This chapter has not extensively delved into the LSI's development from a colonial survey to a global linguistic project but, by the 1910s and 1920s especially, the correspondence points to a survey which becomes part of the wider internationalisation of linguistic science in this period through institutions such as universities and learned societies. Grierson and many of his colleagues continued to participate in international conferences and committees, while the published Survey was sent to institutions such as the British Museum, the Smithsonian in Washington and all the major European universities.[199] Grierson was even asked by the Geological Survey of Canada if they could purchase the LSI for their resident (and soon to be famous) linguist Edward Sapir.[200] This chapter has chiefly addressed the Linguistic Survey *in* India because the question of why the colonial state supported the LSI was mainly about governing and knowing India and less to do with incorporating India into the emerging international science of linguistics. But the LSI as a colonial survey was not just confined to India, which is nowhere more evident in Grierson being based in Britain for most

[197] T. G. Bailey, 'Sten Konow's six volumes in the Linguistic Survey of India. 14 X 10¼; 2,640 Pp. in All.' *Journal of the Royal Asiatic Society*, 59:3 (1927) pp. 599–601.
[198] IOR. S/1/1/3. Grierson to Professor Windisch (d. 18/4/1903). It appears August Conrady, who was a well-respected Sinologist, had left for China to pursue his own research without finishing. Sten Konow, who did not feel competent to work on Tibeto-Burman, eventually completes the editing of the volumes, which might be another reason why he earned much respect from his Orientalist colleagues.
[199] See Mss Eur. 223/206. Corr. with America, for the various institutions in the US which were interested in purchasing a copy of the LSI. Major institutions such as the Smithsonian and Harvard University were already on a specific distribution list for the volumes.
[200] IOR. S/1/1/16. Geological Survey, Canada to Grierson (d.14/4/1921). Edward Sapir lent his name to the popular (but misattributed) Sapir-Whorf theory in linguistics, which stated that someone's worldview or thoughts were affected by the structure of their language.

of the LSI's lifetime and corresponding with European scholars to identify, classify and edit the Survey's material.

The shift from a colonial survey to an international linguistic project highlighted the continuing relevance of correspondence, circulation, and networks to the Linguistic Survey. The LSI did not employ its own staff of surveyors like the Survey of India or Archaeological Survey, nor could it rely on having on-the-ground linguistic 'experts' in each part of India it surveyed. The LSI's method of surveying was through correspondence. The circulation of lists, forms and printed material was how it gathered information, classified and edited specimens, and reviewed the veracity of 'facts, not theories.' To adapt Massey's description of space, the Linguistic Survey was a product of interrelations between Grierson, his assistant, officialdom and experts across India, in Europe and elsewhere.[201] At the heart of this web of interrelations were the stable positions of Grierson and especially Gauri Kant Roy, whereas the networks of officials, teachers, missionaries etc. - who constitute the LSI's 'surveyors' - were constantly shifting and rearranged as required by the process of surveying, editing and, crucially, mapping languages by correspondence.

Geography and scale were significant problems for a Linguistic Survey in India. How does one survey a region as vast as the Indian subcontinent? How does one survey an area with multiple languages or dialects, or where a community speaks multiple languages? How does one survey a language which extends beyond India? For the LSI, geography and scale were also the solution. This chapter has mapped the Linguistic Survey as not just a centralised, national survey but a mosaic of local, 'mini'-language surveys which operated along the existing, fragmented political geography of districts and princely states in India, and a borderless transnational survey which transcended frontiers when possible. The scalar approach to surveying would also allow the LSI to locate and fix the languages and dialects of India before they were mapped on paper. The empirical foundation of the Survey's knowledge was ostensibly three linguistic specimens: a translated piece of prose or verse; a translated Parable; and a list of 241 words. However, there was a fourth specimen collected through the process of surveying by correspondence which remained unstated: geographical information which could be mapped. The following chapter goes on to examine language mapping.

[201] D. Massey, *For space* (London: Sage, 2005), p.9.

3. Mapping Languages

Introduction

Mapping language was the principal reason for a Linguistic Survey of India. Although the resolution at the Vienna Congress did not explicitly state so, it did stress the importance of systematically surveying India's languages and dialects "nearer and further…as they exist in the present moment" in a geographic or cartographic sense as outlined in the previous chapter.[1] The LSI was not the first, or at least not the first to try, to map the languages of India. Chapter one has already outlined the work of John Beames, Robert Needham Cust and the missionary atlases as earlier examples of language maps. Grierson was also familiar with language mapping. His *Bihar Peasant Life* included a simple dialect map drawn from his own knowledge of Bihar's languages.

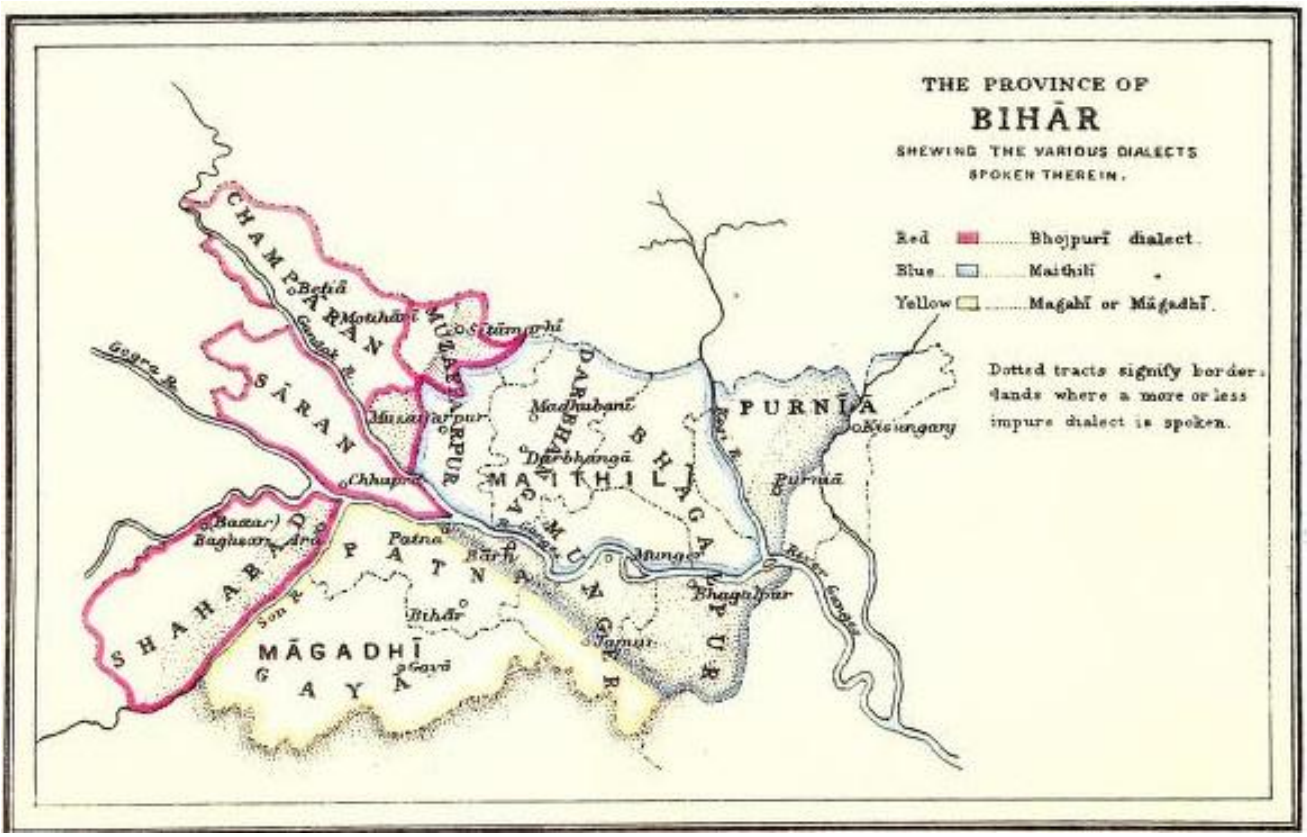


Figure 9: Map of 'The Province of Bihar, shewing the various dialects spoken therein'. By G. A. Grierson. Source: *Bihar Peasant Life* (1886).

[1] 'Nearer and further' were geographical terms often applied to Asia e.g., Near East or Far East. The second language map in Needham Cust's *A sketch* was entitled 'A language map of Further India and the Indian Archipelago'.

However, the LSI was more comprehensive and systematic than any previous attempt to map language and a series of forty-five maps were compiled and published over the course of three decades. Yet the success and aesthetic appeal of the final maps masked a process which was complex, troubled and, at times, incomplete. This chapter maps the LSI's approach to mapping language, distinguishing – but not disconnecting – the process of mapping from making a language map. The first part of the chapter explores this distinction, examining the Survey's mapping through correspondence and the circulation of geographical notes, rough sketches, and provisional maps, followed by the process and methods of making a language map which depended prominently on the mutual relationship between the LSI and the cartographic Survey of India.

The following section then scrutinises the maps themselves. Although the forty-five maps constitute a linguistic atlas of India, on closer examination the maps are not consistent in scale, style, colour, or variables mapped. What the section goes on to argue is this inconsistency underlined the LSI's experimental approach to language mapping. The LSI was trying to find the most appropriate way to capture the geographical complexity of languages which overlapped each other, had no clearly defined boundaries or fixed locations, and in a subcontinent where many spoke more than one language or dialect. The LSI's experimentation was an attempt to articulate that language maps could only be approximate geographical reflections of a mutable phenomenon. However, as the final section argues, Grierson had to balance the philological with political demands of the LSI which, after all, was a government-sponsored survey. Governments wanted maps which were practical and utilitarian, and which clearly identified where languages were – and were not – spoken. Grierson was wary of drawing boundaries, yet many of his maps do just that. The final section considers the underlying tension in the LSI between what a language map could represent and what language maps were expected to present.

Circulation, correspondence, and the construction of linguistic maps

Mapping languages was a complex, contested and sometimes problematic process throughout the life of the Survey. Importantly, mapping a language was distinct from making a language map. The first part of the cartographic process was to establish which languages would be mapped and how mappable information would be collected – in other words, surveyed. Only

then could the LSI assemble a language map and deal with the crucial issue of what scale, which colours, and whether to draw boundaries, to ensure its maps were comprehensible and useful to linguists and non-linguists alike. This section traces and examines the LSI's cartographic process and methods, from establishing language as a mappable phenomenon to making a language map.[2] What becomes evident is that the fragmented approach of the LSI charted in the previous chapter was also used to map languages, drawing on the same network of local informants or 'surveyors' to establish and situate the geography of a language or dialect. A crucial relationship in the cartographic process was that between the Linguistic Survey and the main cartographic agency in the subcontinent, the Survey of India, who were enlisted to prepare, proof, and print the language maps. Their relationship recasts Grierson's position into one that he would have recognised as a linguist – a translator. Grierson saw his role as not principally a mapmaker, but rather, to translate and assemble all the disparate pieces of linguistic geography gathered by 'surveyors' and sourced from other authorities, into the language of maps as understood by the cartographic Survey of India.

Mapping I: Notes and geographical 'specimens'

Although this chapter primarily examines more conventional diagrammatic forms of cartography, the Linguistic Survey of India did not exclusively present the geography of languages on maps. A common feature – usually a paragraph or two – in the introduction to a branch, language or dialect were written descriptions describing the approximate area where they were spoken. These descriptions typically followed a similar formula, situating a language according to topographical points of reference (mountain ranges, rivers, hills etc.) or political units (e.g., dialect spoken in northern part of district *x* or province *y*). For example, the geographical distribution of Bihari is described as:

> properly the language of Bihar, and is spoken over nearly the whole of that Province. It is spoken also outside its limits…on the west, Bihari is spoken in the Eastern districts of the Province of Agra, and even in a small portion of Oudh. On the south it is spoken on the two plateaux of Chota Nagpur. Roughly it covers an area of 90,000 square miles…it

[2] As an example of the processual approach Edney argues for in *Cartography*.

> extends from the lower ranges of the Himalayas on the North to Singhbum on the South, and from Manbhum on the South-east to Basti on the North-west.[3]

In some instances, the LSI would go further and narrate the environment a language was spoken in. The introduction to the Kuki-Chin group of languages (a branch of Tibeto-Burman) describes in detail the geography of the area:

> The territory inhabited by the Kuki-Chin tribes extends from the Naga Hills in the north down into the Sandoway District of Burma in the south…a great chain of mountains suddenly rises from the plains of Eastern Bengal, about 220 miles north of Calcutta and stretches eastward in a broadening mass of spurs and ridges, called successively the Garo, Khasia and Naga Hills… this chain merges, in the east, into the spurs which the Himalayas shoot out from in the north of Assam towards the south. From here a great mass of mountain ridges starts southwards, enclosing the alluvial valley of Manipur, and thence spreads out westwards to the south of Sylhet…towards the south the western off-shoots diminish in length, leaving a track of alluvial land between them and the sea, while in the north the eastern off-shoots of the Arakan Yoma run down to the banks of the Irawaddy.[4]

Such brief descriptions were reminiscent of some of the cultural or ethnographic reports disseminated in society lectures and articles during the 19th century, intended to give the audience an idea of an area's geography before delving into the topic at hand.[5] Someone with knowledge of Bihar and its surrounding districts would be able to map out an approximate idea where Bihari and its dialects were spoken based on the LSI's brief description. However, the LSI was also going to be distributed to institutions and libraries in Europe and elsewhere where students, scholars and future officials interested in Indian languages were unlikely to be familiar with India's geography. In this case the reader could find a topographical or political map of India and trace the geography described in the narrative. Such descriptions were very much cartographic even if they were not presented on a conventional map.[6]

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[3] LSI, 5.2, p.1.
[4] LSI, 3.3, p.1.
[5] The early proceedings of the RGS are replete with such descriptions, for example, H. Johnston, 'The Bantu borderland in Western Africa', *Proceedings of the RGS*, 10:10 (1888), pp.633-637.
[6] Geographic or cartographic descriptions were a common feature of 19th and early 20th century geographical writing, leading Mackinder to declare "that one of the chief ends of geography is description" in his response to W. Davis', 'The systematic description of land forms', *Geographical Journal*, 34 (1909), p.320.

Descriptions giving an approximate idea of where a language was spoken were a regular feature in the published volumes of the LSI. Most, but not all, language groups or languages were covered. The systematic inclusion of linguistic geography was commensurate with the methodical arrangement of the three linguistic specimens. Just as someone might refer to the translated parable of a Kuki-Chin language to get a basic understanding of its grammar, they could refer to the geographical description to get a rough idea of who spoke the language and where it was spoken. Although the three specimens – a translated parable, one or more pieces of verse, song or prose and prescribed list of 241 words – were the specified empirical basis for the Linguistic Survey, the systematic inclusion of linguistic geography indicates a fourth, unnamed, specimen collected by the surveyors – descriptive geographic information that could be mapped. As previously pointed out, linguistic surveying distinguished itself from other philological work because it captured the spatial distribution of languages. Along with the three principal specimens, Grierson received notes describing the location of languages from surveyors, from other source materials such as research papers or exploratory accounts, and directly from officials and colleagues with knowledge of harder to locate languages. Even though the gathering and return of geographical information was often as irregular and haphazard as the sourcing of linguistic specimens, the LSI considered the location and distribution of a language as crucial as its grammar or vocabulary. These spatial descriptions were not only important to the LSI's mapping because they were cartographic in their own right, but because the same material would be used to assist in the mapping and mapmaking process – locating, fixing and demarcating language.

Grierson never provided specific instructions asking for a description of the area where a language or dialect was spoken when drawing up the preliminary list of languages to be surveyed. The only indication that linguistic geography was a significant factor was Grierson's admission in a preliminary circular that "linguistic conditions vary greatly…in some localities the language may very every few miles, and in other a whole area, embracing several districts, may have one language…".[7] At this stage the overriding aim was determining the names of dialects spoken in the district, provisionally classifying them, and establishing a rough idea of the number of speakers (which the official likely sourced from local records and/or Census records). However, a fourth column was included in the preliminary forms for general remarks which allowed the official to record some preliminary geographic detail. The Deputy

[7] NAI. Foreign/Internal-B/June 1896/Nos. 300-303. Circular from Grierson to various Political Officers (d. 19/5/1896).

Commissioner of Naini Tal, for example, included information about where particular dialects in his district were spoken such as a 'Chalda Kotia' dialect which was "spoken in Dhaniakot and Choutha along the valley of the Kosi River", or the 'Pahari khas' dialect which was "spoken in the eastern part of the district".[8] Those details were only preliminary, brief and not every list included them but the LSI was beginning to situate and fix the geography of languages using on the ground knowledge.

Matters become ambiguous once the principal stage of the Linguistic Survey begins and officials are asked to return specimens for each language or dialect named in their revised district or state list. The instructions sent to the Resident in Kashmir, along with blank forms, said nothing about locating or mapping where each dialect was spoken, instead paying more attention to the technicalities of drawing up and translating specimens.[9] On the other hand, the instructions circulated by A.H.A Simcox to his local informants plainly stated that "notes should be given explaining the locality in which, and the people by whom, the dialect under report is spoken."[10] The number of officials proactively returning notes and reports outlining geographic (and ethnographic) details - particularly of less well-known dialects – suggests there must have been some stipulation or at least a recognition that such information was valuable to the LSI. These notes usually included ethnographic information about the speakers as well as locating the dialect in a similar manner to the eventual descriptions published in the LSI i.e., by topography or political geography. In correspondence accompanying the return of specimens from Chhindwara, the Deputy Commissioner explains that the Koshti 'caste' speak two dialects, a Hindi one "spoken by the Koshti of the Satpura plateau in the Chhindwara tahsil" and a Marathi dialect "spoken by the Koshtis of the part of the district known as the…'kaluti' i.e. the tract below the ghats which forms in reality a part of the Nagpur and Berar plateau."[11] Such notes were intended to help the LSI roughly situate a dialect to a feature or region identifiable on a topographic map of the area. Locating and describing a dialect according to a political division ("Pashai of Laghman") or topographic feature ("the Gawarhati of the Chitral River") was not particularly unique to the Linguistic Survey but it did help systematise a way of identifying a language.[12]

[8] IOR. S/1/5/8. Consolidated list of languages for Naini Tal (d. 18/5/1896).
[9] IOR. S/12/1. Grierson to the Resident in Kashmir (d. ?/1/1899).
[10] IOR. S/1/9/10. Instruction for compiling specimens…. (d. 30/7/1901).
[11] IOR. S/1/7/3. Dep. Commissioner, Chhindwara to Grierson (d. 5/9/1898).
[12] IOR. S/1/12/5. Grierson to Pears (d. 4/7/1919).

The notes and reports were developed into the geographical descriptions attached to most languages in the LSI. One note, from the Superintendent, Vernacular Office to the Deputy Commissioner, which accompanied the preliminary list from the district of Naini Tal, places the Kumauni dialects spoken in the "Hill portion" of the district, which vary slightly, to internal administrative subdivisions (known as *pattis*) but that the "Submountains tract of Kumaun" known as the Bhabar "is a winter resort of the hill people of the above *pattis* who cultivate there…so Kumaun Bhabar may be said to have *no* local dialect of its own."[13] The printed geographical description of Kumauni adapted that information, stating that "Kumauni is the Aryan language spoken in the sub-Himalayan tract known as Kumaun, which may be taken as including the whole of the Almora district and the northern part of the Naini Tal District…South of the district of Naini Tal lies the native state of Rampur, in the north of which, in the tract known as the *Bhabar,* or sub-montane lowlands, a few speakers of Kumuani (300 in number) are reported to exist. Their speech is locally known as Bhabari, and may be looked upon as an overflow from Naini Tal."[14]

The LSI's description of Kumauni added more detail but did not entirely agree with the note sent by the Deputy Commissioner, proposing that there might legitimately have been a marginally different Kumauni dialect spoken in the *Bhabar*. This was indicative of the LSI's modality being applied to geographical specimens. The LSI did not rely on one authoritative source for linguistic geography but multiple observers, informants and references which were then assembled together by Grierson, recirculated and corrected until what remained was a 'collection of facts' or at least a rough guide to where the dialect was spoken. The Deputy Commissioner of Naini Tal returned more than one explanatory note from surveyors in his district to Grierson.[15] The second note, from the Deputy Collector in Tarai, used local Census reports to augment the information in the first note which explains the inclusion of statistics on the number of speakers in the sub-montane lowlands within the published description. The use of other existing reports and source material was crucial. Grierson emphasised to officials that the LSI would not only be using up to date, on the ground knowledge to situate languages but also "numbers of short notes on local dialects, published in Settlement Reports, Census

[13] IOR. S/1/5/8. Note from Supt. Vernacular Office (d. 19/9/1896). The Bhabar is an alluvial plain in northern India at the foothills of the Himalayas and preceding the Tarai lowlands and swamps. Vernacular Offices were responsible for inspecting and overseeing vernacular schools in their districts and therefore usually staffed by Indian officials.
[14] LSI, 9.4, p.108.
[15] IOR. S/1/5/8. Note from Supt. Vernacular Office (d. 19/9/1896); Note from Deputy Collector, Tarai (d. 19/9/1896).

Reports, Journals of Learned Societies, or as separate books or pamphlets" to assemble a geographical overview of a language.[16] The result of this process is evident in the Linguistic Survey. The Angami section, as one example, made use of previous work on the dialect such as Mr. Davis' *Assam Census Report* (1891), Captain Butler's 'Rough Notes' (1873) and Mr. Damant's *Notes* (1880), both in the *Journal of the Royal Asiatic Society*, to build a concise ethnographic and geographic picture of the Angami dialect and its speakers.[17] Deference was shown to those with better or first-hand knowledge of a language's geography but using different sources also helped eliminate discrepancies in reports and field notes. The Deputy Commissioner of Chhindwara, for example, could find no evidence of the Bhatri language being spoken in the district even though the 1891 Census report concluded otherwise.[18]

Surveying did not end once most of the specimens were returned. Grierson continued to fix and correct the geography of a language once editing and proofing began, while certain languages took longer to locate, if at all. Frontier languages proved more difficult to acquire information on as they were spoken in areas less well-explored, harder to reach or more loosely governed. The LSI relied on the notes and maps produced by individuals operating across the frontier who were not always a stable or convenient source. While correspondents, such as Laurence Waddell and David Lorimer, were able to identify for Grierson the approximate linguistic geography of Darjeeling/Sikkim and parts of the Northwest frontier through their own research and travels[19], others such as Stein continued to encounter new dialects along the frontier, years after the formal surveying phase had finished. In 1919, Grierson asked S.E. Pears, the Political Agent in Khyber, to find out more and gather further specimens of the Tirahi language spoken in Ningrahar (in modern day Afghanistan) which Stein could not complete on a previous expedition.[20] Acquiring that information proved difficult since British India was in the middle of its third war with Afghanistan, as Grierson himself acknowledged in the correspondence.[21] The geographical extent of the LSI was also being pushed as Grierson and his assistants began classifying frontier languages where India's political limits did not inhibit

[16] NAI. Foreign/Internal B/June 1896/300-303. Circular to Political Officers. (d. 19/5/1896).
[17] LSI, 3.2, p. 204-205.
[18] IOR. S/1/7/3. Ryves to Grierson (d. 5/9/1898).
[19] IOR. S/1/2/3. Corr. with L. Waddell; S/1/2/9. Corr. with D. Lorimer. Waddell helped Grierson out with the mapping of Tibeto-Burman languages in Darjeeling and Sikkim; Lorimer did the same with Ormuri and other languages in Gilgit.
[20] IOR. S/1/12/5. Grierson to Pears (d. 4/7/1919).
[21] The last Anglo-Afghan War (if one does not include Britain's role in the recent war in Afghanistan) was a brief conflict in 1919 which finally confirmed Afghanistan's independence. Grierson's request for more information was sent in the middle of the conflict (September 1919) so his request was inevitably shelved at first.

the linguistic reach of the Survey. This was most apparent with transfrontier languages such as Balochi. Producing a good geographical description of Balochi, which was spoken in British Baluchistan but also Qajar Persia, required sourcing notes and maps from political agents operating there to build a geography of a language that was also spoken in "Persian territory."[22]

Field notes, written accounts and other geographic references may not have counted as one the principal 'specimens' which the LSI built its scientific authority on, yet they were essential sources for approximating the spatial distribution of each language and dialect. However, the structure of the Survey itself enabled Grierson to identify the geography of a language. Surveying by political unit (district or native state) meant that languages could be mapped onto a known, or identifiable, political geography. Native states or agencies, which varied in size, also had recognisable territorial boundaries. The list for Kashmir State located ten languages and dialects spoken there from three different language families.[23] Since languages were usually not contiguous with political units, Grierson could map the distribution of a language if neighbouring districts returned the same, or similar, information and specimens. The material gathered by the LSI would (in theory) outline the specific areas where a language was, or was not, spoken within a district or native state which Grierson cross-referenced with neighbouring districts or states. However, political boundaries were not permanent while the Linguistic Survey progressed and Grierson had to be aware of territorial changes to districts, adapting accordingly.[24] In 1912, for example, Grierson was making further enquiries about the dialects in Jhelum which had originally been surveyed in the late 1890s and returned four dialects including Awankari. But in 1904, part of the district where Awankari was mainly spoken had been transferred to Attock and Grierson consequently informed the District Commissioner of Jhelum that he did not have to consider Awankari anymore.[25]

The LSI's *modus operandi*, moreover, corroborated some of the geographical assumptions about language that were being developed in late nineteenth-century linguistics, especially ideas on diffusion and waves.[26] Grierson contested the plausibility of Bagri being identified by the survey of Firozpur because "the true Bagri area is a considerable way to the east, in the east

[22] IOR. S/1/15/1. Grierson to Political Resident in the Persian Gulf (d. 25/2/1918).
[23] IOR. S/1/12/1. List of languages in Kashmir State (d. 1899).
[24] The 1900s and 1910s were a period of major territorial changes in India with the 1905 partition of Bengal and the 1912 reorganisation of the former Bengal Presidency into the provinces of Bengal, Bihar & Orissa and Assam.
[25] IOR. S/1/6/10. Grierson to Dep. Commissioner, Jhelum (d. 15/1/12).
[26] As Ferdinand de Saussure famously stated, "geographical continuity does not prevent perpetual differentiations". His lecture notes provide a good account of the idea of linguistic waves as it was being developed at the time. See, F. de Saussure, *Cours de linguistique générale*.

of the Sirsa Tahsil of Hissar and in north-east Bikaner…immediately to the south of your Bagri, there is spoken in north-west Bikaner a mixed half-Panjabi, half Bikaneri which is locally called 'Rathi' and it seems to be most probably your 'Bagri' is the same form of speech."[27] On the other hand, the Linguistic Survey was also identifying patterns in the distribution of languages which challenged conventional linguistic geography. Grierson had trouble classifying the Western Panjabi dialect Awankari in Kohat on the basis that it made little geographic sense. As he explained to the Deputy Commissioner of Kohat in 1911,

> According to my Kohat specimens, you have the *na*-genitive, while south of you, in Bannu, and north of you, in Peshawar, they have *da*. Can you kindly help me to explain this curious fact. You have Rawalpindi, where they have also *na* immediately to you east, which will account for it. But then why have Peshawar and Hazara *da*, when they are immediately to the North of Pindi, and why has Bannu *da*, when it is immediately to the west of Jehlum, which is also a *na* district? It looks as if there was a continuous line of *da*- speakers along the right bank of the Indus from Derajat right up to Hazara, and that subsequently there was a migration from Jehlum or Pindi to Kohat, splitting the *da*-people into two portions, a northern and southern and forming a kind of wedge between the two. Can you kindly tell me if anything of the stated occurred, or what it is the reason for this curious invasion of *na* in the district.[28]

Grierson also corresponded with officials in Jhelum and Rawalpindi about the seemingly unexplainable geography of *da*- and *na*- genitives in Western Panjabi dialects, illustrating the persistence of a fragmented approach to surveying languages by administrative jurisdiction, even for languages that overlapped multiple political units.

Notes, reports and other sources of spatial information were used to assemble two linguistic geographies in the LSI. The first were the brief and approximate cartographic descriptions of a dialect, language or group of languages which anchored them to a specific geography that could be identified on a map. These short descriptions not only tied a language to a fixed area, they distinguished one language from another on the basis of geography. So while the LSI informs the reader that Angami is spoken in the Naga Hills, it is located in the south relative to Ao in the north.[29] The second was to establish language as a discretely mappable phenomenon even though Indian languages were invariably mixed, with many genealogically distinct languages

[27] IOR. S/1/6/6. Grierson to Dep. Commissioner, Firozpur (d. 12/1/1903).
[28] IOR. S/1/6/14. Grierson to Dep. Commissioner, Kohat (d. 10/11/11).
[29] LSI, 3.2, p.204.

sharing mutual characteristics through contact, geographical proximity and acculturation.[30] This contradiction becomes more problematic in the LSI's maps, but the textual descriptions also tried to demarcate languages by geography. We are told, for example, that "Bihari is bounded on the North by the Tibeto-Burman Languages of the Himalayas, on the East in Bengali, on the South by Oriya, and on the West by the Chattisgarhi, Bahgeli and Awadhi dialects of Eastern Hindi."[31]

Mapping II: Rough maps and sketches

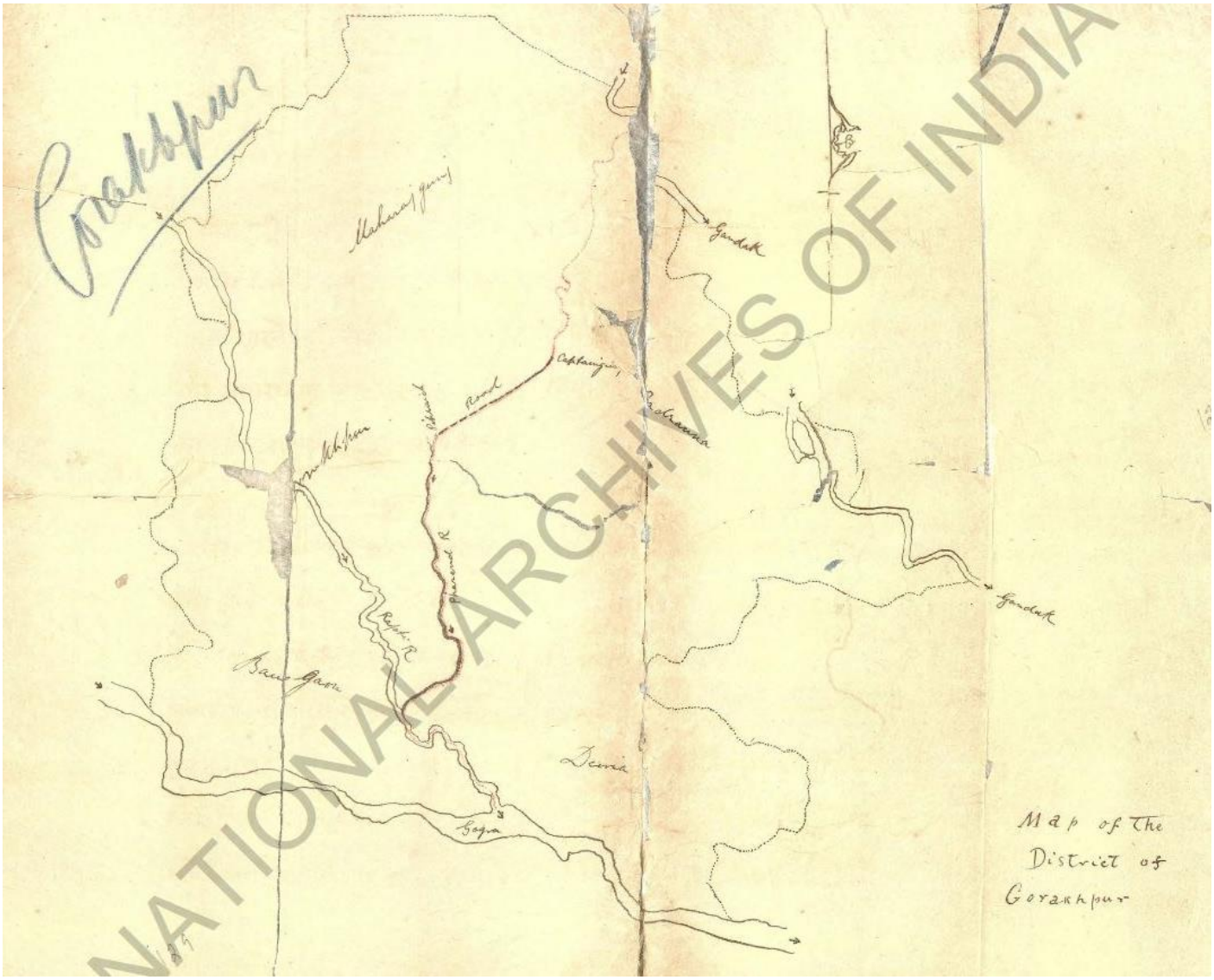
Although mapping languages was a raison d'être for the Linguistic Survey of India, using maps to capture such information appears not to have been a requirement at the inception of, nor during the surveying phase. The instructions circulated by Simcox only indicated to his contacts in Bombay province that geographical information, supplementing the translated material, should be recorded in 'notes'. What sort of form notes had to be was largely left up to the surveyor but typically followed a similar formula, as outlined in the previous section. Surveyors were certainly not expected or required to provide rough or sketch maps to chart the geography of a dialect, and the evidence from the correspondence suggests geographical notes were often deemed sufficient to help draft an LSI map. What is not clear, however, is if this discrepancy is a consequence of the ephemeral nature of mapping with sketch or draft maps being discarded once the final maps had been printed for the LSI. We know that Grierson (or someone else) destroyed many of the original maps which formed the basis of the published maps, while many rough maps circulated in the surveying phase likely never survived.[32] Fortunately, enough cartographic material remains to give a meaningful picture of how the LSI used preliminary maps to locate, fix and correct the position of a language once surveying was in progress. These provisional maps and accompanying written evidence reveal an exercise that mirrored the collection of specimens – maps were circulated through correspondence until the Linguistic Survey had fixed and demarcated the geography of a language using on the ground, local informants who operated as Grierson's surveyors. Crucially, mapping was an

[30] Linguists call this a 'linguistic area' or *sprachbund*. Murray Emeneau was the first to explicitly describe the Indian Subcontinent as a linguistic area where elements such as morphology and syntax "diffuse across genetic boundaries" (Emeneau, 'India as a linguistic area', p.11).
[31] LSI, 5.2, p.1.
[32] Mss Eur. E223/243. Grierson to Sec. High Commissioner for India (d. 15/11/1929). The methodology and sources chapter deals in greater length with the question of missing maps in the LSI archive. The correspondence with T. Grahame Bailey (IOR. S/1/1/12) also mentions that Grierson had destroyed a mass of material a few years before his death in 1941.

ongoing process in which provisional maps were living documents being updated and corrected until Grierson was satisfied with their accuracy and detail.

Early in the surveying phase which began in 1898, maps were being used to situate languages and demarcate dialect boundaries. A few were sent proactively by officials and surveyors to accompany the return of specimens and descriptive information, perhaps from their own experience of using maps to familiarise themselves with the area they were responsible for. The Collector of Land Revenue, Customs and Opium in Bombay returned the specimens of the Anavala dialect with a map to help identify where it was spoken in the province.[33] A manuscript map (Fig. 10) from the district of Gorakhpur in the North-Western Provinces is insightful about the purpose of such maps being returned with specimens and notes.[34] The hand-drawn outline of the district did not locate or demarcate where dialects were spoken but identified basic internal subdivisions and natural features such as rivers so that the LSI could cross-reference geographical notes with the map. Such maps were useful to Grierson because he would not have had immediate access to district maps, especially on his return to Britain, and it would have taken time to source one from the India Office in London or from India. Grierson had a copy of the Atlas of India at hand (eventually donated to the India Office Library in 1929) which he certainly used as his main cartographic reference for India.[35] However, the Atlas of India was topographically detailed – too detailed perhaps for cross-referencing geographical notes - and a concise manuscript map of Gorakhpur would have proven useful in approximating the linguistic geography of the district.

[33] IOR. S/1/9/2. E. Gray to Grierson (d. 7/8/1901).
[34] NAI. Home/Linguistic Survey/1896-/No. 3/30&32. Map of the District of Gorakhpur (manuscript, c. 1899)
[35] Grierson's bound Atlas of India/Indian Atlas is now catalogued in the India Office map collection as IOR/X/9003/1-9.



NATIONAL ARCHIVES OF INDIA

Figure 10: Manuscript map of the District of Gorakhpur (c. 1899).
Source: National Archives of India.

Grierson recognised that a simply drawn map was often an effective method of establishing the geographical distribution of languages, more than any written note could articulate. This was especially the case with dialects from remote or less well-known areas of India, often closer to the frontier or sparsely populated regions. In correspondence with Lt. Kennedy, the Assistant Commissioner for the Naga Hills, Grierson asked "in what part of the Angami country the various dialects of that language, viz. Tengima, Dzuna, Kehena and Nali or Mima, are spoken. Perhaps the *simplest way would be to let me have a rough map* of the Angami area, showing the localities of the different dialects."[36] Lt. Kennedy returned a "rough trace" (Fig. 11) which

[36] IOR. S/1/4/10. Grierson to Dep. Commissioner, Naga Hills (d. 2/11/1900). My emphasis in italics.

located the first three dialects in Angami territory with the fourth, Mima, located to one village.[37] The map was probably traced over a topographic Survey of India map of the area with major settlements, such as Kohima, marked on as a frame of reference. Grierson could transplant this tracing on top of the same topographic map to establish a rough geography of the Angami dialects. Languages were effectively another layer on a map.

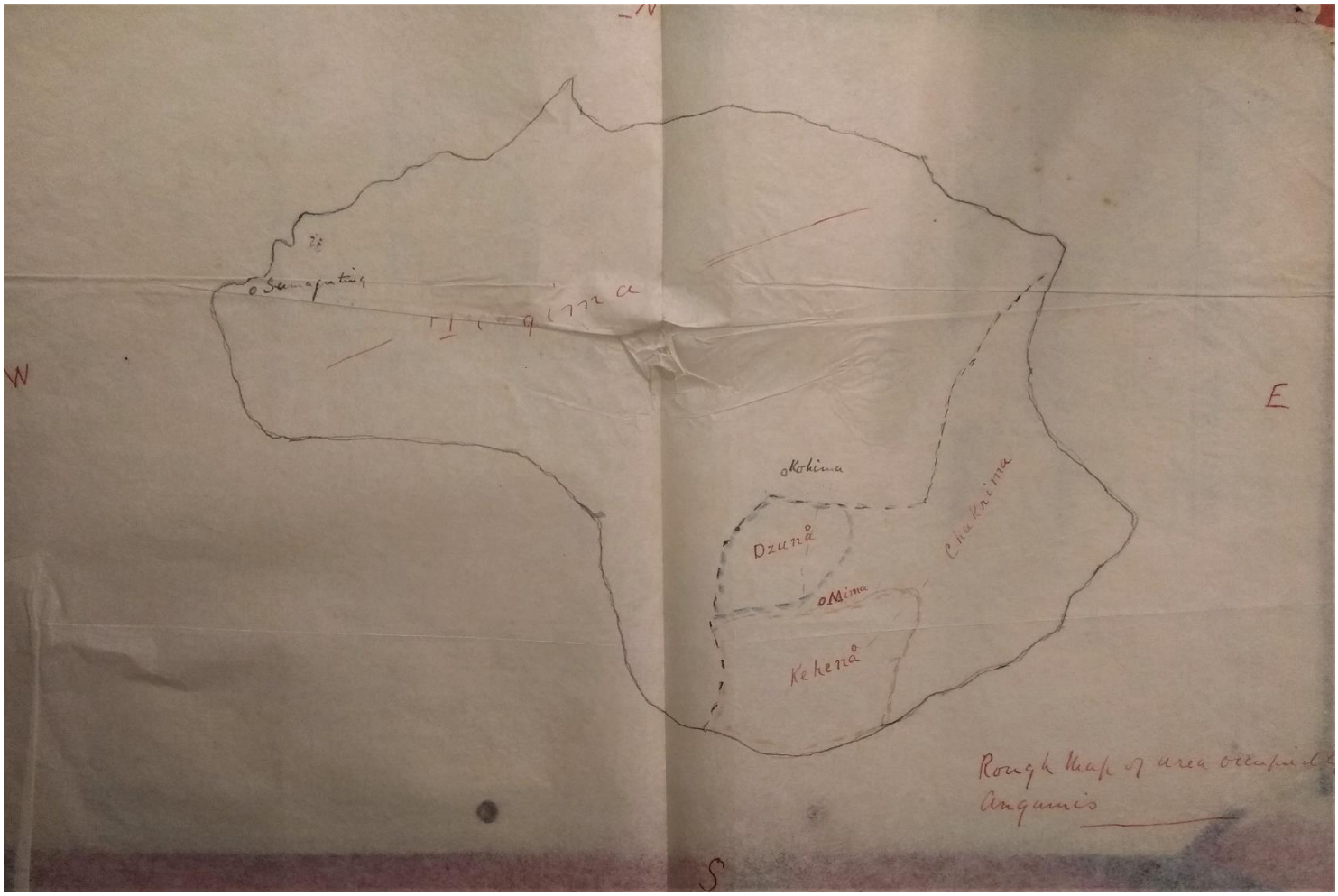


Figure 11: Sketch map of languages in Angami (1900). Source: British Library (IOR. S/1/4/10).

The correspondence with Lt. Kennedy, and the Anavala map mentioned previously, suggest the LSI attempted to make use of maps instead of written descriptions when possible. Grierson mentioned to Lt. Kennedy that the four Angami dialects had been left out of a previous language map of the Naga Hills which is why he required another sketch map to be made. Yet there is very little evidence of preliminary or provisional language maps in correspondence with other districts, which suggests the LSI's use of maps was ad hoc rather than systematic.

[37] IOR. S/1/4/10. Lt. Kennedy to Grierson, with trace map. (d. 20/11/1900).

The purpose of using maps pivots around the idea of *simplicity*. Maps made identifying and fixing a language's geography easier and, importantly for the cost and time-conscious LSI, quicker. This was especially the case when geographic information in the notes needed clarification. Grierson asked the Collector of Mirzapur to "greatly simplify matters" by sending a map of the district roughly showing its dialect boundaries in pencil to clarify the extent of Bhojpuri.[38] Rather than returning a sketch map, the Collector drew a boundary in red pen on a 1 inch: 16-mile Survey of India map of Mirzapur (Fig. 12), which he probably had a few copies of in the district headquarters. Using a red pen to demarcate a dialect line evoked the greater tradition of colonial boundary drawing in India, which would also be a troublesome contradiction in the LSI's mapping.[39]

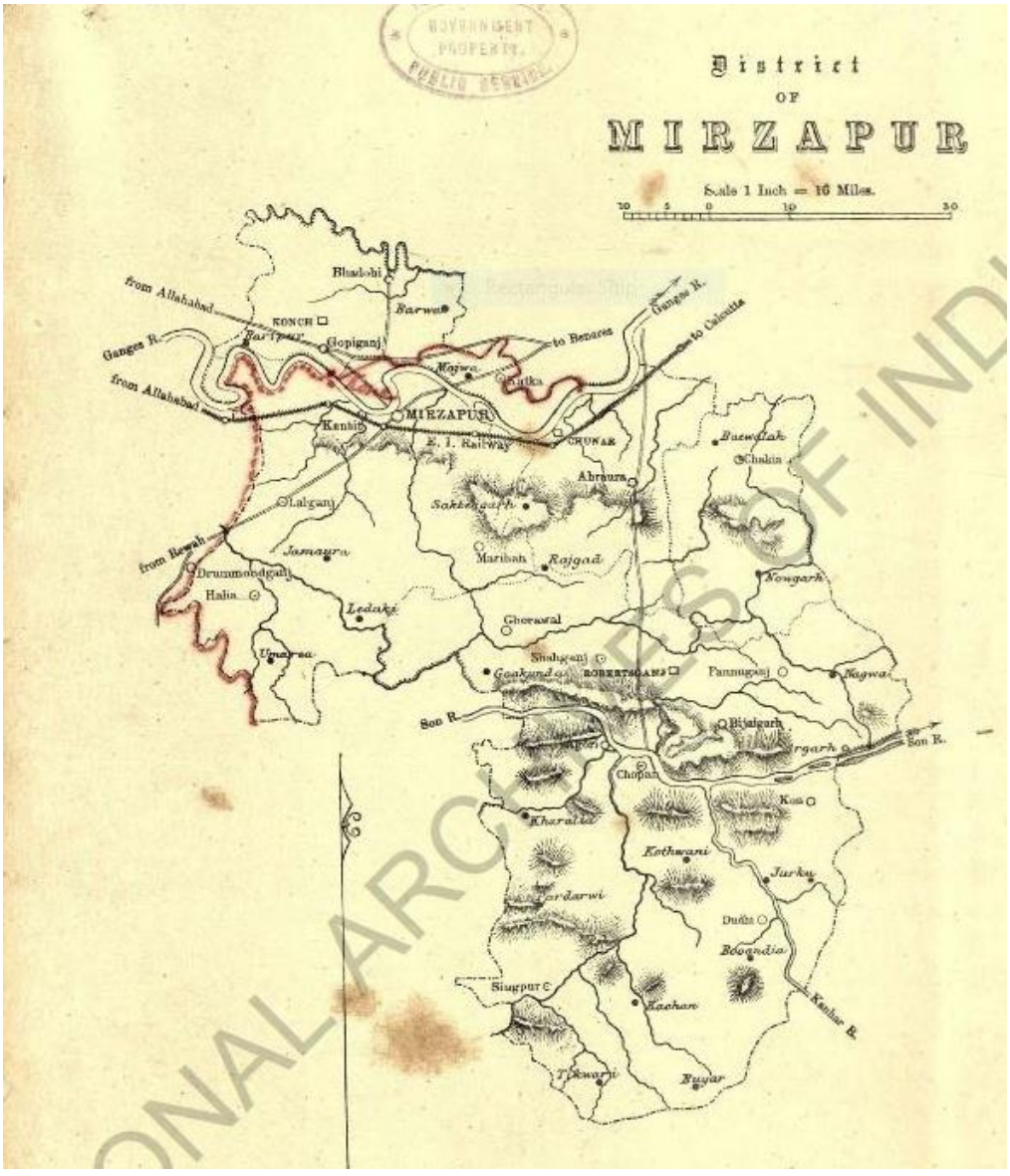


Figure 12: Map of District of Mirzapur (1899).
Source: National Archives of India.

[38] NAI. Home/Linguistic Survey/1896-/No. 3/27. Grierson to Collector, Mirzapur (d. 11/1/1899).
[39] The famous – or rather, infamous – use of the red line was the Radcliffe line which partitioned India. See L. Chester, *Borders and conflict in South Asia* (Manchester: Manchester University Press, 2013).

Sometimes an official returned a sketch map without even being asked by Grierson to do so. In response to Grierson's confusion over the spatial distribution of the *da-* and *na-* genitives, the Deputy Collector of Jhelum returned a rough sketch map (Fig. 13) outlining the distribution, with a note describing the causes. The Jhelum River is the only identifiable feature represented and, while this sketch map may not have been used to map the dialect, it helped clear up Grierson's confusion. Officialdom, not just Grierson, understood the utility of presenting information in cartographic form.

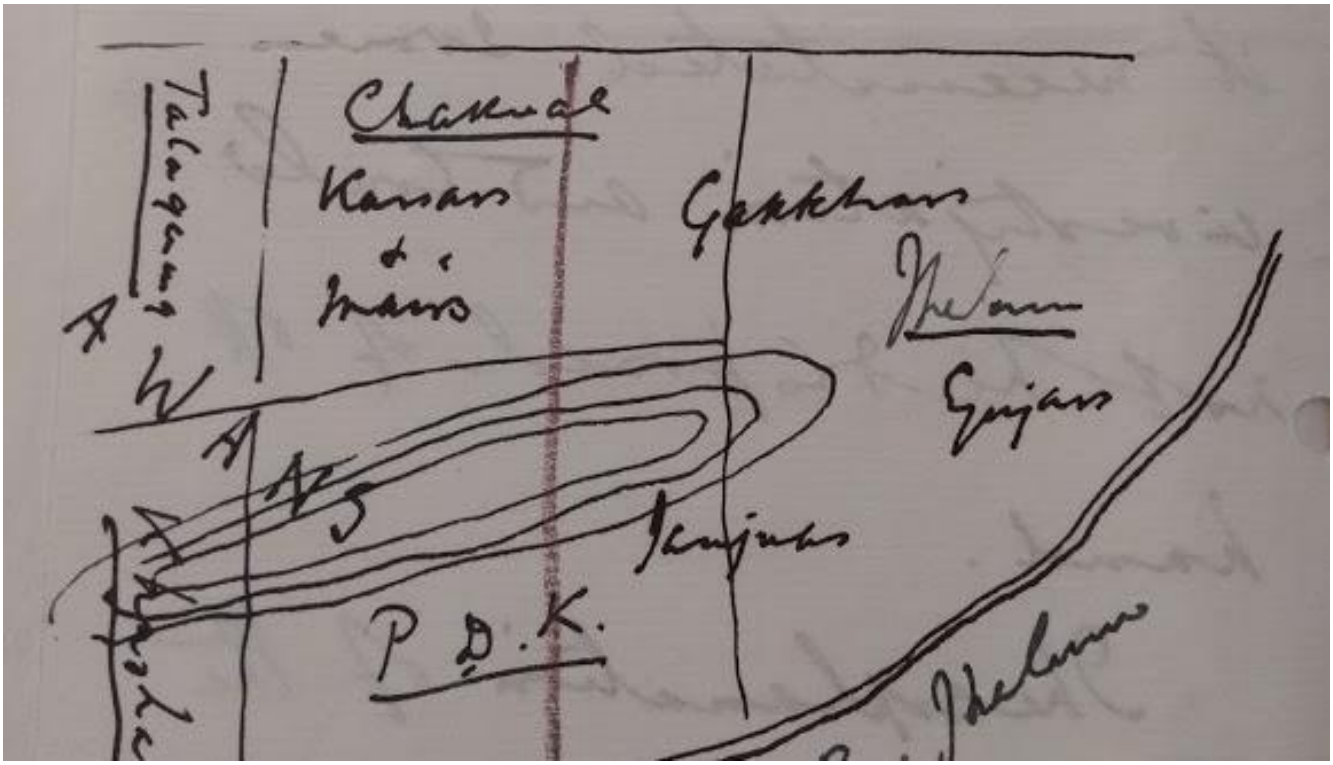


Figure 13: Sketch map of Jhelum dialects (1912). Source: British Library (IOR. S/1/6/10).

Mapping by correspondence was a process by which the LSI and its surveyors could outline the distribution and limits of a dialect; simplify and refine geographical information from the notes; or clarify ambiguities or contradictions. Mapping in this case was ad hoc rather than systematic. Grierson would sometimes ask for a rough or sketch map, in other cases he would send a map for the official to draw on. In other instances, the official would return one without Grierson asking for one. Nevertheless, mapping by correspondence was a fragmented and inconsistent process with many languages never mapped diagrammatically. Simplicity could also be reductive. Some preliminary maps circulated were certainly oversimplifying a complex linguistic geography. But the LSI was surveying and mapping by the smaller unit of a district, which did not necessarily have a complex linguistic situation. Some did, of course, but others

were more homogenous with only two or three languages reported. These rough maps operated as layers, helping Grierson identify where a language or more was spoken, but with the understanding that another dialect could be spoken in the same place. The LSI was balancing the invariably messy geography of a language – speakers moving around, dialects overlapping other dialect areas or jurisdiction etc. – with the aim of clarifying and correcting, so that the final map was a reasonably accurate reflection of the situation on the ground. Moreover, Grierson was mapping from afar and relied on a network of surveyors to locate, fix, and correct the map. The Survey's modus operandi of circulation was applied to mapping too, with Grierson circulating provisional maps between informants and experts to draw up the geography of a language or dialect.

Grierson's correspondence with Abdul Hakim Khan, the Political Assistant in Chitral and a prolific surveyor for the LSI, is particularly revealing about the process of mapping through circulation.[40] Grierson sent a copy of a 'Map illustrating the Languages Spoken beyond the North-Western Frontier of British India' to Abdul Hakim Khan with the area labelled 'Mixed Languages and Gujati' encircled and annotated with Grierson's enquiry – "what is spoken here?" (Fig. 14). The map was originally made for a scholarly article, published in 1900, on the languages spoken beyond the NWFP, which indicates maps compiled from the Survey's findings were circulating internationally early on.[41] Grierson, however, was evidently unsatisfied with a description of 'mixed languages' for the LSI and sent an annotated map back to Abdul Hakim Khan to find a more precise and satisfactory answer. Using a map to correct the map was effective. In response, Abdul Hakim Khan wrote:

> Mr Grierson in his letter says 'what languages are spoken in the country between Chitral and Tangir where I have written mixed languages and Gujati.' By looking at the map sent by Mr. Grierson it appears to me that the place marked by him consists of the following; 1. A portion of the Ghizer valley in Yasin. 2. The mountain ranges separating the Chitral and Ghizer valleys…3. Western portions of the Swat Kohistan and of the Dir Kohistan.

[40] IOR. S/1/12/2. Correspondence with Chitral, 1900-1901. The map (A) is filed with correspondence dated 8/6/1901.
[41] G. Grierson. 'On the Languages Spoken beyond the North-Western Frontier of India.', *The Journal of the Royal Asiatic Society of Great Britain and Ireland* (1900), pp.501-510. It remains unclear whether Abdul Hakim Khan had any direct role in making this map but his work drawing up and translating specimens, along with information on those languages, must have been used in preparing the article and map.

As far as I have been able to ascertain the following dialects are spoken in the above mentioned localities… (*Lists the localities and dialects spoken*).[42]

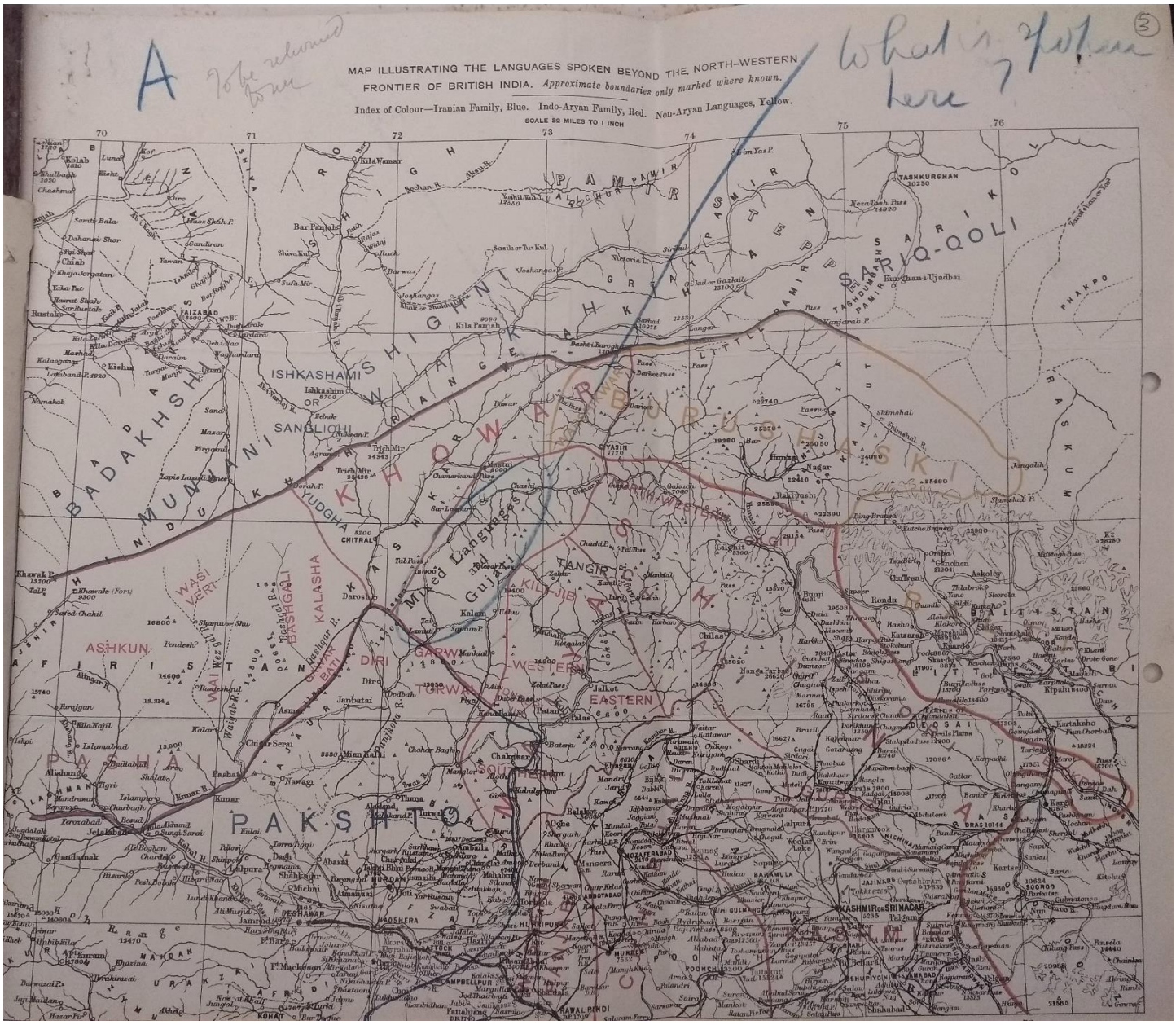


Figure 14: 'Map illustrating the Languages Spoken beyond the North-Western Frontier' with Grierson's annotation; extract showing area described 'Mixed Languages and Gujati' (1901).

Source: British Library (IOR. S/1/12/2).

[42] IOR. S/1/12/2. Abdul Hakim Khan to Political Agent, Chitral (d. 8/6/1901).

Provisional maps were not only circulated between surveyor/informant and the LSI. Those with expert knowledge were also asked to "proof" rough maps as they did for specimen translations. Grierson had two language maps of Darjeeling and Sikkim copied and sent to Laurence Waddell to assess and correct if necessary.[43] The language maps of Darjeeling and Sikkim were roughly drawn by Grierson and then sent to the Public Works Department in Simla who had the equipment to trace the maps.[44]

Darjeeling, Sikkim and the NWFP were all regions near to or at the frontier of British imperialism in India. As mapping the unsettled and contested frontiers had been crucial to the development of the Survey of India's cartography, the periphery of British India was also central to the LSI's mapping.[45] The frontier provinces, agencies, and areas beyond were often unexplored and where British control was less firm. The LSI relied on the reports and personal knowledge of actors who operated in-between officialdom and scholarship such as Laurence Waddell and the explorer Aurel Stein to map the languages along and across the frontier. Abdul Hakim Khan certainly used first-hand information, maybe even surveillance reports, to help identify the languages spoken in the area Grierson queried. The LSI circulated more maps to locate, fix and correct the linguistic geography of frontier areas than to localities closer to the major centres of British rule.[46] Part of the explanation was certainly to do with knowledge – languages along the frontier were less-well known or harder to identify than languages near Bengal, Bombay etc. Locating where a dialect was spoken in Bihar was in practice less difficult than finding out where a dialect in remote Himalayan Sikkim was spoken. But another underlying problem for the LSI was that linguistic geography did not neatly correlate with political geography. Languages straddled the frontier and major languages such as Pashto or Tibetan were spoken by people both living within and outside India. Locating the geographical limits of languages beyond the frontier meant circulating maps beyond India.

Mapping the Balochi language was indicative of the Survey's transfrontier cartography. Grierson informed the Political Resident in the Persian Gulf that, while preparing a Balochi

[43] IOR. S/1/2/3. Grierson to Waddell (d. 8/2/1900).
[44] NAI. Home/Linguistic Survey/1896-/No. 25/12. Grierson to Oswald Lees (d. 26/9/1899). The Public Works Department (PWD) was created by Governor-General Lord Dalhousie in 1855 to limit the role of the military in building and maintaining infrastructure in India. Although the Survey of India was responsible for topographical mapping, the PWD had the equipment and expertise to produce maps and plans for infrastructural projects.
[45] See Simpson, *The frontier in British India*, for more on the mapping of the Indian frontier.
[46] Again, with the caveat about what material has survived. Yet it cannot be coincidental that much of the surviving rough/sketch maps are overwhelmingly from frontier areas.

language map, he could not obtain any information about its furthest extent into Persian Baluchistan from the work of Thomas Holdich or Lord Curzon.[47] Enclosed with the correspondence was a blank map of 'South Eastern Persia' on which Grierson hoped the Political Resident could "kindly indicate, quite roughly, where Balochi is spoken, showing (a) where it is the chief, or only, language, and (b) where it is spoken only by a portion of the population, as I suspect is the case in the parts of Seistan."[48] An interesting addendum to the letter was Grierson's emphasis that the Resident did not have to map Balochi spoken in British Baluchistan, only Persia, which speaks to the fragmented modality of the LSI. Grierson would assemble the cartographic information on Balochi spoken in India with that of Persia to complete the map showing the geography of Balochi.

The Political Resident returned the map showing a "straight line from the junction at Minab and Biaban districts on the coast to Nasratabad Sipi" and a note explaining approximately where along the line Balochi was spoken.[49] The Resident was unable to gather more detail and forwarded Grierson's enquiry to political agents operating in Eastern Persia. The Agent in Khorasan informed Grierson that "there is no portion of the provinces of Khorasan in which Balochi is the chief or only language and that it is spoken by a portion of the population only east of a line drawn through Turshis, Turbat-i-Shaikh to Sarakhs at the north east corner of the province."[50] All Grierson had to do was draw the line on a map – in theory. The Agent for Seistan and Kain informed Grierson in the same manner, using an imaginary line to locate Balochi:

> The southern limit of Sistan may be taken as a line drawn from Nasratabad Sipi to Kuh-i-Malik Siah. From this line northwards to the Sistan Kamun, Baluchi is the mother tongue of the Baluch tribes and is also spoken by the Brahui tribes…Baluchi is not the mother tongue of the tribes ordinarily resident in the District from the Hamun northwards to latitudes 34◦ which corresponds very nearly with the northern limits of the province of Kain. It is however understood and spoken by these tribes.[51]

[47] Holdich had served on different boundary commissions along the Persian and Afghan frontiers and was one of the foremost experts on boundaries and frontiers in the early 20th century.
[48] IOR. S/1/15/1. Grierson to Pol. Resident, Persian Gulf (d. 25/2/1918).
[49] IOR. S/1/15/1. Pol. Resident, Persian Gulf to Grierson (d. 7/7/1918).
[50] IOR. S/1/15/1. Agent in Khurasan to Grierson (d. 9/9/1918).
[51] IOR. S/1/15/1. Consul for Seistan and Kain to Grierson (d. 1/4/1919).

The circulation of cartographic knowledge between the agents in Persia and Grierson provides a microcosm of the LSI's mapping of language. A mixture of maps, notes and descriptions not only located where a language was spoken but rendered the language mappable, with boundaries and limits. Furthermore, the LSI established languages as mappable at different scales. Language maps were not new to colonial science in India, but language maps had previously been drawn at the scale of province, country, or even continent, and typically for more widely spoken languages or larger language groups. The LSI made it possible to map minor languages, even less widely spoken dialects, in greater detail. This innovation might have motivated others to map less widely spoken or rarer languages. In 1912, for example, a Captain Pritchard had been exploring the Burmese frontier from the Irawaddy to the Brahmaputra where he had come across what he believed to be a novel language, mapped its location (Fig. 15), and sent the map to Grierson asking if he was willing to support another expedition and write a fuller paper on his findings.[52]

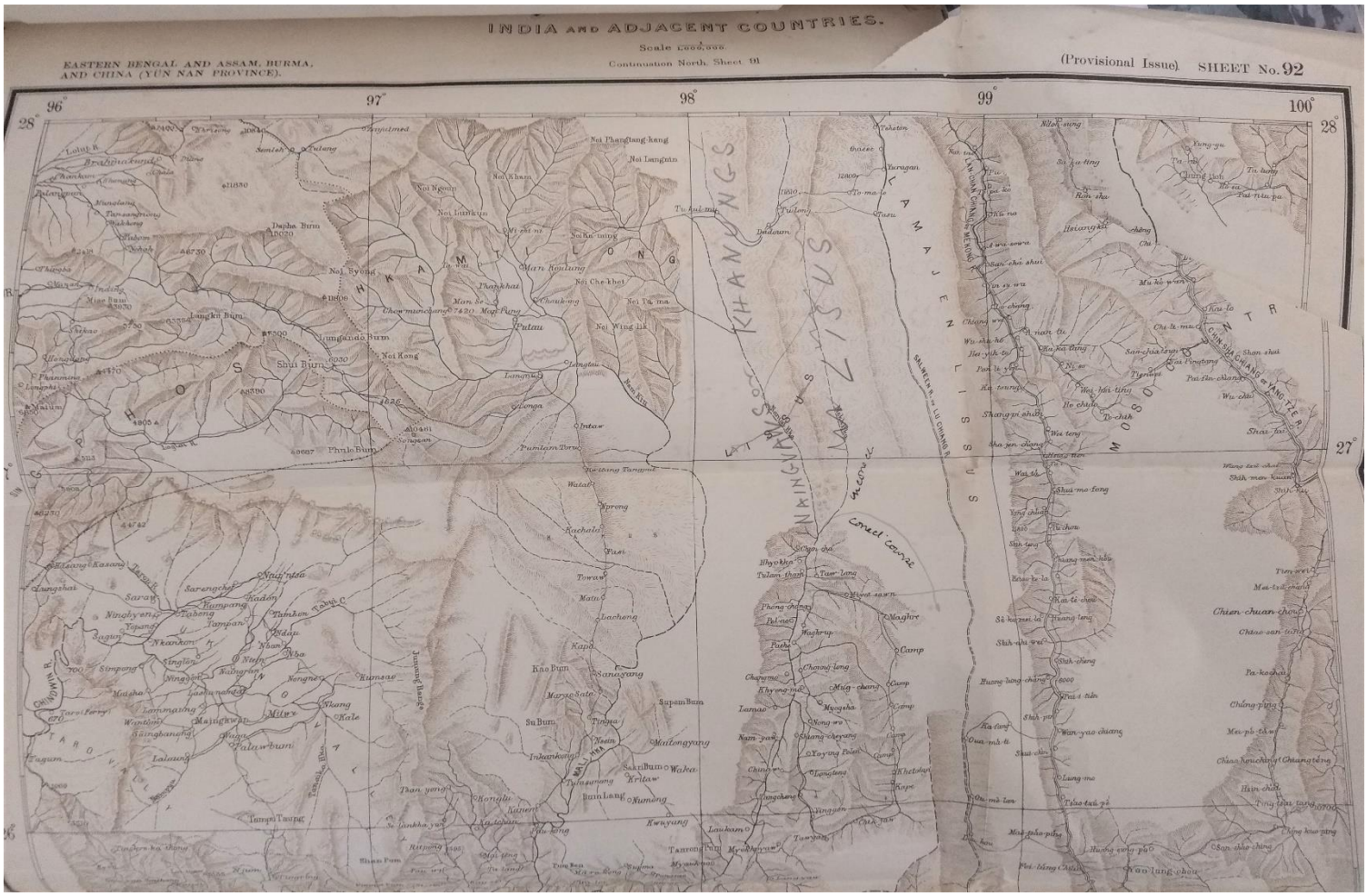


Figure 15: Map annotated by Capt. Pritchard (1912). Source: British Library (IOR. S/1/2/2).

[52] IOR. S/1/2/2. Corr. from Dept. Commerce and Industry to Grierson (d. 3/12/1912).

The LSI mapped and acquired a substantial body of cartographic knowledge in the form of notes, descriptions, sketches, and provisional maps, on top of pre-existing knowledge from other sources. The next step for Grierson was to assemble these discrete fragments of cartographic knowledge into a comprehensible and usable map for officials, linguists, and non-experts alike.

Mapmaking: the LSI and the Survey of India

The preparation and printing of maps began promptly after surveying had started in 1898. As with mapping, making maps for the LSI volumes was not undertaken all at once, but as and when it was necessary for the volume being prepared. Most LSI volumes were finished before 1910, but four volumes were only finished by 1922 and the *Introductory* volume, which incorporated the largest number maps, was only published in 1927. Preparing maps alongside the text allowed Grierson to identify where to place the map in the text. In arranging the proofs for the languages of the North-West Frontier, Grierson had two maps – one showing the localities in which various languages were spoken, another showing the Pashto language – already prepared and sent to Government Printing so the maps could be stitched into the proofs. It was decided that the first map would face the title page and the Pashto map would face the start of the Pashto section.[53] Grierson was also cognizant that mapping was an ongoing process with new dialects being identified throughout the surveying stage, so delaying the completion of maps until he was ready to print the text "would allow for petty alterations being made in any map, which might be rendered necessary by subsequent discoveries."[54]

The crucial relationship in the mapmaking process was between the Linguistic Survey of India and the main cartographic agency, the Survey of India (SI). The Survey of India, with their cartographers and equipment, collaborated with the LSI to prepare, proof and print the maps which would be sent to the Government Printing Office to insert into the right volume. The SI had a section dedicated to delivering maps for other government departments and surveys, such as the LSI, Archaeological Survey and Geological Survey. The General Reports of the SI recorded the work they had done under extra departmental work, noting that in 1898-1899 they

[53] NAI. Home/Linguistic Survey/1896-/No. 16. Grierson to Supt. Government Printing (d. 3/6/1899).
[54] NAI. Home/Public A/February 1899/No. 244-246. Grierson to Home Department (d. 3/1/1899).

had prepared 9 maps for the LSI, then another 21 maps in 1902-1903.[55] The first 9 maps included the North-West Frontier maps, and the Assamese and Oriya language maps which had been sent to Government Printing in 1900.[56] Maps were prepared quite expeditiously from 1898 to 1903 with thirty out of forty-five completed by 1903. The other fifteen maps were completed over the next two decades.[57]

The reasons for the prompt preparation of maps from 1898-1903 can be attributed to three factors. Firstly, the Survey of India were compelled to provide as many maps needed by the LSI, paid for by the Government of India. When preparing the final maps for the first volume, Grierson had to remind the Superintendent, Map Publication Office, that "orders were issued by the Government of India, about the year 1898 or 1899, authorising the Survey of India to provide such maps as may be required for the Linguistic Survey."[58] Making maps was another significant reason why Grierson sought state support from the beginning. If the LSI had been a work of private scholarship, mapmaking would have been more protracted and, without special dispensation, all costs borne by Grierson.

The second reason was that the LSI had already been surveying and mapping for a few years and could draw on a tradition that went further. The consolidation of language lists from 1896 to 1898 had, to an extent, situated languages and dialects to an identifiable geography. The LSI could map the approximate range of a language and its subdialects based on which areas they were found in. The timely return of specimens either confirmed the lists or helped correct any discrepancies. More importantly, the LSI had earlier data and maps to work with. The Census of 1881 and 1891 had acquired some linguistic data on a regional and local basis which were already being used make language maps, such as the one published for the Calcutta Exhibition in 1883. Grierson could also draw on journal articles, society lectures, government reports etc. – some of which included maps – for information to prepare a map. Finally, the LSI was able to draw on previous general surveys of languages, notably Needham Cust's overview of Indian languages, but also Grierson's early work on Bihar which included a language map of the

[55] *General Report of the Operations of the Survey of India*: 1898-1899 (IOR V/24/3997); 1902-1903 (IOR V/24/4001).
[56] IOR. S/1/2/4. Grierson to Assistant Surveyor-General (d. 27/11/1900).
[57] One reason for the large interval was WWI. Even if the LSI were not also affected by the war, it may have found little investment by the Survey of India on non-war related mapping. Many officers and staff of the Survey were involved in wartime mapping, especially in the Middle East. See, for example, P. Collier. 'Innovative military mapping using aerial photography in the First World War: Sinai, Palestine and Mesopotamia 1914–1919.' *The Cartographic Journal*, 31:2 (1994), pp.100-104.
[58] IOR. S/1/2/6. Grierson to Col. H. Wood (d. 2/7/1924).

region.[59] Assembling a map was not simply a case of using the information surveyed by the LSI but using the wider – but far from comprehensive - body of data that the colonial state and scholarship had already acquired.

The third reason why the SI and LSI were able to promptly complete two-thirds of the maps was the scale of language depicted on a map. Although the LSI surveyed at the district level, it did not make a language map of each district, agency or native state, as Grierson explained to the Political Agent in Bhopal.[60] Nor did the LSI map every minor dialect, instead compiling maps which aggregated a language and its subdialects. One such map was entitled *Dialects and Sub-dialects of the Eastern Hindi Language* which showed three languages and number of related dialects on a single map.[61] In fact, the only district with its own map was the Sonthal Parganas, the reasons for which will be explored in the next section. The LSI was making maps of a larger geography than the constituent unit of surveying, or at a *smaller scale* in cartographic terms. Grierson's role was to stitch together and assemble all the fragments of geographic data that had been surveyed into the maps that would appear in the LSI.

But how did the Survey of India and LSI collaborate to create a language map? As with gathering information, mapmaking was inconsistent. At times Grierson took on more responsibility and in other instances decisions were deferred to the expertise of the Survey of India. Grierson, however, was primarily responsible for drawing approximately the locations and limits of languages being mapped, on base maps provided by the Survey of India. He assembled all the fragments of geographic data the LSI had collected and made sense of the information in cartographic terms. In this regard Grierson was not a conventional mapmaker, although he did roughly 'trace' languages on a map, but a translator who converted linguistic data into a mappable form that could be properly drafted, proofed and printed by the Survey of India.[62] As Grierson admitted after the LSI had been completed, his role in making maps involved drawing "rough indications of what was required, rather than finished maps"[63] whereas "the maps for the Survey have, for the past twenty-five years, been prepared for me, without question, by the Survey of India."[64] The Survey of India was also granted latitude to

[59] Chapter one outlines the history of language mapping in India.
[60] IOR. S/1/11/1. Grierson to Political Agent, Bhopal (11/4/1900).
[61] The map can be found in LSI, 6, facing the title page.
[62] NAI. Home/Linguistic Survey/1896-/No. 25/12. Grierson to Lees (d. 26/2/1899).
[63] Mss Eur. E223/243. Grierson to Sec. High Commissioner for India (d. 15/11/1929).
[64] IOR. S/1/2/8. Grierson to Superintendent, Government Printing (d. 8/4/1925).

make changes to a map if necessary. For example, Grierson asked the Survey of India to "make such improvements in it as suggest themselves to you" to the map showing Eastern Europe and Western Asia in the first volume, only retaining the names and natural features he had added.[65] Deference to expertise was a theme in the Linguistic Survey which also extended to cartographic expertise.

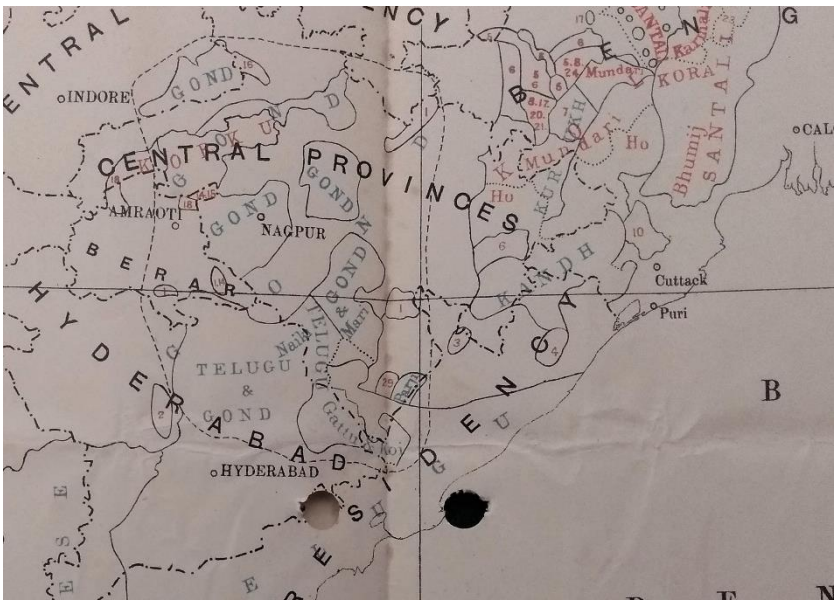
Perhaps understandably, Grierson downplayed the importance of the roughly drafted map compared to the final map. Yet the rough draft embodied the LSI's linguistic-geographical survey. Drafting was the moment when the information collected by surveyors took shape on paper in the form of an approximate geography of a language group, language, and its dialects. By committing the language on a map, showing its distribution and limits, Grierson was not simply translating knowledge from one medium to another but seeing language from a cartographic perspective – flattening a community of speakers into a two-dimensional view of India's languages. Grierson was also aware that the rough draft, unlike the final map, was a living document that could be updated with new knowledge.[66] The Survey of India's role was to commit the language map into its permanent, final form. The living document did not survive, as the original drafts and proofs were destroyed once the final maps had been printed by the Survey of India and added to the volumes of the LSI.[67] However, a copy of a draft map (Fig. 16) prepared by Grierson for the 1901 Census survives and is informative about the process of preparing a language map.[68]

[65] IOR. S/1/2/6. Grierson to Superintendent, Map Publication Office (d. 26/4/1924).
[66] NAI. Home/Public A/Feb 1899/No. 244-246. Grierson to Home Department (d. 3/1/1899).
[67] Mss Eur. E223/243. Grierson to Sec. High Commissioner for India (d. 15/11/1929).
[68] IOR. S/1/14/2. Draft map of Munda and Dravidian. (d. April 1903).



Figure 16: Draft map of Munda & Dravidian for 1901 Census report. Prepared by Survey of India (1903), with detailed extract (*right*).

Source: British Library (IOR. S/1/14/2).



Making a language map took many steps. First, Grierson would draft a map by marking linguistic areas – showing approximate boundaries - with the names of languages on a base map provided by the Survey of India. The Survey of India would then prepare a proof map (e.g., Fig. 16) which Grierson would then check before the returning to the SI to print the map in colour. There was no uniform method used to publish maps. Most were lithographed at the SI department in Calcutta, but a few were photolithographed or heliozincographed.[69] Colour and shading were crucial parts of making a language map clear, to differentiate languages.[70] The draft of the Munda and Dravidian language map for the 1901 Census shows how colour was being used to differentiate linguistic areas (Dravidian – blue; Munda – red; Mixed area – brown.) On the other hand, who decided which colours to use is difficult to ascertain. From the evidence of his work preparing maps for the 1901 Census, it appears Grierson had some say, but knew very little about colouring maps since it was pointed out to him by the Surveyor-General that "names printed in colour on the same colour would not be distinguishable."[71] Whether colours for the LSI's maps were chosen by Grierson or largely left at the discretion of the Survey of India remains unclear. We know that Grierson received some final proofs uncoloured from the Survey of India and it seems unlikely that he did not have any say in which colours were chosen, since colours were critical to language mapping.[72] Additionally, using and printing multiple colours was expensive and complex. As the Survey of India reported after making the LSI's maps: "as these are all intended for publication in several colours, *they involved much work*."[73] And Grierson did not always work with the Survey of India to make maps. The inset maps in the first volume were shaded by Grierson on blank maps and sent directly to Government Printing to reduce in size before adding to the text, passing over the SI.

Colours were important for clarity, a requirement for making a user-friendly language map. The question which ultimately drove the collaboration between the LSI and the Survey of India was how does one effectively create a language map that others can read and comprehend? Sizing and scaling maps to fit the LSI volumes proved particularly troublesome. The original proofs compiled by Grierson and drafted by the Survey of India had to be reduced in size so

[69] Photolithography was introduced to the Survey of India in 1862; zincography followed in 1866. For a good contemporary account explaining the development of methods used by the Survey see: C. Markham, *A memoir on the Indian surveys* (London, 1871).
[70] For a good account of the development of coloured printed maps, see K. Pearson, 'The nineteenth-century colour revolution: Maps in geographical journals,' *Imago Mundi*, 32 (1980), pp.9-20.
[71] IOR. S/1/14/1. Risley to Grierson (d. 29/7/1902).
[72] Mss Eur. E223/243. Grierson to Sec. High Commissioner for India (d. 15/11/1929).
[73] *General Report of the Operations of the Survey of India*, 1902-1903, p.21 (IOR V/24/4001). My emphasis in italics.

they would fit the pages of the LSI volume (13.75 x 10.25 inches). However, when some maps were reduced in size, particularly 1 inch: 160-mile base maps of India, the Survey of India reported that the maps became illegible "thereby destroying the value of maps."[74] In other words, a language map was only practical if the map could be read. A similar problem emerged in the preparation of the Aryan language map for the Census, where minute details were no longer legible once the final map had been produced to fit the Census report.[75] Grierson often deferred to the Survey of India in deciding what would appear on a map at the size and scale necessary for publishing, with the caveat that the features he had outlined were to remain.[76] They ultimately decided that it was more practical to fold the map into the volume. It made practical sense for the LSI to leave the decision regarding size and scale to the Survey of India, as it became a laboratory for testing language maps – if their officials could make the map comprehensible at the necessary size and scale, then it was more likely to be understood by other officials and scholars. Scaling a map to fit and remain legible was also affected by the choice of base map used and how the map was coloured or shaded. The inset maps in the first volume, which were drawn on 1 inch: 160-mile maps, had to be shaded by lines 1/8th of an inch apart on the base map in order to remain clear once reduced in size.[77] In preparing maps, Grierson was already making decisions about what could and could not be shown in order for the map to remain practical to the user.

Another matter Grierson had to grapple with, especially in his capacity as a linguist and a respected expert on the issue, was the transliteration of place-names on maps. Grierson was asked by the SI officer in charge of the new topographical maps being made of Kashmir in 1912 about the proper method of transliterating Kashmiri names on their maps.[78] Grierson's position, perhaps surprisingly, was more flexible when it came to maps than his position on the transliteration of texts.[79] In correspondence with the former Surveyor-General, Grierson points out that orientalists have a stricter view of whether Kandahar is spelled with a K or Q (settling on Q) but that they "recognise that we cannot expect map-makers to accept everything we lay down, though we regret the existence of any unnecessary discrepancies. Hence, if mapmakers found serious objections to the use of Q in Qandahar, we should bow to their practical

[74] IOR. S/1/2/6. Col. Wood, Map Publication Office to Grierson (d. 8/4/1925).
[75] IOR. S/1/14/1. Risley to Grierson (d. 19/7/1902).
[76] IOR. S/1/2/6. Grierson to Map Publication Office (d. 26/4/1924).
[77] IOR. S/1/2/8. Supt. Government Printing to Grierson (d. 13/1/1922).
[78] IOR. S/1/12/1. Officer in charge of Kashmir survey party to Grierson (d. 2/10/12).
[79] Majeed has written more about Grierson's strong views on the transliteration of Indian languages, which often diverged from many of his colleagues. For more see Majeed, *Colonialism and knowledge*, pp.107-140.

necessities."[80] Grierson's equivocal position is evident on the Linguistic Survey's maps. On the one hand, there is clearly an attempt to appropriately transliterate the names of languages on maps, including the use of diacritical marks. However, the languages are mapped onto Survey of India maps which used the Hunterian system out of practical necessity.[81] The LSI's maps merged old methods with new rules.

One final point about mapmaking, which is sometimes overlooked, is the aesthetic value of maps.[82] Colouring was not simply used for clarity, especially as it was more expensive to do. The LSI's maps were also designed to be visually appealing to its readership and stand out from the repetitive and monochrome specimen translations and lists of words.[83] Some of Grierson's associates undoubtedly appreciated maps for their aesthetic qualities. George P. Taylor, the principal of Stevenson Divinity College in Ahmedabad, asked Grierson to send another copy of the Gujarati language map which he lost during a train journey, so that it could be used as an attractive frontispiece for his proof copy which he had reviewed for the LSI.[84]

Mapping, and making language maps, was a complex and haphazard process for the LSI. Grierson could not merely send out a survey party to measure territory as the Survey of India could. Mapping by correspondence, and circulating notes, sketches and maps to establish a language's geography was the only option for the LSI. But mapping by correspondence meant that the knowledge acquired was not uniform. Some surveyors returned detailed notes and maps while others returned very little. Nor did the LSI map all areas equally. The use of pre-existing data and other sources of information, along with the geographical structure of the survey, covered those gaps. But making a language map required the expertise and equipment of the Survey of India to convert that information into its final cartographic form. Grierson was being genuine when he gave all the credit for making the maps to the unnamed "draftsmen in the office of the Survey of India."[85]

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[80] IOR. S/1/1/16. Grierson to Burrard (d. 19/5/1921).
[81] The Hunterian system was named after W. W. Hunter although he only modified earlier methods of transliteration developed by the typographer Charles Wilkins (1749-1836) and William Jones. It was viewed as a widely applicable, although imperfect, system of transliteration for Indic scripts.
[82] One ideal which will never disappear among those who make, study, or simply enjoy seeing maps is an appreciation of their attractiveness and aesthetic qualities.
[83] The aesthetic value of having maps printed by the Survey of India and then stitched into the LSI volumes is even more apparent once subsequent reproductions of the LSI are seen. The Motilal Banarsidass reprint in the 1960s only photocopied the maps which completely diminished their aesthetic appeal.
[84] IOR. S/1/9/3. Taylor to Grierson (d. 21/1/1908).
[85] Mss Eur. E223/243. Grierson to Sec. High Commissioner for India (d. 15/11/1929).

However, we should be wary of overemphasising the significance of the final, published map, and minimising Grierson's central cartographic position. The rough or draft maps assembled by Grierson were the point at which a language was incorporated into a map. The drafts, which could be changed and corrected, authentically reflected the linguistic geography of India mapped for the LSI by its surveyors – a mutable and ever-changing geography that saw new dialects uncovered and boundaries shift during the life of the Survey. That geography could only ever be approximate. The final map, on the other hand, circumscribed the ever-shifting geographies of languages and could not be adjusted to capture those changes. Grierson admitted as much when suggesting mapmaking should be delayed as much as possible to allow "alterations being made in any map, which might be rendered necessary by subsequent discoveries."[86] Consequently, reading the final maps attests to a sustained effort by the LSI to pragmatically map an indefinite and approximate linguistic geography by experimenting with different types of cartographic representations.

The Linguistic Survey's mapping experiment

An experiment in mapping?

At the start of the process, Grierson presumably had in mind which languages were to be mapped and which maps he wanted published in the LSI. Getting there meant making sense of, and piecing together, discrete forms of cartographic information so that the final maps were comprehensible to a readership composed of scholars, officials and laypersons. Reading the final maps, on the other hand, would indicate that the LSI could not settle on one way to map language. The series of forty-five maps which constitute a linguistic atlas of India are diverse in style, size, scale, and printing method. The only consistent feature of the maps is their lack of uniformity (until the maps of the *Introductory* volume published in 1927). This inconsistency can partly be attributed to the length of time it took to complete the LSI, in which time personnel, methods and materials would have changed. But even the thirty maps published between 1898 and 1903 vary in presentation, suggesting length of time was not a significant factor.

[86] NAI. Home/Public A/February 1899/No. 244-246. Grierson to Home Department (d. 3/1/1899).

The maps of the LSI should instead be read as an experiment in which Grierson, through his informal network of surveyors and scholars, and alongside his interactions with organisations such as the Survey of India, was trying to find the most effective way to map language. The LSI's mapping was experimental, employing different methods and techniques to try and map languages. Crucially, linguistic mapping is not an exact science - languages are only mapped approximately - and the diversity of maps are a consequence of trying to capture India's heterogeneous linguistic geography. The LSI's maps were trying to answer questions such as how to map a language spoken over a large region or small area? How to map languages that extend beyond India? How to map an area with many different dialects? How to map the geographical limits of a language or dialect? And so forth. Whereas the previous sections examined the LSI's cartographic principles and operation in its entirety, this section examines in more detail some of the individual maps and what they convey about the Survey's attempt to find an effective and appropriate way to map language.

Did Grierson think of the LSI's mapping as an experiment? Part of this interpretation is clearly my own reading of the different kind of maps present in the Linguistic Survey. But his correspondence with the mapmaking firm Stanford's in London hints at Grierson's trial and error approach to mapping. Grierson showed a willingness to acquire base maps from sources outside the Survey of India, in this case asking for a map showing Eastern Europe and Western Asia to work with. In the end, Grierson rejected the Stanford map because it was unsuitable and went back to the Survey of India. Interestingly, their brief interaction gives an insight into Grierson's pragmatic approach. In rejecting the map, he wrote "I am sorry that I have given you so much trouble in connection with this subject, for I find, after *various experiments*, that the map regarding which you have written will not suit my purpose."[87]

Mapping scale: subcontinent, region or language

Among the leading questions when making a language map was scale, not only cartographic but also linguistic. In contrast to many other types of mapping, determining the scale of map to use depended on the taxonomic scale of language to be mapped. It made sense to capture the breadth of the Indo-Aryan language family – whose constituent languages were spoken across Northern and Eastern India - on a small-scale map (Fig. 17) showing the whole of the Indian

[87] IOR. S/1/1/16. Grierson to Edward Stanford Ltd. (d. 8/8/1928). My emphasis.

subcontinent. However, it was more practical to map a less widely spoken language or dialect on a large-scale map showing more geographic detail. Scale mattered for clarity and detail.

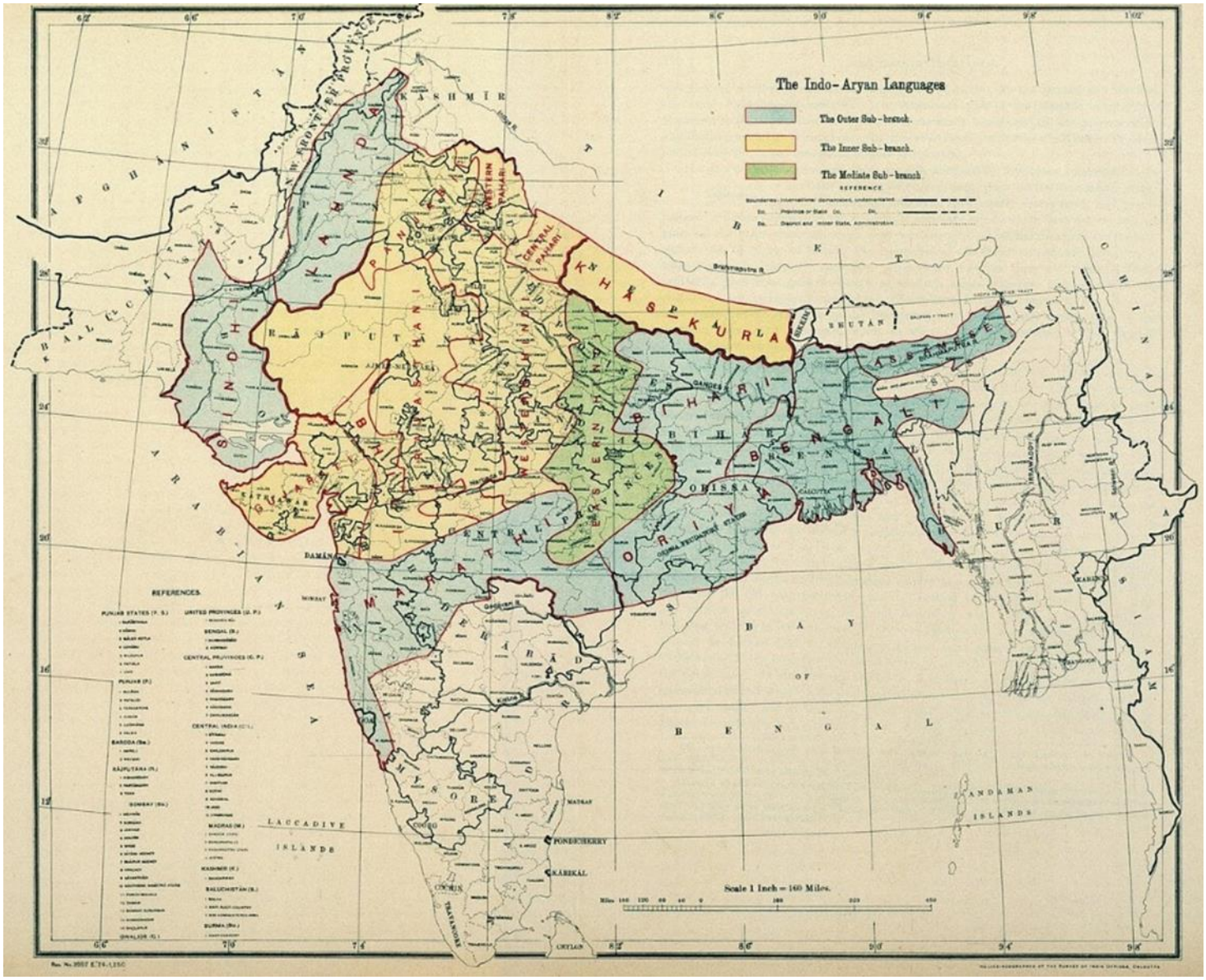


Figure 17: 'The Indo-Aryan Languages' map. Legend: Blue – *outer sub-branch*; Yellow – *inner sub-branch*; Green – *mediate sub-branch.* Source: LSI, 1.1 (1927), p.119.

In the *Introductory* volume of the LSI (which came out last), a series of six maps were created in the mid-1920s and published in 1927 which could be termed 'overview' maps, depicting the major language families of India on small-scale maps showing the whole subcontinent. Of all the maps in the LSI these ones could be classed together because of the base map used, method of printing and the taxonomic scale of the language shown - the language family or languages sharing characteristics. All six maps were heliozincographed, a technique introduced in the

early 1900s as a cheaper option to print maps for publication than copper engraving.[88] Five of the maps – showing the Austro-Asiatic, the Tibeto-Burman, the Dravidian, Dardic and Indo-Aryan families - used the same 1 inch: 160-mile base map of the subcontinent (including Burma) to present an overview of their geographical distribution in India. On the Indo-Aryan and Dravidian (Fig. 19) maps, colours are used to differentiate the major sub-branches of each language family.

What is interesting about the base map onto which the language families have been mapped is the explicit appearance of administrative districts and native states, instead of topographical features. The visibility of the district was clearly important to Grierson when these maps were made. He had asked the Map Publication Office to reduce the five 1 inch: 160-mile maps to fit the page of the LSI, but once "this reduction had been made, all the district names would have been illegible thereby destroying the value of the maps" and the maps were instead folded into the volume.[89] These maps, among the last to be made, were in effect an affirmation of the LSI's mapping method – languages were surveyed and mapped by district and native state and assembled into a greater overview of India's linguistic geography. In other words, the maps encapsulated the dual geography of the LSI – one linguistic, one political.

One of the six overview maps did not use a 1 inch: 160-mile scale map of India. The map showing where the 'Siamese-Chinese' languages were spoken used a 1 inch: 128-mile map instead, showing an area incorporating Eastern Bengal and Assam, Burma and Western Indo-China (Fig. 18). The Siamese-Chinese map is indicative of the LSI's scalar reasoning. The LSI could have mapped the Siamese-Chinese language family on a 1 inch: 160-mile basis like the others and retain a degree of uniformity among the 'overview' maps. But the Siamese-Chinese languages of British India were only spoken in Eastern India and Burma and, for the sake of clarity and showing more detail about the languages in the family, it proved more useful to visualise a less-widely distributed family on a larger-scale map.

[88] But less effective at drawing clear contours which were fortunately not necessary for these maps. See, R. Oliver, 'Photo-zincography and helio-zincography', *Sheetlines*, 90 (2011), pp.41-43.
[89] IOR. S/1/2/6. Col. Wood, Map Publication Office to Grierson (d. 8/4/1925).

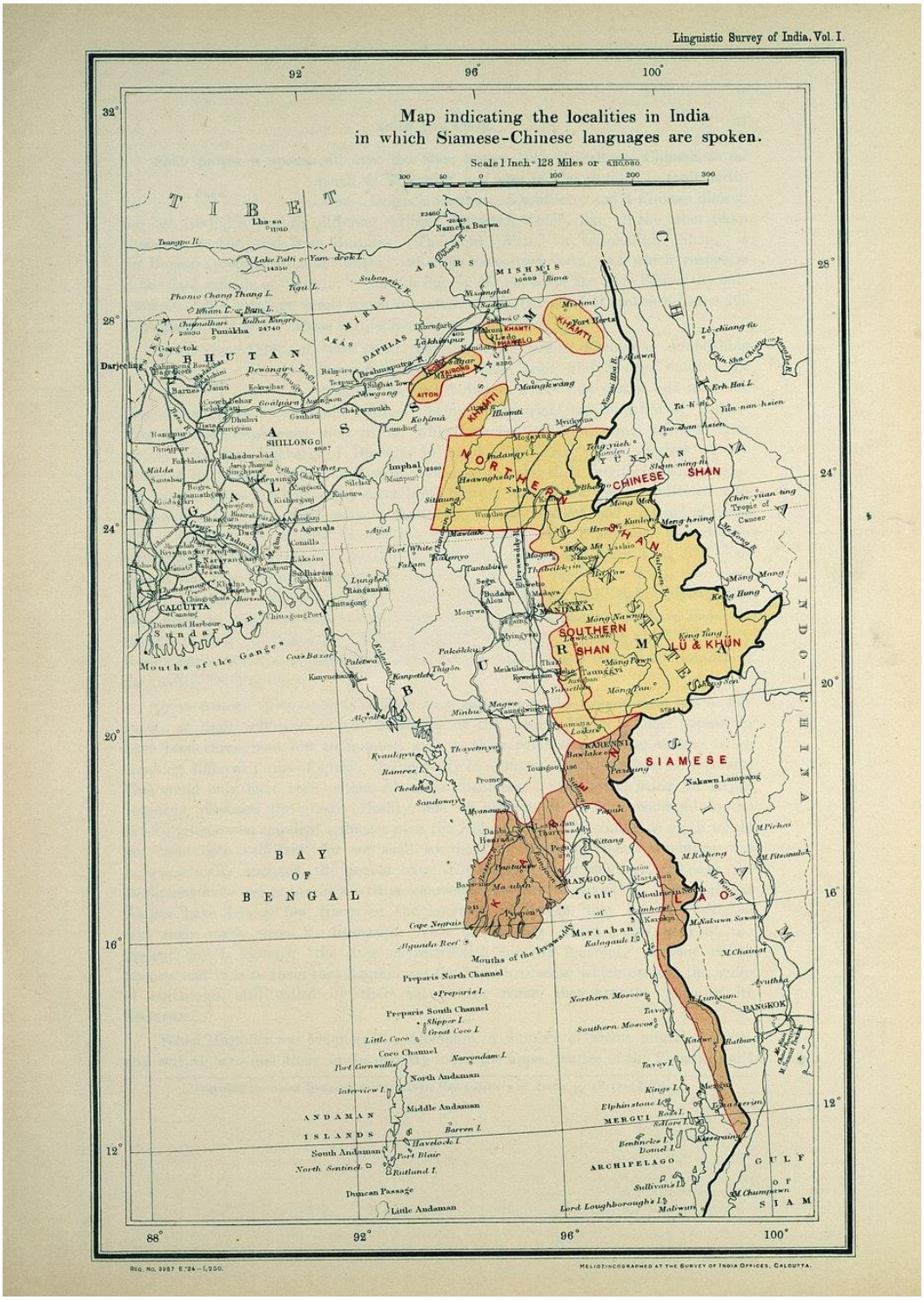


Figure 18: 'Siamese- Chinese Languages' map. Source: LSI, 1.1 (1927), p.50.

The LSI was not trying to fit the language on the map but find the most appropriate and functional map – and scale – to outline the geography of a language. The Dravidian 'overview' map (Fig. 19) further encapsulates the LSI's practice of not making a language fit the map but making the map work for the language. Most of the Dravidian languages were found in

Southern Indian and some parts of Central India but a small number were spoken in pockets of northern India such as Brahui, which was spoken in Baluchistan. The 1 inch: 160-mile map of India proved to be a more informative way of making sense of the non-contiguous geography of the Dravidian family, rather than making a separate large-scale map for Brahui which would not capture its curious geographical position relative to the other Dravidian languages.

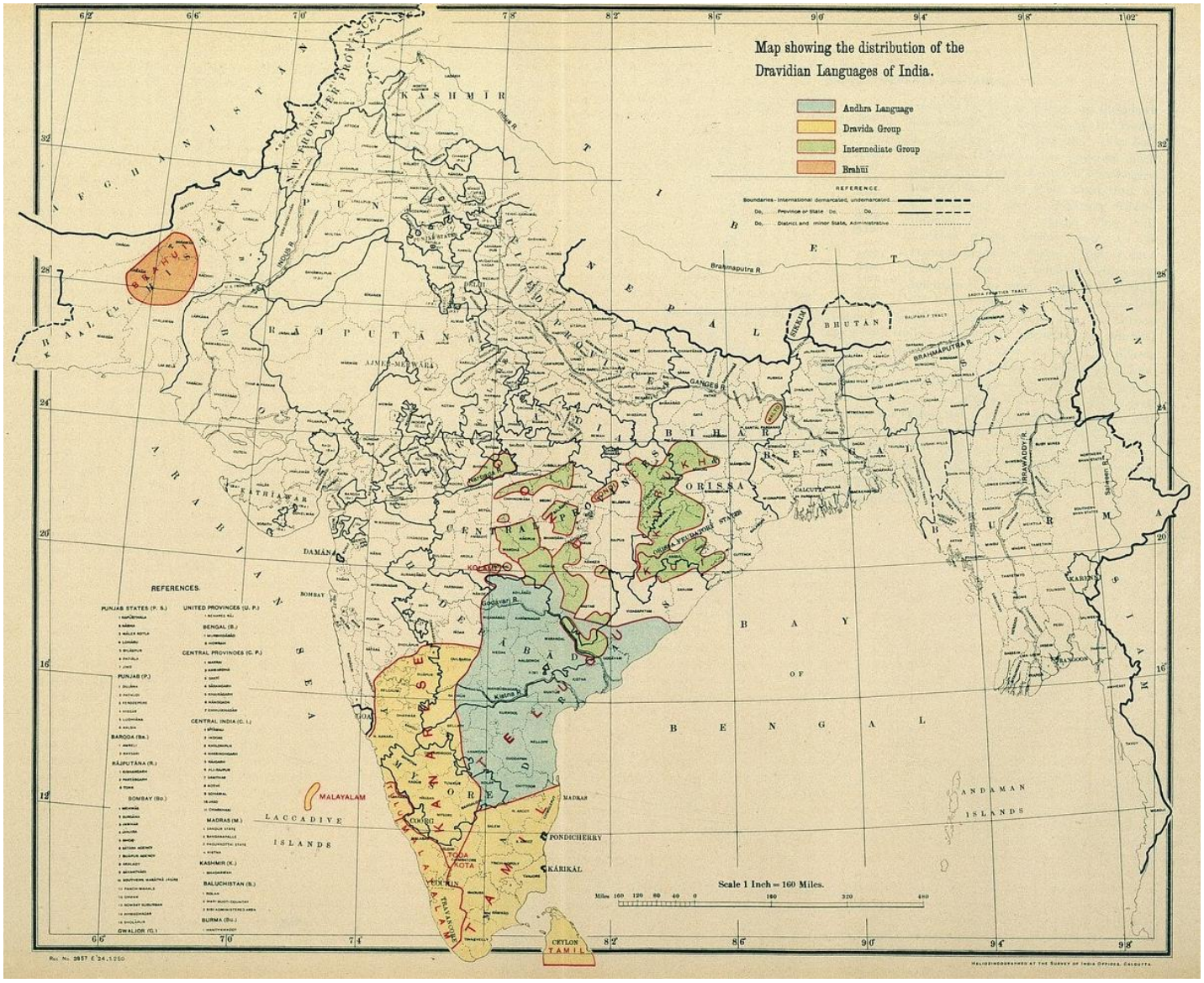


Figure 19: 'Dravidian Languages' map. Legend: Blue – *Andhra*; Yellow – *Dravida Group*; Green – *intermediate group*; Orange – *Brahui*. Source: LSI, 1.1 (1927), p.81.

A peculiar geographical distribution may not have mattered to non-linguists but it had implications for linguistic research, especially in reconstructing the historical development of

the Dravidian languages and its speakers.[90] After all, Grierson envisaged the LSI and its maps as a source of inspiration for further innovative research into these sorts of linguistic issues.

The Siamese-Chinese and Dravidian maps also conspicuously covered areas which were supposed to be outside the remit of the LSI, and not purportedly surveyed, in Burma and Madras. Nevertheless, the Dravidian languages were a significant part of India's linguistic landscape and not mapping them would have effectively conceded the 'India' part of the LSI as misleading. As the previous chapter explained, several factors allowed the LSI to include a Dravidian section and map without official support from the Government of Madras. Firstly, several Dravidian languages and dialects were spoken outside Madras and the southern princely states, such as Brahui, which allowed Grierson to justify incorporating them into the LSI. Secondly, Madras softened their position on the LSI when it came to acquiring gramophone records. Thirdly, Grierson had a reliable network of scholars and secondary sources, including the census which covered Madras, to draw on when making the 'overview' map of the Dravidian languages.

The Siamese-Chinese map is more intriguing because of the complicated position of Burma in the LSI. While Burma was administratively part of British India, it was not within the scope of the LSI and consequently not surveyed.[91] Yet if Burma was part of British India, as Madras was, then its languages were also part of India. One of the major language families surveyed, the Tibeto-Burman languages, included many languages spoken in Burma as its name suggests. Some of the reasons for mapping Burma were the same reasons for including Madras and the rest of southern India. But the Siamese-Chinese map is the only one which, cartographically speaking, shows Burma in its entirety and in a central position rather than on the periphery of the subcontinent. Maybe the map was included in response to the failure of the Linguistic Survey of Burma which had become apparent by the early 1920s. Grierson had supported the endeavour, if only in words, and clearly thought of the LSB as an extension to the LSI in Burma.[92] The LSB fell through and perhaps the map paid homage to a failed scheme.

The five 'overview' 1 inch: 160-mile maps in the *Introductory* volume were not the only maps in the LSI which depicted the whole of the Indian subcontinent. Volume 4 included another

[90] Brahui is fascinating – linguists still disagree whether it was a remnant of a wider Dravidian India which was pushed southwards by the Aryans, or a migration from South to North.
[91] Michael Charney's, *A history of modern Burma* (Cambridge: Cambridge University Press, 2015) includes two detailed chapters on the politics and administration of colonial Burma, and its relationship with India.
[92] The correspondence between Grierson and the Linguistic Survey of Burma can be found in IOR. S/13/2. Government of Burma, General Corr. (1903 - 1921).

Dravidian language map (Fig. 21) and volume 3.1 included a rather wordy map entitled *Map illustrating the relative positions of the Munda, of the complex pronominalized Himalayan Tibeto-Burman, & of the Indian languages connected with Mon-Khmer* (Fig. 20). The latter map is informative about the LSI's utilitarian approach to mapping languages as it presented three different, and unconnected, linguistic geographies on one map (the Munda and Mon-Khmer languages are related as part of the Austro-Asiatic family, but the Tibeto-Burman languages are an entirely separate group). This map experiments with a method of mapping three linguistic groups on one map rather than mapping each one separately, which would have been more costly and unnecessary. Colour was particularly useful in differentiating the three linguistic groups mapped.

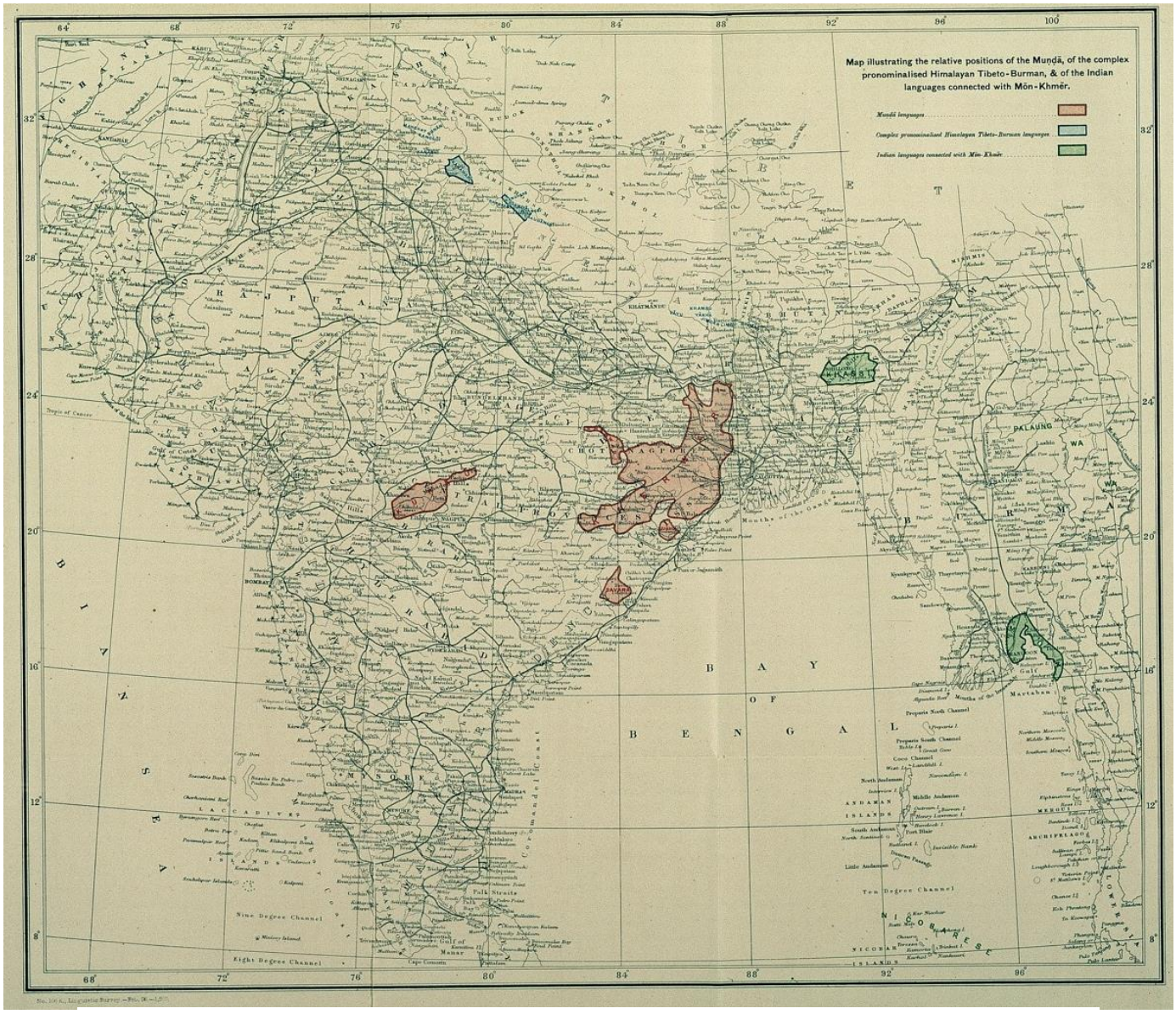


Figure 20: 'Map illustrating the relative positions…'. Legend: Red – *Munda*; Blue – *pronom. Tibeto-Burman*; Green – *Mon-Khmer*. Source: LSI, 3.1 (1909), p.273.

The maps in volume 3.1 and 4, showing all of India, are different than the 'overview' maps in the *Introductory* volume. The Dravidian map in volume 4 (Fig. 21), for example, is produced at a smaller scale of 1 inch: 192-miles, with even fewer features marked on, and uses a different projection. Significantly both maps do not clearly indicate districts and their boundaries. This is perhaps unsurprising since these two were created in the mid-1900s whereas the other five were produced in the mid-1920s. Over the course of twenty years, technology, techniques and personnel would have changed and influenced the decisions behind the design and production of maps.[93] But the maps also highlight the randomness of the LSI's mapping. Why Grierson chose to include districts on the maps made in the 1920s but not in the 1900s could be interpreted as a belated acknowledgement of the district's importance to the Survey, visualising its *modus operandi* on a map. Yet it is also possible that Grierson saw it as a useful addition to the final maps of the LSI on a whim. It may even have been a decision by the Survey of India, to whom Grierson often deferred on cartographic decisions.

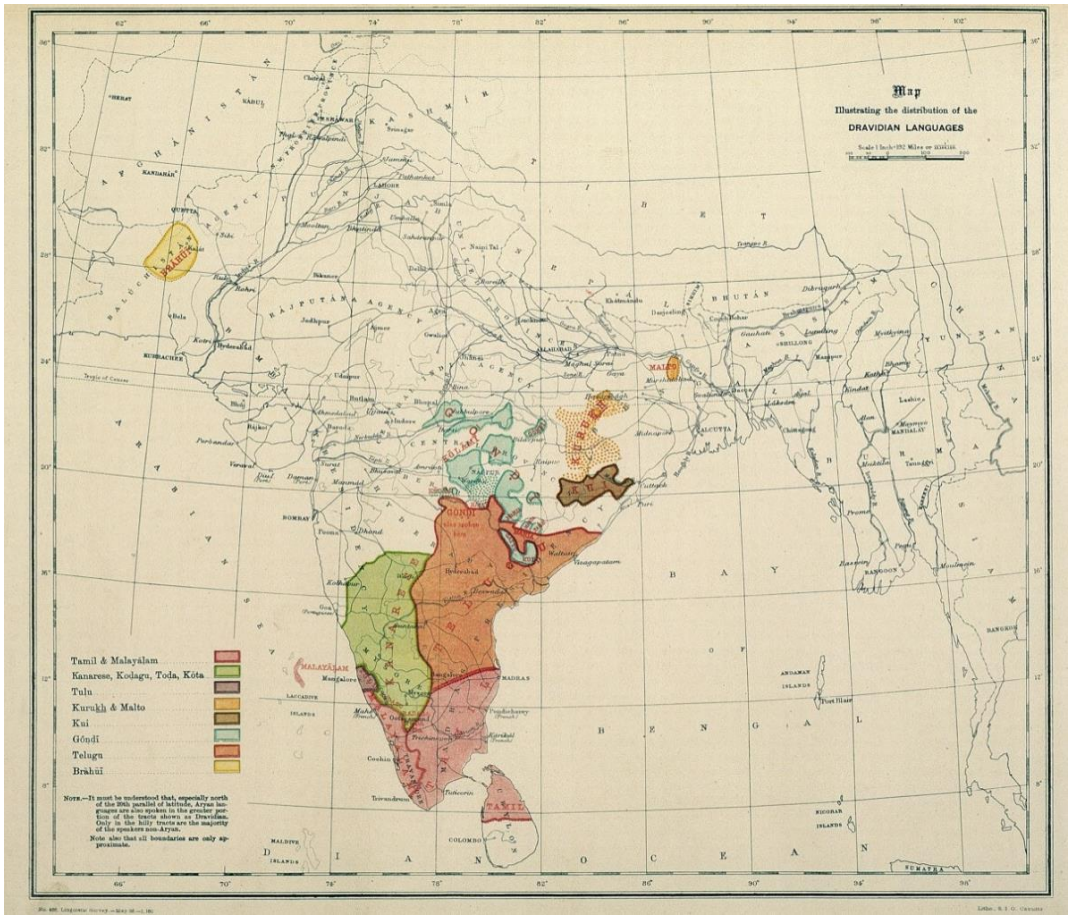


Figure 21: Map 'illustrating the Dravidian Languages'. Source: LSI, 4 (1906), p.277.

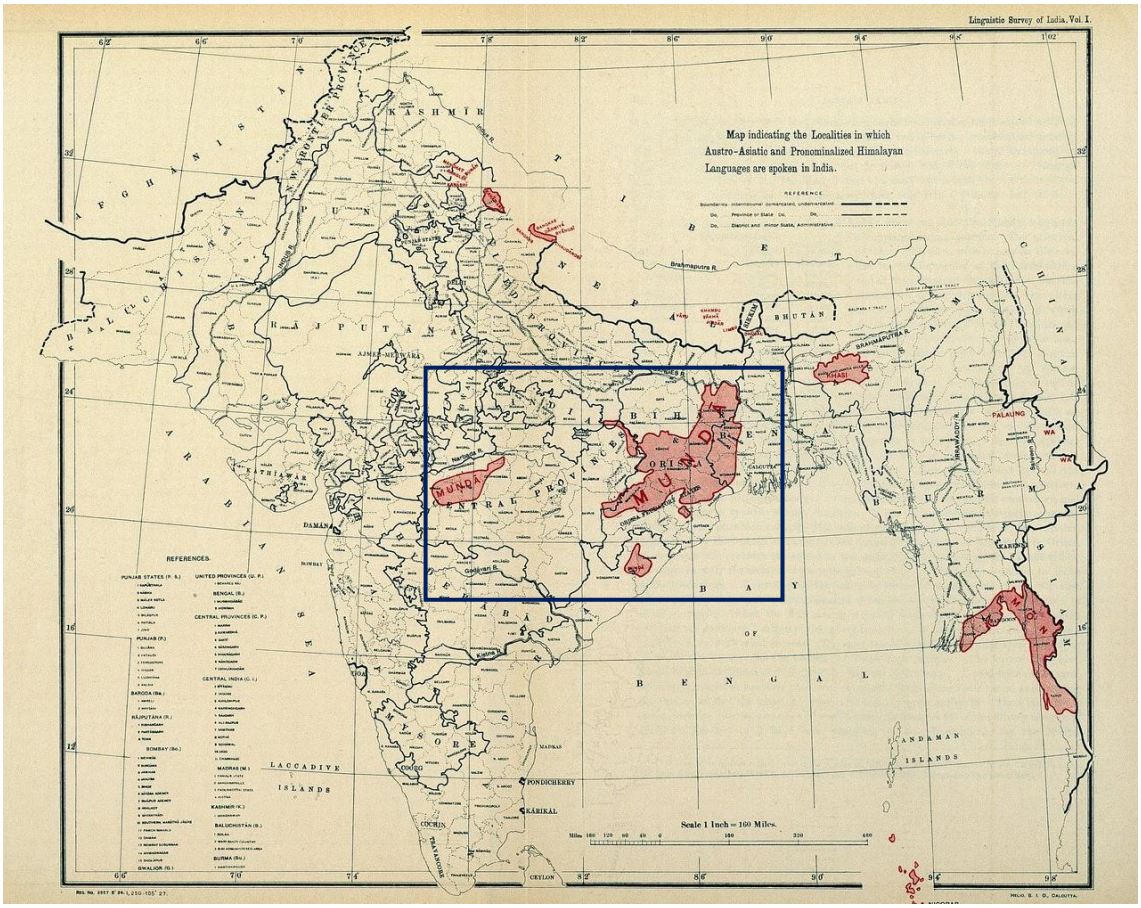
[93] In 1904, the Government of India set up the Indian Survey Committee to thoroughly reform the Survey of India which included separating the topographical and military section from the revenue surveys and developing a new programme of surveying to modernise maps (many of which had not been updated since the GTS). *Report of the Indian Survey Committee, 1904-1905* (Simla: Government Printing Office, 1905).

The Dravidian map in volume 4, which was published in 1906, also raises the question whether newer maps were necessarily better. One might justifiably assume that the Dravidian map from the 1920s (Fig. 19) would be better designed, partly due to newer methods, but also more experience in making language maps. However, one could reasonably argue that the older map in volume 4 (Fig. 21) is better, based on visual clarity and linguistic detail. The base map is simpler, showing very little topography and no districts, while the map presents the various Dravidian languages in eight different colours as opposed to four – broader - groupings on the 'overview' map. More significantly, the map uses dots to represent areas where certain languages such as 'Kurukh' were spoken but not predominantly. Comparing both Dravidian maps also points again to the randomness in the LSI's mapmaking. The colours used for the same languages are different on each map, for example the 'overview' map uses light blue for Telugu but the volume 4 map uses a dark orange instead. Consistency was evidently not a guiding principle of the LSI's mapmaking.

Nevertheless, what was the purpose of the 'overview' maps? Like the text in the *Introductory* volume which gave a synopsis of the languages covered in detail by the LSI, the 'overview' maps are a cartographic summary of the more detailed, large-scale maps in the other volumes of the LSI. If the maps of the LSI were composed of the cartographic material gathered by the surveyors, the overview maps were themselves pieced together by Grierson and the Survey of India from the published maps of the LSI, a sort of *map of maps* or meta-language map. The reader, whether an official, scholar or otherwise, would start by consulting the *Introductory* volume to acquire a basic grasp of India's linguistic geography, before delving into the more comprehensive volumes and their seemingly more precise maps of the language(s) and dialects. As mentioned in the second chapter, there were plans to convert the *Introductory* volume into a pocket guide to India's languages (which ultimately did not happen), further suggesting the 'overview' maps had a synoptic purpose.[94] How the LSI expected the overview maps to be used was quite straightforward. For example, if a junior official who was about to be posted to Bihar and Orissa wanted to know whether a Munda language was spoken in his district, he would begin with the 'overview' map facing page thirty-five of the *Introductory* volume to get an idea of its broad distribution in India. If the shaded area (in red) extended over his district, the official could then turn to the larger-scale map facing page seven of the Dravidian & Munda

[94] Whether the maps could have been made for a pocket-sized handbook and still retained their usefulness is another matter.

volume (4) to secure a more detailed geographical breakdown of where the different dialects were spoken in the area (see Fig. 22). 'Overview' maps served a practical purpose.



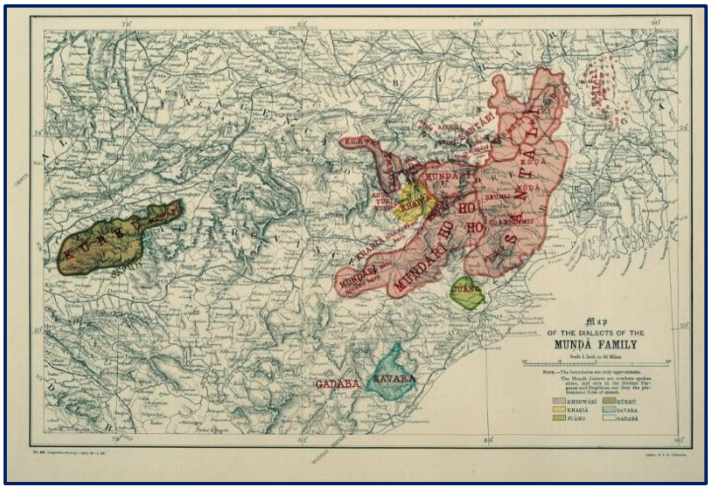


Figure 22: *Using an 'overview' map*. 'Austro-Asiatic and Pronominalized Himalayan languages' & Map 'illustrating the Munda languages.' Source(s): LSI, 1.1 (1927), p.35; 4 (1906), p.7.

An intriguing 'overview' map is one showing "where the Dardic languages are spoken, and where their influence is still present" (Fig. 23). This map represented a theory, proposed by George Grierson, that the Dardic languages were a separate branch of the Indo-Aryan languages distributed across the mountainous regions of the NWFP and Kashmir and formerly present along the Indus, a theory now considered incorrect.[95] What is noteworthy about the map is it appears to contradict a stated aim of the LSI which was to present a "collection of facts, not of theories". The Dardic theory had only been proposed in the preceding decades and was not settled fact, mainly because the Dardic language in the mountainous areas along the frontier and into Afghanistan were still not very well known until the later work of Georg Morgenstierne.[96] The map is quite literally *experimental* and theoretical in that it does not simply map the geography of these languages but proposes a relationship which was not empirically established.

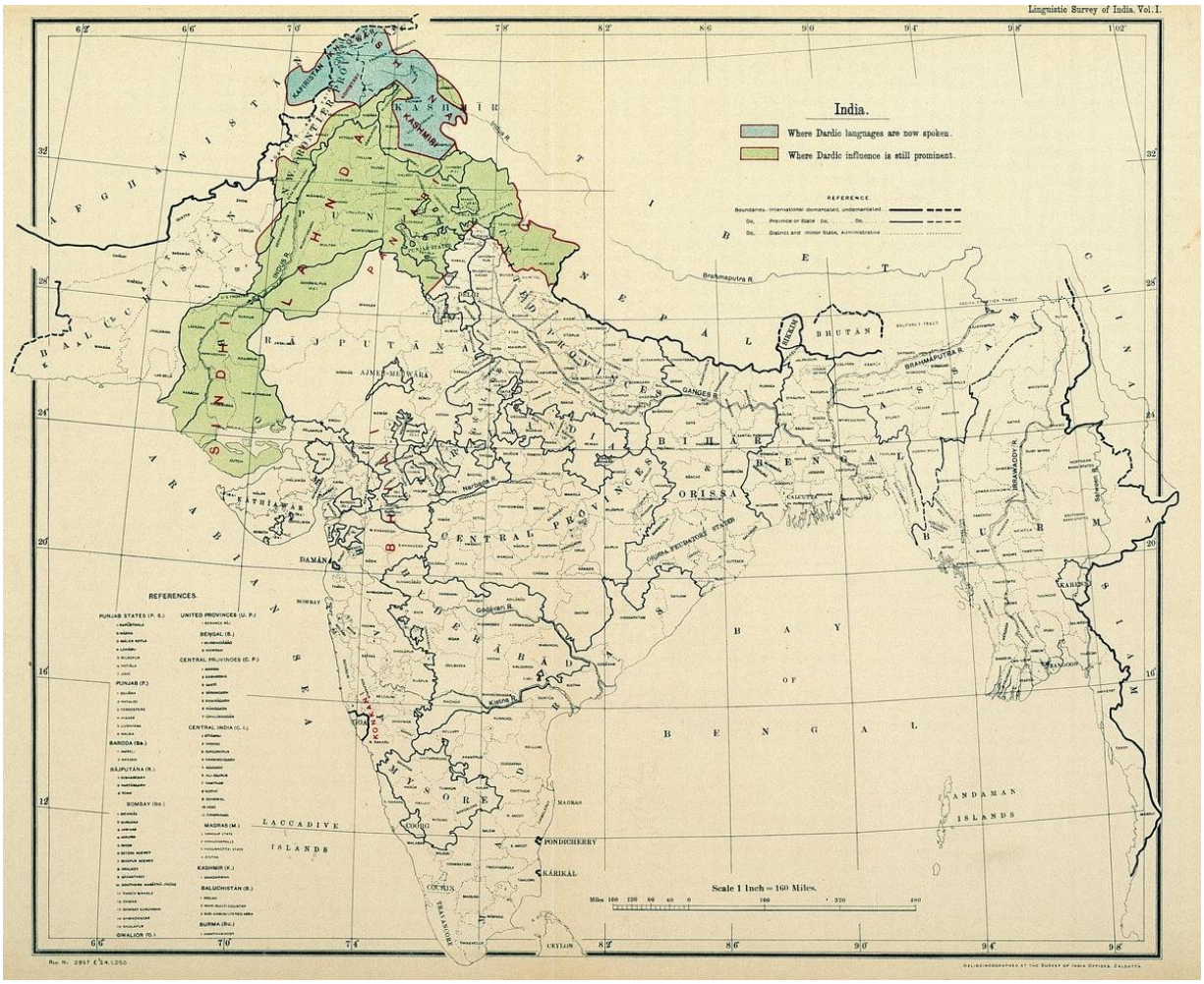


Figure 23: 'Dardic Languages' map. Source: LSI, 1.1 (1927), p.109.

[95] See C. Masica, *The Indo-Aryan languages* (Cambridge: Cambridge University Press, 1991), p.461.
[96] Morgenstierne would later collaborate on a Linguistic Atlas of Afghanistan which was clearly inspired by Grierson's LSI.

Even though the 'overview' or *map of maps* in the first volume seems to have followed a standard scale and format, most of the Survey's maps used a scale appropriate to the scale of the language or dialects being mapped. The heterogeneity of India's linguistic geography, where a language like Bihari covered a much larger area than the Khasi language spoken in modern-day Meghalaya, meant that the LSI's maps were equally uneven, using different scales to produce a practical map. Experimentation meant identifying the right scale for clarity and utility. For example, the scale used for the *Map illustrating the dialects and sub-dialects of the Bengali language*, a major language, is 1 inch: 64-miles (covering the area which today forms part of Bengal and Bangladesh) and shows district boundaries as the 'overview' maps, but not all maps in the LSI, do.

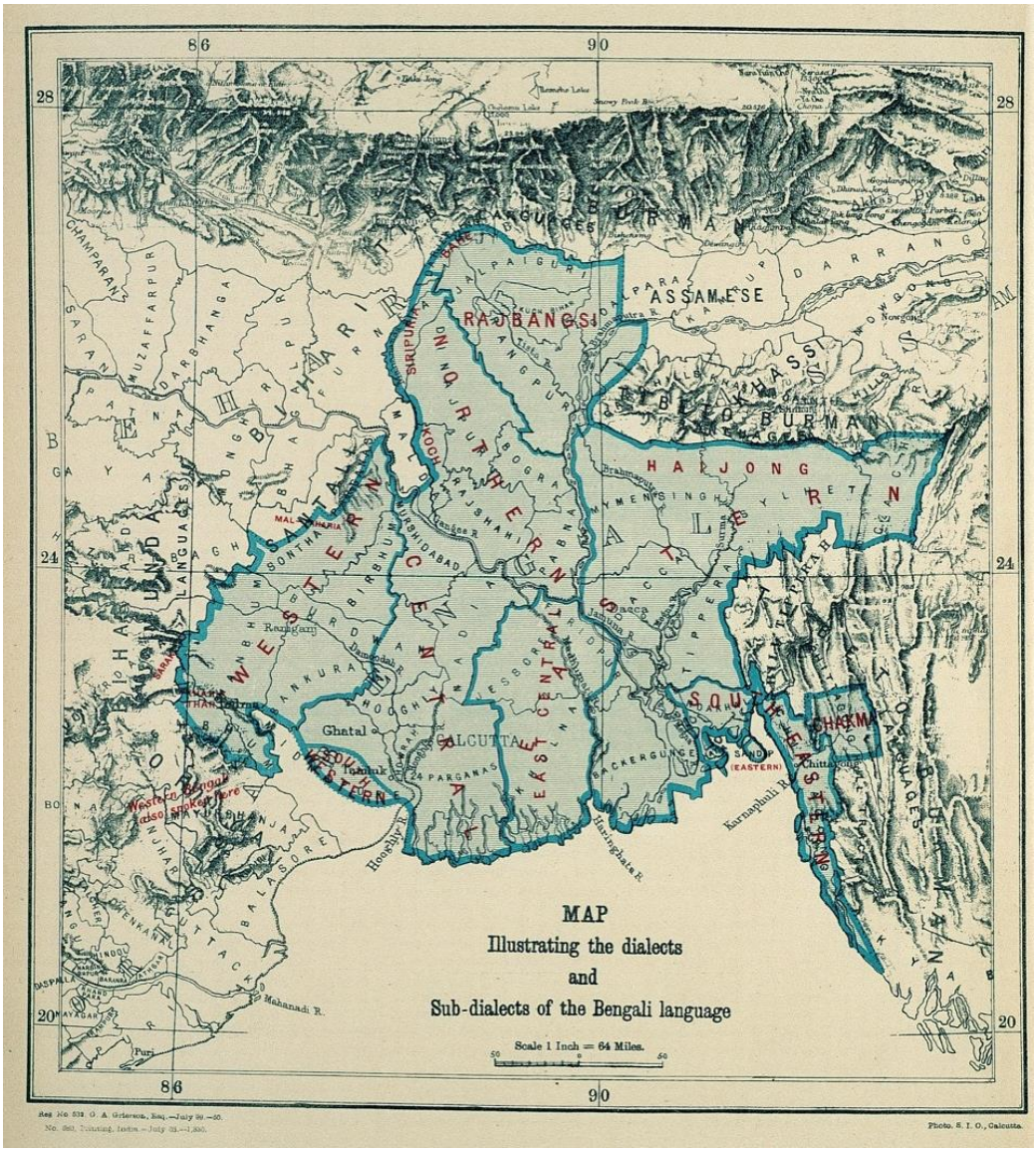


Figure 24: 'Map illustrating the dialects and sub-dialects of the Bengali language.' Source: LSI, 5.1 (1903), p.11.

The Khassi (Khasi) language, on the other hand, is mapped on a scale of 1 inch: 16-miles because it was spoken in a much smaller, mountainous, area of eastern India (to get an idea of its relative geographical position, see Fig. 20).

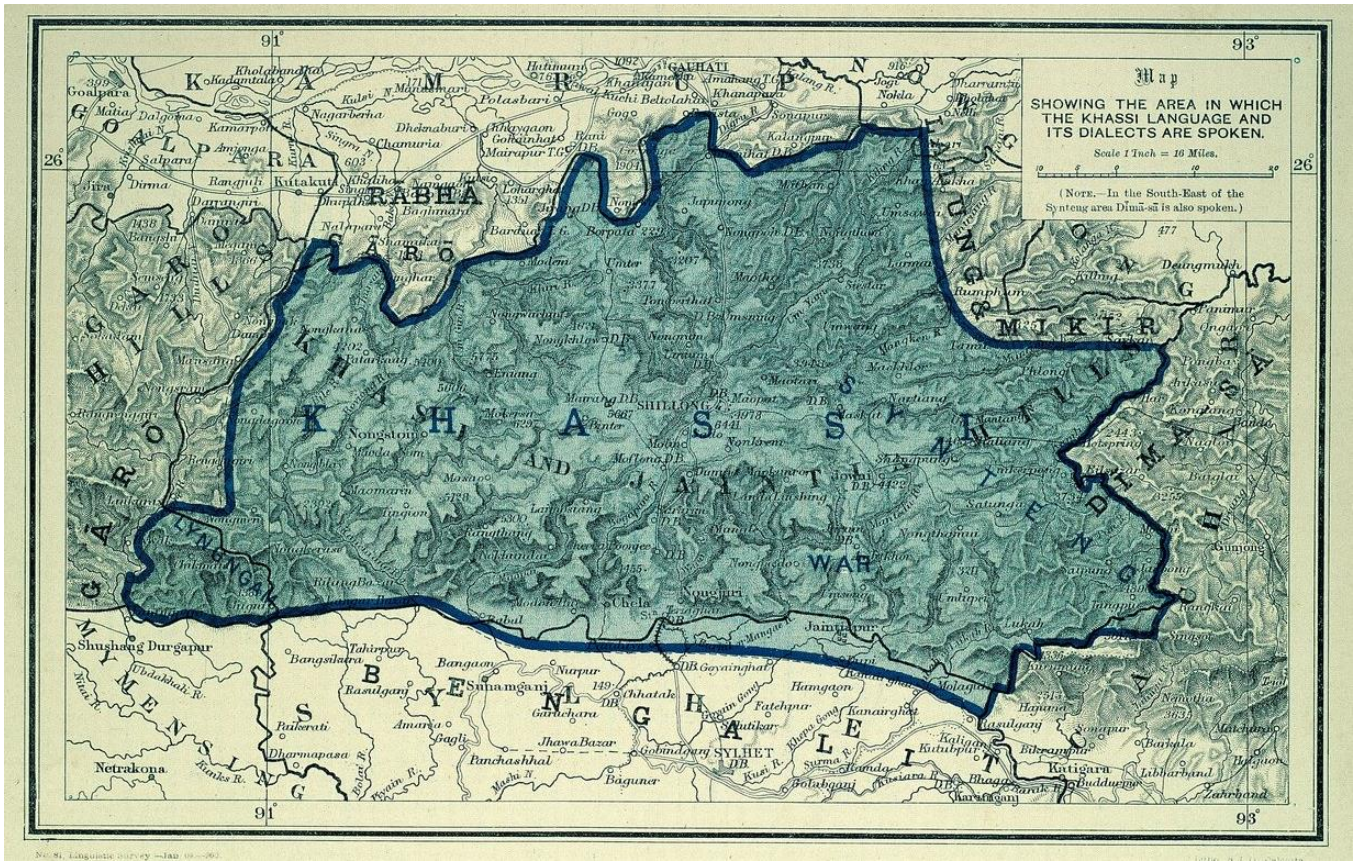


Figure 25: 'Khassi Language' map. Source: LSI, 2 (1904), p.4.

Scale was determined on a pragmatic, ad hoc basis. Maps were made to fit the language's geography or the linguistic information the LSI wanted to display. The underlying features of the base map, whether natural features, urban settlements, or administrative boundaries, served as points of reference which the reader could use to locate, position and cross-reference on other maps or textual sources. Otherwise, these regional (a term used loosely here) language maps defy any neat categorisation, except that they are the final – but not conclusive – maps which provided the user with an approximate geography of a language and dialects. The maps also function as an aesthetic respite to the monotony of the printed specimens which dominate the pages of the Linguistic Survey.

Finally, although districts were crucial to surveying and mapping, they principally appear as an underlying feature on some of the maps. Making a language map of each district would have

been expensive and time-consuming, something the LSI could not afford. It would also have conflicted with Grierson's assertion that he was not mapping languages on a political or administrative map (a contradiction which will be further considered later). However, this was not entirely the case. A language map of the District of Sonthal Parganas appears in the Linguistic Survey, not once but twice. The map (Fig. 26), showing the distribution of the *Aryan languages of the District*, appears in volume 5.1 (facing page sixty-nine) and volume 5.2 (page ninety-five) and shows where the Maithili language and Bengali languages are spoken in the district, therefore appears under the Maithili (under Bihari) and Bengali volumes of the LSI (5.2 and 5.1 respectively).

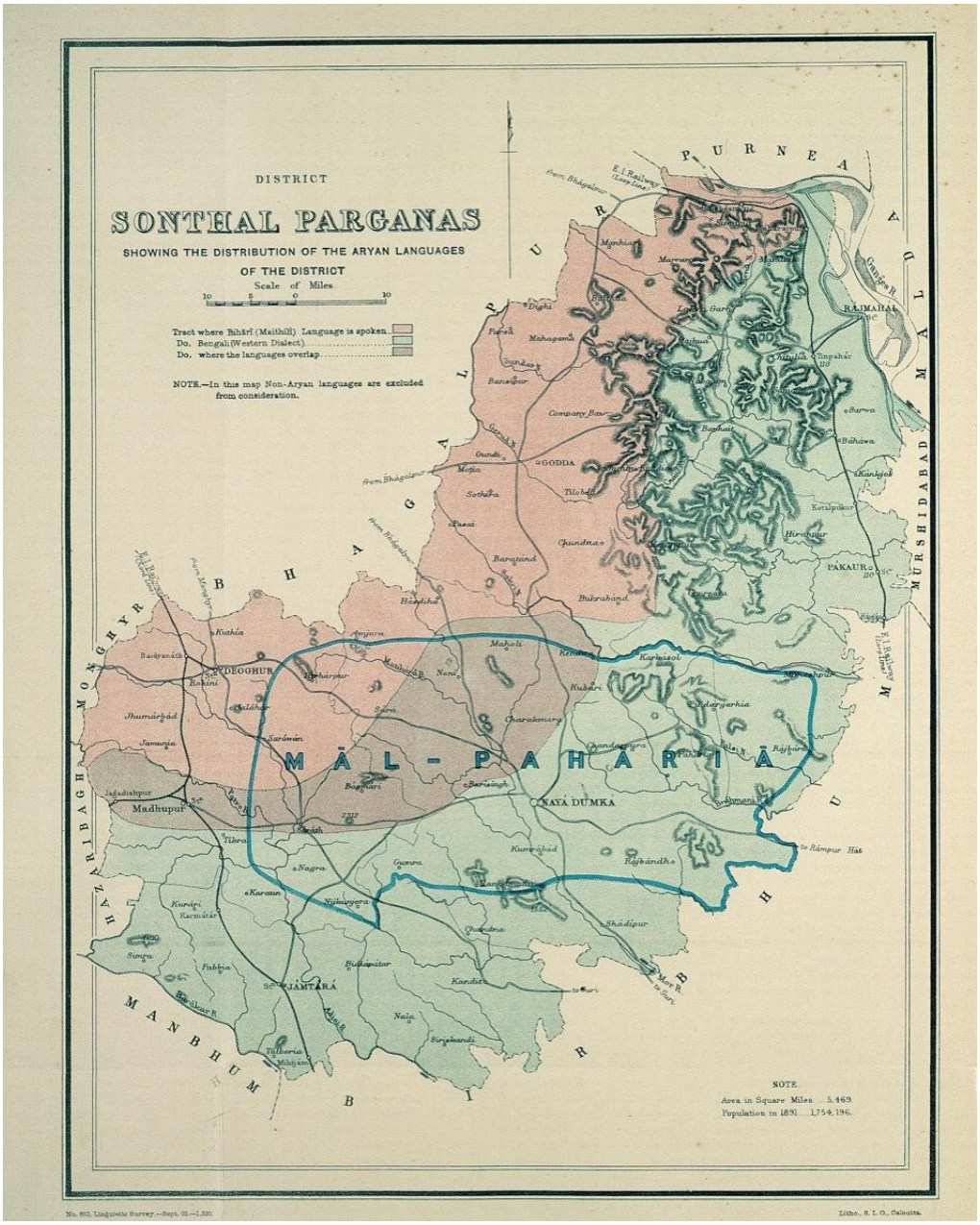


Figure 26: Language map of the 'Sonthal Parganas'. Legend: Pink – *Maithili*; Blue – *Bengali;* Purple – '*languages overlap'*. Source: LSI, 5.1 (1903), p.69.

The only difference is the map in volume 5.1 includes a description explaining it was published under the direction of Major General Strahan of the Survey of India. Like many of the LSI's maps, it presents multiple geographies on one map, using colours to differentiate the areas where Maithili and Bengali are spoken, another colour in the area where the languages overlap, and outlined with a blue line, the area where Mal Paharia is spoken. This was not an unusual situation since many districts in India had diverse, sometimes peculiar, language geographies.

However, that does not fully explain why the Sonthal Parganas are the only district to feature in the Linguistic Survey. One reason might be the significance of Maithili, and the languages of Bihar in general, to Grierson. Over the course his career as an ICS officer in Bihar, Grierson had developed an expertise in (and admiration for) the region's languages, making a case for the distinctiveness of Maithili and compiling a vocabulary and grammar of the language.[97] But one could equally speculate that it is not the languages which are significant but the Sonthal Parganas itself. The district was created in the aftermath of the Santhal rebellion of 1855, a notorious (from the British perspective) indigenous uprising towards the end of Company rule which gravely challenged British rule in the region.[98] Grierson would have had no personal memory of the rebellion but he, and undoubtedly his ICS colleagues too, would have been reasonably well-versed in the events of the uprising and its aftermath. Is it possible that somewhere in the subconscious of a long-serving and loyal civil servant, the Sonthal Parganas stood out as a district which needed to be mapped, studied, and understood more thoroughly? Whatever the reason for the Sonthal Parganas map, it does raise the question of whether Grierson could remove the political from mapping languages. The LSI, after all, was not simply a work of scholarship but a government exercise.

Mapping multilingual, scattered, and mixed geographies

The previous section examined how the LSI made maps work for the languages being pictured. This section explores how the Linguistic Survey tried to overcome a fundamental issue with plotting languages on a map: how to project linguistic geographies which were diverse, messy, discrete but overlapping. Whereas the text of the LSI neatly categorises languages by branch,

[97] Chapter four will outline in more detail Grierson's Maithili scholarship and importance to the cultural awakening of Maithili speaking elites.
[98] Ranajit Guha famously wrote about the Santhal rebellion in 'The prose of counter-insurgency' which can be found in R. Guha & G. Spivak (eds.), *Selected subaltern studies* (Oxford: Oxford University Press, 1988), pp.45-89.

dialect, group etc., in reality a given area with a major language such as Bengali would not only have a number of sub-dialects but also different minority languages. More to the point, bilingualism and even multilingualism were common in India. As the language lists attest to, some districts had very few languages while others reported more than ten dialects and languages. The Linguistic Survey experimented with different, innovative ways to map languages which were scattered or not neatly circumscribed, areas in which multiple languages were spoken, and where communities were mixed – trying to map a geography which was, in Grierson's own words, 'indefinite'.[99]

The Sonthal Parganas map illustrated two methods for mapping different languages and dialects on a map, using three colours to map the different language areas and a blue line to show roughly where the Mal Paharia tribal language was spoken. The legend was also crucial because more information was supplied about what the map did not include. In this case the reader was informed that non-Aryan languages have been excluded from the map, implying that non-Aryan languages were spoken in the area. The legend and written labels were important in informing the reader what colour, boundaries and cartographic features could not do. Grierson felt it was important to include in the Khassi map legend (Fig. 25) a note which stated "in the South-East of the Synteng area Dima-Sa is also spoken", instead of outlining the area in a different colour or labelled on the map.

The Assamese map (Fig. 27), on the other hand, labels the area south of the shaded area where Assamese is spoken as a region where Assamese and Mayang is "sporadically" found. Rather than shade the whole area where the languages were found to be spoken, this approach was used to ensure the reader understood that the languages were not spoken by a majority in the labelled area. Shading was used on the map to quantify linguistic geography and not simply map distribution. More faintly, the Assamese map labels the non-Aryan language areas to the north and south, further reminding the observant reader that the region comprised a mixture of linguistic communities rather than a monolingual geography.

[99] LSI, 1.1, p.31.

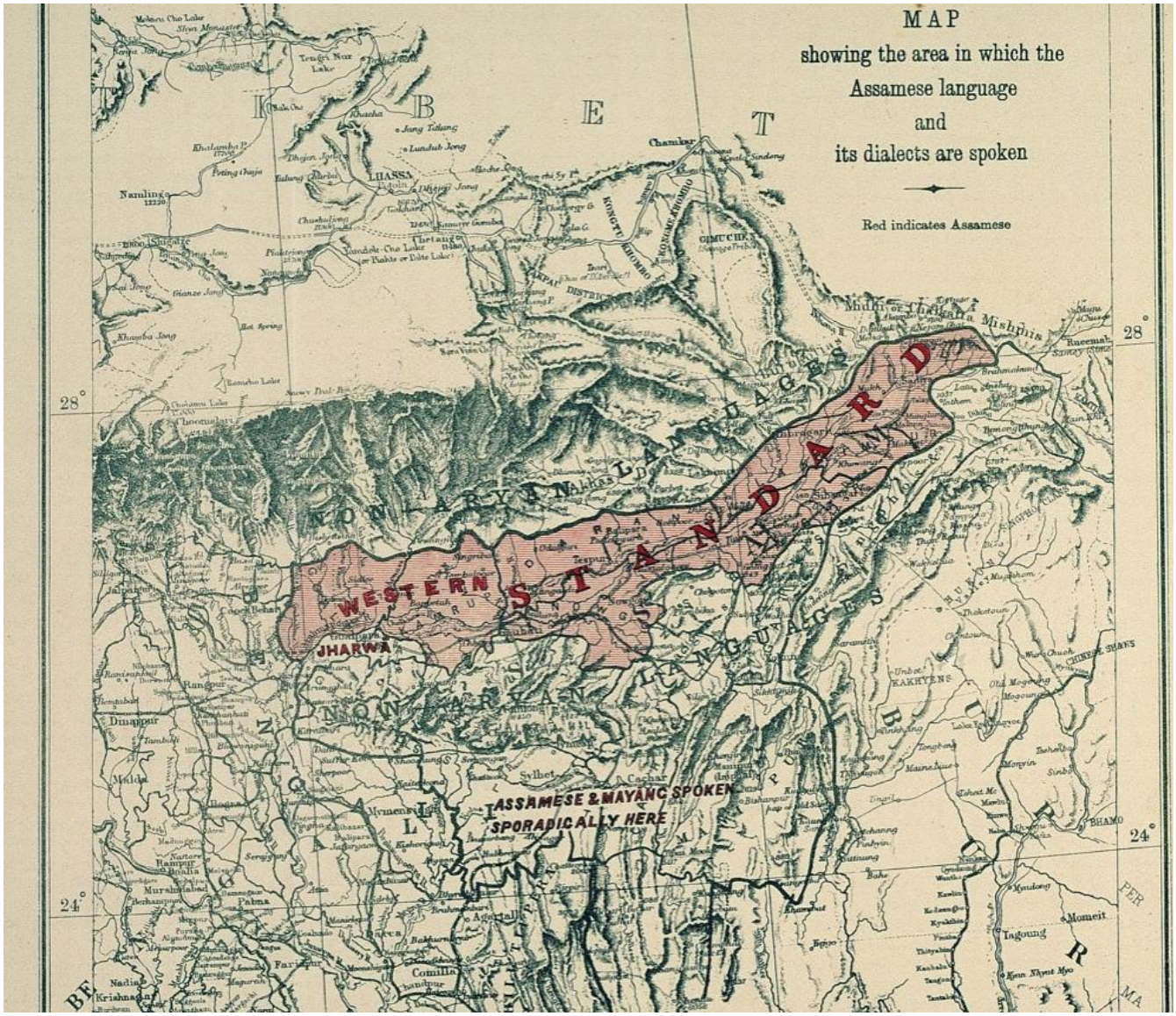


Figure 27: 'Assamese language and dialects' map. Source: LSI, 5.1 (1903), p.393.

Labels were particularly useful to explain on a map that, while there might be broadly identifiable linguistic areas, those same languages often overlapped or spread across imaginary boundaries where they might be spoken by a minority, form part of a bilingual community or develop into a mixed (creolised) language. This was often the case at the intersection of major provincial languages in India. The *Map illustrating the meeting ground of Bengali, Oriya and Bihari* (Fig. 28) charts three separate zones for Bihari (yellow), Bengali (blue) and Oriya (red) but uses labels to explain to the reader in which area a language is spoken by a minority or forms part of a mixed community. The map, for example, informs the reader that Magahi (part of the Bihari languages) is also spoken in the Oriya language zone, Bengali can be found throughout the Oriya-speaking area and, along the area where Oriya and Bengali meet, a

mixture of Bengali and Oriya is spoken. In this instance the use of colour is deliberate, and the labels are consistent with the colour of the language.

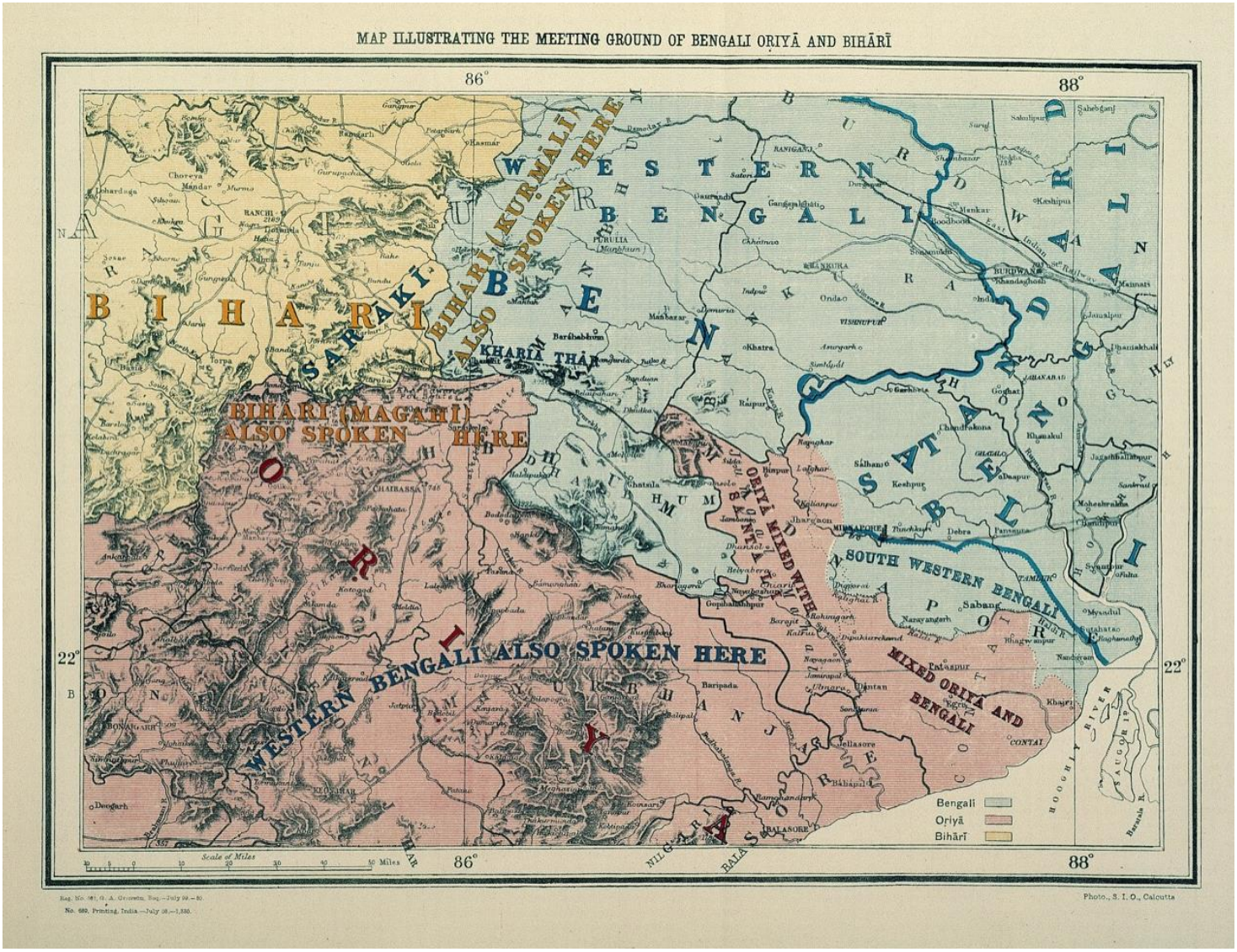


Figure 28: Map ‘illustrating the meeting ground of Bengali, Oriya and Bihari.
Source: LSI, 5.1 (1903), p.106.

Using descriptive labels was a pragmatic method of condensing a complex linguistic situation and permitted the map to be read in more than one way, while avoiding the predicament of linguistic boundaries. An official or student could get a basic idea of where Oriya, Bihar or Bengali was spoken and, if they wished to know, a more detailed picture of the area’s linguistic geography.

Making sense on a map of what was on the ground a complex and messy geography saw Grierson deploying many techniques, including colour, shading, labels, notes in the legend, and even dots to capture the scattering of speakers.[100] The *Aryan Languages and Dialects spoken in East Chota Nagpur* map (Fig. 29) incorporated all these techniques in one. The East Chota Nagpur map covers roughly the same area (slightly more to the east) as the previous map but in this case, Bihari is subdivided into Bhojpuri (yellow) and Magahi (red) along with Oriya (blue) and Bengali (orange). The first thing to point out, which is a reminder of the LSI's inconsistent approach to making maps, is that the colours are assigned differently than on the previous map. This could be because the maps were made at different points or the colours were better suited at the time of printing but, more likely, experimenting with different ways to map languages rendered consistency less important as long as the map was comprehensible. Not only does the map use four colours (and labels in those colours) to map the overlap of languages in East Chota Nagpur, but it also uses scattered dots to map mixed linguistic communities. For example, red dots on a yellow background showed the "area in which Bhojpuri (Nagpuria) is the main language but in which Bengali (Saraki) is also spoken."

However, the map pushed the boundaries of user-friendliness in trying to compile and visualise a more precise reflection of the linguistic geography of East Chota Nagpur, rendering the map more complex than previous examples. The elaborate description for each dotted area did not necessarily make it easier to identify the languages spoken (see Fig. 30), while the labels on the map are more crowded in appearance. Too exact and a language map could become unreadable. One choice Grierson had to make throughout the mapmaking process was how much detail to include and what to leave out.[101] No other maps in the LSI use as many techniques on one map which indicates it was deemed less practical, even though the map was a more accurate reflection of linguistic geography in the area covered.

[100] Grierson did not use dots to quantify speakers or numerical density in the manner of a dot distribution or dot density map, which had emerged in France and Britain in the 19th century. De Montizon's 1830 population map of France may have been the first, see, G. Palsky, 'La naissance de la démocartographie. Analyse historique et sémiologique', *Espace, Populations, Sociétés*, 2:2 (1984), pp.25-34.
[101] The omissions and silences on a map which Harley, 'Deconstructing the map', and others referred to.

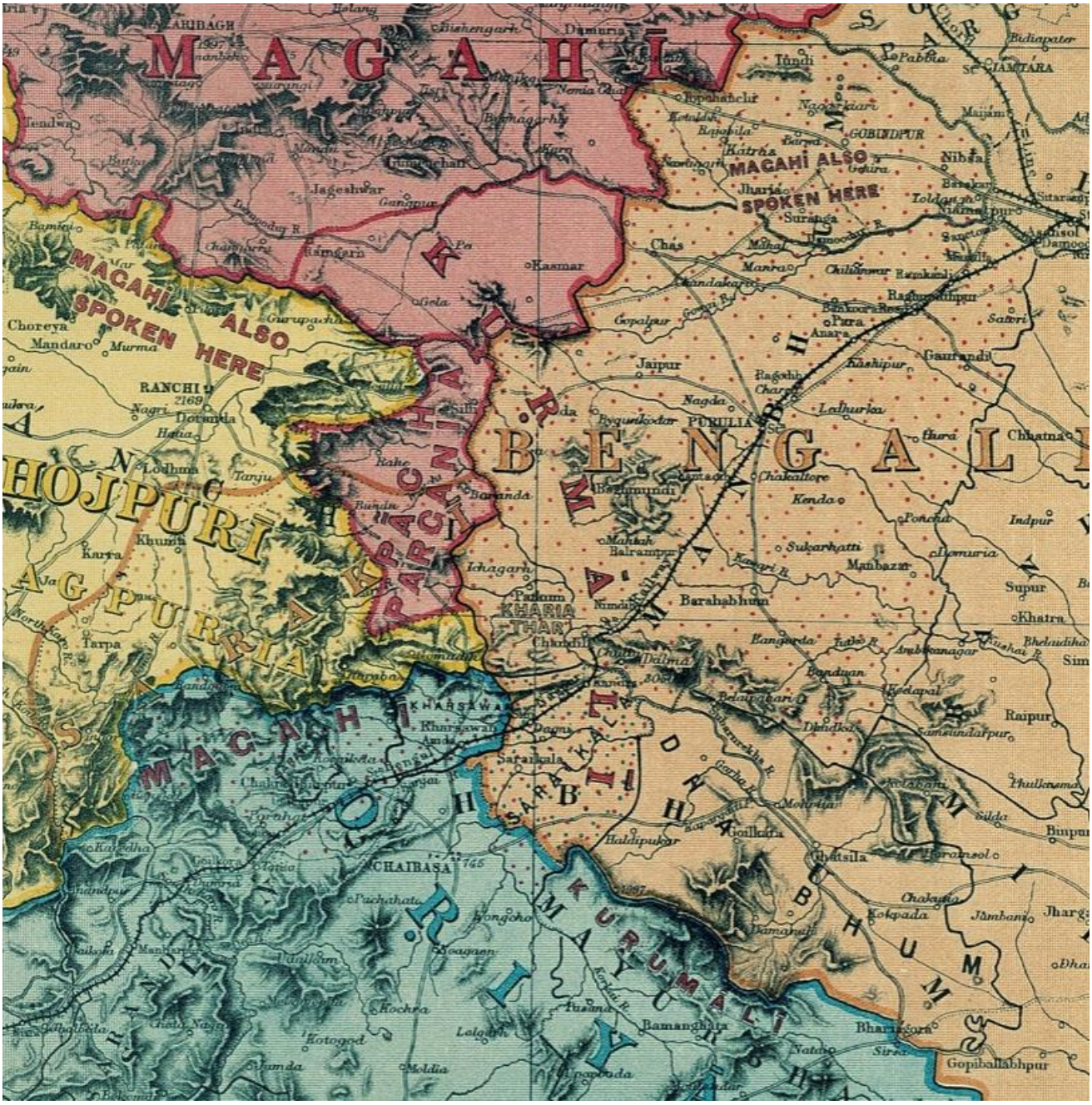


Figure 29: Map of the 'Aryan Languages and Dialects spoken in East Chota Nagpur.' Source: LSI, 5.2 (1903), p.140.

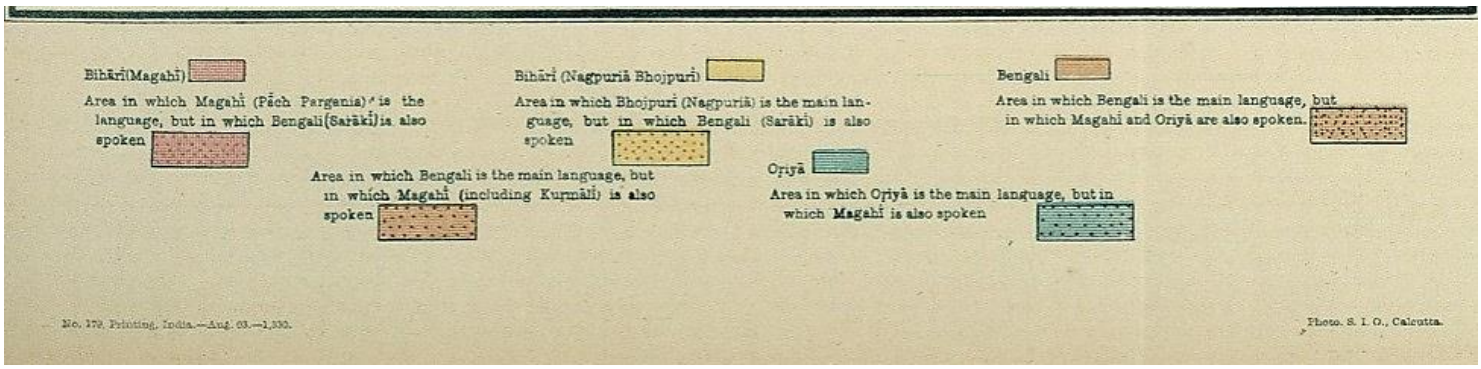


Figure 30: Legend, 'East Chota Nagpur' map (*Fig. 29*). Source: LSI, 5.2, p.140.

Mapping (non)boundaries and topography

The previous three maps were also trying to emphasise to the map user that language boundaries were only artificial conventions influenced by cartographic norms. There was a liminal space – a language borderland - where a language gradually becomes less common or gradually changes through contact with other languages.[102] The *Map of the Dialects of the Kachin Group of the Tibeto-Burman Family* (Fig. 31) showed an alternative method of capturing the liminal area where a language gradually merges with another linguistic area, as one moves further away from where it was mainly spoken. The map uses a series of graduated dots to make clear that the dialect area is approximately known without artificially drawing an unequivocal boundary. The Kachin map was in some respects ahead of its time, using dots instead of drawing a linguistic boundary or *isogloss* which were becoming a common feature in European dialect mapping.[103] Why Grierson chose to experiment with the use of graduated dots could be explained by the intended readership of the LSI, which were not only scholars and linguists, but officials and non-linguists who may have interpreted a hard boundary differently.[104] The method is not replicated in any other LSI map, indicating that there might have been a drawback with using this technique, possibly because it was difficult to plot on a smaller-scale (showing a larger area) language map.

The LSI also uses softer colouring to avoid the perception of a fixed boundary. The Oriya language map (Fig. 32) used a softer red to shade the area where Oriya is spoken and avoided outlining a hard boundary in a stronger colour, such as the red lines on the Central Pahari map (Fig. 33). The softer shading did not prevent the Oriya map from being used as the basis for the political boundaries claimed by the Oriya language movement in the 1910s and 1920s, which chapter four deals with.

[102] Linguists might describe this as part of a dialect or language continuum. For more on dialect continuums, see J. Chambers & P. Trudgill, *Dialectology*, 2nd ed (Cambridge: Cambridge University Press, 1998).
[103] The term isogloss, modelled on the word isotherm in meteorology, was coined by the Latvian dialectologist J. G. A. Bielenstein in 1892. It was not a word Grierson ever used to describe the lines on his maps. Isoglosses have become a more precise feature used by dialectologists than simply a boundary line.
[104] The problem of boundaries will be discussed further in the last section of the chapter.

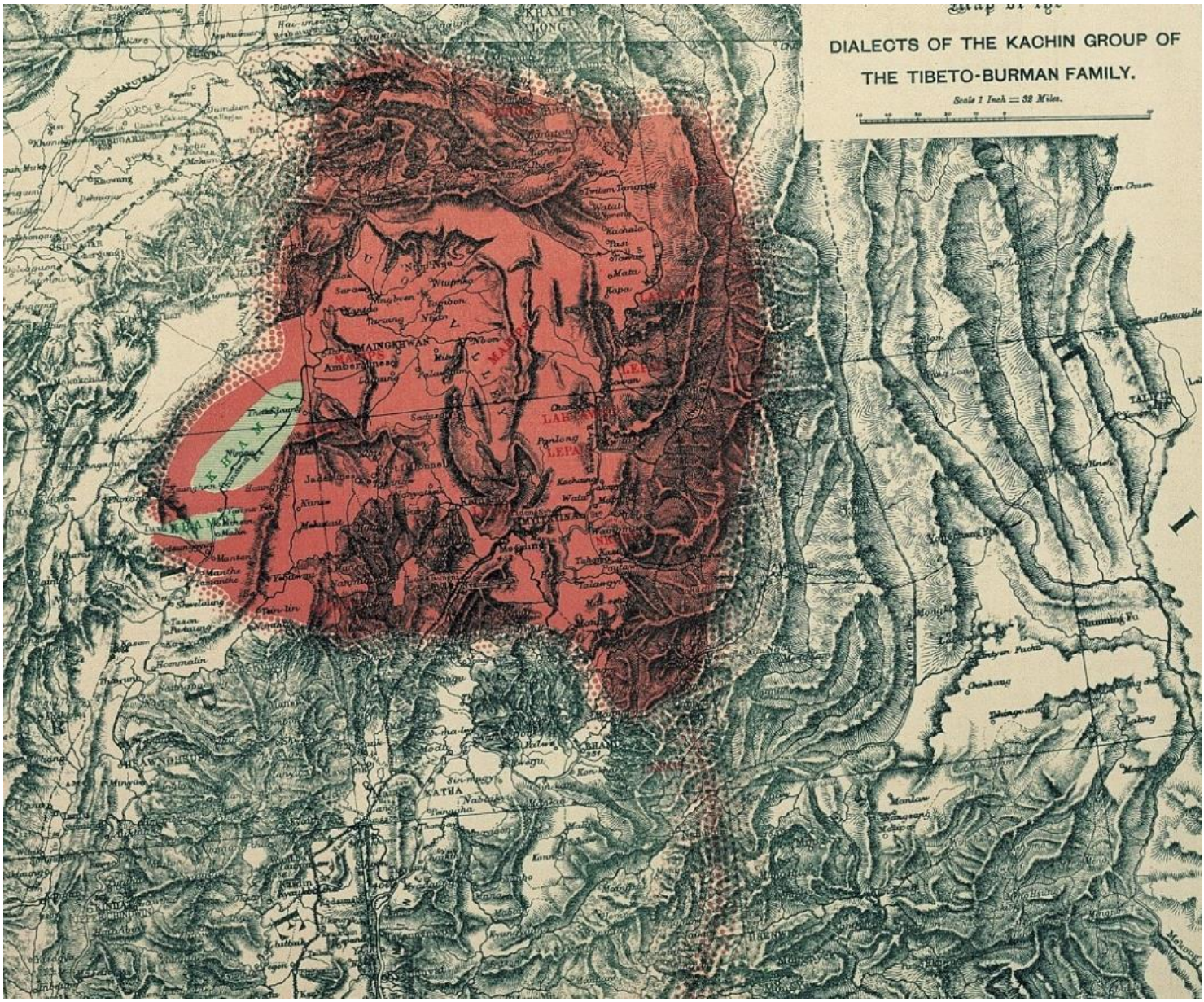


Figure 31: Map of the 'Dialects of the Kachin Group'. Source: LSI, 3.2 (1903), p.499.

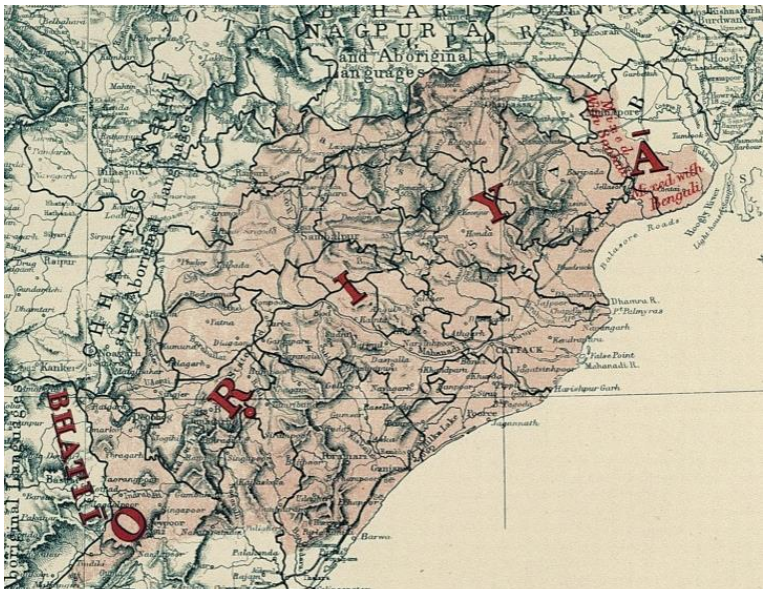


Figure 32: 'Oriya language' map. Source: LSI, 5.2 (1903), p.367.

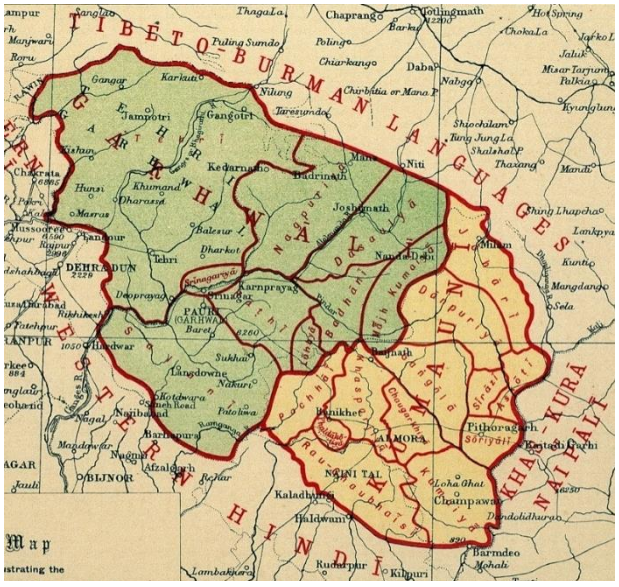


Figure 33: Map of 'Central Pahari'. Source: LSI, 9.4 (1916), p.101.

Topography was another feature which the LSI experimented with. Mapping languages on base maps showing the relief of mountainous areas, especially along the frontier, gave the reader a view of the rugged and remote landscapes where these languages were spoken, and the difficulty in acquiring specimens or information about them. These were the areas where Grierson relied on explorers and military officers to survey, and showing the sharp relief of mountains evoked the difficulties of surveying there. A vivid example is the Dardic sub-family map (Fig. 34).

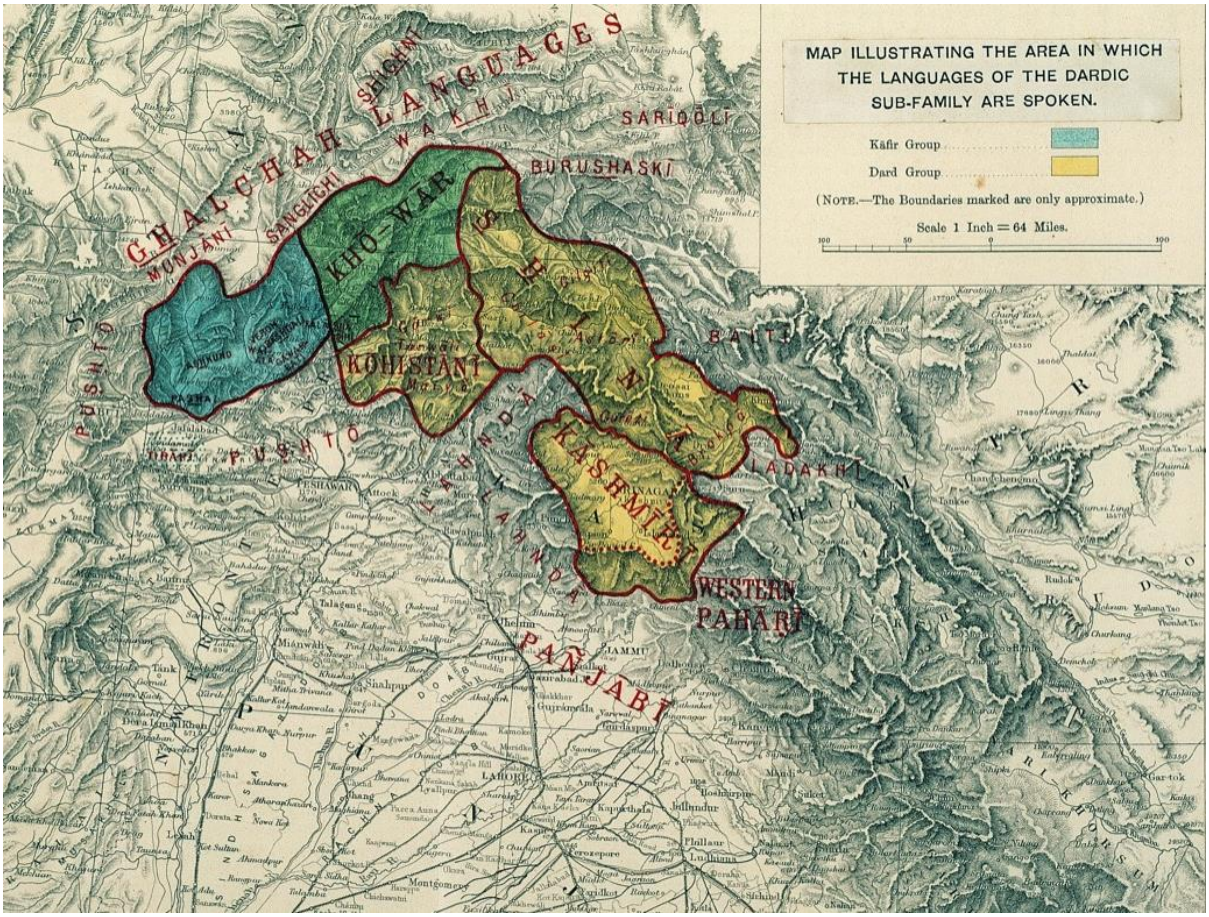


Figure 34: Map of the 'Dardic sub-family'. LSI, 8.2 (1919), p.1.

There was also a linguistic rationale, particularly in the early 20th century, for showing relief since deterministic theories were being advanced which argued that natural phenomena like mountains explained linguistic difference or were a factor behind language change.[105] If the Linguistic Survey was supposed to be the basis for further research into language, it made sense to map features which were theorised to influence the development of a language.

[105] For a history of the (often controversial) links made between language and environment see, M. Urban, *Sprachlandschaften: Über die rolle von sprache in der beziehung zwischen mensch und umwelt* (Würzburg: Königshausen & Neumann, 2018).

Were the Dardic sub-family map or the Kachin map faithful approximations of linguistic geography in remote, frontier areas of India? These areas were often sparsely populated, with small villages dotted on the landscape, rather than contiguous linguistic areas. Dialects could be different from one valley to another. The LSI experiments with another method of mapping languages spoken in the Himalayan frontier at the intersection of Kashmir, Afghanistan and Central Asia. On the *Map illustrating the localities in which the Ghalchah languages are spoken*, topography is flattened and there is no relief (Fig. 35). Instead of drawing boundaries or colouring linguistic areas, dialects are simply labelled and underlined. The only boundary visible is the international line separating Kashmir and Afghanistan. This map indicates which languages are known, and roughly where they are spoken, but makes no claims about their geographical distribution or limits. Moreover, it does not map discrete areas but suggests that different dialects were spoken in the same areas, if not the same communities.

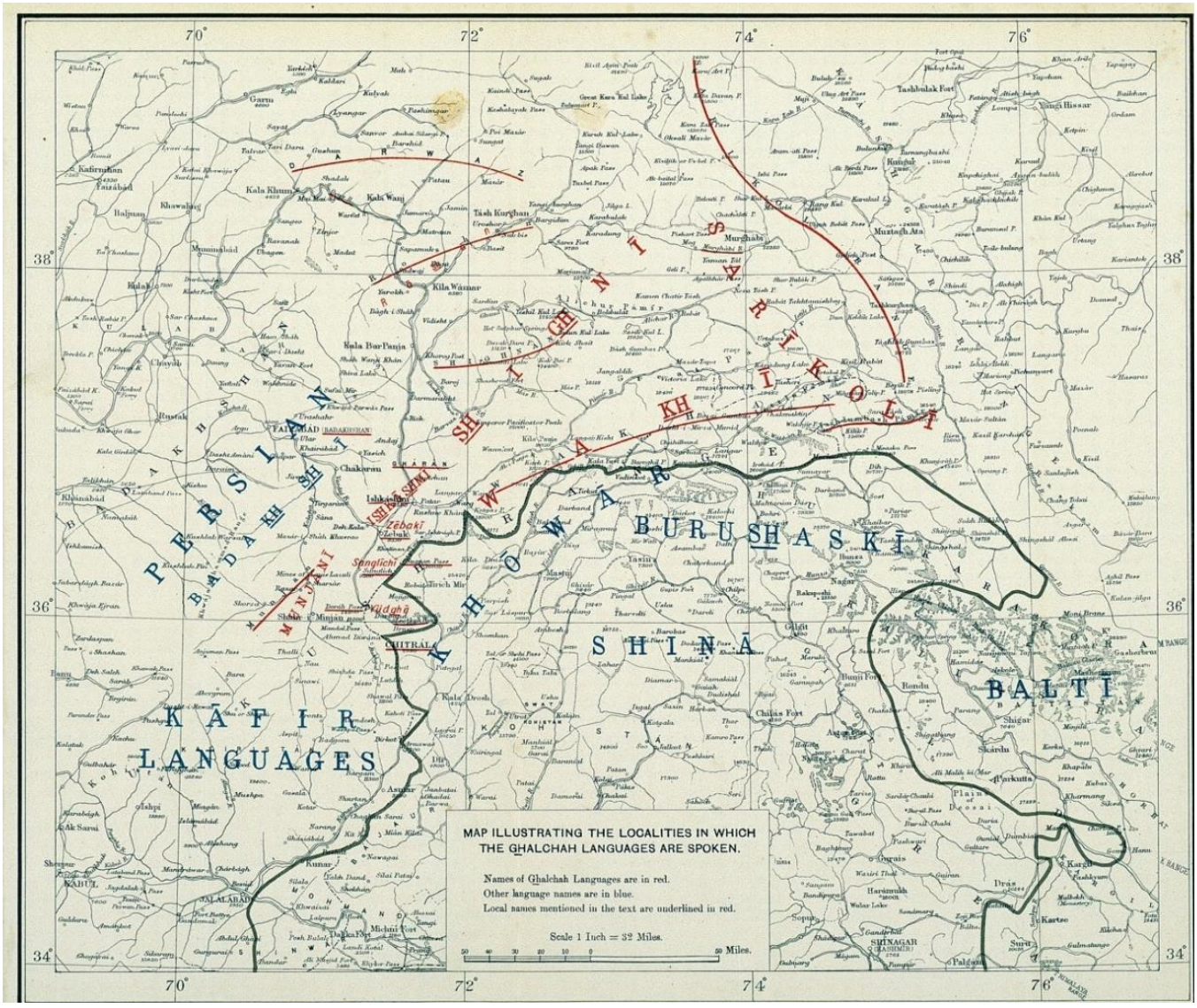


Figure 35: Map of the 'Ghalchah Languages'. Source: LSI, 10 (1921), p.456.

The Ghalchah map acknowledged that even the Linguistic Survey of India knew very little about the linguistic geography of the region. That was knowledge acquired in the decades after the Linguistic Survey, through the work of other linguists, some of whom were colleagues of Grierson such as Morgenstierne and David Lorimer. Indeed, the Ghalchah map arguably overcomes the issue of finality which troubled Grierson. By not establishing the area or boundaries of the Ghalchah languages, the map allows for the possibility that more, and better, geographical knowledge would emerge and be added to the map.

Mapping transnational languages

The Ghalchah map covered areas which were beyond India's jurisdiction. This was not surprising considering the LSI surveyed languages which overlapped India's frontier rather than stopped 'at the border'. The question for Grierson was not whether to map languages that straddled and extended beyond the frontier – that had already been established by surveying – but how far. Unlike Robert Needham Cust's maps, which covered the languages of Asia, Grierson had to decide how to map a language continuum which extended further into Asia in a project which was specific to India.

One example was Balochi. Grierson produced a map of the Balochi language (Fig. 36) which showed how far it extended into Persia, using the cartographic information sourced from Political Agents operating there. Grierson plotted the map exactly as the agents had described, echoing the stereotypical colonial exercise of taking a ruler and drawing a straight line, rather than reflecting the actual on the ground geography of Balochi. The map used a mixture of colouring and underlining names to indicate that Balochi is an Indian language which extends into Persia. Shading is used to identify the areas where Balochi is spoken by the majority and where it is spoken by a minority. Crucially, Persia is not identified on the map politically but through its language – the international boundary between Persia and India is difficult to make out.

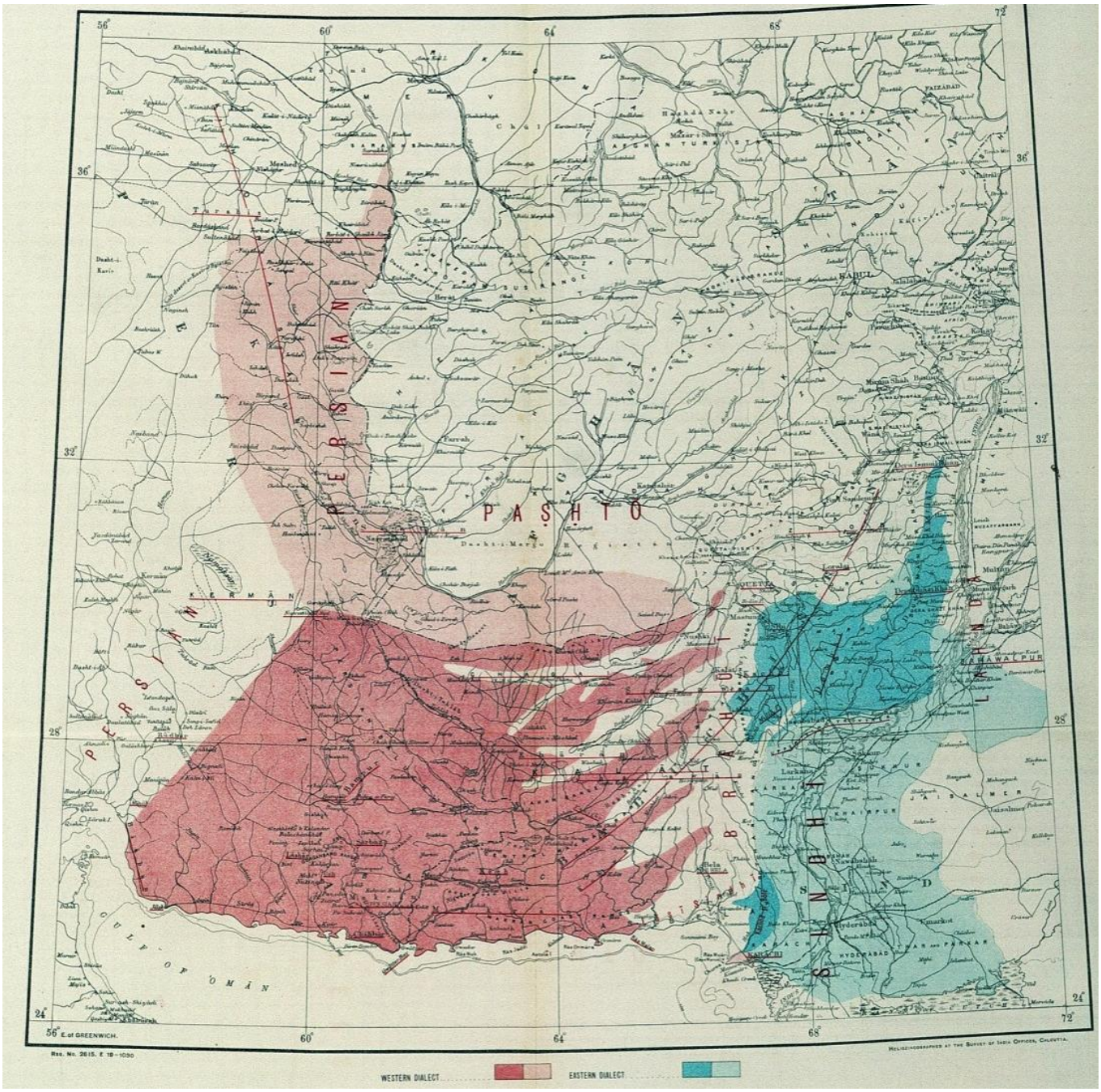


Figure 36: Map of the 'Balochi Language'. Legend: Pink – *Western dialect*; Blue – *Eastern dialect*. Source: LSI, 10 (1921), p.327.

The Balochi map is the only Linguistic Survey map which provided an extensive description of the sources used to compile it. Although conventional on other types of maps outside the LSI, in this instance such details would have been important to list because it was sourced transnationally and not simply from sources based in India. That mattered for diplomatic transparency with Persia.

The LSI mapped Balochi as far as it extended into Persia. In the case of the Tibetan languages, spoken across the Tibetan plateau, Grierson only mapped the area where it was spoken along

the frontier. This was mainly because the geography of Tibet, as well as the Tibetan languages, were not well documented or surveyed to begin with.[106] The map reflected the unsurveyed landscape of Tibet, with nearly a third of it blank. For practical reasons, it also suited the LSI not to map the furthest extent of the Tibetan dialects since it was spoken in a vastly larger area which extended into China. The map of the Tibetan frontier (Fig. 37) used the gradual fading of colour to inform the reader that the Tibetan languages surpassed the area which the LSI had mapped.

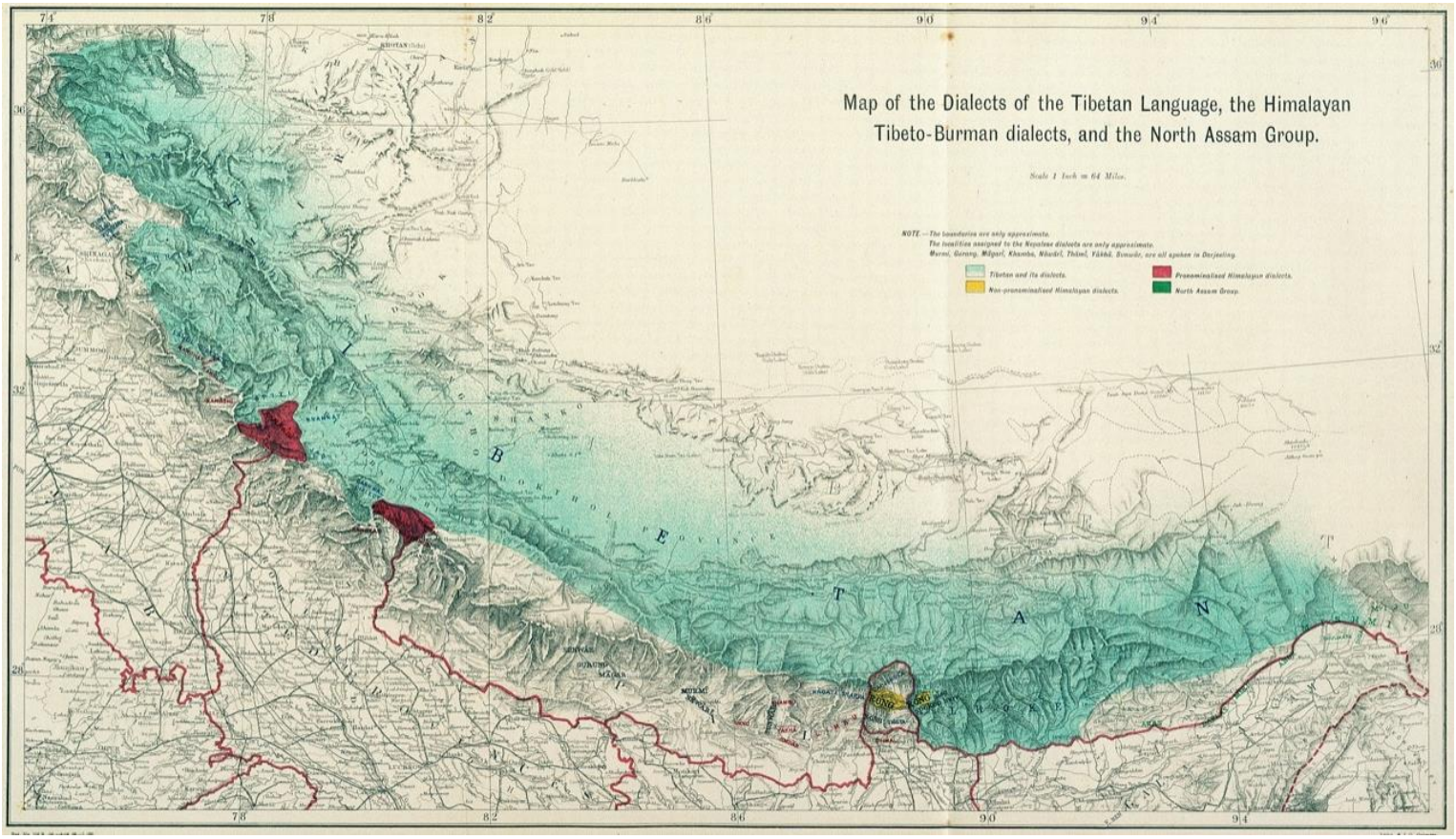


Figure 37: Map of the 'Tibetan Language…'. Legend: Light blue – *Tibetan and dialects*; Red – *pronominalised Himalayan dialects*; Yellow – *non-pronom. dialects*. Source: LSI, 3.1 (1909), p.1.

Maps of Afghanistan, on the other hand, suggest a calculation which went further than simply the sake of completeness. It may not have been a stated objective but, as chapter two explained, the LSI was proposed at a time when India's foreign policy was greatly concerned with Russian intentions in Afghanistan. Grierson may not personally have thought much of the issue but clearly some in government saw the benefits of a linguistic survey along the frontier. Although

[106] Tibet had not been thoroughly mapped although native Pundits had been sent there on many expeditions and managed to compile some very detailed maps of the areas they visited (see, Waller, *The pundits*).

the Russia question had largely been settled once the Survey was underway, the map of Pashto and Ormuri (Fig. 38) traces those languages into Afghanistan in remarkable detail. Pashto is mapped in yellow as far as Herat and Afghanistan's frontier with Persia, and as far south as the Registan Desert. Whereas the Balochi map draws a straight line to mark the limits, Pashto is mapped in detail along rivers and roads in Afghanistan.

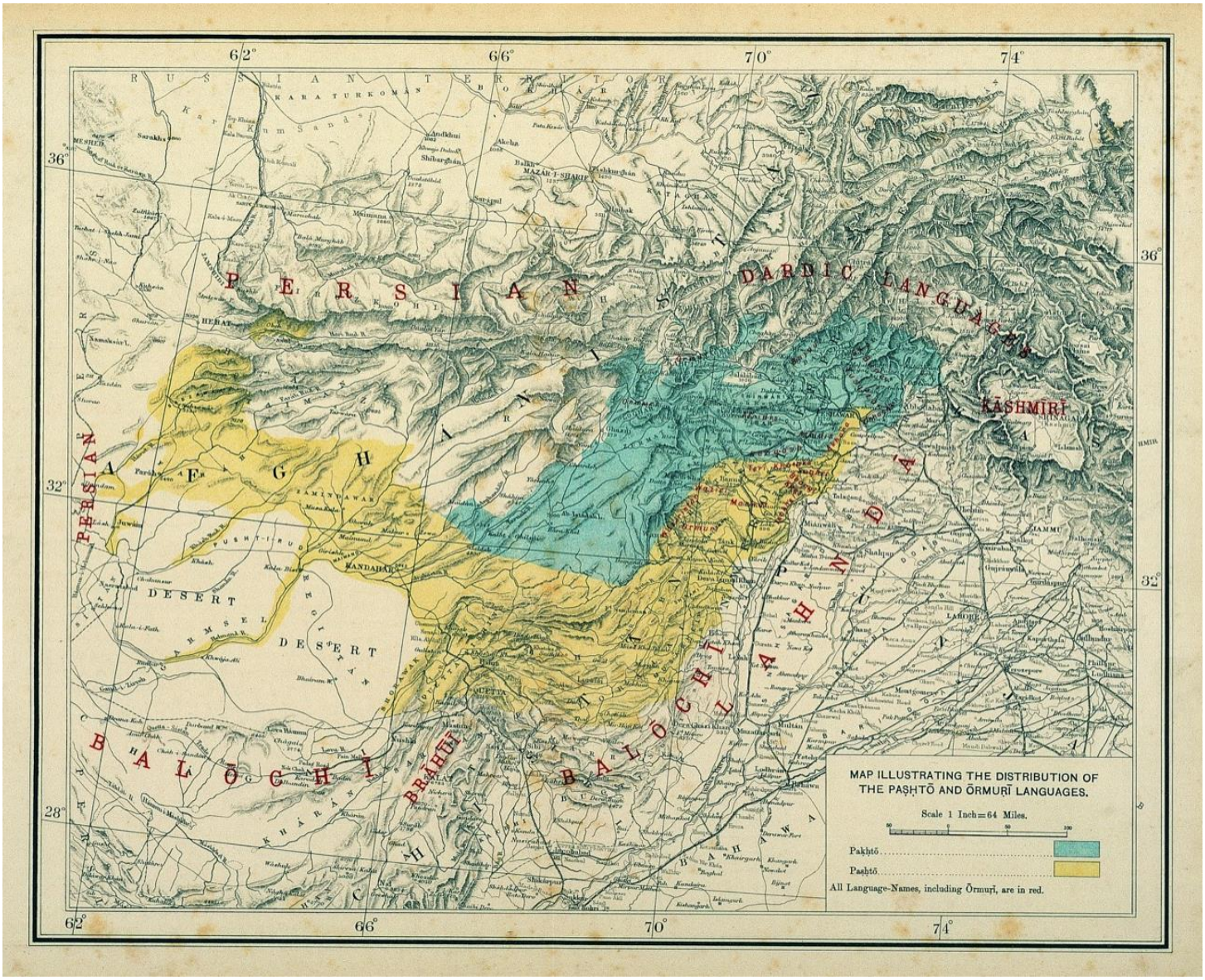


Figure 38: Map of the 'Pashto and Ormuri Languages'. Legend: Blue – *Pahkto*; Yellow – *Pashto*; *other languages* in Red. Source: LSI, 10 (1921), p.5.

It might be an overstatement to describe the Pashto and Ormuri map as a form of surveillance, rather than survey, but had the LSI started in the 1880s rather than the 1890s such an evaluation would have been undeniable. On the other hand, the map does not discernibly show political boundaries which may have been done intentionally to prevent any misunderstanding.

This section is, to a certain extent, at odds with the argument that the Linguistic Survey's maps were experimental, idiosyncratic, and tailored to the particular language or linguistic feature mapped. It has tried to classify the maps according to shared characteristics or mutual design yet, despite such crude categorisation, Grierson certainly had no scheme or master plan for the LSI as an atlas or series of maps. But that does not mean that there was little thought or effort put into making maps. Grierson, in collaboration with the Survey, clearly put a lot of consideration into what the maps would show, and how that would be shown, by a process of trial-and-error to find the most pragmatic way to map languages within the constraints of costs, time and even the size of the page. The haphazard and diverse cartographic information returned by the surveyors or gathered from secondary sources undoubtedly contributed to an experimental approach – Grierson had to make sense of and assemble discrete pieces of geographical data and plot them on a map with the help of the Survey of India. Furthermore, Grierson did not have many examples of linguistic maps to emulate at the scale the LSI was surveying and mapping language. The maps discussed in the first chapter were far simpler, only showing a general geography of India's languages.

When it does appear that the LSI settled on a consistent practice, another map undermines that reading. One common feature on many of the Survey's maps, for example, is the use of red lettering to print the names of languages.[107] If one were to suggest one attribute which links many of the Linguistic Survey of India maps, it would be the use of red print. Yet the Marathi dialect map (Fig. 39) uses green, black, blue, and orange instead. The non-uniformity and idiosyncrasies of the Linguistic Survey's maps embodied the "idiom of doubt" – as Majeed terms it - which pervades its knowledge production. The LSI could not find a standard way to map language. But the LSI's maps also stand in stark contrast to the systematic but monotonous presentation of the written specimens.

[107] A feature shared by the language maps discussed in the first chapter, including the Calcutta Exhibition map.

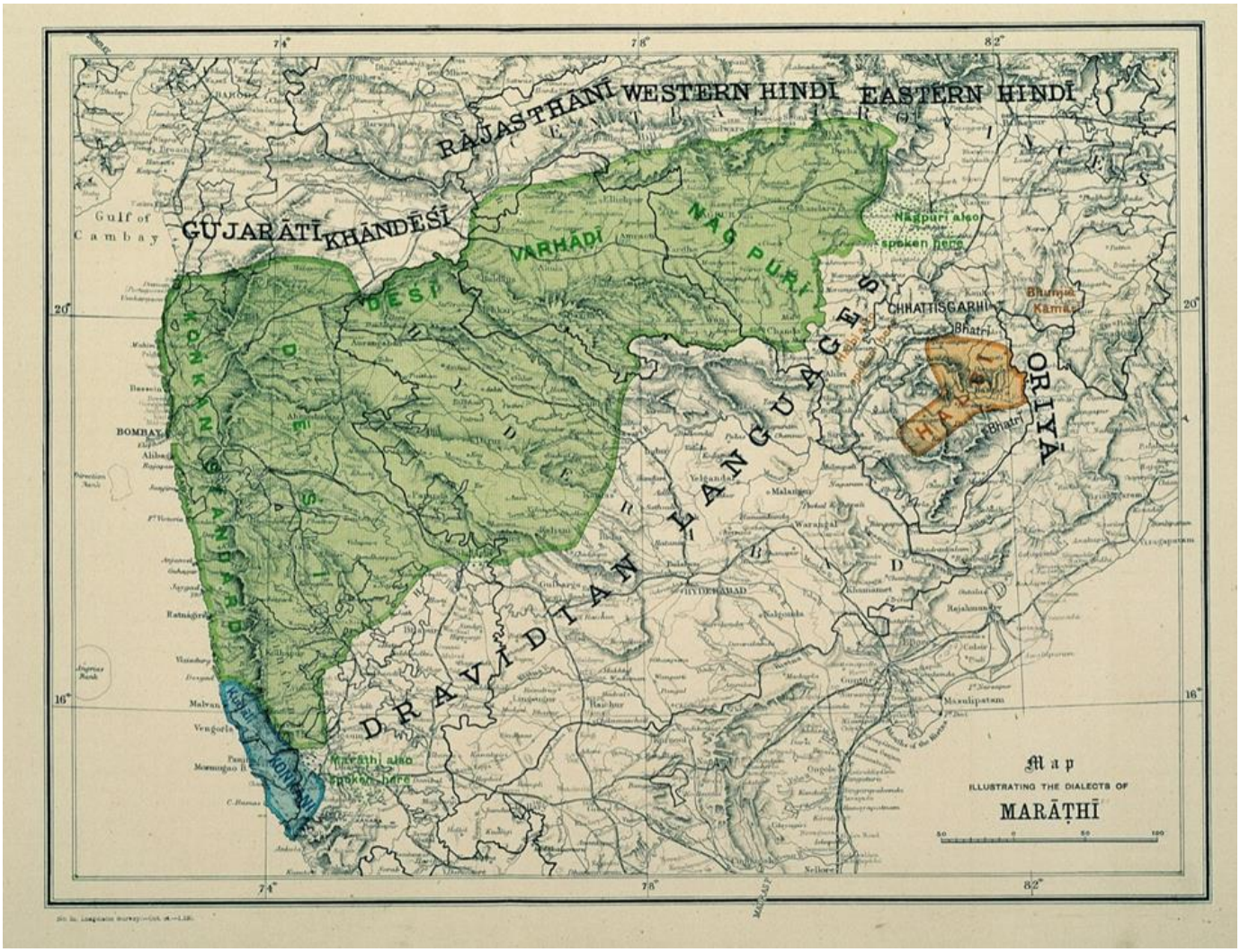


Figure 39: Map of the 'Dialects of Marathi'. Source: LSI, 7 (1905), p.1.

The limits of experimentation? Urban India, 'Gipsy' dialects, and the unmappability of 'vagrant' languages

The Scottish geographer Hugh Robert Mill once suggested in geography "we make take it as an axiom that what cannot be mapped, cannot be described".[108] While his statement was questionable even then, the Linguistic Survey inverted the axiom to maintain that most languages which could be classified, could also be mapped. The operative word, however, was *most*. Not every language was mapped and, more strikingly, some resisted mapping. This section considers those maps which were not made and what that informs us about the limits

[108] H. Mill, 'The value of regional geography', *The Geographical Teacher*, 11:2 (1921), p.11.

of language mapping. Significantly, two geographies are unmapped in the LSI: the city and the "migratory tribes' of India classified under the "Gipsy languages".[109]

First off, it was financially unrealistic to expect the LSI to map each of the 179 languages and 544 dialects surveyed, considering the expense of simply printing one map. Even if Grierson had the means to do so, it was impractical considering the three specimens for each dialect were the priority and already occupied most of the pages of each volume. Language maps also reflect the taxonomic arrangement of language in the LSI. What the reader was supposed to understand about the Marathi map, for example, was that it incorporated the different Marathi sub-languages and dialects as classified by the LSI to give an approximate idea of where those dialects were spoken, not a precise geography of each dialect. Like the 'overview' maps in the *Introductory* volume, these maps were composed of the smaller geographies of each dialect or sub-language. And, as section two points out, the maps complemented the textual cartographic information which were supplied in the introduction to each language. For many languages and dialects surveyed, a brief cartographic description – no more than a paragraph or two – was deemed sufficient enough to give the user an approximate idea of where a language or dialect was spoken.

Why there were no urban language maps of say, Calcutta or Delhi, is an interesting question, but the answer perhaps understandable. Grierson's dismissive attitude to 'bazar speech', and his view of urban language as inauthentic, has already been outlined in chapter two. There were also practical reasons for not mapping urban spaces. Cities and towns were not principally areas which were surveyed by the LSI, and it would have been difficult to demarcate linguistic areas in mixed, and often very fluid, urban settings. Urban India challenged the cartographic principles of the LSI which tied languages to a settled geography, even if their geographies were only approximate. But another possible reason was because Grierson had no model to adapt from. Although the LSI maps were trialling different ways to map language, they all recognisably adapt or borrow techniques seen in other types of thematic mapping. Urban language maps were not common even in European cartography. The early dialectal mapping

[109] LSI volume 11 is assigned to what Grierson and many others considered to be 'Gipsy' languages.

undertaken in Germany or France did not produce specifically urban maps.[110] However, the city was not left out of the map entirely with many of the base maps used by the LSI retaining the location of major settlements as helpful points of reference.

If urban India was deliberately left unmapped, then the 'Gipsy' languages underlined the limits of the Survey's mapping. The only volume of language specimens not to include a map is the 'Gipsy' languages volume (number eleven), published in 1922. The challenge of mapping 'Gipsy' languages – a term applied by Europeans to nomadic groups in India – was hinted at in the volume's introduction. These were languages spoken by 'vagrant' tribes all over India who adopted "the speech of the district where they happen to stay in all their dealings with outsiders, but retaining a peculiar dialect of their own when talking among themselves", and were difficult to locate as "a consequence of the migratory habits of the tribes".[111] The Deputy Collector of Belgaum was not the only official who failed to gather all information or specimens from a 'wandering' tribe.[112] The complete specimens for the 'Odki' language, for example, had to be sourced from two separate areas of Bombay and Punjab which reflected the mobility, or migrations, of the 'Odki' speaking ethnic group.[113] Migratory languages – that is to say languages or dialects spoken by nomadic or other highly mobile groups - defied mapping because they could not be fixed onto India's linguistic geography.

Like some other languages in India, the 'Gipsy' languages were tied to ethnic groups or castes rather than specific locations. These were always difficult to survey in situ and map. The Deputy Commissioner of Chhindwara was unable to identify and map where certain Hindi and Marathi dialects were spoken in his district because they were "not confined to particular tracts of the country but to the several castes that use them".[114] However, the problem of identification did not prevent the official from roughly pinpointing where the Bundelkhandi language (a Western Hindi language) was spoken by the Lodhi people, while the LSI was able to compile a map of the Western Hindi languages.[115] The 'Gipsy' languages, on the other hand, were not

[110] Urban ethnographic maps were also uncommon. One interesting case is Jacques Bertillon's statistical cartograms of Paris which included maps of where different nationalities lived in the French capital. Bertillon was French demographer and health statistician who published *Cartogrammes et diagrammes relatifs à la population parisienne et à la fréquence des principales maladies à Paris* in 1889. Paris appears to have been significant to the development of urban thematic maps. See, A. Picon, 'Nineteenth-century urban cartography and the scientific ideal: The case of Paris', *Osiris,* 18:2 (2003), pp.135-149.
[111] LSI, 11, p.1.
[112] IOR. S/1/9/12. Deputy Collector, Belgaum to Grierson (d. 7/11/1899).
[113] LSI, 11, p.31. The 'Odki' in the LSI is today known as the Waddar language.
[114] IOR. S/1/7/3. Deputy Commissioner, Chhindwara to Grierson (d. 22/7/1899).
[115] See Western Hindi map in volume 9.1, p.1.

simply difficult or resistant to mapping but fundamentally *unmappable* and out of place in India's linguistic geography. Their legitimacy and authenticity as a linguistic unit was in question. The 'Gipsy' languages did not conform to orthodox linguistic principles, seemingly Dravidian, yet also with a mix of Rajasthani and Marathi influence.[116] As V. N. Rede wrote to the Collector of Nasik, "the language of a travelling race squatting place to place is bound to be a hybridized one".[117] Moreover, these were argots, "artificial tongues…adapted for use by various means of disguise", mainly used "by criminals and disreputable individuals for the sake of secrecy".[118] They had no geography – approximate or otherwise - to speak of, operating both outside the margins of society and what constituted a conventional Indian language. The 'Gipsy' languages were geographically subversive and linguistically different, which rendered them unmappable.

Boundaries and contradictions: reading and using a language map

The trouble with mapping languages in India was that they were not static, uniform or geographically stable, let alone the uncertainty surrounding which language was spoken in a given area, or whether the language surveyed was a *lingua franca*, court language, market speech, home dialect, or otherwise. Speakers migrated, languages were mutable, and many spoke or understood more than one. Of course, this was not a problem unique to late colonial India nor confined to a phenomenon like language. Race, and other cultural or social characteristics, have been and remain difficult to map without selecting or omitting certain variables. Even topographic or political maps, which incorporate features generally thought to be more settled, can quickly become inaccurate when boundaries shift or landscapes change. The LSI experimented with different ways to map an approximate geography within the normative parameters of mapping; using scale, colour, (non)boundaries or labels to create a series or atlas of cartographic snapshots which captured the geography of a language at the moment they were surveyed.

A greater challenge for the LSI was not mapping language, or making a language map, but ensuring its language maps were interpreted correctly and not misleadingly deployed. That meant avoiding a political or territorial reading of linguistic boundaries and ensuring that

[116] LSI, 11, p.10-11.
[117] IOR. S/1/9/9. V. N. Rede to A. R. Bonus, Collector of Nasik (d.15/6/1901).
[118] LSI, 11, p.8-9.

linguistic areas presented on maps were not misconstrued as an unequivocal representation of a language's geography, or the sole reality on the ground. A linguist may have understood that a map showing the areas where Bihari was spoken did not mean that it was a uniformly spoken across the area shaded or that it was the only language spoken in the region mapped. But the maps were not exclusively for linguists. The intended audience for the government-sponsored LSI included officials, administrators, military officers and a lay public not necessarily grounded in linguistic concepts. Such an audience would mainly have been exposed to or been trained in reading conventional territorial or political maps where boundaries reflected a political, administrative or jurisdictional reality.[119] The surveys behind these maps were also perceived to provide a close to precise triangulated geography of India. Grierson understood that the LSI's audience would inevitably glance at the LSI's maps and interpret them, intentionally or not, in a conventional manner - maps which showed the precise extent and boundaries of where a language was, and was not, spoken.

Aware of how maps and particularly boundaries would be read by a key constituency, Grierson left specific instructions on reading a language map and understanding linguistic boundaries in the *Introductory* volume to the Survey:

> The identification of the boundaries of a language, or even of a language itself, is not always an easy matter. As a rule, unless they are separated by great ethnic differences, or by some natural obstacle such as a range of mountains or a large river, Indian languages gradually merge into each other and are not separated by hard and fast boundary lines. When such boundaries are spoken of, or are shown on a map, they must always be understood as conventional methods of showing definitely a state of things which is in its essence indefinite. It must be remembered that on each side of the conventional line there is a border tract of greater or less extent, the language of which may be classed at will with one or other. Here we often that two different observers report different condition as existing in one and the same area, and both may be right. For instance, in 1911, the then census placed the north-western frontier some twenty or thirty miles to the east of that fixed by the Linguistic Survey…it is a mere question of personal equation."[120]

[119] As well as being examined on mathematics, which touched on some elements of cartography, trainee ICS officials were trained in drawing which must certainly have helped some of them produce sketch maps for Grierson.
[120] LSI, 1.1 *Introductory*, pp.30-31.

The LSI clearly explained why a linguistic boundary was not the same as a political or territorial boundary, nor could be interpreted as such. Language maps could not circumvent the 'conventional methods' of mapmaking at the time, but they could be read differently once the map user understood that a language's geography remained 'indefinite' and approximate, even when mapped. The LSI further acknowledged that the approximate geography of a language it identified and mapped could be superseded or contradicted by different, newer, or better information and maps.

The LSI sought to avoid the conclusion that languages had 'hard and fast' boundaries by, as shown in this chapter, experimenting with different ways to do so within the constraints of colonial mapmaking. The instructions left in the *Introductory* volume were an additional safeguard, an attempt to direct the map user to read a language map differently from how they would read the more common political or administrative map. Grierson went further in his correspondence with John Lang, the Political Agent in Bhopal, emphasising that a language map was not a political map nor could be drawn along political or administrative lines. Lang had asked Grierson if he could produce a linguistic map of Bhopal Agency for him to which Grierson responded,

> as regards preparing a language map of Bhopal Agency, I do not think that it will be necessary to do so. The basis of the maps which I shall prepare is the areas occupied by different languages, not the areas included within any defined political boundaries. I do not think however that this will make the result any less useful to you…the area included in a such a map would certainly cover the whole of Bhopal, as well as the greater part of the rest of Central India, and parts of Rajputana and the Central Provinces.[121]

Although the LSI had surveyed by administrative geography – by district, by princely state, etc. – it did not map language onto existing political divisions. The Political Agent in Bhopal had to find the map most relevant to his area of deployment based on the languages or language groups known to be spoken in the Agency. The LSI was mostly consistent on this point. Apart from the Sonthal Parganas map, the LSI does not publish any other language map of a particular administrative or political jurisdiction. The LSI did not even confine itself to the political boundaries of the Indian Empire. The overview map showing the Tibeto-Burman language family (Fig. 40) shaded areas which were outside formal British control or suzerainty.

[121] IOR. S/1/11/1. Grierson to Political Agent, Bhopal (d. 11//4/1900).

Languages were another layer on the map of the Indian subcontinent, which could be cross-referenced with a political or administrative map, but could not be read in the same way.

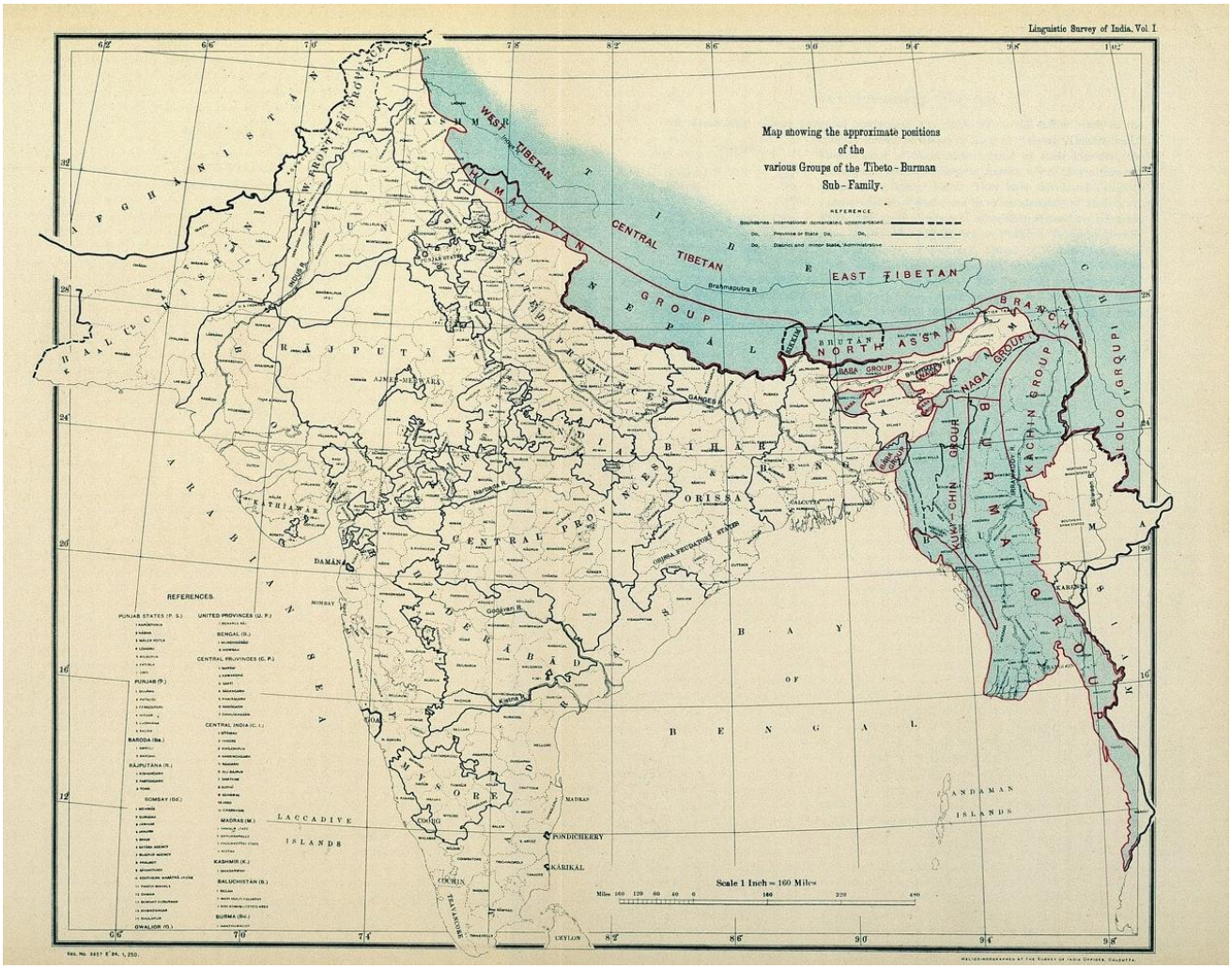


Figure 40: Map showing the 'approximate positions of the Tibeto-Burman Sub-family'. Source: LSI, 1.1 (1927), p.53.

However, it raises the question why the LSI did not consistently use and apply the methods it experimented with to ensure that all language maps were less likely to be misconstrued as representing 'hard and fast' linguistic boundaries. One only has to look at some of the examples included in this chapter, or many of the other maps in the LSI, to see why its maps could easily be interpreted as presenting hard boundaries. For example, the Bihari language map appears to show fixed geographical limits and borderlines to the untrained eye (Fig. 41).

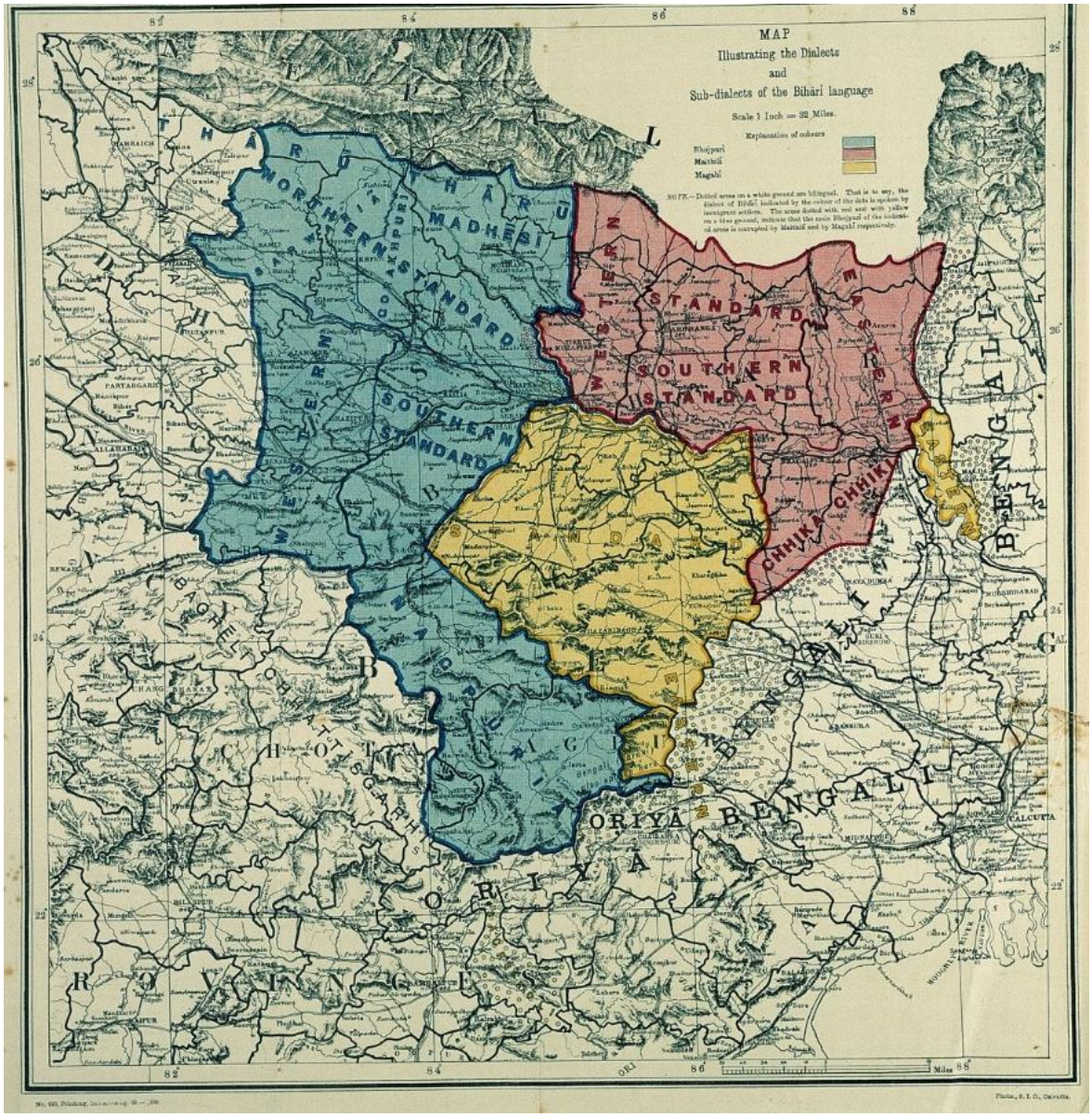


Figure 41: Map of the 'Dialects and sub-dialects of Bihari'. Source: LSI, 5.2 (1903), p.1.

Grierson's response might have been that his instructions made it clear how to read language maps and interpret linguistic boundaries. But many map users or readers of the LSI were unlikely to have read the instructions. The LSI was a work of reference and not a work which would have been read from start to finish by most. Grierson may also have pointed to the 'conventional' methods and techniques he had to work with and explain that this was the way things were done by the draftsmen of the Survey of India. However, those same draftsmen were able to produce language maps with text to identify linguistic admixture or use graduated dots and other forms of shading to avoid drawing clear, 'hard and fast' boundaries.

The Survey remained uncertain in its mapping of language throughout. However, the contradictions and inconsistencies in the Survey's mapping of linguistic boundaries begs the

question, why map language at all? It should be remembered that the LSI was completely funded and supported by the colonial government in India. The Linguistic Survey was not only a project for a community of scholars and students, but a state exercise which had to provide something tangible to colonial rule. A significant argument for the Survey was that it would not only identify which languages were spoken, but where they were spoken. Maps were the most expedient way to identify the linguistic geography of an area where an official would be deployed. More importantly, officials valued certainty rather than ambiguity. They wanted to know which languages were spoken, by whom, and where they were found, to effectively govern or administer the district, province, agency, or princely state they were working in. The Political Agent in Bhopal, however curious he was about linguistic details, was more interested in having a language map of the Agency showing which languages were spoken there and where they were found. Grierson evidently understood that his maps were going to be used for governing and training as much as linguistic research. He ultimately offered to arrange a language map of Bhopal Agency for the Political Agent if he required one.[122] Grierson also proposed to supply a map of the Western Pahari dialects for the office of the Deputy Commissioner at Simla, like any other political or administrative map the office might have.[123]

The LSI had to balance the philological with the political. Although Grierson knew linguistic boundaries did not reflect reality on the ground, the colonial state required certainty and clarity, wanting to know where a language was – and was not – spoken. Grierson made it clear to the Deputy Commissioner in Simla that the map made for his office would clearly indicate language boundaries.[124] And even if the LSI did not produce language maps of each political unit, it acknowledged that language maps needed to include political boundaries for the benefit of governing. Grierson informed Herbert Risley that he would be happy to share proofs of the LSI maps with the provincial Census Superintendents to help them with their enquiries. However, Grierson pointed out that "the Eastern Hindi map is at present unsatisfactory as it does not show political boundaries".[125] Boundaries, linguistic or political, were not included for the linguist or scholar but for the administrator and official. The instructions in the *Introductory* volume were added to guard against an exaggerated reading of what a linguistic boundary signified. It could partly explain why the government and Grierson jointly agreed to turn the first volume into a pocket edition which each newly qualified ICS officer would

[122] IOR. S/1/11/1. Grierson to Political Agent, Bhopal (d. 11//4/1900).
[123] IOR. S/1/6/4. Grierson to Dep. Commissioner of India (d. 7/3/1911).
[124] IOR. S/1/6/4. Grierson to Dep. Commissioner of India (d. 7/3/1911).
[125] IOR. S/1/14/1. Grierson to Risley (d. 30/1/1901).

receive. Grierson's instructions would ensure that those using the LSI's maps understood what a language map could – and could not – represent.

Conclusion

Grierson was not merely trying to avoid the misuse of the LSI's maps with his instructions on reading a language map and warning against misinterpreting linguistic boundaries. He was attempting to unmap and remap the LSI's maps. The final published maps were permanent and unchangeable but, by incorporating these instructions, the meaning of the map could be altered. "Hard and fast" lines would remain on the map, but their meaning unmapped from a conventional or normative understanding of boundaries and remapped into a more realistic interpretation of what language maps show. This was not necessary for all maps since Grierson experimented with other ways to avoid presenting fixed boundaries, or settled and definite geographies.

But if the LSI's maps were an experiment in different ways to map languages and dialects, what precisely makes a language map? Superficially, we might argue that if the variable being mapped is language, dialects, speech and so forth, then it is a language map. More epistemically, however, language maps are products of the limitations of knowledge. What makes a language map is the approximation, indefiniteness, and ephemerality of mapping a language. In practice, this meant mapmaking was often messy, ad hoc, and based on trial and error. For the LSI, language maps do not present an actual or precise geography, but an inexact geographical snapshot of the knowledge acquired at the moment of surveying, with the possibility that knowledge could be corrected or improved. Indeed, what makes a Linguistic Survey map is an assemblage of different rough maps, sketches, descriptions and notes sourced by its network of 'surveyors' – including officials, scholars, explorers, teachers etc. - whose position in the survey is being mapped. Grierson was not mapping the Torwali language, for example, but Aurel Stein's knowledge of where the Torwali language was spoken.

Whether the Linguistic Survey's users understood that its maps were rough guides to where a language was spoken, and not a precise reflection of the linguistic situation on the ground, is another matter. However, the consequence of the underlying tension between the language map as approximate and indefinite, yet drawing boundaries to supply certainty, or even finality,

becomes more apparent in the following chapter. Perhaps unexpectedly, a major test of the LSI's mapping comes from a language movement in India and not government (at least not publicly). The Oriya language movement mobilised Grierson's map of Oriya to make an absolute claim to territory based on the area mapped and coloured by the LSI. That was not what Grierson intended but could not be prevented once his maps were published and in circulation.

4. Grierson's map, territory and statehood in colonial Orissa

Introduction

The Linguistic Survey may have hoped that its users would not use its maps as anything more than a rough guide to where a language or dialect was spoken, but the inclusion of the short instructions in the *Introductory* volume as a safeguard suggests Grierson became more concerned with how the LSI's language maps were being interpreted and mobilised. The *Introductory* volume only appeared in 1927, nearly two decades after most of the LSI's maps had been published and circulated. In those intervening years, especially during and after the First World War, nationalism and self-determination became a prominent ideological force internationally, particularly in the colonial world. Language was often a unifying cultural marker around which many nationalist movements rallied or mobilised in nation-building.[1] In India, linguistic nationalism took on many forms. In the national anti-colonial movement, the question of a 'national language' was a much debated and controversial issue. However, regional forms of linguistic nationalism also emerged as the old colonial linguistic order frayed, and less prominent regional languages resisted the dominance of established provincial languages such as Bengali. The Oriya movement emerged in the 19th century in response to the perceived cultural hegemony of Bengali in Eastern India and coalesced around the demand for a separate Oriya speaking province carved out of the Central Provinces, Madras, Bengal and Bihar and Orissa. Grierson's map of the Oriya language was deployed by the movement to articulate its territorial claim and define the boundaries for a future province, contrary to what the map was supposed to represent.

This chapter maps the political afterlife of mapping language and charts how linguistic geography – particularly language maps – were mobilised by political movements. It examines how information from the LSI was mobilised in the territorial and political arguments made by the Oriya movement which eventually achieved the first linguistic province of India, Orissa, in 1936. The chapter begins by outlining the history of the movement and Grierson's own view

[1] Much of the significant work on the intersection of language and nationalism has focused on Europe, particularly Eastern Europe or minority languages such as Welsh. For more see, S. Barbour & C. Carmichael (eds.), *Language and nationalism in Europe* (Oxford: OUP, 2000); S. Wright, *Language policy and language planning: From nationalism to globalisation* (Basingstoke: Palgrave, 2016). See also *Language, maps and nationalism* section in chapter one for a broader review of the ideas and concepts which underpin this chapter's reading of maps and nationalism.

of linguistic nationalism, and then compares the Oriya movement to the Maithili language movement, which tried to co-opt Grierson. The following section then traces how the Linguistic Survey was used both by those for and against statehood. What becomes evident is that the Linguistic Survey's maps take on a life of their own, beyond the intention of their maker. But their experimental nature meant the maps could be read in multiple ways. The Oriya movement were themselves unmapping Grierson's map and remapping it to match their political and territorial ambitions. However, as the third and fourth sections show, the authority of the LSI gradually fades as it proved to be too approximate and imprecise to identify and demarcate the areas which would join Orissa. Different enquiries, committees, and censuses in the late 1920s and early 1930s, culminating with the Orissa Boundary Committee in 1931, were tasked with accurately mapping a future Orissa. Even after the creation of Orissa, however, many on both sides were left unsatisfied by the government's decision. The failure to satisfy all parties was foreshadowed by the LSI, which understood the fictiveness of drawing boundaries according to language. The events behind Orissa also echoed what would later occur, more violently, with the British partition of India and Pakistan in 1947. Instead of language, religion was the deciding factor for creating Pakistan. But like language, religion could not be neatly delineated on a map. Consequently, millions of Muslims, Hindus and Sikhs were left on the 'wrong side' of the line and the violence which followed was a tragic consequence of arbitrarily drawing a boundary according to religion.

"The Oriyas would claim the areas indicated by Dr. Grierson"

In November 1917, a delegation representing the Utkal Union Conference (UUC) sent a memorial to the visiting Secretary of State for India, Edwin Montagu, who was in India to meet with the Viceroy, Lord Chelmsford, to make plans for limited self-government.[2] The memorial demanded the creation of an independent Oriya-speaking province or, in the short term, ensuring that all Oriya-speaking areas were incorporated into the government of Bihar and Orissa on equal footing.[3] The terms of the demand had been extensively debated and discussed in the lead up but settled on conveying three reasons for Oriyan statehood. Firstly, the Oriya-speaking peoples were a *nation* which could be traced into antiquity. Secondly, the Oriya-speaking nation's cultural, social and intellectual vitality was suppressed by the encroachment

[2] The outcome was the Government of India Act of 1919 which instituted a system of "Dyarchy" in colonial India.
[3] The province of Bihar and Orissa separated from Bengal in 1912 with its capital at Patna.

and hegemony of other vernacular languages and cultures in the region. Finally, Oriyans could only prosper in India if all the Oriya-speaking communities in bordering provinces were reunified under a single Oriya-speaking province and administration. Significantly, the memorial proposed that "in any scheme of territorial re-adjustment for the formation of a Provincial autonomy the Oriyas would claim the areas indicated by Dr. Grierson as Oriya-speaking tracts in his comprehensive and careful Linguistic Survey of India (vide Map of the Oriya-speaking tracts at page 367, Vol. V)".[4] Along with the map from the LSI (Fig. 42), a copy of which was apparently appended to the memorial, the writers directly quoted the Linguistic Survey's geographical description describing where Oriya was spoken to set out their territorial claim.[5]

Fourteen years after it had originally been published in 1903, Grierson's map was being employed by a regional linguistic movement to articulate its territorial demands. This was not how Grierson intended a language map to be read, let alone utilised. However, Grierson's ambiguous position on the administrative, even political, purpose of language maps did not always align with his final advice on reading a language map. Therefore, it may not have come as a surprise to see the LSI's maps being used for such purposes, however incorrect that might have been to Grierson. The *Introductory* volume of the LSI would only be published a decade later in 1927, with the instructions for reading and understanding a language map. Whether the use of the LSI's maps by nationalist, or other political, movements influenced the writing of the instruction is something this chapter later grapples with.

[4] The memorial was included in a 1919 book entitled *The Oriya movement. Being a demand for a united Orissa* by two Bachelor of Arts [Chakrapani Pradhan and Niranjan Patnaik], published by H. H. Panda in Ganjam. It appears that the book was written with the Montagu-Chelmsford reforms in mind and outlined the demands of the Utkal Union Conference. The memorial, as it appears in the book, does not include a copy of the map. For more see P. Acharya, *National movement and politics in Orissa, 1920-29*. SAGE Series in Modern Indian History, 9 (New Delhi: SAGE Publications, 2008).

[5] The UUC deputation apparently delivered the memorial directly to Montagu in Calcutta but it is unclear whether a physical copy of the map was appended or simply referenced.

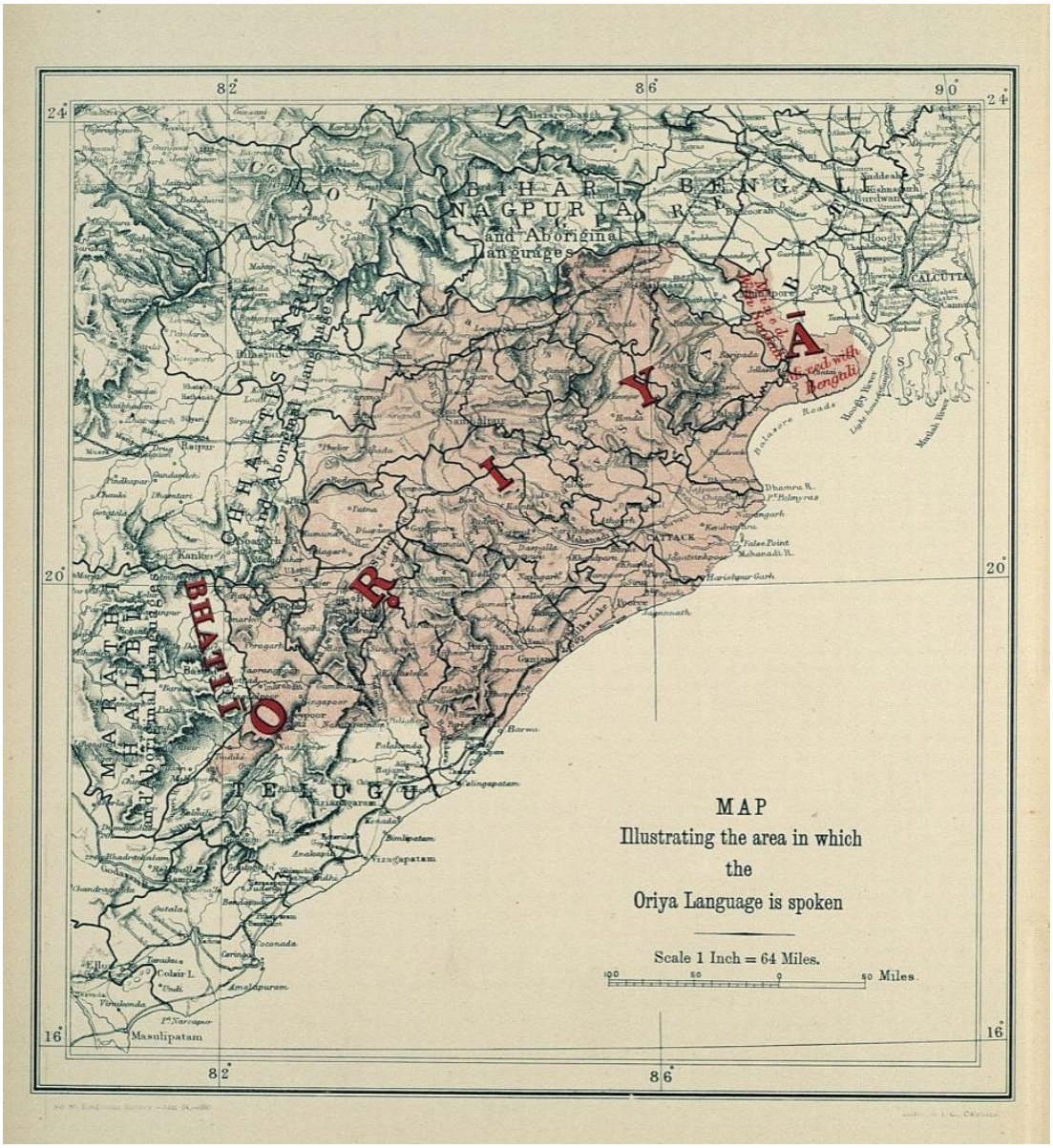


Figure 42: Map 'illustrating the area in which the Oriya Language is spoken'.
Source: LSI, 5.2 (1903), p.367.

The deployment of Grierson's map of Oriya with the memorial also occurred at a turning point in the history of the Oriya movement. The Utkal Union Conference - *Utkal Sammillani* in Oriya - was founded in 1903 (coincidentally the same year the Bihari and Oriya volume of the LSI appeared) as a pan-Oriya forum which included a platform to unite all the Oriya-speaking areas. But the UUC was otherwise a moderate organisation and loyal to the colonial government. It barred the discussion of politics and religion and focused more on pedagogical, cultural and socio-economic issues.[6] However, the failure to achieve unification and provincial independence through the Montagu-Chelmsford Reforms (1918) pushed the movement's more

[6] P. Mishra, *Language and the making of modern India: Nationalism and the vernacular in colonial Odisha, 1803 – 1956* (Cambridge: Cambridge University Press, 2020), pp.108-114. The government went as far as banning employees from attending the first meeting until the UUC assured them that there would be no room for political discussion.

radical members to the forefront.[7] They wanted to merge with the Indian National Congress and join with the non-cooperation movement, drawing a regional campaign into the national politics of the early 1920s. This section begins with an overview of the Oriya language movement, from its roots in the mid-19th century to the height of the movement in the first quarter of the 20th century, examining its aims, structure and position in the wider context of linguistic nationalism, anti-colonial agitation and the Indian independence movement.

The Oriya language movement

The Oriya language movement emerges out of the partial success of the Orientalist position that education and local administration should be in vernacular languages rather than court languages such as Persian and, eventually, English. Chapter two covered in more detail the development of colonial language policy in mid-19th century India but the shortcomings of language policy were very evident in the region which eventually became Orissa. Although the argument for vernacular education and administration became accepted within government - certainly after Wood's despatch in 1854 - which vernacular(s) to use proved more troublesome and controversial. Local officials would invariably hierarchise languages and privilege certain vernaculars based on perceived superiority or simply administrative practicality. In Chittagong (part of Bengal Presidency), for example, the major vernacular was an Adivasi language called Chakma, but officials recommended either Bengali or English for practical reasons, and also because tribal languages were seen as unsophisticated and unsuitable for governing.[8] The incongruity between colonial India's political and linguistic geography also made it a complicated issue. The areas which eventually became Orissa were divided between Bengal, Madras and the Central Provinces and, while the Oriya-speaking areas of Bengal Presidency were grouped together into a somewhat linguistically neat division, the Oriya-speaking part of Ganjam in Madras was administratively part of a larger zone also home to a large number Telugu speakers - whose language became the dominant language of local administration.[9] In addition, at the highest provincial level the chief language which replaced Persian was the most prominent regional vernacular. In the Bengal Presidency, which most of Orissa was part of,

[7] I use radical here loosely. Different scholars have used different terms to describe the various blocs in the Oriya language movement. Acharya, for example, divides the movement into loyalists, liberals and moderate nationalists.
[8] Mishra, *Language and the making of modern India*, p.46.
[9] See, for example, a newspaper report in *Sevak* which brought to light complaints from Madras that all government records were kept in Telugu, which was apparently a humiliation for the Indo-Aryan Oriyas. (*Report on native papers, Bengal. Week ending 8 January 1887*. No 118, p.48).

Bengali became the principal vernacular. The Oriya language movement emerged in the middle of the 19th century in response to tensions over the pervasiveness of Bengali in courts and schools in Oriya-speaking areas of Bengal.

As early as 1837 the divisional administration had tried to replace Persian with Oriya in the court system, but that proved a failure because most senior posts were in the hands of British officials or Bengali-speaking elites, both of whom knew very little Oriya. Attempts to increase the number of Oriyan officials were complicated by only having a small pool of educated Oriya speakers to draw from. Consequently, the administration came close to implementing a policy of replacing Oriya with Bengali in the courts but were prevented from doing so to avoid inflaming local tensions.[10] The problem came to a head in the educational sphere. In principle the local vernacular should have been the chosen medium for schooling, however there were not enough Oriya-speaking teachers nor Oriya-language textbooks available. Many of the schools in the division were staffed by Bengali-speaking teachers using Bengali textbooks. Some compromises put forward by British officials included using Hindustani, rather than Bengali, but those were not seen as viable options. Wood's despatch (1854) did give rise to conditions allowing the translation of textbooks into vernacular languages and there was a notable rise in the number of Oriya textbooks published, yet not enough to supersede Bengali.[11]

The perception that Bengali was being imposed in Orissa, or privileged to displace Oriya, was further provoked by economic grievances and several controversial arguments advanced by Bengali intellectuals. In the former case, the slow response by the Bengal Government to alleviate the suffering caused by a famine in 1866 - with over a million deaths - was blamed on local Bengali officials rather than the British authorities.[12] A general belief that their language and culture was under threat exacerbated these accusations. In the latter case, two events confirmed suspicions that there was an organised campaign to suppress and eradicate the Oriya language. The first was a lecture delivered in 1865 by Rajendralal Mitra, an intellectual from Calcutta, arguing that it was in the best interests of Orissa to adopt Bengali as its official language. Then in 1870, a teacher in Balasore named Kantichandra Bhattacharya

[10] P. Mohanty, 'British language policy in 19th century India and the Oriya language movement', *Language Policy*, 1 (2002), p.59. Mohanty points out that the East India Company were already making decisions about which language to privilege based on what languages were being taught at Fort William College. In terms of modern vernaculars that was either Hindustani, Bengali, Marathi or the Dravidian languages of Telugu, Tamil and Kannada. It comes as no surprise that they thought it made sense to replace Oriya with Bengali – why not replace Oriya in India, rather than add it to the curriculum.
[11] Mohanty, 'British language policy', p.61.
[12] Mohanty, 'British language policy', p.63.

published a pamphlet under the title *Oriya swatantra bhasa nahe* ('Oriya is not an independent language') which argued that Oriya was in fact a Bengali dialect that had been corrupted through contact with local tribal languages in the recent past. The controversial pamphlet even elicited a response from leading philologists of the time, including John Beames, who described it as specious.[13] Philologists like Beames and Grierson would instead be cited by Oriyan intellectuals to make the case that tribal roots in the language proved Oriya was not a dialect of Bengali but an ancient, primordial language. As Mishra points out, Oriyan intellectuals uniquely embraced the "constitutive role played by aboriginal languages", although this also led to anxieties over whether the Oriyas were descended from 'lowly' Adivasis.[14]

Whether or not the fears about the suppression of Oriya were overblown, such sentiments certainly brought together the educated Oriyan elite to protest the state of affairs and invest more in the creation of Oriya language textbooks and other literary outputs. Textbooks were a particular site for arguing the legitimacy of Oriya as a language, but some scholars have pointed out that there was also an economic dimension since textbook printing was monopolised by Bengali publishers.[15] By the early 1870s enough textbooks had been published which enabled the British administration to confirm that Oriya was preferentially taught in Orissa. The next twenty years were a period when an Oriyan literary culture developed through the sponsorship of affluent elites, particularly local rajahs. Several vernacular newspapers, publishing houses and printing presses sprung up and many texts were translated and published in Oriya.[16] Even cartography was caught up in the Oriyan cultural factory. Several maps in Oriya were created for classrooms such as a 1 inch: 12-mile map of Orissa made by Sasibhushana Chattopadhyaya in 1894.[17]

The early movement was a reaction to the perceived threat from Bengali which led to its concern over linguistic and cultural recognition, and the right to be educated in Oriya and to use Oriya in courts and local administration. At this point it was not overtly irredentist as the later movement would be. While some scholars see the 1860s as the starting point of a long

[13] J. Beames, 'On the relation of Uriya to the other modern Aryan languages.' *Proceedings of the Asiatic Society*, pp. 192–216. Beames went as far as describing the pamphlet as "destitute of philological arguments".
[14] Mishra, *Language and the making of modern India*, pp.70-71. This also made it difficult to counter arguments put forward by British ethnographers like W. W. Hunter that Orissa was an uncivilised part of India.
[15] Mohanty, 'British language policy', p.65; Mishra, *Language and the making of modern India*, pp. 86-87.
[16] Over fifteen different Oriya-language newspapers and journals appeared from 1866 to 1900 starting with the *Utkal Dipika*. The first printing press, the Cuttack Printing Company, was founded in 1865. See Mishra, *Language and the making of modern India*, pp. 80-89.
[17] Very little is known about Chattopadhyaya but three of his Oriya school maps are in the British Library: a map of Orissa; a map of India; and a map of Australia. The latter two were published in 1915. See British Library. Maps 57175 (2); 52410 (27); 90050 (48).

trajectory towards provincial autonomy, others see the modern movement rooted in earlier anti-Bengali resistance but largely influenced by broader trends in Indian nationalism which developed at the end of the nineteenth century.[18] Some figures in the early movement were, however, already arguing that the main barrier to progress was the geographical division of the Oriya population, as one newspaper article from 1871 attests to.[19] But why did the movement become more overtly irredentist at the start of the twentieth century? A pivotal event occurred in Sambalpur, an Oriya-speaking area in the Central Provinces. In 1896 the provincial administration replaced Oriya with Hindi as the main language of the local courts. The move resulted in a backlash with many petitions, memoranda and essays calling on the provincial and national authorities to reverse the decision. The backlash in Sambalpur proved successful and Oriya was reinstated in 1903. Crucially, the reaction was not simply confined to Sambalpur but also from sympathetic Oriyan elites in the provinces of Bengal and Madras, which established the need for a cross-provincial forum to campaign for Oriyan interests and, eventually, a unified political territory.

The events in Sambalpur also concentrated the mind of the colonial government on the question of territorial reorganisation. The first substantive push for a unified territory emerged out of the Government of India rather than the Oriya movement. In 1903, a circular by Herbert Risley was published which outlined Curzon's plans to partition Bengal and made the case for merging all Oriya-speaking areas into one province.[20] The result was the transfer of Sambalpur from the Central Provinces to the newly partitioned province of Bengal in 1905. The Utkal Union Conference was also instituted in 1903, with the aim of lobbying for further territorial amalgamation as one of its key objectives. One motive for establishing the Utkal Union Conference may have been the Indian National Congress' strong critique of the proposed transfer of Oriya-speaking areas in Madras to Orissa Division, although there was already a longstanding - and not unfounded - perception that Congress was mainly concerned with nationwide issues whereas the Oriya movement needed its own, regionally minded, forum.[21] The UUC also differentiated itself from the increasingly anti-colonial Congress by stressing its

[18] Acharya and Mohanty would tend to lean towards the former position, while Mishra leans more towards the latter.
[19] Mishra, *Language and the making of modern India*, p.55, citing Patnaik, *Sambadapatraru Odisara Katha*, p.244.
[20] Curzon was quite sympathetic to the Oriyan argument. When the province of Bihar & Orissa was created in 1912 (to correct a mess of his doing, it should be pointed out) he criticised the decision not to separate Bihar and Orissa in the House of Lords.
[21] Acharya, *National movement*, p.25-26. Although there had been an Oriyan presence in the INC from the start and many continued to sympathise with its aims, Acharya points out that Congress' policy of not engaging with local issues that did not affect all-India limited it as a forum to push for unification.

loyalty to the state. The makeup of its first committee were mostly native princes and government officials, some of whom were genuinely loyal, whereas others had to remain so as employees of the state. The UUC aimed to remain apolitical on national issues and instead focus on the economic and social advancement of the Oriya population, amid continued efforts to reunify Oriya-speaking areas by lobbying governments through petitions and memoranda.[22]

The UUC's moderate approach began to be challenged as it failed to secure the territorial ambitions it had set out to achieve. The movement succeeded in getting Sambalpur joined to Orissa Division in 1905 but not the Oriya-speaking areas of Madras Province. It failed to achieve a separate Orissa in 1912 (instead becoming part of Bihar and Orissa) nor a university or central court in Orissa.[23] The lack of success saw members of the UUC push for realignment with the aims of the Indian National Congress and become a more political organisation. The memorandum sent to Montagu, with Grierson's map of Oriya, was effectively a final attempt to amalgamate all the Oriya-speaking territories and achieve provincial autonomy using the moderate approach. Nevertheless, the Utkal Union Conference may not have been outwardly political from 1903 to 1919 but it did help frame the Oriya-speaking population as a political subject, as Mishra argues.[24] The failure to amalgamate all Oriya territories politicised the movement and brought it in line with wider anti-colonial sentiment in India. A radical intermission followed until the failure of Gandhi's non-cooperation campaign, when the moderates came to the fore again. There were also other important developments which reinvigorated the regional movement. Their argument for a linguistic state was better received in nationalist circles than it had been in 1903. Motilal Nehru's 1928 report on a future constitution for India, for example, came out in favour of the redistribution of provinces on a linguistic basis.[25]

The return to regionalism was also influenced by contemporaneous moves from government which examined more closely the question of a unified and separate province for the Oriya-speaking community. Although statehood was not achieved from the Montagu-Chelmsford reforms, their report concluded that there was a case for territorial readjustment and the

[22] Mishra, *Language and the making of modern India*, p.112-113; Acharya, *National movement*, p.21.
[23] Acharya, *National movement*, p.40.
[24] Mishra, *Language and the making of modern India*, p.106ff.
[25] Language replaced religion as "the dominant and most acceptable register for the Congress platform" (Mishra, *Language and the making of modern India*, p.139).

formation of a sub-province of Orissa with the consent of the other provinces.[26] Consequently, the Imperial Legislative Council passed a resolution in 1920 asking the Government of India to look at the issue of amalgamating the Oriya-speaking areas into a sub-provincial unit. The responses from the provincial governments were "evasive" and Madras suggested an enquiry was needed to gauge public opinion.[27] In 1924, C.L. Philip (Agent to the Orissa Feudatory States) and A.C. Duff (Collector of Bellary, in Madras) were appointed to investigate the opinion of the Oriya population in Madras on the possibility of amalgamation with Orissa. The Philip-Duff report, submitted in December 1924, concluded "that there is a genuine longstanding and deep-seated desire on the part of the educated Oriya classes of the Oriya speaking tracts of Madras for amalgamation of these tracts with Orissa under one administration."[28] However, resistance from the Government of Madras prevented any action being taken to amalgamate Ganjam and other Oriya-speaking areas with Orissa. Provincial intransigence may partly have been responsible for refocusing the movement on the regional rather than national. The next opportunity for the movement came with the arrival of the Simon Commission in early 1928. Parts three and four deal in greater detail with the Simon Commission but the response to the Commission captured the divergence between the national anti-colonial and moderate, regionally focused, movements in Orissa. On the one hand, the nationalist faction of the Oriya movement joined with the Indian National Congress in strongly condemning and coordinating a boycott of the Simon Commission in Orissa. On the other hand, the Utkal Union Conference openly welcomed the Commission at the train station in Patna – the story goes that Simon was so impressed by the reception he received, he agreed to set up a sub-Committee headed by Clement Attlee to look at the question of an Oriya-speaking province.[29]

When we speak of a 'movement' it primarily describes the actions, speeches and writings of an educated Oriyan elite. Half of the standing committee of the first Utkal Union Conference were local rajahs, including the Raja of Kanika and the Maharaja of Mayurbhanj, whose

[26] The report behind the reforms stated: "It is also a strong argument in favour of linguistic or racial units of government…wherever such redistributions are necessary and can be effected by process of consent the attempt to do so should be made…in Orissa and Berar at all events it seems to us that the possibility of instituting sub-provinces need to be excluded from consideration at a very early date." *Report on Indian constitutional reforms* (London: H.M Stationary Office, 1918), p.200.
[27] B. Devi, *Some aspects of British administration in Orissa, 1912-1936* (Delhi: Academic Foundation, 1992), p.195. Devi includes a copy of the report.
[28] Devi, *Some aspects*, p.196.
[29] J. Choudhury, 'Formation of modern Odisha and the contribution of the British King-Emperor', *Odisha Review* (April 2016), p.96. Whether or not this anecdote is accurate – and does seem too neat to be true - it nicely illustrates the difference between the anti-colonial and the provincial movements.

financial support and reputation were essential to implement the socio-economic programmes and legitimise the territorial demands of the UUC, while the rest were mostly lawyers and government employees. That it was the elites who formulated a group identity in a push for statehood was not unusual in the context of colonial India, as Brass' work on the Maithili movement has indicated.[30] The UUC's social and economic programmes for the Oriyan people were part of a "commitment to the liberal progress of the individual and the community and the possibility of greater…access to modes of production and circulation of colonial capital", in order to prepare the Oriyan people for self-determination and provincial autonomy.[31] The nexus between civilisation and statehood was most evident in the Oriyan elite's arguments for incorporating Adivasi communities into the new province. They argued that the Adivasis did not know what was best for them but joining a civilised and liberal Orissa would protect them from the "intermediary ruling races" - in other words the 'foreign' Biharis and Bengalis.[32]

Returning to Grierson's map of the Oriya language from volume 5, it should be noted that the Utkal Union Conference did not contact Grierson or seek to co-opt him personally in the movement, as the Maithili language movement would later try. But the map does raise the question of who has the authority to cartographically represent a language. Clearly there was a vernacular mapping culture in Orissa with mapmakers such as Sasibhushana Chattopadhyaya producing regional, national and international maps in the Oriya language. A local publisher would certainly have been able to compile and print a map of the territorial claim for the movement to use and append to the 1917 memorial. Grierson was deployed by the movement not because his maps were particularly better, but because of his claim to authority. Grierson's name, and the reputation of the LSI, were authoritative not only in government circles but internationally. By drawing attention to 'Dr. Grierson's map', the petitioners were not simply informing the colonial government in India that their demands neatly aligned with a highly regarded view of India's linguistic geography, but were also leveraging its international reputation to make an appeal that went beyond India's borders. Nevertheless, Grierson did not intend his maps to be used in such way. The next section interrogates in more detail Grierson's views on regional-nationalist politics, and arguments for self-determination and statehood based on language.

[30] P. Brass, *Language, religion and politics in North India* (Cambridge: Cambridge University Press, 1974).
[31] Mishra, *Language and the making of modern India*, p.114.
[32] Mishra, *Language and the making of modern India*, p.193-195.

Grierson's views on linguistic nationalism

What were Grierson's views of, and were his views influenced at all by, this milieu of regional nationalisms which was not confined to India but part of a broader international climate in the aftermath of the First World War?[33] The LSI saw India as a jumble of linguistically informed nationalities and "played a key role in ongoing processes of regional linguistic identity formation", as Majeed rightly concludes.[34] Grierson, however, did not necessarily believe these regional linguistic identities could be translated into the political sphere and used to justify regional self-determination or make claims to territory and/or statehood. Gauging his political views is difficult since the Grierson who comes out of the archive does not appear to be overtly political. This could be a product of the curation and culling of the surviving correspondence by Grierson, but it could also be that he was simply uninterested in politics. Majeed asserts that 'Grierson and his correspondents held conservative political views', which is certainly true of many of his correspondents, yet it is difficult to argue that it translated into any sort of active engagement, or even great interest, in politics on the part of Grierson.[35] While Grierson may not have been sympathetic to the nationalist movement in India, out of loyalty to an empire he had served, neither did he join in with some of the more reactionary anti-nationalist movements in Britain. Grierson's ambivalence is most evident in his relationship with the Indian Empire Society, set up in 1930 to champion British imperialism in the subcontinent. Although he initially agreed to be added to a list of supporters, very soon after he asked to have his subscription cancelled, possibly no longer identifying with the aims of the Society.[36] But as a state-funded project the LSI had to navigate a fine line between government and scholarship, which meant it unavoidably touched on issues which might be described as 'political'. The LSI archive is revealing of Grierson's opinions on certain questions about language which animated

[33] The aftermath of the war and the Paris Peace Conference which followed were seen as a time of promise for many nationalist movements, with ideas around self-determination and minority rights emerging from or being supported by leaders such as President Woodrow Wilson. Although the Conference ended up preserving and extending the pre-war imperial position of the victorious parties, that failure strengthened anti-colonial and nationalist sentiments across the globe in the interwar period. See E. Manela, *The Wilsonian moment: Self-determination and the international origins of anticolonial nationalism* (New York: Oxford University Press, 2007).

[34] Majeed, *Nation and region*, p.43-44.

[35] Majeed, *Colonialism and knowledge*, p.38. Grierson's conservatism is not strongly evident in the archive, compared to many of his correspondents, apart from some of his memberships. It is certainly possible that he shared the views of some of his correspondents, but we should be careful not to overemphasise those relationships.

[36] Majeed, *Colonialism and knowledge*, p.41.

nationalist movements, and his thoughts on self-determination. Grierson's views on nationalism – linguistic, regional, or otherwise – might best be described as ambiguous.

Grierson would have been sympathetic to the issue which sparked the nascent Oriya language movement: the right to be educated in their own language and use Oriya in local government and courts. After all, a principal justification for pursuing a survey of languages and dialects was to bring the 'official class into easier and closer communion with the people who are now held at arm's length by the use of what is virtually a foreign tongue".[37] For Grierson, the onus was on the official to have a competent grasp of the principal languages or dialects of the area they were assigned to. Grierson was also strongly in favour of improving vernacular textbook provision, particularly of languages like Oriya which were regionally prominent yet neglected by the state. Asked by the Director General of Education in India to give his opinion on a forthcoming report on vernacular textbook provision in Bombay Province, Grierson wrote of his support for much more investment in Sindhi, Marathi, Kanarese and Gujarati textbooks for the appropriate schools.[38] For Grierson, state provision of vernacular textbooks could also help regulate society.[39] That was particularly evident in the caveat Grierson applies to vernacular textbooks: they should be examined by a European since "no native, however highly educated…can judge properly as to whether according to English ideas, a book is suitable."[40] The purpose of vernacular textbooks – and other programmes to promote and protect vernacular education - was ultimately not to satisfy provincial or ethnic demands but to reach a broader audience than Hindi, Urdu, or even English could, to inculcate a 'static traditionalism' or conservatism in the language of the educated colonial subject.[41]

The championing of provincial vernaculars by state officials may have also been a reaction to the national language question which plagued the anti-colonial movement. The most notable proponent for a *lingua franca* was Gandhi who, although respecting the importance of vernacular languages in educating the masses, felt that India needed a common language if it were to be a successful nation. He had settled on a northern Indian language, Hindustani (which included both Hindi and Urdu) to unite one of Congress' most sensitive divisions: religion. Although Congress promoted provincial language associations and would come out in favour

[37] NAI. Home/Public A/June 1887/311-329. Peile to Finance Department (d. 12/4/1887).
[38] IOR. S/1/2/10. Dir. General of Education in India to Grierson (d. August 1904).
[39] A. Pennycook, 'Mother tongues, governmentality and protectionism', *International Journal of the Sociology of Language*, 154 (2002), p.20.
[40] IOR S/1/2/10. Grierson to Dir. General of Education (d. 9/9/1904).
[41] Pennycook, 'Mother tongues', p.20.

of linguistic reorganisation, the choice of Hindustani as a national language became a subject of political debate and many in the independence movement – not Gandhi, per se – promoted Hindi, rather than Hindustani, as an expression of Indian nationalism.[42] It is within such context that Grierson's correspondence with Edward Gait explains their critical view of Hindi, or even Hindustani, being advocated as a national language by the nationalists. Gait wrote to Grierson that there was "now a tendency in certain quarters to belittle linguistic differences", citing the Maharaja of Baroda's claim – who was close to the independence movement – that he had never met a native of India who could not understand 'easy Hindi'.[43] Grierson replied that "any man of northern India who has been to school will understand it, but to many millions of uneducated villagers who have never been to school, Hindi, be it ever so easy, is quite unintelligible…in the south, the case is of course even stronger."[44] Gait, who was operating as the Census Commissioner for 1911, was writing to Grierson to complain about the politicisation of the enumerators in Upper India who were being pressured to record Urdu instead of Hindi and Punjabi or vice versa.[45] Promoting provincial vernaculars may even have been employed as a divide-and-rule tactic by the government in India against the national anti-colonial movement, where regionalism was in effect hampering nationalism. James Peile might have been alluding to this as early as 1887, in claiming that one "advantage in regard to vernacular education…. the value of provincial literature [tends] to keep alive a *provincial sentiment* instead of a tame monotonous centralisation."[46] Linguistic regionalism was certainly something the anti-colonial nationalist movement could not ignore, culminating in Congress coming out in favour of linguistic provinces.

On the broader idea of self-determination, Grierson's correspondence with Syamacharan Ganguli is unusually forthright for someone who evidently kept up to date with world affairs but appeared not to be overly concerned with politics. Syamacharan Ganguli had been the principal of Uttarpara College near Calcutta, but he was also a prolific contributor to different

[42] E. Annamalai, 'Politics of language in India', in P. Brass (ed.) *Routledge handbook of South Asian politics* (London: Routledge, 2010), p. 217.
[43] IOR. S/1/14/2. Gait to Grierson (d. 6/7/1911).
[44] IOR. S/1/14/2. Grierson to Gait (d. 1/8/1911).
[45] Paul Brass has written more about the politicisation of the census operations in Uttar Pradesh, and in particular Bihar, where he concludes that the census results about Hindi-Urdu-Hindustani cannot be taken seriously as a source of linguistic information for this reason (see Brass, *Language, religion and politics*, p. 190).
[46] NAI. Home/Public A/June 1887/311-329 (d. 12/4/1887). Peile to Finance Department (12/4/1887). My emphasis in italics.

Indian periodicals including the non-partisan but nationalist *Modern Review*.[47] Their correspondence mainly consisted of Ganguli sending Grierson his *Modern Review* articles on phonetics and the internationalisation of English, followed by Grierson's opinion on the points Ganguli raised.[48] Ganguli also shared a couple of articles which he wrote on the Paris Peace Conference, the question of self-determination, and what would happen to the nations and - of immediate concern to India - the colonies which formed part of the defeated imperial powers (German, Ottoman empires etc.). The first article headed 'Self-determination as The Basis of a Just Peace' (*Modern Review*, February 1919), articulated Ganguli's opinion on how self-determination should be applied to Europe and the former German colonies to ensure a just and lasting peace. Grierson's response to the article was rather polite, pointing out that he trusted the representatives to do the right thing to curb German power.[49] But his view on self-determination for German colonies in Africa was more ambivalent, writing that he did "not think that there is any chance of England deciding to annex the German colonies, but it is out of the question to return them to Germany".

Ganguli followed up with a second article in January 1923, 'Self-Determination and India's Future Political Status', which directly tackled the question of self-determination for India. Grierson's response to the second article was more forthright, writing "I have not been able to make up my mind clearly on the subject, as I am not certain as to how far a general adoption of self-determination all over the world, would result in general benefit…."[50] Grierson was not categorically against self-determination but cautiously (conservatively, others may argue) erred on the side of the status quo. He was certainly not as hostile to self-determination or self-rule as some other colleagues, like those who actively supported the pro-imperial Indian Empire Society. To understand Grierson's uncertainty on the question of self-rule, one possibly has to look past India to his Irish roots. The Easter Rising occurred in 1916 and by 1919 the Irish Republicans declared independence, leading to conflict and eventually the creation of the Irish

[47] Founded by the noted journalist, Ramananda Chatterjee, *Modern Review* became a leading journal for many prominent nationalists in India and published work by Tagore and Jawaharlal Nehru, among others. For more on the life and history Ramananda Chatterjee and *Modern Review* see K. Chatterjee, *Media and nation building in twentieth-century India: Life and times of Ramananda Chatterjee* (Abingdon: Routledge, 2020).
[48] One such article was 'Esperanto versus English Internationalised" in which Ganguli made the case for English as an international language rather than Esperanto (*Modern Review*, November 1919). Ganguli seems to have had a very international view of language but Grierson doubted whether British newspapers would also publish it on the basis that they were "philistine" on matters of language (Mss Eur. D584. Grierson to Ganguli, d. 24/4/1920).
[49] Mss Eur. D584. Grierson to Ganguli (d. 21/2/1919). Grierson was also keen to stress that he had been against war and had many German friends, but that the conflict was the fault of Germany.
[50] Mss Eur. D854. Grierson to Ganguli (d. 23/1/1923).

Free State. Grierson was not pro-Irish nationalism and was even, as Majeed points out, a member of the Camberley branch of the National Unionist Association.[51] But he also had, as Majeed also compellingly argues, a heightened sense of the difference between Anglo-Irish and other British members of the ICS, and the anti-Irish prejudice simmering in the British colonial administration.[52] By occupying a liminal position between an imperial insider and Anglo-Irish outsider, Grierson could be both against self-rule but also aware of the sentiments which motivated demands for self-determination.

The question remains whether Grierson thought self-determination could be translated and applied to India, or even to provincial movements such as the Oriya language movement. Much has been written, including at the time, on the hypocrisy of self-determination as it was being applied at the Paris Peace Conference which championed "the right of the European nations to self-determination" but "denied the same right to their Indian subjects until the very last phase of the raj and granted it without grace only when forced to do so under the impact of the anti-imperialist struggles of the subject population."[53] Wilson's conception of 'self-government', for example, only came to be applied to Europe and not to the European colonies in Africa and Asia where former German colonies were turned into mandates.[54] Grierson's conservative inclination towards the status quo was not surprising. Yet the Oriya movement showed how the language of national self-determination could be co-opted to make their provincial claims while remaining part of the imperial system. Members of the Oriya movement argued that 'responsible government' included recognising the right of Oriyans to self-determine as a separate linguistic province, with all the benefits that brought, but as a constituent part of British India.[55] Grierson's view of provincial self-determination on the basis of language – which may have concerned him more as a linguist – is unclear. Yet we see linguistic movements, such as the Maithili movement, try to co-opt Grierson and the LSI in support of their right to organise and govern themselves as a province.

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[51] Majeed, *Colonialism and knowledge*, p.91.
[52] Majeed, *Colonialism and knowledge*, p.92-95.
[53] R. Guha, *Dominance without hegemony: History and power in Colonial India* (Cambridge, MA: Harvard University Press, 1997), p.4. For a good account of the hypocrisy of the Western idea of self-determination in the colonial and Asian world see, Manela, *The Wilsonian moment.*
[54] J. Castellino, *International law and self-determination: the interplay of the politics of territorial possession with formulations of post-colonial 'national' identity* (The Hague: Martinus Nijhoff, 2000), p.15-19. In contrast to Wilson, Lenin asserted that all colonies should be free to self-determine based on two rights: the right to organise their own state and the right to be free from foreign rule. See, K. Roepstroff, *The politics of self-determination* (Abingdon: Routledge, 2013), p.11.
[55] This claim is repeatedly found in the petitions submitted to various commissions including the Simon Commission. See IOR. Q/13/1/4. Bihar & Orissa Memoranda to Simon Commission.

What is most striking about the correspondence with Ganguli is not Grierson's ambivalence on the issue, but that we get a glimpse of his views on world affairs and the much-debated idea of self-determination, which was more than a courteous response to Ganguli's eagerness to share his articles. Whereas we do not get a great sense of Grierson's broader political (or related) views from the LSI archive, Ganguli's correspondence suggests that Grierson openly discussed such matters. This could be explained by the nature of the surviving LSI material. Ganguli's correspondence is separate from the principal LSI files, having been donated to the British Library by a Mr. Saha in 1960. The correspondence therefore survived the self-archiving done by Grierson where he likely got rid of correspondence which may have touched on broader political issues at the time, maybe because he found them irrelevant to the Linguistic Survey of India, or possibly because he wanted the LSI to remain apolitical.

Another dimension to linguistic nationalism in India was the issue of a national script and the development of the modern Nagari movement, which is often seen as part of the broader Hindi-Urdu debate in India.[56] Having a unified script to write all of India's languages was held by some early nationalists as an important step towards unity and independence, but the choice of Nagari – which was based on the ancient Brahmi script – came to be seen as a challenge to the hegemony of the Urdu-Persian script in North India and, by extension, another way to undermine Muslims in India.[57] Grierson had strong words to say about the debate over the use of the Nagari or Persian script to write Hindustani.

> Amongst fanatics who ought to know better, but do not wish to do so, this question of characters has unfortunately become a sort of religious shibboleth. True Hindostani can be written with ease in either character, and Musalmans find it easiest to read it in the Persian and most Hindus in the Deva-nagari. But, owing to the fact that the extreme varieties of Hindostani on each side can only each be written in one character, these fanatics have confused alphabet with language. They say, *because* it is written in Deva-nagari *therefore* it is Hindi, the languages of the Hindus, and because a thing is written

[56] The Nagari script, also known as Devanagari, was based on the ancient Brahmi script and is the most used script in modern India. For extensive accounts of the Nagari movement and the politics of scripts, see: C. King, *One language, two scripts: The Hindi movement in nineteenth century North India* (Oxford: Oxford University Press, 1994); the special issue on 'Script and identity – the politics of writing in South Asia', ed. C. Brandt & P. Sohoni, *South Asian History and Culture*, 9:1 (2018).

[57] C. Brandt & P. Sohoni, 'Script and identity - the politics of writing in South Asia: an introduction', p. 9. The first-generation nationalist, Bal Gangadhar Tilak, was a notable proponent of Nagari becoming the national script of India. It did not receive much support in the nationalist movement but became more important after independence.

> in the Persian character *therefore* it is Urdu, the language of Musulmans. Nothing could be further from the truth. The written character does not make a language.[58]

Grierson's strong criticism of the politicisation of Nagari or Persian also extended to government policy, noting that attempts to introduce the Nagari script for official documents were ridiculous since the authorities should have been aware that Sanskritised Hindi was just as unintelligible to the masses as Persianised Urdu.

Nonetheless, Grierson was not an ardent supporter of regional variation in scripts. For example, he thought the popular legal and administrative Kaithi script used in Northern India and Bihar since the 1880s should have been replaced by Nagari, even if it had been an improvement on the Persian script.[59] And Grierson was sympathetic to the argument for a national script for administrative and political convenience, but "it would take a long time to get any character accepted universally. It would not be a case of Indian patriotism but of provincial or sectarian prejudice. Each province would cling its own character, and, I fancy, it would take a century or two to persuade the people to give it up."[60] The story of post-independence India is one of scripts being standardised on a provincial rather than national basis, as Grierson expected.[61] Interestingly, Grierson had a low opinion of the Oriya script in particular, writing, "even the Oriyas cling to their illegible character, though they know its imperfections. They can't read it themselves…and will not embrace any other mode of writing."[62] Whether or not Grierson was right about its illegibility, the script was a cultural marker for the Oriya community. Being able to write in their own language – however small the number who could write - was another reason for demanding a separate linguistic province.

The LSI, Oriya and Maithili movements: a comparison

Although the Utkal Union Conference used the Linguistic Survey as evidence for their claims, there is no evidence that Grierson was directly contacted by members or allies of the movement

[58] LSI, 9.1, p.49-50.
[59] Mss Eur. D584. Grierson to Ganguli (d. 13/12/1911). The Kaithi script was an old script associated with pre-British court administrators and therefore became the official script of law courts in Bihar under British rule and was more popular than Nagari in other parts of North India. However, Kaithi partly fell out of favour because the Hindi-speaking elites rejected it as inferior to Nagari in social and religious contexts (King, *One language, two scripts*, p.65-69.)
[60] IOR. S/1/7/1. Grierson to Slocock (d. 4/9/1918).
[61] Brandt & Sohoni, 'Script and identity', p.10. As they point out, it has been the states and not central government which has driven the standardisation of scripts post-independence (usually the script of the dominant regional language).
[62] IOR. S/1/7/1. Grierson to Slocock (d. 4/9/1918).

for support. This was perhaps unsurprising once the published Linguistic Survey had taken on a life of its own and become authoritative in its own right. Nonetheless, Grierson was probably aware there were demands for a linguistic province of Orissa even if he was not apprised of the finer details, nor aware that his map of Oriya had been used by the UUC to make their territorial claim. Grierson clearly kept abreast of news from India, especially Bihar where he had served. Bihar had formed a joint province with Orissa between 1912 and 1936 and it seems likely that Grierson would have read or heard about events related to the Oriyan demands for their own province. Some of his acquaintances were also involved in the discussions concerning the new province. Grierson was invited to have dinner with G. V. Sitapati, the son of an old friend, who happened to be in London in 1933 to "give evidence before the Secretary of State regarding the Telugu contention that the Telugu tracts of Ganjam should not be transferred to Orissa."[63] G. V. Sitapati was one of many travelling between India and London to outline or contest the future boundaries of Orissa, and Grierson, a former ICS officer, would surely have been aware of some of the momentous discussions happening at the time in London.

There was, however, another linguistic movement which sought Grierson's support for their cause – the Maithili movement in Bihar. The height of the campaign to achieve a separate Maithili state took place in the first decades after independence, and continues to this day, but the nascent movement developed in the 1910s and 1920s while Grierson was still actively working on the LSI. The intention of this section is not to cover the movement in detail as there is an extensive body of literature which has already done so.[64] But the early Maithili movement gives an exceptional insight into how a linguistic movement tried to co-opt Grierson intellectually and emotionally to their cause.

Grierson's importance to the Maithili movement cannot be understated. His early philological scholarship as a junior officer in Bihar included an article on Maithila folklore and one of the first accounts of the Maithili language with a grammar and vocabulary.[65] Grierson's

[63] Mss Eur. E223/285. G.V. Sitapati to Grierson (d. 20/7/1933). The committee in question was the Joint Select Committee on Indian Constitutional Reform which reviewed what would eventually become the Government of India Act, 1935. Whether Ganjam would remain part of Madras or join the new province became one of the most disputed territorial issues in the creation of Orissa.

[64] The Maithili language is an Eastern Indo-Aryan language spoken today in Bihar, Jharkhand and into Nepal. The first comprehensive academic study of the movement can be found in P. Brass, *Language, religion and politics in North India* (Cambridge: Cambridge University Press, 1974). For a more recent in-depth study see, M. Jha, *Language politics and the public sphere in North India: Making of the Maithili movement* (Oxford: Oxford University Press, 2018).

[65] Published as 'An introduction to the Maithili language of North Bihar, containing a grammar, chrestomathy and vocabulary' in the *Journal of the Asiatic Society of Bengal* (1881-1882).

philological work helped establish the distinctiveness of the Maithili language and literary culture which would underpin the movement's argument for recognition and statehood. Furthermore, his reputation in India and Britain, and as a leading scholar of the language, made him a potentially valuable ally for the Maithili cause. The Maithili Sahitya Parishad (Maithili literary council) wrote to Grierson asking if he would support their attempt to have the government recognise Maithili as a distinct language rather than a dialect, with all the privileges this entailed.[66] But the most productive opening for the movement was the close relationship between Grierson and the Maharaja of Dharbhanga, Rameshwar Singh, who supported and funded various activities of the movement. The Maharaja and Grierson had built a friendship, even becoming tennis partners, during Grierson's time in Bihar and they continued to correspond after he acceded to the throne in 1898. Eventually the Maharajah tacitly sought Grierson's approval for a Maithili state, sending Grierson a copy of the memorial he had sent to the Governor of Bihar and Orissa, Baron Sinha, which demanded the creation of a separate Maithili-speaking province to be governed by the Maharajah, restoring his historical right to govern the Maithils.[67] Grierson's response to the memorial is not recorded but the assumption on the Maharajah's part must have been that having the author of the Linguistic Survey on their side would benefit the cause. In fact, the correspondence does not reveal what Grierson thought of the Maithili cause. One reason might be, as already mentioned, Grierson's archival redaction. Alternatively, maybe he held no strong opinion on the matter or disagreed with his friend but did not say so out of courtesy. Perhaps he was sensitive to the risks of getting involved politically, sharing his opinion one way or another, as a former civil servant.

While the Oriya language movement succeeded in achieving statehood in 1936, the Maithili movement has failed to date. The push for separate statehood continues, most recently after Maithili was finally recognised as an official language in the eight schedule to the Constitution of India in 2004.[68] However, there were some significant common characteristics to both linguistic movements. The most obvious is that they were both predominantly elite movements driven by the educated classes of their respective areas. That is the least surprising similarity considering these movements centred on perceived linguistic and cultural discrimination in literature, education, and the courts or administration, areas which only some Indians ever had

[66] Mss Eur. E223/231. Corr. from Secretary, Maithili Sahitya Parishad ('the case of Maithili before the Patna University'). They were specifically asking for support so that Maithili could be recognised as a language of instruction in higher education.
[67] Mss Eur. E223/231. From Maharaja of Dharbhanga. Copy of memorial sent to Baron Sinha published in the *Pioneer Press*, Allahabad (d. 1921).
[68] For more on the movement since the 1990s, see M. Jha, *Language politics and the public sphere*.

access to. While they certainly tried to improve the economic and social wellbeing of the masses, and raise national consciousness through culture and education, the direction of their campaigns was largely governed by the decisions of elite organisations such as the Utkal Union Conference. Local rajahs played an outsized role in both movements. In the case of Orissa there was a coterie of princes, including the rajahs of Kanika, Mayurbhanj and Parlakimedi, who offered financial support, places to host meetings and, in the case of Parlakimedi, estates which became disputed territory. In the case of Maithili, the Maharaja of Dharbhanga was instrumental in setting up the Maithil Mahasabha and other linguistic organisations, which later led to accusations that demands for statehood reflected the personal ambitions of the Maharaja rather than any sort of popular pressure for it.[69] The demands of both movements were also comparable, making the case for territorial separation from another province(s) to form a linguistically homogenous province, on the basis that their language (and culture) was under threat from a hegemonic language (e.g. Bengali or Hindi). Separation and self–rule were the only ways to avoid linguistic 'annihilation' from their perspective. These linguistic provinces were not considered 'new' provinces but rather a rightful return to an imagined historical *status ante quo,* when they were a unified and independent nation, which had subsequently been 'dismembered' or subsumed by various foreign invasions and settlements. In other words, the Oriyas or Maithilis could govern their own province because they had done so before.

A striking parallel which the literature has largely overlooked is the geographical proximity of (in terms of India) the Oriya and Maithili movements. The Oriya movement was of course agitating for an independent Orissa, which comprised the southern half of the province of Bihar and Orissa. The Maithili movement, on the other hand, was claiming a part of northern and eastern Bihar centred on Dharbhanga and Madhubani. That these two movements were found in western Bengal and then subsequently Bihar and Orissa seems more than a coincidence. One reason could have been the circulation of news and information in the province and growing awareness of the Oriya movement in Bihar. But another reason might have been that by partitioning Bengal in 1905, then subsequently reunifying East and West Bengal and separating Bihar and Orissa in 1912, the government was openly admitting that Bengal was severely misconfigured in geographic terms and partition had failed to fix it. Arguments in favour of

[69] Brass, *Language, religion and politics,* p.54. Brass suggests there were suspicions that such demands only reflected the personal ambitions of the Maharaja of Dharbhanga. This is quite evident from the memorial sent to Baron Sinha which comes across more self-aggrandizing than a popular demand for a separate province.

reunifying the Oriya-speaking population connected the experience of partition with their own cause, pointing out that,

> the people argued that people who speak one language and who are bound to one another by the similarity of language, tradition, custom and social ties should be placed under one Government. They rightly pointed out that the interests of the people will suffer materially if they are separated and placed under…two separate authorities. That has been the argument on behalf of the Oriyas also, they make their stand on the same ground.[70]

The experience of continual territorial readjustments would only have confirmed to the Oriya and Maithili movements that their territorial demands were justified and could be achieved.

Where the two movements differed was in their use of Grierson and the Linguistic Survey to support and justify their claims. For the Maithili movement, greater emphasis was placed on the figure of Grierson as a leading authority on Maithili, friend of the Maharaja and former official in the region. Grierson was considered to have played a critical role in getting Maithili recognised as a distinct language through his work and ultimately seen as a potential ally for the movement. What the Linguistic Survey had to say mattered less as Grierson had put Maithili on the map, so to speak. Members of the Oriya movement, on the other hand, made and justified their territorial demands through the Linguistic Survey of India. The figure of Grierson was peripheral to their demands; he was never approached for support nor considered a leading expert on the language. What the Oriya movement obtained from the LSI was not recognition through classification – that process had been ongoing since the 1860s – but an authoritative geographical legitimation for a future Oriyan state. That authority stemmed from the LSI as a collaborative project between state and scholarship, which – from their point of view - decisively materialised the geography of Oriya on the map.

Cartographic arguments and counterarguments

The Linguistic Survey became the medium through which the future shape of Orissa was legitimised by those agitating for statehood. Hence, the 'survey' mattered more than the 'linguistic' element of the LSI. This section explores in greater detail how the Linguistic Survey

[70] IOR. L/PJ/6/1788. B&O Assembly. *Resolution: Separate administration for the Oriya speaking- tracts*. Speaker: Maulavi Shaikh Abdul Majid (d. 25/11/1921, p. 12).

was used to justify claims to statehood and assert the future geography of Orissa in the aftermath of Montagu-Chelmsford and in the run-up to the Simon Commission in 1928. It becomes clear that the Linguistic Survey and its maps kept being referred to in different political and administrative contexts, to establish a geographical justification for the amalgamation of predominantly Oriya-speaking areas and the territorial basis for a future, separate, province. Although repurposed for different settings, the underlying reason for citing the Linguistic Survey remained the same: it was perceived as an authoritative and unimpeachable source for the linguistic geography of Oriya.

If the Linguistic Survey could be used to make the argument for territorial realignment and provincial independence, it could also be used to argue against the claims made by the Oriya movement. This section further considers how the Linguistic Survey was deployed by those against amalgamation and separation or who simply questioned the validity of the argument put forward. Some counterarguments involved a different reading of the LSI's maps, while others used the findings from the LSI to challenge the fundamental linguistic question of whether a community or tribal group were speaking a dialect of Oriya or not. However, in the course of making claims and countering them, the limits of the Linguistic Survey's cartographic approximations become apparent. As tensions over reunification and the push for a separate province intensified in the 1920s, up to date language statistics and demographic information become more important for arguing which areas should, or should not, be included in a future province of Orissa and where the boundary would be drawn. The 1911 and 1921 Censuses, and their maps, superseded the Linguistic Survey, and its 1903 Oriya map, in reliability by the time the Simon Commission released its two-volume summary in 1930.

The LSI and the case for a linguistic province

The Montagu-Chelmsford reforms failed to deliver any tangible changes for the linguistic movement. Bihar and Orissa remained a joint province and none of the external Oriya-speaking areas were merged with Orissa. But the Montagu-Chelmsford report acknowledged their ambitions and suggested the issue of linguistic provinces needed to be considered. Territorial realignment based on language was not an unrealistic demand as long as it happened through a process of consent. Sachchidananda Sinha, a member of the Imperial Legislative Council, took up the suggestion in 1920 and proposed a resolution to formulate a scheme for the

amalgamation of all external Oriya-speaking areas to Orissa Division of Bihar and Orissa. However, the provincial government had little power to command other provinces to join any formulation, so the issue was taken up by the Government of India who asked the various provinces for their views. Consequently, the push for reunification of Oriya-speaking territories leading up to the Simon Commission was contested in three realms: the political sphere, the public sphere and through commissions and enquiries set up to look into the matter.

A significant political setting for debating amalgamation were the provincial legislative councils which had been expanded and given greater status as a consequence of the Montagu-Chelmsford Reforms.[71] Sachchidananda Sinha's resolution led to lengthy discussions in the Bihar and Orissa legislative council where some pro-amalgamation politicians continued to deploy the Linguistic Survey, as the Utkal Union Conference had done in their 1917 petition. A lawyer and member of the council, Rebati K. Ghosh, pointed out that if the Government of India needed any evidence for which areas should become part of Orissa, they would only have to go "by the records which they have collected under expert labour and careful survey…[nothing] more authentic document that the Linguistic Survey of India."[72] He then went on to quote in full the LSI's geographical description of Oriya from volume five. Interestingly, his point also unintentionally drew attention to a weakness of the LSI as a geographical source - it was fast becoming outdated as India's political geography and demographics shifted: "Unfortunately Mr. Grierson is not in India now to revise his survey once more and to record that it is spoken now in four Governments of British India and not in three as he states".[73] This point will be explored later in the section.

For those making the case for amalgamation, the authority of the Linguistic Survey was not only its breadth and depth of linguistic knowledge, but that it confirmed the validity of earlier linguistic research undertaken in colonial India. In the same meeting, Pitabas Patnaik argued that Andrew Sterling's conclusion in 1846 that a portion of the hills and woodlands of Godavari were historically part of an Oriyan kingdom was correct because the Linguistic Survey had confirmed it.[74] But the LSI was not simply a highly respected source of knowledge for the

[71] The Government of India Act, 1919, expanded the Bihar & Orissa Legislative Assembly from 43 members to 103, increasing the number of elected non-Muslim and Muslim representative to 48 and 18, respectively.
[72] IOR. L/PJ/6/1788. B&O Assembly. *Resolution: Separate administration for the Oriya speaking-tracts*. Speaker: Babu Rebati Kanta Ghosh (d. 25/11/1921, p. 7-8).
[73] At the time Grierson published the Bihari and Oriya volume (1903) the three provinces were Bengal, Central Provinces and Madras. The fourth province meant Bihar & Orissa which had been created in 1912.
[74] IOR. L/PJ/6/1788. B&O Assembly. *Resolution: Separate administration for the Oriya speaking-tracts*. Speaker: Babu Pitabas Patnaik (d. 25/11/1921, p. 16).

geography and linguistics of Oriya, for some the Linguistic Survey carried a *moral* authority for reunification and would correct the "dismemberment" of the "holy land" of India.[75] This was typified by another member of the legislative council, Shaikh Abdul Majid, who stated that "the justice of the cause has never been doubted and their contentions are borne out of government publications such as the reports on the Linguistic Survey of India".[76] It was not unusual for Grierson and the Linguistic Survey to become more symbolic for a linguistic movement in India. The Maithili movement retrospectively intertwined Grierson's personal biography with their cause through his writings on the language, making him a central part of their historical narrative and an important figure for a future state.[77]

In the public sphere, the Linguistic Survey continued to be used on the same terms as the Utkal Union Conference had used the LSI's description in their petition to Edwin Montagu in 1917. With the arrival of the Simon Commission over a decade later, the principal petition from the Oriya community continued to cite Grierson's cartographic description of Oriya, but with a few essential adjustments reflecting subsequent changes. That was understandable as the description and map were over two decades old by 1928. First, members of the movement were no longer claiming the areas indicated by Grierson but demanding a "linguistic boundary…corroborated by Dr. Grierson in his Linguistic Survey of India."[78] This reflected a change in purpose for the movement. In 1917 a separate province was an elusive ambition but by 1928 it was plainly obvious that the national and provincial governments were taking the matter seriously. The contentious issue was where the line would be drawn to demarcate Oriya and non-Oriya speaking areas into a province. The petition also adjusted the outdated details of the cartographic description, pointing out that the Native States, which were then in Chota Nagpur, had subsequently transferred to the Orissa Tributary States (in 1905) while clarifying that Oriya was no longer spoken in three, but four, provinces. Apart from those few clarifications, the Linguistic Survey's geographical outline of Oriya remained a meaningful basis for a future province of Orissa. But those clarifications were not minor details.

Smaller organisations within the broader umbrella of the movement also incorporated and sometimes adapted the LSI's geographic information to their specific public demands. In a

[75] As it was described in the 1917 UUC memorial to Montagu.
[76] IOR. L/PJ/6/1788. B&O Assembly. *Resolution: Separate administration for the Oriya speaking- tracts.* Speaker: Maulavi Shaikh Abdul Majid (d. 25/11/1921, p. 12).
[77] Majeed, *Nation and region*, p.9-12.
[78] IOR. Q/13/1/4. Item 31: Memorandum to Indian Statutory Commission from Oriya Deputation (d. 1928/1929).

pamphlet, along with a petition, arguing for the introduction of the Oriya language in their district schools and courts, the Singhbum Utkalsabha outlined the linguistic geography of the district by quoting Grierson's observation that Oriya was the language of the district of Singhbum, even though it was part of Chota Nagpur.[79] The LSI became evidence for self-determination at different scales – provincial, divisional and district – an inevitable consequence of the LSI's scalar approach to surveying and mapping in which the district was the constitutive unit of India's linguistic geography. The Singhbum Utkalsabha were merely drawing on the LSI's calculation to claim that language policy should be decided at a district level, not provincial or divisional.

Grierson's map of Oriya, as it featured in the book published alongside the memorial to Montagu, was also circulated between governments and officials as part of the internal discussions over amalgamation and provincial independence. The Government of India, for example, sent a copy of the Montagu memorial to the Simon Commission, along with other petitions and submissions to the central government in the intervening period.[80] More to the point, the provincial governments began making enquiries across their services after Sinha's resolution was adopted by central government, and in some instances Grierson's map of Oriya was also used to inform officials higher up what the Oriyan demands were. One example was a memo sent by the Commissioner for Orissa Division, J. F. Gruning, with a list of the claimed areas and copy of Grierson's map from the UUC, to the Chief Secretary to the Government of Bihar and Orissa.[81] The map was sent in 1921, which indicates it remained the basis for territorial claims in the early 1920s. But it also raises the possibility that provincial governments were not aware, or kept uninformed, of various demands and petitions which had been sent to other governments or committees. Gruning may have felt compelled to send a copy of the map because he was unsure whether the Government of Bihar and Orissa were aware that the map had come to embody the territorial claim for an independent Orissa. Members of the umbrella 'Oriya movement', who were dispersed across provinces, would often send specific petitions to the provincial authorities who governed their district. For instance, members of the movement in Ganjam – which was part of Madras – sent their governor an open letter demanding the transfer of the district to Orissa division.[82] Although the

[79] IOR. Q/13/1/4. Item 30: Memorandum to Indian Statutory Commission from Singhbum Utkalsabha (d. 1928/1929).
[80] IOR. Q/13/1/21. Item 5: Memorandum from the Government of India on the Amalgamation of the Oriya-speaking peoples (d. 1928).
[81] IOR. L/PJ/6/1788. Corr. Gruning to Chief Sec. Government of Bihar & Orissa (d. 26/3/1921).
[82] IOR. L/PJ/6/1140. Open letter to Governor of Madras from B. N. Misra (d. 24/3/1912).

different regional branches of the movement were in contact, the provincial governments appear only to have cooperated and shared information once the Government of India took up the matter.

Those arguing for a separate province were clearly also selectively using the LSI in their favour. The petition to the Simon Commission from Cuttack, and a speech by Shaikh Abdul Majid, both refer to a single sentence in the Linguistic Survey as factual evidence for the Oriya script being under threat from Bengali: "Sometimes the Oriya character is frankly abandoned, and the language is written in the Bengali character."[83] However, both ignored Grierson's low opinion of the Oriya script as "excessively awkward and cumbrous" which appeared a few pages after the selected quote.[84] The selective use of information is unsurprising but provides a window into how the Linguistic Survey could be read in many ways, and used for or against self-determination, territorial realignment and linguistic statehood.

Drawing a line: countering the Oriyan demands

The idea of merging all majority Oriya-speaking areas into a separate province faced stiff resistance from other politicians, officials and many non-Oriya minorities in the areas claimed for Orissa. In Madras there was resistance regarding the future of Ganjam district which had a sizable mixed population of Oriya and Telugu speakers. Grierson may have been aware of the Ganjam issue through G. V. Sitapati, the son of a former colleague, who was in London on behalf of the Telugu-speaking population to prevent the transfer of Ganjam to Orissa. Although not personally involved, their brief interaction symbolises how the Linguistic Survey was never far from a contentious linguistic issue in colonial India. Insofar as the LSI could be used to legitimise a future Orissa, it could also be mobilised to counter those claims and make the case against amalgamation. This section turns to how the Linguistic Survey and its language maps were used to dispute and counter the geographical assertions of the Oriya movement.

A fundamental issue which was consistently challenged, was whether the territories claimed were in fact predominantly Oriya-speaking. The challenge came from different officials and organisations and, in some instances, the Linguistic Survey provided the evidence to prove

[83] Quote is from LSI, 5.2, p.370.
[84] LSI, 5.2, p. 375. Grierson also criticised the Oriya script in his letter to Mr. Slocock on the question of a national script.

otherwise. The Commissioner of Orissa Division, J. F. Gruning, was asked by his superiors to give an opinion on the Oriya movement's territorial demands in Madras, Bengal and the Central Provinces to which he responded,

> The claim of the Oriyas from the linguistic view to the district of Ganjam excluding the taluk of Chicacole where the Telugus predominate, and to the Agency Tracts of Ganjam and Vizagapatam must, I think, be admitted…. South Midnapore is more doubtful. Dr. Grierson marks it in his map as "*mixed with Bengali"* and "*mixed with Santali"* and it is certain that it has become during its long connection with Bengal to a large extent Bengalicized…. A considerable Oriya element exists in the tract which it is proposed to transfer from the Central Provinces, but I am not aware if it is predominant. Dr. Grierson drew the dividing line across the States of Jashpur, Raigarh and Saranggarh and excluded Udaipur and Bastar, in the latter of which according to him the main language is Marathi Halbi, though Oriya is spoken in the north-east of the State.[85]

In his brief observations Gruning countered the UUC's reading of the Oriya map from volume 5 by pointing out that the map did not include Udaipur and Bastar as part of the Oriya zone, contrary to the claims made. The UUC could have anticipated Gruning by stating Grierson was mistaken when drawing the boundary, although that would have undermined the broader authority of the map. Nevertheless, Gruning's opinion highlighted that the approximate design – and, in a sense, lack of finality - of the LSI's language maps could be exploited as a base map on which territorial demands could be mapped onto, rather than an unalterable indication of linguistic geography. Gruning pointed to other maps in the LSI as evidence against their claims. The Oriya movement kept returning to the map from volume 5 which created the misleading impression that it was the only language map of Oriya in the LSI. On the contrary, there were two other significant maps, one which covered Oriya to the north, into Chota Nagpur (Fig. 29, p.165), and the other mapped the intersection of Bihari, Bengali and Oriya (Fig. 28, p.163).[86]

Gruning cross-referenced their claims regarding Midnapore with the latter map from the LSI to contest the unequivocal geographical demands of the Oriya movement. The Bihari, Bengali and Oriya map, which emphasised a more complex linguistic geography, was deliberately ignored because it showed more variation – in areas where Oriya was spoken, other languages

[85] IOR. L/PJ/6/1788. Corr. Gruning to Chief Sec. Government of Bihar & Orissa (d. 26/3/1921). My emphasis in italics.
[86] The map Gruning was referring to is titled *Map illustrating the meeting ground of Bengali, Oriya and Bihari*, from LSI, 5.1, p.106.

were also spoken, or included dialects which borrowed from Oriya and other regional vernaculars. Claiming these areas as Oriya-speaking was a political choice rather than a linguistic fact. Of course, it was no surprise the Utkal Union Conference selectively appropriated an LSI map which confirmed their political demands. However, the inconsistencies - and experimentation - in the LSI's mapping meant that one map could be contradicted by another or, at the very least, had to be read in conjunction with other maps.

Gruning's testimony also underlined how easy it was to fall into the trap of reading a linguistic map as Grierson had warned against. On the one hand, he successfully negotiated the map showing Bihari, Bengali and Oriya by reading the labels explaining that areas beyond a linguistic 'zone' often included bilingual or mixed linguistic communities or where local dialects borrowed from more than one regional language. At the same time, in criticising the extent of the Oriyan claim, he interpreted the Oriya map from volume 5 (Fig. 42) to show a "dividing line". Claiming the map showed a linguistic boundary would have been seen as overly deterministic by the LSI, although Gruning shows an awareness that Oriya was also spoken in areas beyond the "dividing line".

Another argument used by those against the amalgamation of several external districts was whether the languages spoken in those areas were truly dialects of Oriya, or a separate language. Many Adivasi groups spoke non-Oriya languages which made a movement focused on creating a linguistically homogenous province vulnerable to linguistic counterarguments. Mishra outlines how a vital goal of the Oriya movement was to construct a non-linguistic history of tribal areas, claimed for Orissa, and weave their history into the history of an Oriya-speaking nation.[87] Geographic and administrative convenience could also be cited as reasons for incorporating non-Oriya speaking communities into Orissa, especially those circumscribed by Oriya-speaking areas. But practical arguments were less compelling for areas which were external to Orissa. The question there was whether an area had a substantial Oriya population, and whether the language spoken there was an Oriya dialect or not.

One such district was Bilaspur, which was part of the Chhattisgarh Division of the Central Provinces, bordering Bihar and Orissa. The Government of India asked the provincial government (as part of the wider enquiry post-Sinha resolution) to investigate whether parts of Bilaspur – which the 1911 Census reported to be partly Oriya – were still predominantly so

[87] Mishra, *Language and the making of modern India*, p.196.

and should therefore be amalgamated with Orissa.[88] One linguistic issue was whether three 'castes' (the *Bhulias*, *Binjhwars* and *Malies*) in the Chandrapur-Padampur Taluk of Bilaspur spoke a Chhattisgarhi or Oriya dialect. L. P. Pandeya, a local official and editor of a 'Chhattisgarhi Grammar', wrote to the Deputy Commissioner explaining that "the dialects used by these three castes are locally known as Oriya because they (the dialects) are much impregnated with Oriya, though the verbs and the case terminations are apparently Chhattisgarhi. I am afraid, the enumerators being quite ignorant of this fact, might make a mistake in recording the languages."[89] However, that was not simply his conclusion but one shared "by the great scholar and orientalist Sir G. A. Grierson… [who] has dealt with Binjhwari and Bhulia on pages 241 and 251 of his book…." Pandeya produced three quotes from the Linguistic Survey to 'prove' that Chhattisgarhi and not Oriya was spoken there, one of which stated:

> Chhattisgarhi, Laria or Khaltahi. This dialect is commonly known by the first of the three names given above…the District of Bilaspur forms a portion of that tract, and is known in the adjoin district of Balaghat as Khaltahi. Chhattisgarhi is also spoken in a part of the latter district…in the east of the Chhattisgarhi plain lies the Oriya country of east Sambalpur, and the Oriya Feudatory States. To the people of those parts the Chhattisgarh country to the west is known as Laria country, and hence Chhattisgarhi is there called *Laria*.[90]

Pandeya might have surmised that his own scholarly opinion on the matter, even as the linguist behind a substantive 'Chhattisgarhi Grammar', may not have carried the same weight as the figure of Grierson who, no longer in India, loomed over Indian linguistic geography through the Survey. But what also manifested from the correspondence between Pandeya and the Deputy Commissioner was that the Linguistic Survey not only mapped language, but mapped difference which could be used, in this case, to justify the exclusion of certain 'tracts' from joining Orissa. Not only was the administrative district the constitutive unit of mapping Indian languages, but it was also the scale at which linguistic difference became observable. This

[88] IOR. L/PJ/6/1788. From A. E. Nelson, Chief Sec. Central Provinces to Sec. Government of India (d. 14/2/1922).
[89] IOR. L/PJ/6/1788. From L. Pandeya to Deputy Commissioner, Bilaspur (d. 4/10/1920).
[90] IOR. L/PJ/6/1788. From L. Pandeya to Deputy Commissioner, Bilaspur (d. 4/10/1920). Quoting LSI, 5.1, p. 24. Lariya is the Odia (Oriya) name for Chhattisgarhi. Even today, linguists and governments still disagree whether it is separate language, a dialect of eastern Hindi or even a dialect of Oriya.

could explain why claims and counter-claims focused on districts such as Ganjam and Sambalpur, rather than at higher, or even lower, administrative units.

In Ganjam, the Telugu (Andhra) resistance which coalesced around organisations such as the Ganjam Defence League did not use the Linguistic Survey to defend their cause and would have been at a disadvantage regardless. The LSI's coverage did not extend to Madras which biased its work, and maps, towards the Indo-Aryan languages (including Oriya) and only superficially covered the Dravidian languages such as Telugu. The fateful decision of the Government of Madras to reject the Linguistic Survey in 1890 may have partly left the Dravidian languages a blank space on the map and in a weaker position to assert their own cartographic position. While Telugu intellectuals and linguists did correspond with Grierson, his reputation seemingly leading Dravidian scholars to seek his support,[91] these contacts were peripheral to their own linguistic movement. The Ganjam Defence League used another source of information to make their case against amalgamation, one which ultimately proved more important than the LSI – the census.[92]

Statistics, enquiries, and return to the Linguistic Survey's mapping

The importance of drawing on population statistics to make the case for territorial amalgamation, particularly for areas outside Orissa division in Madras and the Central Provinces, was evident early on in the push for separate provincehood. The Utkal Union Conference's address to Edwin Montagu made extensive use of the 1901 and 1911 Censuses to support their territorial claims, tabulating the total population in each area, the number of Oriya speakers and the number of people speaking another major vernacular. Unsurprisingly, the table presented a linguistic geography where Oriya - in most cases - was the demographically dominant, *principal* language spoken in areas proposed to form a 'united Orissa'.[93] 'Principal' was the operative description and meant that the UUC could dismiss minor and especially tribal languages as 'other languages liable to be absorbed by the Oriya language', in areas where Oriyas were statistically outnumbered by tribal peoples but still

[91] Majeed, *Nation and region*, p.40-41.
[92] IOR. Q/13/1/35. Item 1: Seventh meeting of the Commission, Deputations from the Madras Presidency Oriya Association, Berhampore (Ganjam) and the Ganjam Defence League called and examined (d. 23/2/1929), p.20-22.
[93] IOR. Q/13/1/21. Address to Edwin Montagu from Utkal Union Conference, 1917 (part of Govnt. Memoranda to Simon Commission), p.40. 'Principal' language refers to major provincial vernaculars as recognised by the British government rather than numerical value i.e., largest languages by population.

outnumbered the speakers of other major vernaculars such as Telugu.[94] The liberal interpretation of statistics by the Oriya movement was part of a broader trend of politicising census data in late colonial India. Not only were some interpreting the information to fit their claims, other organisations were campaigning outright to engineer the outcome of enumeration, particularly on the sensitive issue of religion, but also language.[95]

However, the Oriya movement's generous interpretation of census data may have exacerbated fears that those resisting amalgamation were manipulating statistics to make their counterclaims. Clement Attlee, who chaired the Orissa subcommittee of the Indian Statutory Commission, pointed this out when questioning the Madras Oriya Association's contention that the 1901 and 1911 count in Ganjam could not be trusted because most of the enumerators were non-Oriyas. He responded to their assertion by informing them that "the other side state exactly the contrary."[96] The manipulation of census enumeration became an allegation used to delegitimise statistical counterarguments against the transfer of certain areas to Orissa. The transfer of Oriya-speaking areas from Midnapore, in Bengal, was a prime example. The 1891 census had counted 572,798 Oriya speakers but by the 1921 the number had declined dramatically to 141,107 speakers in Midnapore. One factor behind the numerical difference were changes in methodology between 1891 and 1921.[97] However, such a dramatic numerical change was initially interpreted as clear evidence for the 'deliberate destruction' of Oriya

[94] For example, Ganjam Agency, according to their table, had 212,074 speakers of a language 'liable to be absorbed by Oriya' whereas Oriya speakers only numbered 132,392. Yet the area could be claimed for an Oriya-speaking province because the other 'principal' language spoken there, Telugu, numbered only 6000 people. As Mishra has written about, the Oriya movement claimed to both represent the best interests of the Adivasis (tribal groups) yet also wrote them out of the picture through 'aggressive homogenisation', more so once they were incorporated into the linguistic province, rendering them 'doubly invisible' (Mishra, *Language and the making of modern India*, p.196-197). Of course, ensuring these minor languages remained invisible (not 'principal') except on their terms was vital because it called into question their own grievances e.g., that Oriya was being suppressed by a hegemonic Bengali.

[95] Cohn gives the example of the Arya Samaj in Lahore handing out leaflets alerting the local population on how they should answer each question in the 1931 Census. See, B. Cohn. 'The Census, social structure and objectification in South Asia' in, *An anthropologist among the historians and other essays* (Oxford: Oxford University Press, 1987). Brass mentions this happening during the 1951 Census in Maithili-speaking regions (*Language, religion and politics*, p.77). For an overview of the census in India see, S. Guha, 'The politics of identity and enumeration in India c. 1600-1990.' *Comparative Studies in Society and History* 45:1 (2003), pp.148–167. A broader study of statistical knowledge and colonial rule can be found in Kalpagam, *Rule by numbers.*

[96] IOR. Q/13/1/35. Madras Presidency Oriya Association deputation to Indian Statutory Commission (d. 23/2/1929), p.3.

[97] In 1891 the census schedule asked for 'parent tongue', in 1901 this changed to 'language ordinarily used' and in 1911 this became 'language ordinarily spoken in the household'. The way a language question is framed can have a marked impact on the language situation captured by the census, even today (see D. Arel, 'Language categories in censuses: backward- or forward-looking' in D. Kertzer & D. Arel (eds.) *Census and identity* (Cambridge: Cambridge University Press, 2001).

through the introduction of Bengali in schools and courts.[98] Proving that to be the case was difficult and the argument later shifted to allegations that the 1911 and 1921 Censuses had been rigged because "people were aware of the Oriya national movement and their leaders guessed that, in deciding the matter, the Government of India would give weight to the language figures of the Census…they took care to return Bengali as their language."[99] Accusations to this effect reached the Bihar and Orissa Legislative Assembly, which alluded to census supervisors not willing to record Oriya in Ganjam and Vizagapatam (in Madras) fearing that those areas would be transferred to Orissa.[100]

Whether or not these allegations were grounded in reality – there were legitimate grievances at times – they highlight the significance of language statistics in determining which areas would be transferred to a separate province of Orissa. This was partly a consequence of the uncertainty surrounding which administrative level of territory would be transferred. There were concerns that the provincial and national governments would simply decide to transfer majority Oriya speaking districts, and not those with a minority, rather than amalgamate more localised tracts as various Oriya organisations has proposed.[101] Those fears would have intensified the delegitimising of census counts at a district level. But the ascendancy of census data as the determining factor for drawing the future boundary of Orissa demonstrated a practical limitation to the Linguistic Survey's mapping. The Linguistic Survey provided an approximate geographical range of where Oriya was spoken, not a bounded and quantifiable geography showing where the majority of the population was Oriya speaking. Grierson envisioned the census as a statistical companion while the LSI focused more on the languages themselves.[102] Moreover the *Map illustrating the meeting ground of Bengali, Bihari and Oriya*, which Gruning cited in the previous section, illustrated how Grierson intended a language map to be understood, where boundaries were not to be read in a conventional territorial, nor demographic, manner. Grierson annotated areas inside the Oriya linguistic 'zone' where a

[98] IOR. Q/13/1/21. Address to Edwin Montagu from Utkal Union Conference, 1917 (part of Govnt. Memoranda to Simon Commission), p.49.
[99] IOR. Q/13/1/4. 'Separate Province for Utkal: Scheme presented at UAPCC to the All Parties National Convention, Calcutta, Dec. 1928', p.14.
[100] IOR. L/PJ/6/1788. Report on Legislative Assembly debate on Amalgamation (d. 8/2/1927), p.547.
[101] IOR. L/PJ/6/1140. Memorial to Baron Hardinge, Viceroy and Governor-General of India (d. 1912). The memorialists demanded that only majority Oriya-speaking areas of Ganjam be transferred to Orissa and not the southern areas of the district which were majority Telugu. Transferring a whole district rather than gerrymandering parts of a district was legally more complex and required sanction from the Crown under the Government of India Act (IOR. L/PJ/6/1788. Home Department Minute Paper on proposed amalgamation. June 1926).
[102] The LSI does incorporate statistical information, but these are largely based on the 1891 and 1901 censuses and less important to the Survey.

mixture of Oriya and Santali was spoken, and clearly labelled that Western Bengali was also spoken in the Oriya zone, without quantifying the number of speakers. A language map was not a population, territorial or political map.

Members of the Oriya movement tacitly acknowledged that a language map did not neatly translate the geography of a language's speakers. The scheme submitted by the Utkal All Parties Conference Committee to the Simon Commission noted that the 1921 Census returned a substantial population of Oriya speakers in Assam and Burma who had migrated there for work.[103] The Conference Committee were obviously not claiming those areas as part of a future Orissa. However, the idea that populations migrated for work and other reasons – which was not captured by a language map but by statistical survey – made it possible to deny the indigeneity of the non-Oriya speaking population in areas claimed for Orissa by suggesting they had migrated there in the recent past.[104] Capturing demographic change was another fundamental difficulty with using the Linguistic Survey map or geographical description, particularly for officials tasked with determining which areas should form part of a separate province of Orissa. The LSI volume on Bihari and Oriya had been published in 1903 and it was nearly two decades old by the time the colonial administration was seriously looking into the matter. Even the census, notwithstanding methodological adjustments and perceived manipulation, only tracked population changes every decade. The Philip-Duff enquiry, jointly instituted by the Governments of India and Madras in 1924, was established to gather a more up-to-date picture, overcoming the temporal limitations of previous censuses, linguistic surveys, or maps.[105] The two officers were sent to Ganjam and Vizagapatam in Madras to investigate local sentiment for and against the transfer of territory to Orissa and survey which areas should be amalgamated. Consequently, the Philip-Duff report pointed out that they were given a "skeleton map" with basic information drawn from the 1921 census, which suggests a conscious attempt to avoid prejudicing the enquiry and an acknowledgement that the available linguistic maps and survey data were not geographically reliable or up to date. Significantly, the chief cartographic output from the Philip-Duff enquiry was not a language map but a 'map

[103] IOR. Q/13/1/4. 'Separate Province for Utkal: Scheme presented at UAPCC to the All Parties National Convention, Calcutta, Dec. 1928', p.4.
[104] IOR. Q/13/14. 'The introduction of Oriya language in Courts and Schools in the District of Singhbum – A necessity' (1928). The pamphlet, submitted with a petition to the Attlee subcommittee, stated that the Hindi, Urdu and most of the Bengali speakers could be discounted because they were not indigenous, living mainly in towns after moving there for 'business or service'.
[105] The Government of India resolution which established the enquiry expressly stated that its purpose was to 'make detailed enquiry *on the spot* regarding the attitude of Oriya inhabitants of the Madras Presidency towards the question of amalgamation…'. (IOR. L/PJ/6/1788. Home Department resolution, dated 1/10/1924.)

showing the routes followed' and areas visited by the two officers, emphasising the primacy of information sourced in situ.[106] At this juncture, the Linguistic Survey of India wanes in relevance as local knowledge – gathered by government officials in the field – displaces its authority to provide a clear, prevailing and modern geographic picture of where Oriya was spoken and where the line should be drawn for a majority Oriya province.

The fading importance of the LSI's maps was also evident in the conspicuous production of new linguistic maps of the contested areas in Madras, Bengal and the Central Provinces (CP), based on the more recent statistics from the 1921 Census and through correspondence with local officials on the ground. For example, the Provincial Superintendent of Census Operations in the CP and Berar provided three linguistic maps of Chandrapur-Padampur, Phuljhar and Khariar Zamindaris which had been requested by the provincial government.[107] These newly produced maps were then sent by the provincial CP government to the Home Department in Calcutta, including a map showing the distribution of Oriya-speakers in Chhattisgarh Division and a map showing the distribution of Oriyas in the Sarangarh princely states.[108] Finally, these maps were compiled into a map of the Oriya-speaking population and sent by the government in India to the Under Secretary of State for India in 1925, along with the Philip-Duff report and other material. More up-to-date language maps continued to be produced and circulated throughout the 1920s and early 1930s as the push for provincial separation progressed. The Linguistic Survey and its maps were largely invisible in the process.

The failure of the LSI to outline an accurate, quantifiable, and neatly delineated geography of Oriya which could be translated into a political entity may counterintuitively point to the enduring strength of its linguistic mapping. Although the Oriya map from volume 5 provided the Utkal Union Conference with an authoritative cartographic basis for statehood, the map was an impermanent approximation of a language's geography and proved impractical for making politically and territorially consequential decisions such as drawing the boundaries of a linguistic state. Grierson, in the instructions from the *Introductory* volume of the LSI, had warned his readers against understanding a linguistic boundary – or territory – in the same manner as a political boundary. Not only did languages and dialects overlap conventional boundaries, but the LSI also established that language maps were not a conclusive

[106] IOR. L/PJ/6/1788. Report on Oriya Amalgamation Enquiry by C.L. Philip & A.C. Duff (d. 26/12/1924).
[107] IOR. L/PJ/6/1788. From Provincial Supt. of Census Operations, CP & Berar to Secretary to the Govnt. Of Central Provinces… (d. 3/6/1921).
[108] IOR. L/PJ/6/1788. From A. E. Nelson, Chief Sec. to Govnt. Central Provinces to Secretary to the Government of India (d. 14/2/1922).

representation of a language's geography. In other words, no language map could claim to be anything more than an imprecise geographic snapshot in time. The LSI's instructions proved to be farsighted when the boundaries of newly established Orissa in 1936 did not satisfy all parties, and by 1939 there were further demands to redraw the boundary.[109] Yet Grierson's instructions may not have been prophetic but written from experience. It might be too neat a coincidence, but the *Introductory* volume was written last in the early 1920s, a few years after his map had been used by the UUC and at the same time as debates for (and against) Oriyan statehood were intensifying. Grierson might have included his caveat on reading linguistic maps with events in India, if not the broader political aftermath of WWI, in view.

Although Grierson's map proved impractical for the purposes of creating a linguistic province, the legacy of the LSI's cartography survived in the methods and scale at which languages are mapped. This section has shown that colonial districts like Ganjam, Singhbum or Vizagapatam were the areas where a separate Oriya-speaking province was contested, just as the district was the constitutive unit for surveying language and mapping linguistic difference in the LSI. The Oriya movement and the colonial state were echoing the LSI by focusing on territorial claims made on a district-by-district basis. Furthermore, the government's strategy for assessing the Oriya movement's claims were analogous to the LSI's *modus operandi*. Local officials and informants were tasked with surveying public opinion and demarcating the areas – in writing and on maps - which were predominantly Oriya speaking before the maps were circulated to the provincial and national governments and finally London. Linguistic maps captured and communicated claims and counterarguments for a linguistic state of Orissa. Whether or not they were ever practical to begin with, the Linguistic Survey's maps outlived their usefulness but lived on in the methods and ideas which underpinned its maps. The following section will consider the afterlife of the LSI in the maps produced by the Simon Commission, the 1931 Census and the Orissa Boundary Committee, which led to the eventual creation of a new province in 1936.

[109] IOR. L/PJ/9/56. Proposal to revise the boundaries of Orissa (d. 1939).

The afterlife of a map and the creation of Orissa

While Grierson's map and geographical description embodied the Oriya movement's ambitions for a linguistic state in 1917, the Linguistic Survey's authority was largely supplanted by more recent statistics, reports and maps compiled in the 1920s. Once Clement Attlee was asked to chair a subcommittee of the Indian Statutory Commission looking into the Oriya question, the Linguistic Survey of India remained unmentioned in the meetings led by the commissioners and was only referenced in the externally produced memoranda submitted as evidence by various Oriya associations.[110] The insignificance of the LSI stands out in comparison to the importance of statistics and on the ground investigations, such as the Philip-Duff enquiry, as sources of information for members of the committee and those arguing for and against the transfer of territory and creation of a predominantly Oriya-speaking province. Another factor in the declining relevance of the LSI was that the discussion no longer focused only on the relevance of language as a basis for statehood, or demarcating the boundaries of a possible province, but whether a separate province of Orissa was politically and economically viable. Much of the subcommittee's questioning, for example, focused on whether a future Orissa would be able to raise sufficient revenue to run a separate provincial administration.[111] The LSI was irrelevant to discussions around administration, taxation and internal governance.

However, mapping where Oriya was spoken – which Grierson's map had been interpreted to show - remained a crucial part of proceedings and the final report of the Indian Statutory (Simon) Commission included a linguistic map of where Oriya was spoken. The Simon Commission map was the start of a series of exercises which remapped the future linguistic province of Orissa. Mapping language became a decisive part of the 1931 Census, to a much greater extent than it had been previously, after the Indian Statutory Commission released its findings. Subsequently, both the Simon Commission and 1931 Census language maps were vital sources of information for the Orissa Boundary Committee which emerged in the aftermath of the First Round Table Conference (1930-1931) to delimit a future Orissa. However, the Orissa Boundary Committee's recommendations were not fully accepted after the Third Round Table Conference (1932) because of criticisms over where the line would be

[110] See IOR. Q/13/1/4. Bihar & Orissa Memoranda; IOR Q/13/1/21. Government of India Memoranda. The Government included all the petitions it had received from the UUC and other organisations since the inception of the movement.
[111] IOR. Q/13/1/29. B&O-0-2: second meeting of the Commission, J.A. Hubback and P.C. Tallents called and examined (d. 13/12/1928).

drawn, leading to further negotiations. These geographical exercises captured three significant steps in the eventual creation of a linguistic province. The Simon Commission established the political and administrative framework for a separate province of Orissa in the context of wider constitutional reforms in India. The 1931 Census, following soon after, reformulated India's political geography into measurable linguistic units. Finally, the Orissa Boundary Committee set out to map the territorial limits of Orissa using statistics from the 1931 Census.

As this section will cover, the Simon Commission's map and the 1931 Census diverge quite radically from the LSI's notion of a language map as an imperfect geographical outline, combining population statistics and new technologies to quantify the number of Oriya speakers cartographically. Yet the 1931 Census mapped linguistic populations at a district level as Grierson had done nearly three decades earlier. And in the aftermath of the Orissa Boundary Committee, the district reappears as the scale at which a linguistic boundary could be (quite literally) traced on a map as it had been for Grierson beginning in the late 1890s. In rejecting the Boundary Committee's advice, the government produced other maps which aligned with the suggested boundaries outlined in a White Paper which came out of the Third Round Table Conference.[112] One was a district map of Ganjam which showed the areas being transferred to Orissa and the areas remaining in Madras.

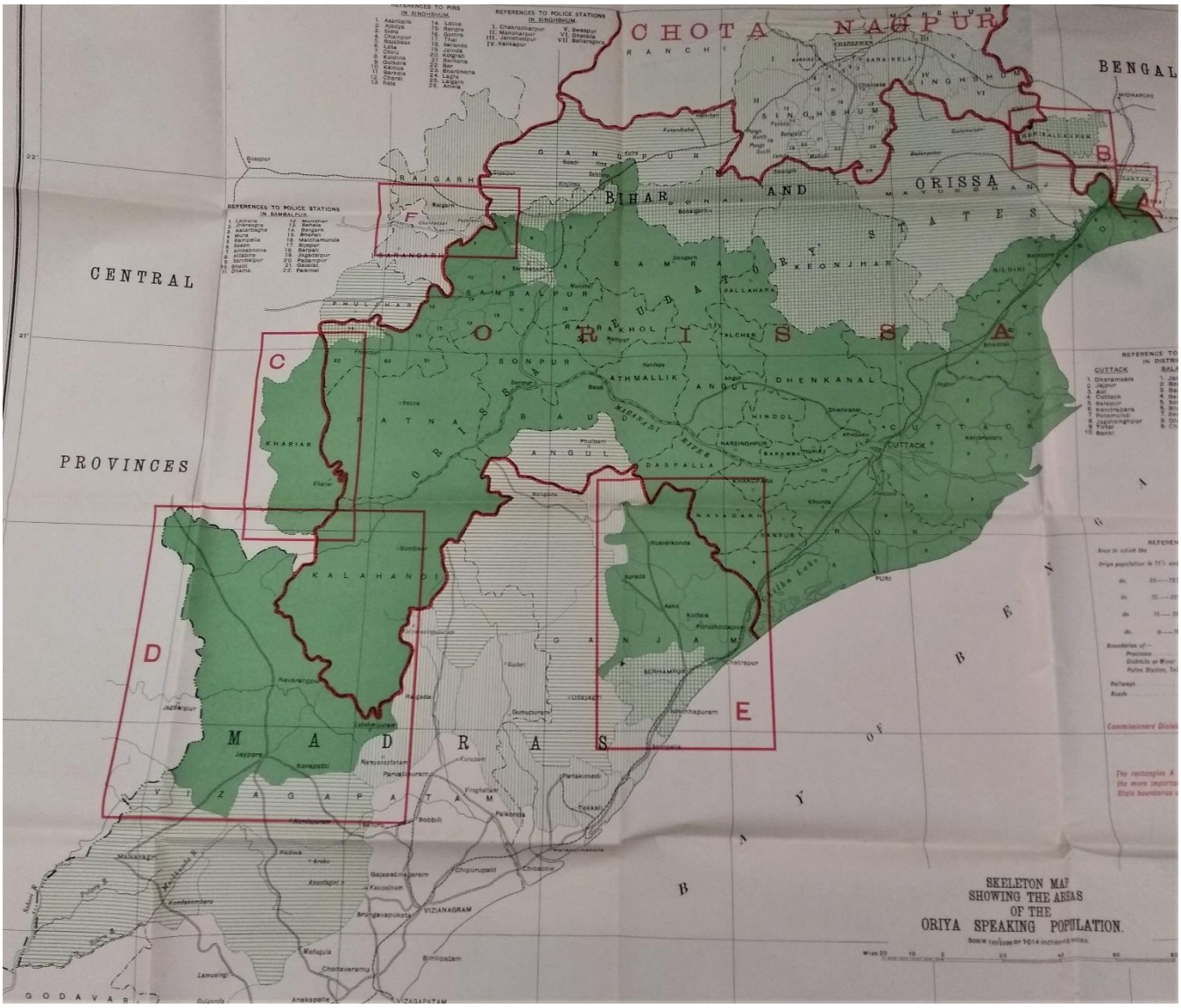
Grierson's instructions on what a language map could and could not show haunted the process of drawing a linguistic boundary which resulted in further negotiations between 1934 and 1935. Ultimately, the creation of Orissa in 1936 did not satisfy everyone and led to further disputes and attempts to transfer and retransfer territory. While the Linguistic Survey was outwardly invisible in all three exercises, it was the LSI which made it possible to map language and, at the same time, foregrounded the difficulty of creating a self-governing province along linguistic lines.

[112] The White Paper was released in 1933, after the final RTC in November to December 1932. For more see J. Choudhury, 'O'Donnell Committee and new province of Odisha', *Odisha Review* (April 2013), pp.60-62.

Mapping politically: the Indian Statutory Commission

After the Indian Statutory Commission concluded its tour of India in 1929, their findings and conclusions were published in a sixteen-volume report and a two-volume summary in 1930. Although there had been a separate subcommittee looking extensively into Orissa, Attlee's final report was only briefly summarised, covering two pages out of a c.700-page summary.[113] Nevertheless, the Attlee sub-committee's conclusions were significant for the Oriya movement because the sub-committee agreed there was a legitimate claim for a separate Oriya-speaking administration and, above all, it should become a full province rather than the lesser status of a sub-province. The Attlee sub-committee also outlined possible territorial adjustments but suggested these might change after further examination.[114] However, the most interesting item to appear in the Simon Commission's summary is a large, 1:1million *Linguistic map of Orissa* (Fig. 43) folded at the end of the second volume. There are only four maps in the report, one of which was a generic map of India as would be expected, and another a sketch map showing where the Indian Army's combatants came from. The third map was of the North-West Frontier Province, which the Simon Commission dealt with in detail regarding its administrative organisation. Orissa and the NWFP are the only two regions to be independently mapped in the report which emphasised the significance of geography to both issues. The *Linguistic map of Orissa*, as the map was described in the report, signalled the sub-committee's view that Oriyan statehood was now settled and the question moving forward was where to draw the boundary. The map indicated that a separate province of Orissa was a political reality, but what shape the new province would take was still to be determined.

[113] Pages 50-51 in Volume II. *Report of the Indian Statutory Commission*. The report was published in London in 1930.
[114] *Report of the Indian Statutory Commission*, Volume II, p.50. The rapid development of transport communication was considered one reason why boundaries might need to be further examined.



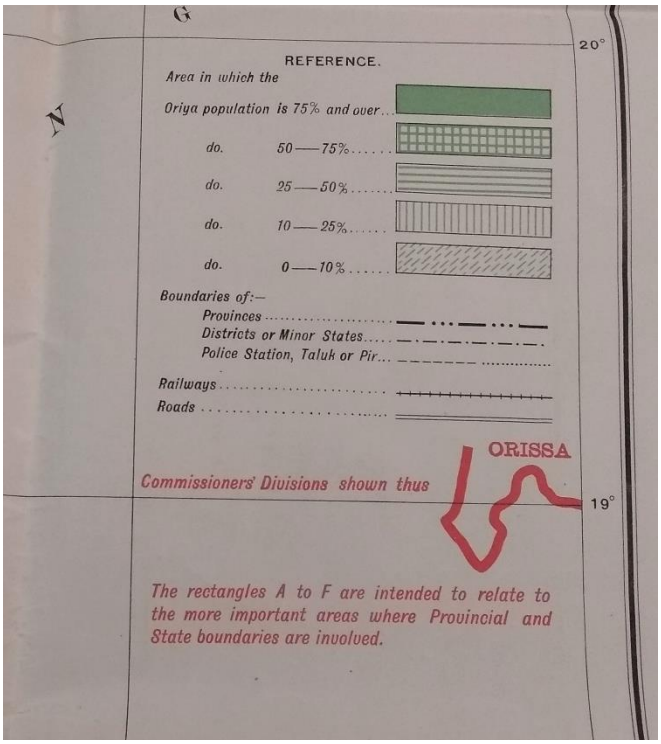


Figure 43: *Linguistic Map of Orissa* or 'Skeleton map showing the areas of the Oriya speaking population' (c.1930); Map legend (*right*).

Source: British Library (IOR. Q/13/6/38).

The Simon Commission's linguistic map could not be more different from the LSI's map of Oriya, at first glance. Not only is the map much larger and more detailed than Grierson's map, it took the form of a choropleth map which had not been used for an Oriya language map before.[115] Combining population statistics with geography, the map used different shadings of green to outline the percentage of Oriya speakers by area. Administrative divisions feature prominently, with the base map clearly showing the different districts, agencies and tracts while the boundaries of the Commissioner's Divisions are outlined in red. The Simon Commission map appears more pragmatic – even technocratic - than the speculative design and aesthetic of the Linguistic Survey's maps. Yet on closer reading one sees similarities with the Linguistic Survey's maps and some of the same contradictions. To the west one might interpret the map as showing 'hard and fast' linguistic boundaries which align with political boundaries, yet the shading to the north and south suggest a more nuanced attempt to map Oriya by recognising that linguistic geography was more diffuse. The map itself was not titled a 'linguistic map' as it was in the report, but a skeleton map 'showing the areas of the Oriya speaking population'. In other words, it was a population-statistical map where the variable being mapped is the percentage of Oriya speakers and not a language map as imagined by the LSI.

The linguistic map of Orissa, however, was not an original map compiled on the orders of the Simon Commission or Attlee subcommittee, but was created by the Government of India as part of their evidence submitted in advance of the Simon Commission's arrival in India.[116] In fact, the map served a practical purpose for the Commission and was used as a point of reference in their enquiries. For example, Attlee used the map to identify the linguistic geography of Oriya while questioning the former commissioner of Orissa Division, John Austen Hubback (who would later go on to serve as the first Governor of Orissa). Attlee even succinctly described how to read the choropleth map to the other members, explaining that "this map is coloured to show the prevalence of the Oriya-speaking peoples. 75 percent and over is coloured dark green, and the colour grows lighter as the numbers diminish as the members will notice."[117] The map was detailed enough for Attlee to spot discrete pockets of

[115] For a good introduction to the use of the choropleth technique in thematic mapping see, A. Robinson, *Early thematic mapping in the history of cartography* (Chicago: University of Chicago Press, 1982).
[116] On whose instructions it was made is unclear. It might have been based on a map created by a provincial government.
[117] IOR. Q/13/1/29. B&O-0-2: J.A. Hubback and P.C. Tallents (d. 13/12/1928). p.8, q.259.

Oriya speakers in Bengal: "Then, looking at this map, we see fringe of Oriya-speakers is shown in the Midnapore district of Bengal. This is quite a small area?"[118]

While the map served a practical purpose, its inclusion in the Simon Commission summary report was a last-minute decision. The map was initially only going to appear in a supplementary volume dedicated to the Government of India memoranda sent to the commission, but by March 1930 it was requested that the map should be reproduced for the main summary.[119] The reason for the change is unclear but the inclusion of only a brief summary of the Attlee subcommittee report might suggest that the map was viewed as a useful way of articulating the subcommittee's conclusions without reproducing the whole report. The Statutory Commission also asked if the lettered, red rectangles could be eliminated because the "meaning of which is not explained on the map or apparently in the Government of India memorandum."[120] The plan was shelved because of time and costs, yet this was a curious statement since the map clearly states that the rectangles highlight dominant Oriya-speaking areas which overlap provincial boundaries. These were the areas which were politically sensitive. The Government of India's intention might have been to produce additional larger scale maps of the areas covered by the red rectangles to magnify more detail on the distribution of Oriya speakers along the areas and in the communities which straddled provincial boundaries.[121] However, that points to a broader issue in post-LSI language mapping - especially maps compiled to show the statistical distribution of speakers or used to demarcate territory on the basis of language – which, perhaps paradoxically, become more technically complicated and less comprehensible as they try to produce a more accurate, quantifiable geography of a language appropriate for drawing boundaries. Grierson's map of Oriya may not have been suitable for such an exercise, but neither would more advanced or detailed maps be able to conventionally map a precise linguistic geography. The red rectangles were left on the Simon Commission's *Linguistic map of Orissa* with the description explaining that these were the areas which involved provincial boundaries. Yet the description could also be read as a message that, while Oriyan statehood would happen, the areas which would be incorporated into a new province of Orissa remained undetermined. The *Linguistic map of Orissa* was, in its own way, an inconclusive experiment in mapping the Oriya language.

[118] IOR. Q/13/1/29. B&O-0-2: J.A. Hubback and P.C. Tallents (d. 13/12/1928). p.9, q.267.
[119] IOR. Q/13/6/37. Secretary, Indian Statutory Commission to Home Department, India (d. 3/3/1930).
[120] IOR. Q/13/6/37. Copy of telegram from ISC to Government of India (d. 7/3/1930).
[121] There is no evidence that they did produce such maps. It is equally plausible that these rectangles were simply guides to help a boundary commission focus on the areas which were disputed.

Mapping statistically: the 1931 Census

While Attlee's report might have concluded an Oriya-speaking province was politically viable, financial and territorial questions remained. The Attlee report, as visualised on the Simon Commission map, surmised that population statistics would be an important factor in determining where the boundary would be drawn. Yet this raised the issue of what percentage of a given area had to be Oriya and, crucially, how decisive demographics should be in deciding which areas should be transferred to Orissa. One member of the subcommittee, Lakshmidhar Mahanti, dissented with the subcommittee's view that the district of Singhbum should not be included in Orissa because its Oriya population only numbered 20 percent of the total population compared to the 'aboriginal' population which numbered around 75 percent.[122] Furthermore, accusations of errors and outright manipulation of the census enumerators affected the perceived trustworthiness of language statistics. The Attlee subcommittee responded by recommending "special precautions should be taken to ensure the reliability" of the next census in 1931.[123] The 1931 Census became the next target for those for and against Oriyan statehood and the Orissa returns continued to be "coloured by immediate politics", as reported by the frustrated Census Commissioner, J. H. Hutton.[124] However, the intention of this section is not to go over the controversies which plagued the 1931 Census in Oriya-speaking areas but to consider the evolution of linguistic mapping in the census, which reflected a broader reformulation of India's linguistic geography.

The language sections of the previous 1911 and 1921 Censuses were largely continuations of Grierson's work for the 1901 Census, but the colourful, folded maps of the major language families in the 1901 Census – which Grierson had a hand in designing - were not updated or reproduced in the 1911 and 1921 reports.[125] Across the provincial and regional census reports only small, monochrome choropleth maps were inserted into the language section. These choropleth maps were basic and not uniformly found in each provincial report. For example, the 1911 Bengal, Bihar and Orissa report included inset maps showing the distribution of Indo-

[122] *Report of the Indian Statutory Commission*, Volume II, p.51. Again, points to the argument that 'aboriginal' peoples were better off under Oriyan supervision as was argued by some members of the movement. How close the 'aboriginal' language was to Oriya – a relationship often constructed rather than linguistic fact – played a crucial role in deciding whether they should be part of Orissa or not.
[123] *Report of the Indian Statutory Commission*, Volume II, p.51.
[124] J. Hutton, *Census of India, 1931 Vol. 1-India, Part 1-Report* (Delhi, 1933), p.349. Hutton reports that there were propaganda campaigns which intended to manipulate the results in favour of one side or the other.
[125] The Census Commissioner for 1911 was Edward Gait, a close colleague of Grierson. Both censuses had pull-out maps but none of language as had been the case in the 1901 report.

Aryan, Munda languages etc. but the Madras report did not include any linguistic maps. In the 1921 reports, monochrome choropleth maps were again not uniformly found across the provincial reports. Madras' report, for example, did not feature any maps whereas the Central Provinces & Berar report incorporated three monochrome choropleth maps.[126] The reasons for the discrepancy might be related to provincial linguistic politics. Madras, conspicuously, did not include any linguistic maps in its 1911 and 1921 reports while other forms of statistical maps were included. Madras, obviously, was one of the areas which did not wish to participate in the LSI and was also the province of the disputed district of Ganjam.[127] The most generous conclusion to draw from the 1911 and 1921 Censuses was that language maps were not considered a necessary feature as it had been in 1901, and that might only have been a consequence of Grierson's involvement.

The 1931 report alludes to the LSI as one reason why the 1911 and 1921 Census officials might not have felt it necessary to include maps, since "the distribution and classification of Indian languages has been so exhaustively dealt with in the Linguistic Survey of India…little remains for the census to do…beyond recording their corresponding increase and decrease, since the area of any given tongue is hardly ever stable."[128] Maybe Hutton and his predecessors recognised Grierson's position on mapping something as unstable as language. Yet the 1931 Census also transformed linguistic maps. It was the first census to publish a separate volume of *Social and Linguistic Maps* and some of these linguistic maps were reproduced in their respective provincial or regional reports.[129] The production of maps was not as uneven or as superficial as it had been in previous censuses – a statistical language map of each province or native state/agency was compiled and published which suggests that the creation of language maps was ordered at a national level.

[126] For an example of what the inset choropleth maps look like see, *Census of India, 1911 Vol. V-Bengal, Bihar and Orissa, Part. 1-Report*, p.392.
[127] This might be related to the previously discussed linguistic and cultural politics around the Dravidian languages in India.
[128] J. Hutton, *Census of India, 1931 Vol. 1-India, Part 1-Report* (Delhi, 1933), p.348.
[129] *Census of India, 1931 Vol. 1-India, Part IV-Social and Linguistic Maps.* The Madras and Bihar & Orissa linguistic maps, for example, are also reproduced in their respective reports.

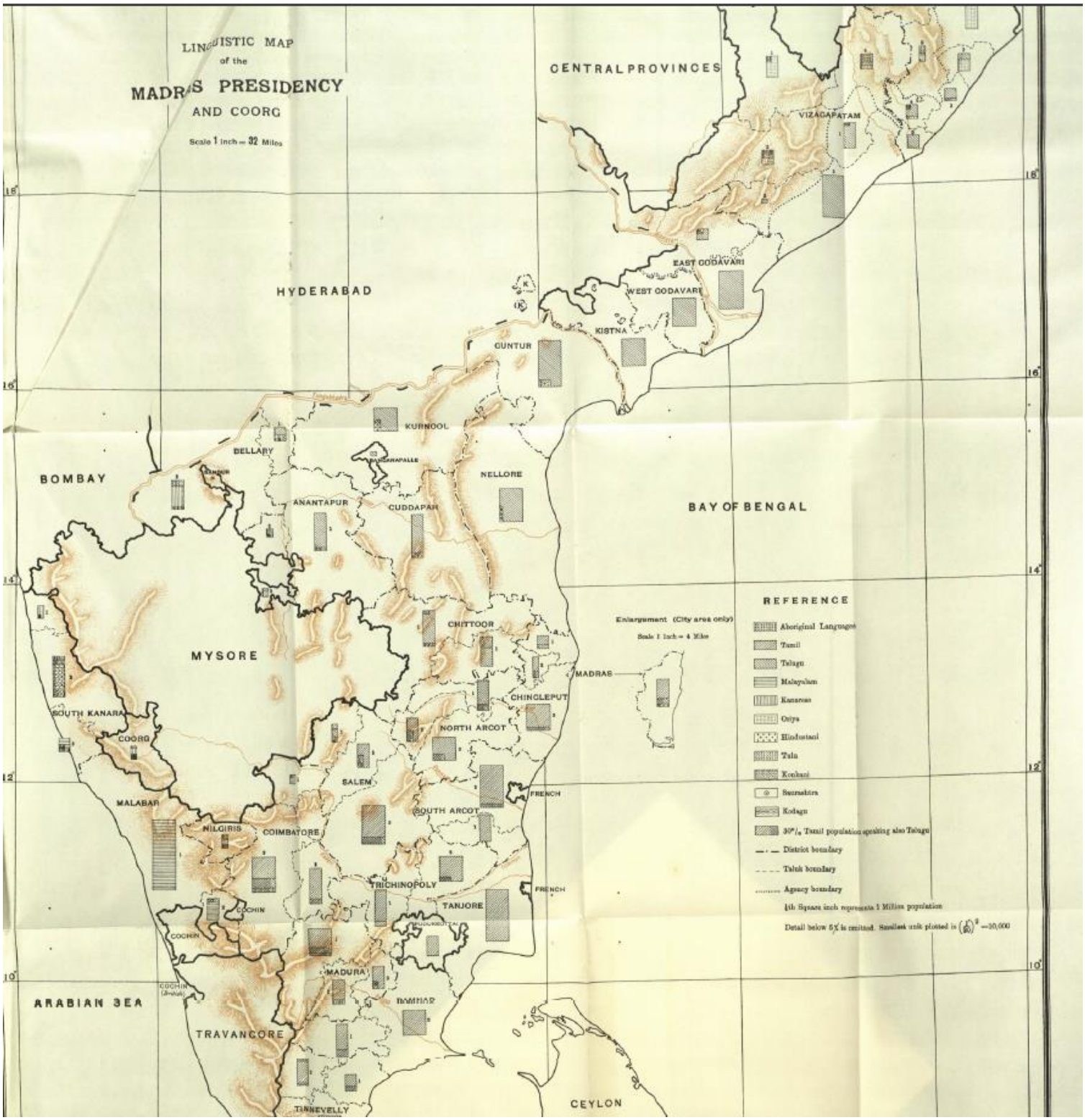


Figure 44: 'Linguistic Map of the Madras Presidency and Coorg' (1933). Example map from 1931 Census. Source: *Census of India, 1931 Vol. 1-India, Part IV-Social and Linguistic Maps.*

These maps were very different to the LSI's maps and the Simon Commission map. Rather than showing the approximate geographical range or distribution of a language, the proportion of speakers are layered on the map using squares to represent the percentage of speakers of a certain language in each area. Like Grierson, the scale at which the 1931 Census mapped language was the district. But unlike the LSI, the 1931 Census covers India's linguistic geography uniformly using the same type of statistical map. Whereas the LSI experiments with different ways of mapping language, each census map shares the same feature of using numerically proportional coloured or shaded squares to show the number of speakers of a given language in each province (by district) or native state (by an equivalent subdivision). The census maps avoided the downside of drawing linguistic boundaries by visualising the number of speakers by area rather than geographical range. But the maps replicated some of the same issues which emerged out of the LSI, especially in choosing which languages should be mapped, often privileging traditionally hegemonic vernaculars. The 1931 Census maps only distinguished the major vernaculars of a given province or state and either left out or grouped together different tribal or minor languages.[130] The maps also left the underlying problem of drawing boundaries based on language unresolved which mattered to those arguing for and against Orissa. One could, however, argue that the 1931 Census had developed a technique of mapping language which observed Grierson's warning on reading linguistic boundaries in a conventional sense by avoiding the use of linguistic boundaries completely.

Nevertheless, the 1931 Census did not create linguistic maps which could be used to demarcate a new province such as Orissa. For a contested district like Ganjam, the census did not map where the Oriya and Telugu speakers were settled, only the proportion of the population which spoke Telugu or Oriya. Nor was the information collected by the enumerators evidently any more reliable according to the Census Commissioner. However, the 1931 Census legitimised the idea that languages could be quantified and differentiated on maps throughout India and not simply in Orissa, as the Simon Commission map had tried. In the context of the Nehru Report's support for the idea of linguistic states, the ability to map the numerical distribution of a language's speakers, rather than the geographical range of a language, had repercussions for Orissa and the eventual formulation of linguistic states after independence.[131]

[130] The Bihar & Orissa linguistic map only shows Oriya, Bengali, Hindustani and 'tribal languages.' Strangely Bihari is not mapped – it seems that Bihari is called Hindustani on this map which emphasises the linguistic politics behind census maps.
[131] For more on Nehru report, see *Language, maps and nationalism* section in chapter one.

Mapping territorially: the Orissa Boundary Committee

The Census Commissioner, J. H. Hutton, was aware that the language returns from the disputed Oriyan areas were being carefully scrutinised by those for and against the transfer of territories, and the officials tasked with making a decision. Hutton wrote a lengthy subsection in the 1931 report outlining in detail the incompleteness of the gathered data and the difficulties faced by the enumerators in Orissa and disputed tracts such as Ganjam.[132] However, he concluded that the subsidiary language information was clear enough to draw conclusions from, as the increase in the Oriya-speaking population correlated with the general increase in population. Hutton noted that the data "must have been of very considerable value to the Boundary Committee."[133] The Orissa Boundary Committee (or O'Donnell Committee as it was often known) was set up in September 1931 on the orders of the Government of India to consider the financial consequences of a separate administration and to recommend where the boundaries should be.[134] The remit of the Boundary Committee was not only to rely on contemporary data from the census and other sources, but to draw on the shifting territorial geography of Orissa through time. The Linguistic Survey and other sources were employed to examine the "remote racial origins" of groups who were claimed to be linguistically and ethnically Oriya and therefore part of Orissa.[135] The Boundary Committee concluded with a recommendation that Orissa should comprise Orissa division, Angul, the Khariar Zamindari and the greater part of the Ganjam District and Vizagapatam Agency, covering approximately 33,000 square miles. A map was included in the report showing which areas were to be incorporated into Orissa. The Orissa Boundary Committee produced a concrete territorial delimitation although its recommendations were only advisory at this stage.

[132] Hutton, *Census,* p.348. One problem appears to have been people would state they were bilingual yet return the same language for both their primary and subsidiary language, skewing numbers.
[133] Hutton, *Census,* p.348.
[134] The Orissa Boundary Committee was similar to previous colonial boundary commissions, such as those between Russia and Britain which delimited British and Russian territories in Central Asia. The most notorious boundary commission had yet to begin, the Radcliffe Boundary Commission which partitioned India. The Orissa committee investigated an internal matter but operated in the same way as an international boundary dispute, particularly in not only relying on the current status quo but also considering the historical position of Orissa and the Oriya-speaking population.
[135] *Report of the Orissa Committee, Vol. 1-Report* (Calcutta, 1932), p.5.



Figure 45: Map 'showing approximate boundaries proposed for Orissa Province' (1932), based on the recommendations which appeared in the White Paper after the Third RTC. Supplied to the *Joint Select Committee* looking into Orissa's boundaries. Source: British Library (IOR. L/PO/6/86).

After the Third Round Table Conference, which considered the proposals of the Boundary Committee, a White Paper was published in 1933 confirming Orissa would become a 'Governor's province' but with a smaller territory than the Committee had advised.[136] Disappointingly for members of the Oriya movement, the proposed boundaries excluded Vizagapatam Agency and Parlakimedi.[137] Dissatisfaction with the proposals sparked further rounds of petitions and commissions looking into an acceptable territorial solution. Two committees were set up to resolve the issue. An Orissa Administrative Committee was set up in India to tour the region and examine witnesses, as Philip and Duff had done a decade earlier. Simultaneously in London, a Joint Select Committee investigated the matter of Orissa's boundaries. As well as the usual petitions and delegations - notably from the Raja of Parlakimedi – several maps were produced for the committee to examine. One of the maps the committee was given showed the boundaries according to the White Paper rather than the Orissa Boundary Committee (Fig. 45). This confusing map showed the pre-existing boundaries of Bihar and Orissa in yellow, with the areas proposed to join Orissa and the new boundaries of the province outlined in red.

The map represents the calculating transformation of linguistic geography into a political territory. It no longer visualised the geography or distribution of a language or its speakers, instead mapping the unequivocal – 'hard and fast' as Grierson would describe it – territorial boundaries of a new province as constituted through political negotiation. The map has much in common with the later, notorious, maps showing the Radcliffe line, which also used red lines to partition India and Pakistan based on religion.[138] The transformation from a language to political map was also captured in the title. It is no longer described as a linguistic map, but a map showing the 'approximate boundaries proposed for the Orissa Province' which demarcated one territory from another. In other words, the map was intended to be read conventionally even though the boundaries were based on language.

While the purpose and interpretation of language maps had been distorted by all parties involved in the creation of a linguistic province of Orissa, the LSI's mapping methodology proved far more enduring. The Joint Select Committee were also given a copy of a district map

[136] See report: *Indian Round Table Conference - Third Session* (London: H.M. Stationery Office, 1933), p.60-61.
[137] Choudhury, 'O'Donnell Committee and new province of Odisha', p.61.
[138] See Chester (2013) for more on the Radcliffe Boundary Commission. See also H. Fitzpatrick, 'Imagining and mapping the end of an empire: Oskar Spate and the partition of India and Pakistan', *Journal of Historical Geography*, 66 (2019), pp.55-68.

of Ganjam (Fig. 46) showing the areas joining Orissa (uncoloured), the areas remaining in Madras (yellow) and the disputed area around Berhampur (red).[139]

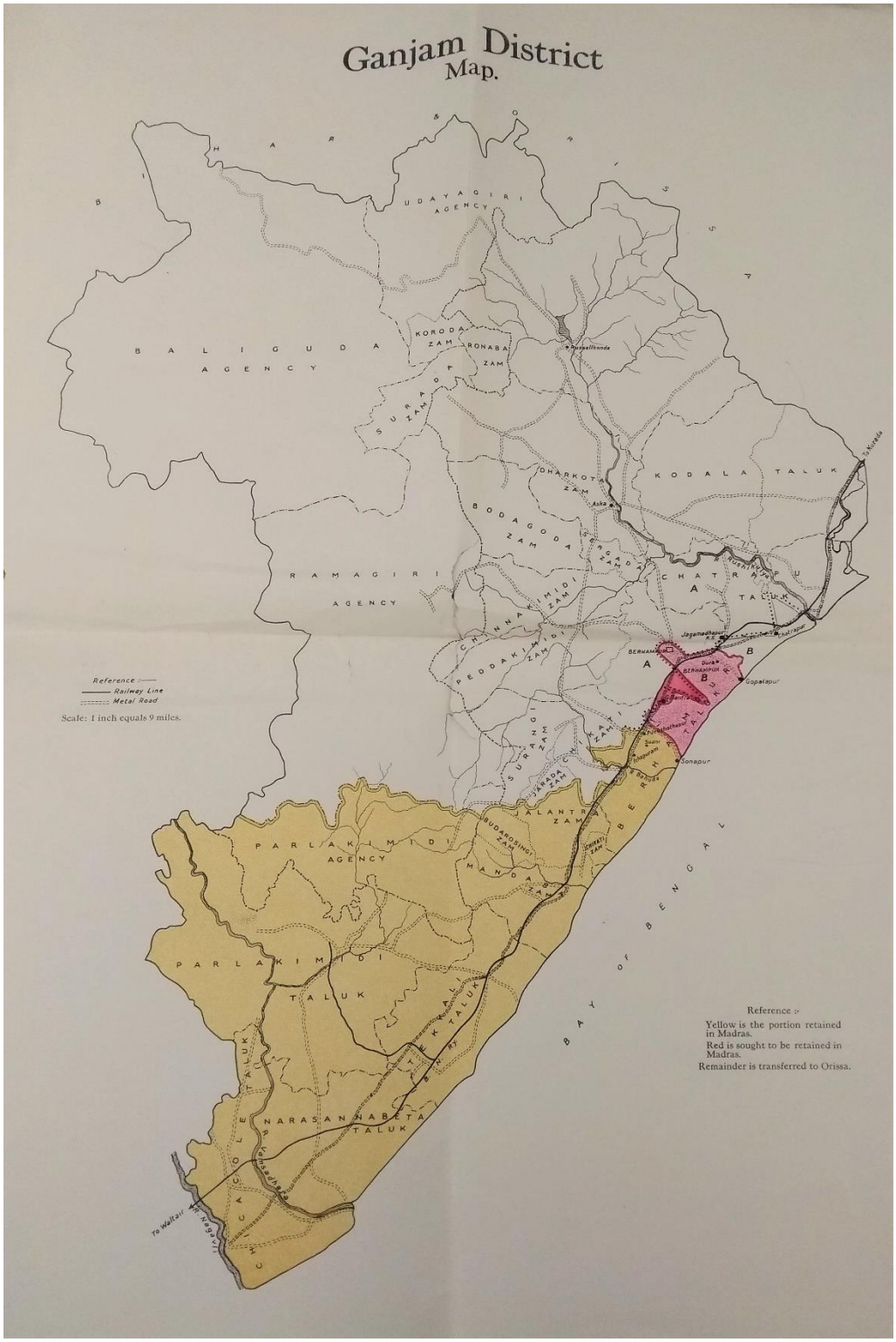


Figure 46: Map of Ganjam District (c. 1930-32) Source: British Library (IOR. L/PO/6/86).

[139] The two maps pictured are found here: IOR. L/PO/6/86 – Orissa Boundary Committee files.

The Ganjam map harks back to the 1899 district map of Mirzapur (Fig. 12) sent to the Linguistic Survey. Just as the LSI relied on district maps, descriptions, and notes to piece together and map India's linguistic geography, the Joint Select Committee were given the map of Ganjam to define a more precise, and politically acceptable, geography of Orissa. The district remained the scale at which linguistic difference could be discretely mapped.

After lengthy deliberations and recriminations from all quarters the Committee decided in 1934 to include a few disputed areas, including part of the estate of the Raja of Parlakimedi, bringing the boundaries much closer to the original recommendations of the Orissa Boundary Committee. Orissa officially became a new province through the Government of India Act 1935 and was inaugurated in spring 1936, with John Hubback as its first Governor. That was not the end of the matter, however, and Oriyan communities who were left outside of the new province – allied with organisations in Orissa – continued to agitate for amalgamation. A memorandum from the Government of Orissa to the Secretary of State in 1939 pointed out that there "was a great sense of disappointment among the people of the province at the non-inclusion, within the Province of Orissa, of the areas predominantly Oriya", particularly in Singhbum which remained part of Bihar.[140] Non-Oriya communities also petitioned for areas which had been transferred in 1936 to be transferred back to their original province well into the 1940s.[141] Even provincial governments challenged the newly-drawn boundaries. The Government of Madras asked the Survey of India in 1940 to formally resurvey and delimit the boundary between Madras and Orissa, which was completed a year later in 1941.[142] Problems and dissatisfaction persisted after independence and in the years leading up to the States Reorganisation Commission in the mid-1950s.[143]

The public outcry in Orissa and elsewhere confirmed what the LSI warned against – linguistic boundaries do not neatly translate into political boundaries. What Grierson understood when he wrote his summary on language boundaries, but which were not necessarily reflected in all the LSI's maps, was languages were – and are – phenomena which could not be mapped in a

[140] IOR. L/PJ/9/56. Hubback, Governor of Orissa to the Governor General of India (d. 9/8/1939).
[141] NAI. Reforms/General/1938/Nos. 140/38-G. Memorial praying that the Pottangi Taluk may be retransferred from Orissa to Madras.
[142] NAI. Sec. Governor General/Reforms/1941/Nos. 12/41-R. A copy of the Board's reference regarding the completion of the boundary survey (d. 26/10/1942).
[143] Linguistic and cultural identity were key criteria for reorganising India's states. See A. Sarangi & S. Pai (eds.), *Interrogating reorganisation of states: Culture, identity and politics in India* (New Delhi: Routledge, 2011).

conventional manner, and language maps should not be interpreted as a political, administrative, or even topographic map. Linguistic boundaries depict something which does not exist, or at least cannot be permanent, because languages overlap each other, speakers move around, and many speak more than one language or dialect. The creation of Orissa was a good example of this linguistic reality. The same Oriyan elites who pursued provincehood were multilingual, speaking English, Bengali and even Hindi to pursue their legal, political or administrative careers in India. At the same time, Orissa incorporated numerous Adivasi communities who did not speak a word of Oriya. The creation of Orissa may not have seen the violence which followed Partition, but the human cost of dividing according to language resulted in communities being split, forcibly incorporated into Orissa, or left behind. Grierson may not have had such events on his mind, but he understood the limitations, if not dangers, of using language maps as anything more than an approximate snapshot of a language's geography. Grierson's maps might have outlived their usefulness, if they were ever useful to begin with, but his cartographic reasoning proved far-sighted and enduring.

Conclusion

One wonders if the LSI had been heeded, whether another feature less troublesome than language might have been used to map and draw the boundary. But dividing by any other human variable would have been just as challenging. Although the focus of this thesis has been language, the same point could have been made for religion, caste, or race in India. If language had been replaced by religion in Grierson's instructions, it would have foreshadowed the trouble with partitioning India according to faith in 1947. This is not to say Grierson was some sort of sage, he simply pointed out the difficulty of drawing "hard and fast" boundaries in a linguistically complex region like India, based on his own experience of surveying and mapping.

What the Oriya case study shows is that maps often take on a different trajectory, or are mobilised differently, than intended by the mapmaker. Grierson could control the knowledge which made the map, but once the map was published and 'out there', the LSI could no longer control the map as an object of knowledge. But maps do not have agency because the meaning or purpose of a map is remade by those who use them. The Oriya movement were already using a different Oriya map in 1917 than the 1903 map in the LSI. By mobilising the Oriya map to

visualise their territorial claim, the Utkal Union Conference had to unmap the purpose of the original map published in the LSI. By removing the map – and geographical description – from the LSI and including it in the memorial, the UUC had altered the contextual meaning of the map and remapped Grierson's map of Oriya to match their political and territorial demands. It may even have physically occurred, although it remains unclear whether the map was appended to the memorial. The subsequent Oriya 'maps' being referred to in debates and various enquiries were not the LSI's map but the Oriya movement's map.

The authority of the mapmaker, in this case Grierson, also mattered to those deploying language maps for or against Oriyan statehood. However, the LSI also demonstrated the temporal limits of using language maps to draw territorial boundaries. The Oriya map captured an (approximate) geography of Oriya in 1903 not 1917, 1931 or 1936. Language surveys and maps quite quickly outlived their usefulness and the state had to set up various commissions and enquiries to constantly gather up to date information on who spoke Oriya and where Oriya was spoken. Counterintuitively perhaps, that points to the timelessness of the Linguistic Survey's maps. By admitting that what it mapped was indefinite and vulnerable to changes, improvements and corrections, the LSI's maps endure as an adaptable source of knowledge for India's languages.

Conclusion

This study of the Linguistic Survey's mapping could be read as having fulfilled the criteria of Edney's call for a processual approach or a consideration of the "multiplicity of mapping practices" evident in the production, circulation, and consumption of maps.[1] Across chapter two, three and four, this thesis has demonstrated that the production of the Linguistic Survey's maps depended on the circulation of expertise, maps and knowledge across governmental, intellectual and institutional networks established by the Survey, while the maps were received and consumed as political devices as much as, if not more, than their cultural and scholarly function. Moreover, the Survey's mapping could be understood as a historical process, beginning with the political background and formation of a mapping project, followed by the process of mapping and making a language map, finally tracing the afterlife of the LSI's maps in the political sphere of late colonial India.

However, this understanding of the LSI's mapping is limiting. This thesis has demonstrated that a broader and more ambitious geographical understanding of mapping presents a much more coherent and persuasive analysis of how a scheme like the LSI operated, mapped, and existed within the British Imperial system. It has mapped three, interlinked, geographies of mapping which constitute the Linguistic Survey of India as a cartographic scheme. *Chapter two* charted the governing rationale for mapping language, arguing that it was driven by the state's ambition to have a better geographical guide to where a language was spoken, and mapped the process and procedures for setting up, managing, and operating a linguistic survey in India. Chapter two echoes Grierson's own approach, mapping the networks of experts and correspondents who would act as the LSI's 'surveyors' – locally, nationally, and internationally – gathering and circulating the geographical knowledge which would be used to identify and map India's linguistic geography.

Chapter three mapped the distinct, but connected, process of mapping language and making a language map. It read across the forty-five language maps to argue that the LSI experimented with different ways to map the approximate and indefinite geography of language, using correspondence to roughly identify where a language was spoken, and circulating maps to be

[1] Edney, *Cartography*, p.44.

proofed, corrected and checked. However, the LSI was also governed by cartographic principles and expectations from the state that did not align with linguistic geography, namely drawing "hard and fast" boundaries, which it tried to ameliorate with instructions on reading and understanding what language maps can, and cannot, represent.

Finally, *chapter four* mapped the politics of mapping in colonial India, arguing that the Oriya movement unmapped and remapped the purpose and meaning of Grierson's map for their own political interests, while the colonial state's statistical and territorial mapping - which responded to the movement - continued a process that started with the LSI's mapping of language. Chapter four suggested that although the Linguistic Survey lost control of the map as an object of knowledge after it was published, how it was mobilised or used remained part of the longer process of mapping language which began with the Survey.

Chapter four alludes to a larger question across the thesis: is language mapping political, even when such mapping tries to avoid the political? The LSI needed the state's money and personnel to map language. The LSI produced maps – although it tried otherwise - which could be read and used politically as the Oriya language movement did. This does not only have implications for understanding other forms of colonial mapping in India, such as ethnographic or religious maps, but for language maps today. Can modern language maps detach themselves from their political contexts, and be purely scientific maps? Moreover, while technologies and methods have evolved over time, modern language maps (or dialect maps) are rooted in the methods developed by surveys such as the LSI. Those colonial or imperial foundations have seldom been interrogated.

However, a much broader geographical notion of mapping not only allowed the thesis to analyse the political consequences of the Survey's maps and mapmaking. It also permits us to expand what constitutes a 'map archive'. This thesis brings together imperial, institutional, and personal archives in India and London, demonstrating that fragments of mapping and mapmaking leave a much greater archival footprint than a single 'map archive' based in one repository. This thesis brings together different 'map archives', across different geographies, to map the Linguistic Survey of India in three different ways.

Furthermore, a broader reading and understanding of mapping enables us to acknowledge that maps have not been idealised throughout history. Grierson did not idealise language maps, consciously trying to balance the philological reality with political expectations, and tried to

limit the possibility, perhaps inevitability, of misinterpretation. Nor did the Oriya movement idealise maps; maps were simply useful tools for making claims and discarded or updated when no longer helpful or relevant. Those pushing back against the Oriyan claims did so too. Cartography, in late colonial India, was scarcely idealised.[2]

There were other angles the research could have pursued with more time (and a larger word count). The focus has been the Linguistic Survey in India but there is much more to write about the Linguistic Survey as a project which emerged and circulated in Europe. The LSI coincides with other European and North American linguistic surveys, notably in Germany and France, and it would have been interesting to compare them and identify any ideas or methods Grierson took and applied to India. However, I suspect such research would align more with Kapil Raj's work and demonstrate that India was a site of collaborative linguistic knowledge production which was then reapplied to Europe and elsewhere, particularly in the interwar period. The LSI certainly inspired other surveys in the colonies, and post-colonies, such as the Linguistic Atlas of Afghanistan project and a proposed Linguistic Survey of the West Indies.

This thesis offers a new and significant contribution to several related disciplines. For map historians and historical geographers, the thesis demonstrates that a broader understanding of what constitutes mapping – and how we can analyse maps and mapmaking by mapping their geographies – allows us to establish it as a wider process of creating and using knowledge which is impacted by scale, distance, interrelationships, and socio-political contexts. This thesis is also an example of writing a historical geography of a unique colonial scheme, but which formed part of a broader imperial system of surveying, mapping and classifying knowledge for science and governing. For South Asianists, the thesis provides a fresh perspective on the colonial Linguistic Survey of India as an endeavour to gather and produce linguistic knowledge, and the significant impact of the Survey's organisation of linguistic geography on regional, rather than national, politics in late colonial India.

Finally, I hope this thesis sets an example of how a historical geographer, or historian of maps, can write about an important tradition in the history of geography and mapping. Telling the

[2] Edney makes a strong case for letting cartography die in favour of mapping because it is too wrapped up in the myth of an ideal which many map scholars – and broader society – continue to hold onto. See Edney, *Cartographica*, p.11-27 for a brief overview. One could argue that cartography has been far less idealised outside the West, arising out of the experience of redrawn maps and artificially imposed borders under colonialism e.g., Partition in India. 'Cartographic anxiety' is one outcome of this less than idealised experience of cartography. See Krishna, Cartographic anxiety, pp. 507-521.

story of linguistic surveys such as the LSI, when geography and linguistics were overlapping concerns in India, Europe and elsewhere, should be as much an ambition of geographers as it is for linguists. The LSI, like other projects to survey language, were as much about the production of geographic or spatial knowledge as they were about the gathering and classifying of linguistic knowledge.

Bibliography

Acharya, P., *National Movement and Politics in Orissa, 1920-29*. SAGE Series in Modern Indian History, 9 (New Delhi: SAGE Publications, 2008).

Akerman, J., (ed.), *Decolonizing the Map: Cartography from Colony to Nation* (Chicago: University of Chicago Press, 2017).

——, (ed.), *The Imperial Map: Cartography and the Mastery of Empire* (Chicago: University of Chicago Press, 2009).

Anderson, B., *Imagined Communities: Reflections on the Origin and Spread of Nationalism,* 2nd ed. (London: Verso, 1991).

Andrews, J., 'Meaning, Knowledge and Power in the Map Philosophy of J. B. Harley', in J. Harley & P. Laxton (ed.), *The New Nature of Maps* (Baltimore: Johns Hopkins Press, 2001), 1-33.

Annamalai, E., 'Politics of language in India', in P. Brass (ed.) *Routledge Handbook of South Asian Politics* (London: Routledge, 2010).

Arel, D., 'Language categories in censuses: backward- or forward-looking', in D. Kertzer & D. Arel (eds.) *Census and Identity* (Cambridge: Cambridge University Press, 2001), 91-210.

Arnold, D., *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India* (Berkeley: UC Press, 1993).

——, *Science, Technology and Medicine in Colonial India.* The New Cambridge History of India 3, No. 5 (Cambridge: Cambridge University Press, 2000).

——, *The Tropics and the Travelling Gaze: India, Landscape and Science, 1800-1856* (Seattle: University of Washington Press, 2005).

Assayag, J., 'The Body of India: Geography, Ritual, Nation', *Etnográfica,* 1:1 (1997), 33-56.

Avery, B., 'The Subject of Imperial Geography', in G. Brahm Jr. & M. Driscoll (eds.), *Prosthetic Territories: Politics and Hypertechnologies* (Boulder: Westview Press, 1995).

Baber, Z., 'The Plants of Empire: Botanic Gardens, Colonial Power and Botanical Knowledge', *Journal of Contemporary Asia,* 46:4 (2016), 659-679.

Bagrow, L., *History of Cartography,* Revised and enlarged by R. A. Skelton (Cambridge: Harvard University Press, 1964).

Bajrange, D., Gandee, S. & Gould, W., 'Settling the Citizen, Settling the Nomad: 'Habitual Offenders', Rebellion, and Civic Consciousness in Western India, 1938–1952', *Modern Asian Studies,* 54:2 (2020), 337–383.

Ballantyne, T., *Orientalism and Race: Aryanism in the British Empire* (London: Springer, 2002).

Barber, P., "Context is everything…': Ruminations on Developments in the History of Cartography since the 1970s and their consequences', *Imago Mundi*, 72:2 (2020), 131-147.

Barbour, S. & Carmichael, C., (eds.), *Language and Nationalism in Europe* (Oxford: Oxford University Press, 2000).

Barnett, C., 'A critique of the cultural turn', in J. Duncan, N. Johnson & R. Schein (eds.), *A Companion to Cultural Geography* (Oxford: Blackwell, 2004), 38-48.

Barrow, I., *Making History, Drawing Territory: British Mapping in India, c.1756–1905* (Oxford: Oxford University Press, 2003).

Bassett, T., 'Cartography and Empire Building in Nineteenth-Century West Africa', *Geographical Review*, 84:3 (1994), 316-335.

Basu, S., 'The Dialectics of Resistance: Colonial Geography, Bengali Literati and the Racial Mapping of Indian Identity', *Modern Asian Studies*, 44:1 (2010), 53-79.

Bayly, C., *Empire and Information: Intelligence Gathering and Social Communication in India, 1780-1870* (Cambridge: Cambridge University Press, 1996).

Bell, M., Butlin. R. & Heffernan, M., (eds.), *Geography and Imperialism, 1820-1940* (Manchester: Manchester University Press, 1995)

Belyea, B., 'Images of Power: Derrida/Foucault/Harley', *Cartographica*, 29:2 (1992), 1-9.

Bennett, B. & Hodge, J., (eds.), *Science and Empire: Knowledge and Networks of Science across the British Empire, 1800-1970* (London: Palgrave, 2011).

Bernardo, M., 'Making Territory Visible: The Revenue Surveys of Colonial South Asia', *Imago Mundi*, 59:1 (2007), 78-95.

Bertin, J., *Sémiologie Graphique. Les diagrammes, les réseaux, les cartes* (Paris: Mouton & Gauthier-Villars, 1967).

Bezbaruah, R., 'Mitaigaon Outrage and the Bebejiya Mishmi Expedition, 1899-1900', *Proceedings of the Indian History Congress*, 54 (1993), 416-422.

Bhagavan, M., 'Princely States and the Hindu Imaginary: Exploring the Cartography of Hindu Nationalism in Colonial India', *The Journal of Asian Studies*, 67:3 (2008), 881-915.

Bharadwaj, V., 'Ambedkar's Paradox of Differentiation: Language, Nation and Recognition of States in Post-Colonial India', *The Indian Economic & Social History Review*, 52:1 (2015), 79–108.

Billé, F., (ed.), Special issue on Cartographic Anxieties, *Cross-Currents: East Asian History and Culture Review*, 6:1 (2017).

Bissell, D., ‘How environments speak: everyday mobilities, impersonal speech and the geographies of commentary’, *Social & Cultural Geography*, 16:2 (2015), 146-164.

Blakemore, M. & Harley, J., ‘Concepts in the History of Cartography’, Monograph 26, *Cartographica*, 17:4 (1980).

Bönisch, F., ‘The Geometrical Accuracy of 16th and 17th Century Topographical Surveys’, *Imago Mundi*, 21 (1967), 62–69.

Boshier, C., ‘Leslie Fernanes Taylor and the ‘Lost’ Linguistic and Ethnographical Survey of Burma’, *The SOAS Journal of Postgraduate Research*, 6 (2014), 49-76.

Bowen, E., ‘Le Pays de Galles: Presidential address.’, *Transactions and Papers (Institute of British Geographers)*, 26 (1959), 1-23.

Brandt, C. & Sohoni, P., ‘Script and Identity – the politics of writing in South Asia: an introduction’, *South Asian History and Culture*, 9:1 (2018), 1-15.

Brass, P., *Language, Religion and Politics in North India* (Cambridge: Cambridge University Press, 1974).

Braun, L., *Colonial Survey and Native Landscapes in Rural South Africa, 1850–1913: The Politics of Divided Space in the Cape and Transvaal* (Leiden: Brill, 2015).

Brealey, K., ‘Networks of Power: Cartography as Ideology’, *Western Geography*, 3 (1993), 15-30.

Brickell, K., ‘Towards geographies of speech: proverbial utterances of home in contemporary Vietnam’, *Transactions of the Institute of British Geographers*, 38:2 (2013), 207-220.

Brock, P., *Mahatma Gandhi as a Linguistic Nationalist* (Columbia, MO: South Asia Publications, 1995).

Burnett, D., *Masters of All They Surveyed: Exploration, Geography, and a British El Dorado* (Chicago: University of Chicago Press, 2000).

Butlin, R., *Geographies of Empire: European Empires and Colonies, c.1880-1960.* (Cambridge: Cambridge University Press, 2009).

Carlan, H., ‘“In the mouth of an aborigine”: language ideologies and logics of racialization in the Linguistic Survey of India’, *International Journal of the Sociology of Language*, 252 (2018), 97-123.

Castellino, J., *International Law and Self-determination: the interplay of the politics of territorial possession with formulations of post-colonial ‘national’ identity* (The Hague: Martinus Nijhoff, 2000).

Chakrabarti, D., *A History of Indian Archaeology: from the beginning to 1947* (New Delhi: Munshiram Manoharlal Publishers, 1988).

Chakrabarti, P., *Western in Science in Modern India: Metropolitan Methods, Colonial Practices* (Delhi: Permanent Black, 2004).

Chambers, J. & Trudgill, P., *Dialectology,* 2nd ed. (Cambridge: Cambridge University Press, 1998).

Charney, M., *A History of Modern Burma* (Cambridge: Cambridge University Press, 2015).

Chatterjee, K., *Media and Nation Building in Twentieth-Century India: Life and Times of Ramananda Chatterjee* (Abingdon: Routledge, 2020).

Chatterjee, P., *Nationalist Thought and the Colonial World: A Derivative Discourse* (Tokyo: UNU & Zed Books, 1986).

——, *The Nation and its Fragments: Colonial and Postcolonial Histories* (Princeton: Princeton University Press, 1993).

Chester, L., 'The Mapping of Empire: French and British Cartographies of India in the Late-Eighteenth Century', *Portuguese Studies,* 16 (2000), 256-275.

——, *Borders and conflict in South Asia* (Manchester: Manchester University Press, 2013).

Choudhury, J., 'O'Donnell Committee and New Province of Odisha', *Odisha Review* (April 2013), 60-62.

——, 'Formation of Modern Odisha and the contribution of the British King-Emperor', *Odisha Review* (April 2016), 96-99.

Coen, D., *Climate in Motion: Science, Empire and the Problem of Scale* (Chicago: University of Chicago Press, 2018).

Cohn, B., 'The Census, Social Structure and Objectification in South Asia' in B. Cohn, *An Anthropologist among the Historians and other essays* (Oxford: Oxford University Press, 1987), 224-254.

——, *Colonialism and its Forms of Knowledge*: *The British in India* (Princeton: Princeton University Press, 1996).

Collier, P., 'Innovative military mapping using aerial photography in the First World War: Sinai, Palestine and Mesopotamia 1914–1919', *The Cartographic Journal*, 31:2 (1994), 100-104.

Corbridge, S. & Simpson, E., 'Militant Cartographies and Traumatic Spaces: Ayodhya, Bhuj and the Contested Geographies of Hindutva' in S. Raju, M. Kumar & S. Corbridge (eds.), *Colonial and Post-Colonial Geographies of India* (London: Sage, 2006).

Cox, N., *Armchair geography: speculation, synthesis, and the culture of British exploration, c.1830-c.1870*. Unpublished thesis (University of Warwick, 2016).

Craib, R., *Cartographic Mexico: A History of State Fixations and Fugitive Landscapes* (Durham: Duke University Press, 2004).

Crampton, J., 'Maps as Social Constructions: Power, Communication and Visualization', *Progress in Human Geography,* 25:2 (2001), 235-252.

——, *The Political Mapping of Cyberspace* (Chicago: University of Chicago Press, 2003).

Crone, G., *Maps and their Makers: An Introduction to the History of Cartography* (London: Hutchinson's, 1953).

Crosbie, B., *Irish Imperial Networks: Migration, Social Communication and Exchange in Nineteenth-Century India* (Cambridge: Cambridge University Press, 2011).

Curry, M., 'Toward a Geography of a World without Maps: Lessons from Ptolemy and Postal Codes', *Annals of the Association of American Geographers*, 95:3 (2005), 680-691.

Datla, K., *The Language of Secular Islam: Urdu Nationalism and Colonial India* (Honolulu: University of Hawai'i Press, 2013).

Davis, L. & Huttenback, R., *Mammon and the Pursuit of Empire: The Political Economy of British Imperialism, 1860-1912* (Cambridge: Cambridge University Press, 1987).

Deumert, A., Storch, A. & Shepherd, N., (eds.), *Colonial and Decolonial Linguistics: Knowledges and Epistemes* (Oxford: Oxford University Press, 2021).

Devi, B., *Some Aspects of British Administration in Orissa, 1912-1936* (Delhi: Academic Foundation, 1992).

Dirks, N., *Castes of Mind: Colonialism and the making of Modern India* (Princeton: Princeton University Press, 2001).

——, 'Annals of the Archive: Ethnographic Notes on the Sources of History', in B. Axel (ed.) *From the Margins: Historical Anthropology and Its Futures* (London: Duke University Press, 2002), 47-65.

Dodson, M., 'Re-Presented for the Pandits: James Ballantyne, 'Useful Knowledge,' and Sanskrit Scholarship in Benares College during the Mid-Nineteenth Century', *Modern Asian Studies*, 36 (2002), 257-298.

——, 'Translating Science, Translating Empire: The Power of Language in Colonial North India', *Comparative Studies in Society and History*, 47:4 (2005), 809-835.

——, *Orientalism, Empire, and National Culture: India, 1770-1880* (Basingstoke: Palgrave Macmillan, 2007).

Driver, F., *Geography Militant: Cultures of Exploration and Empire* (Oxford: Blackwell, 2001).

Dunlop, C., 'Mapping a New Kind of European Boundary: The Language Border between Modern France and Germany', *Imago Mundi*, 65:2 (2013), 253-267.

——, *Cartophilia: Maps and the Search for Identity in the French-German Borderland* (Chicago: University of Chicago Press, 2015).

Eaton, R., '(Re)imag(in)ing Other2ness: A Postmortem for the Postmodern in India', *Journal of World History*, 11:1 (2000), 57-78.

Edney, M., ‘Cartography without Progress': Reinterpreting the Nature and Historical Development of Mapmaking’, *Cartographica*, 30:2-3 (1993), 54-68.

——, ‘Theory and the History of Cartography’, *Imago Mundi*, 48 (1996), 185-191.

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

——, *Cartography: the Ideal and its History* (Chicago: University of Chicago Press, 2019).

Emeneau, M., ‘India and Linguistics’, *Journal of the American Oriental Society*, 75:3 (1955), 145-153.

——, ‘India as a Linguistic Area’, *Language*, 31:1 (1956), 3-16.

Errington, J., ‘Colonial linguistics’, *Annual Review of Anthropology*, 30:1 (2001), 19-39.

——, *Linguistics in a Colonial World* (Oxford: Blackwell, 2008).

Evans, S., ‘Macaulay's Minute Revisited: Colonial Language Policy in Nineteenth-century India’, *Journal of Multilingual and Multicultural Development*, 23:4 (2002), 260-281.

Fedman, D., ‘Japanese Colonial Cartography: Maps, Mapmaking, and the Land Survey in Colonial Korea’, *The Asia-Pacific Journal*, 10:52 (2012), 1-18.

Findley, P., (ed.), *Empires of Knowledge: Scientific Networks in the Early Modern World* (London: Routledge, 2018).

Fitzpatrick, H., ‘Imagining and mapping the end of an empire: Oskar Spate and the partition of India and Pakistan’, *Journal of Historical Geography*, 66 (2019), 55-68.

Frost, M., ‘Pandora’s Post Box: Empire and Information in India, 1854–1914’, *The English Historical Review*, 131:552 (2016), 1043-1073.

Fuller, C., ‘Anthropologists and Viceroys: Colonial knowledge and policy making in India, 1871-1911’, *Modern Asian Studies*, 50:1 (2016), 217-258.

——, ‘Ethnographic inquiry in colonial India: Herbert Risley, William Crooke, and the study of tribes and castes’, *Journal of the Royal Anthropological Institute*, 23:3 (2017), 603-621.

Gardner, K., ‘Moving Watersheds, Borderless Maps, and Imperial Geography in India's Northwestern Himalaya’, *The Historical Journal*, 62:1 (2019), 149-170.

Gibson, C., *Nations on the drawing board: ethnographic map-making in the Russian Empire's Baltic provinces, 1840-1920.* Unpublished thesis (EUI, 2019).

Gogate, P. & Arunachalam, B., ‘Area Maps in Maratha Cartography: A Study in Native Maps of Western India’, *Imago Mundi*, 50:1 (1998), 126-140.

Gole, S., *Indian Maps and Plans: From Earliest Times to the Advent of European Surveys* (Delhi: Manohar, 1989).

Goswami, M., *Producing India: From Colonial Economy to National Space* (Chicago: University of Chicago Press, 2004).

Gould, W., *Hindu Nationalism and the Language of Politics in Late Colonial India* (Cambridge: Cambridge University Press, 2004).

Guha, R., 'The Prose of Counter-Insurgency', in R. Guha & G. Spivak (eds.), *Selected Subaltern Studies* (Oxford: Oxford University Press, 1988), 45-89.

——, *Dominance without Hegemony: History and Power in Colonial India* (Cambridge, MA: Harvard University Press, 1997).

Guha, S., 'The Politics of Identity and Enumeration in India c. 1600-1990', *Comparative Studies in Society and History*, 45:1 (2003), 148–167.

Gupta, S., *Cultural Constellations, Place-making and Ethnicity in Eastern India, 1850-1927* (Leiden: Brill, 2017).

Hakala, W., *Negotiating Languages: Urdu, Hindi, and the Definition of Modern South Asia* (NY: Columbia University Press, 2016).

Hamans, C., 'The Return of the Prodigal Son', *Scripta Neophilologica Posnaniensia*, 27 (2017), 103-116.

Hansen, J., *Mapping the Germans: Statistical Science, Cartography, and the Visualization of the German Nation, 1848-1914* (Oxford: Oxford University Press, 2015).

Harley, J., 'The Evaluation of Early Maps: Towards a Methodology', *Imago Mundi*, 22 (1968), 62–74.

——, 'Maps, Knowledge, and Power', in D. Cosgrove & S. Daniels (eds.), *The Iconography of Landscape: Essays on the Symbolic Representation, Design and Use of Past Environments*, Cambridge Studies in Historical Geography, 9 (Cambridge: Cambridge University Press, 1988), 277-312.

——, 'Deconstructing the Map', *Cartographica*, 26:2 (1989a), 1-20.

——, 'Historical geography and the cartographic illusion', *Journal of Historical Geography*, 15:1 (1989b), 80-91.

Heaney, G., 'Rennell and the Surveyors of India', *The Geographical Journal*, 134:3 (1968), 318-325.

Heffernan, M. & Delano-Smith, C., 'A Life in Maps: Leo Bagrow, Imago Mundi, and the History of Cartography in the Early Twentieth Century', *Imago Mundi*, 66:sup1 (2014), 44-69.

Hevia, J., *The Imperial Security State: British Colonial Knowledge and Empire-Building in Asia* (Cambridge: Cambridge University Press, 2012).

Hinchy, J., 'Conjugality, Colonialism and the 'Criminal Tribes' in North India', *Studies in History*, 36:1 (2020), 20–46.

Hodder, J., ‘On absence and abundance: biography as method in archival research’, *Area*, 49 (2017), 452-459.

Hostetler, L., *Qing Colonial Enterprise: Ethnography and Cartography in Early Modern China* (Chicago: University of Chicago Press, 2001).

Howe, S., (ed.), *The New Imperial Histories Reader* (London: Routledge, 2010).

Hutton, C., ‘Lost in the hall of mirrors: The linguistics of Aryan as a knowledge domain in colonial and postcolonial India’, *Language, Culture and Society*, 1:1 (2019), 8-30.

Inden, R., ‘Orientalist Constructions of India’, *Modern Asian Studies*, 20:3 (1986), 401-446.

Irschick, E., *Dialogue and History: Constructing South India, 1795-1895* (Berkeley: UC Press, 1994).

Ittmann, K., Cordell, D. & Maddox, G., (eds.), *The Demographics of Empire: the Colonial Order and the Creation of Knowledge* (Athens: Ohio University Press, 2010).

Jacob, C., *The Sovereign Map: Theoretical Approaches in Cartography throughout History* (Chicago: Chicago University Press, 2006).

Jagessar, P., ‘Review’, *Journal of Historical Geography*, 65 (2019), 97-99.

——, ‘Geography and Linguistics: Histories, entanglements and departures’, *Geography Compass*, 14:11 (2020).

Jahani, C., *Standardization and Orthography in the Balochi Language,* Acta Universitatis Upsaliensis: Studia Iranica Upsaliensia, 1 (Uppsala: Uppsala University, 1989).

Jha, M., *Language Politics and Public Sphere in North India: Making of the Maithili Movement* (Delhi: Oxford University Press, 2018).

Jones, R. & Lewis, H., *New Geographies of Language: Language, Culture and Politics in Wales* (London: Palgrave Macmillan, 2019).

Kalpagam, U., *Rule by Numbers: Governmentality in Colonial India* (Lanham, MD: Lexington Books, 2014).

Kazemzadeh, F., *Russia and Britain in Persia, 1864-1914: A Study in Imperialism* (New Haven: Yale University Press, 1968).

Khandy, I., ‘No place for ‘Kashmiri’ in Kashmiri nationalism’, *Nations and Nationalism*, 27:1 (2021), 260-278.

Kidwai, A., ‘Life to Indian Languages: A Linguist Responds to Javed Majeed’s Study of Grierson’s Linguistic Survey of India’, *Economic and Political Weekly*, 55:42 (17 October 2020).

King, C., *One Language, Two Scripts: The Hindi Movement in Nineteenth Century North India* (Oxford: Oxford University Press, 1994).

King, R., *Nehru and the Language Politics of India* (Delhi: Oxford University Press, 1998).

Kitchin, R. & Dodge, M., 'Rethinking Maps', *Progress in Human Geography*, 31:3 (2007), 331-344.

Krishna, S., 'Cartographic Anxiety: Mapping the Body Politic in India', *Alternatives: Global, Local, Political*, 19:4 (1994), 507-521.

Krygier, J., 'Cartography as an Art and a Science?', *The Cartographic Journal*, 32:1 (1995), 3-10.

——, 'Reflections on JB Harley's "Deconstructing the Map"', *Cartographica*, 50:1 (2015), 24-27.

Kumar, D., 'Emergence of 'Scientocracy': Snippets from Colonial India', *Economic and Political Weekly*, 39:35 (Aug-Sep 2004), 3893-3898.

Laidlaw, Z., *Colonial connections, 1815–45: Patronage, the information revolution and colonial government* (Manchester: Manchester University Press, 2005).

Lambert, D. & Lester, A., (eds.), *Colonial lives across the British Empire: Imperial careering in the long nineteenth century* (Cambridge: Cambridge University Press, 2006).

Lambert, D., 'Reflections on the Concept of Imperial Biographies: The British Case', *Geschichte und Gesellschaft*, 40:1 (2014), 22-41.

Lameli, A., Kehrein R. & Rabanus, S., *Language and Space: An International Handbook of Linguistic Variation, 2: Language Mapping* (Berlin: De Gruyter Mouton, 2011).

Legg, S., 'Dyarchy: Democracy, Autocracy, and the Scalar Sovereignty of Interwar India', *Comparative Studies of South Asia, Africa and the Middle East*, 36:1 (2016), 44-65.

Lelyveld, D., 'Colonial Knowledge and the Fate of Hindustani', *Comparative Studies in Society and History*, 35:4 (1993), 665-682.

——, 'Words as Deeds: Gandhi on Language', *The Annual of Urdu Studies*, 16 (2001), 64-75.

Leonard, Z., 'Colonial Ethnography on India's North-West Frontier, 1850-1910', *The Historical Journal*, 59:1 (2016), 175-196.

Lester, A., *Imperial Networks: Creating identities in nineteenth-century South Africa and Britain* (London: Routledge, 2001).

——, 'Imperial circuits and networks: geographies of the British Empire', *History Compass*, 4:1 (2006), 124-141.

Lewis, G. (ed.), *Cartographic Encounters: Perspectives on Native American Mapmaking and Map Use* (Chicago: University of Chicago Press, 1998).

Lilley, K., 'Surveying Empires: Archaeologies of Colonial Cartography and the Great Trigonometrical Survey of India', in A. Kent, S. Vervust, I. Demhardt & N. Millea (eds.) *Mapping Empires: Colonial Cartographies of Land and Sea* (Cham: Springer, 2020), 101-120.

Madan, P., ‘Cartographic records in the National Archives of India (1700–1900)’, *Imago Mundi*, 25:1 (1971), 79-80.

Mahajan, S., *Foreign Policy of Colonial India 1900-1947* (Abingdon: Routledge, 2018).

Majeed, J., *Colonialism and Knowledge in Grierson’s Linguistic Survey of India* (Abingdon: Routledge, 2019a).

——, *Nation and Region in Grierson’s Linguistic Survey of India* (Abingdon: Routledge, 2019b).

Manela, E., *The Wilsonian Moment: Self-determination and the International Origins of Anticolonial Nationalism* (New York: Oxford University Press, 2007).

Mann, M., ‘Mapping the Country: European Geography and the Cartographical Construction of India, 1760-90’, *Science, Technology and Society*, 8:1 (2003), 25-46.

Mantena, R., ‘Vernacular futures: Colonial philology and the idea of history in nineteenth-century south India’, *The Indian Economic & Social History Review*, 42:4 (2005), 513-534.

——, *The Origins of Modern Historiography in India: Antiquarianism and Philology, 1780-1880* (New York: Palgrave Macmillan, 2012).

——, ‘The Andhra movement, Hyderabad state, and the historical origins of the Telangana demand: Public life and political aspirations in India, 1900–56’, *India Review*, 13:4 (2014), 337-357.

Masica, C., *The Indo-Aryan Languages* (Cambridge: Cambridge University Press, 1991).

Massey, D., *For Space* (London: Sage, 2005).

Mathur, S., ‘Survey of India Maps: (Ir)Rationale about Restricted Maps’, *Current Science*, 76:10 (1999), 1296–1297.

Mathur, T., *How Professionals Became Natives: Geography and Trans-Frontier Exploration in Colonial India*. Unpublished thesis (University of Michigan, 2018).

McGeachan, C., ‘Historical Geography II: Traces Remain’, *Progress in Human Geography*, 42:1 (2018), 134-147.

McGrath, G., ‘The Surveying and Mapping of British East Africa, 1890-1946’, *Cartographica*, 13:3 (1976), 1-118.

McKay, A., ‘The British Invasion of Tibet, 1903-04’, *Inner Asia*, 14:1 (2012), 5-25.

Mesthrie, R., ‘Transcending the colonial? Colonial linguistics and George Grierson's Linguistic Survey of India’, in A. Deumert, A. Storch & N. Shepherd (eds.) *Colonial and Decolonial Linguistics: Knowledges and Epistemes* (Oxford: Oxford University Press, 2021).

Mills, S., ‘Cultural–Historical Geographies of the Archive: Fragments, Objects and Ghosts’, *Geography Compass*, 7 (2013), 701-713.

Mir, F., ‘Imperial policy, provincial practices: Colonial language policy in nineteenth-century India’, *The Indian Economic and Social History Review*, 43:4 (2006), 395-427.

——, *The Social Space of Language: Vernacular Culture in British Colonial Punjab* (Berkeley: UC Press, 2010).

Mishra, P., *Language and the Making of Modern India: Nationalism and the vernacular in Colonial Odisha, 1803-1956* (Cambridge: Cambridge University Press, 2020).

Misra, S., *Becoming a Borderland: The Politics of Space and Identity in Colonial Northeastern India* (London: Routledge, 2011).

Mohanty, P., ‘British Language Policy in 19th Century India and the Oriya Language Movement’, *Language Policy*, 1 (2002), 53-73.

Mukherjee, N., ‘“A desideratum more sublime”: imperialism's expansive vision and Lambton's Trigonometrical Survey of India’, *Postcolonial Studies*, 14:4 (2011), 429-447.

——, *Spatial Imaginings in the Age of Colonial Cartographic Reason: Maps, Landscapes, Travelogues in Britain and India* (New Delhi: Routledge, 2020).

Mukhopadhyay, A., *Imperial Technology and ‘Native’ Agency: A social history of railways in colonial India* (Abingdon: Routledge, 2018).

Müller, M., ‘Worlding geography: From linguistic privilege to decolonial anywheres’, *Progress in Human Geography* (Online, January 2021).

Neill, D., *Networks in Tropical Medicine: Internationalism, Colonialism and the Rise of a Medical Specialty, 1890-1930* (Stanford: Stanford University Press, 2012).

O'Hanlon, R., ‘Caste and its Histories in Colonial India: A reappraisal’, *Modern Asian Studies*, 51:2 (2017), 432-461.

Oliver, R., ‘Photo-zincography and helio-zincography, *Sheetlines*, 90 (2011), 41-43.

Orsini, F., *The Hindi Public Sphere, 1920-1940: Language and Literature in the Age of Nationalism* (Oxford: Oxford University Press, 2009).

Palsky, G., ‘La naissance de la démocartographie. Analyse historique et sémiologique’, *Espace, Populations, Sociétés*, 2:2 (1984), 25-34.

Pandit, P., ‘The Linguistic Survey of India – Perspectives on Language Use’, in S. Ohannessian, C. Ferguson & E. Polome (eds.) *Language Surveys and Developing Nations* (Arlington: CAL, 1975), 71-85.

Peabody, N., ‘Cents, Sense, Census: Human Inventories in Late Precolonial and Early Colonial India’, *Comparative Studies in Society and History*, 34:4 (2001), 819-850.

Pearson, K., ‘The Nineteenth-Century Colour Revolution: Maps in Geographical Journals,’ *Imago Mundi*, 32 (1980), 9-20.

Pedley, M., *The Commerce of Cartography: Making and Marketing maps in Eighteenth-century France and England* (Chicago: Chicago University Press, 2005).

Pennycook, A., 'Mother tongues, governmentality and protectionism', *International Journal of the Sociology of Language*, 154 (2002), 11-28.

Phillimore, R., *Historical Records of the Survey of India*, 5 Vol. (Dehradun: Survey of India, 1945-1968).

Pickles, J., *A History of Spaces: Cartographic reason, mapping, and the geo-coded world* (Abingdon: Routledge, 2004).

Picon, A., 'Nineteenth-Century Urban Cartography and the Scientific Ideal: The Case of Paris', *Osiris*, 18:2 (2003), 135-149.

Pietsch, T., *Empire of Scholars: Universities, Networks and the British Academic World, 1850-1939* (Manchester: Manchester University Press, 2013).

Prakash, G., 'Science "Gone Native" in Colonial India', *Representations*, 40 (1992), 153-178.

Prior, C., *Exporting Empire: Africa, Colonial Officials and the Construction of the British Imperial State, c.1900-1939* (Manchester: Manchester University Press, 2013).

Radcliffe, S., 'Decolonising geographical knowledges', *Transactions of the Institute of British Geographers*, 42:3 (2017), 329-333.

Rahman, T., 'British Language Policies and Imperialism in India', *Language Problems & Language Planning*, 20:2 (1996), 91-115.

——, *From Hindi to Urdu: A Social and Political History* (Karachi: Oxford University Press, 2011).

Raj, K., 'Review: Mapping an Empire', *The Indian Economic & Social History Review*, 37:3 (2000), 361-364.

——, *Relocating Modern Science: Circulation and the Construction of Knowledge in South Asia and Europe, 1650-1900* (Basingstoke: Palgrave Macmillan, 2007).

——, 'Introduction: circulation and locality in early modern science', *BJHS*, 43:4 (2010), 515-516.

——, 'Go-Betweens, Travelers, and Cultural Translators', in B. Lightman (ed.), *A Companion to the History of Science* (Oxford: Wiley-Blackwell, 2016), 39-57.

——, 'Networks of knowledge, or spaces of circulation? The birth of British cartography in colonial south Asia in the late eighteenth century', *Global Intellectual History*, 2:1 (2017), 49-66.

——, 'Spaces of Circulation and Empires of Knowledge: Ethnolinguistics and Cartography in Early Colonial India', in P. Findlen (ed.), *Empires of Knowledge* (London: Routledge, 2018).

Ramaswamy, S., *Passions of the Tongue: Language Devotion in Tamil India, 1891-1970* (Berkeley: UC Press, 1997).

——, 'Maps and Mother Goddesses in Modern India', *Imago Mundi*, 53:1 (2001), 97-114.

——, 'Visualising India's geo-body: Globes, maps, bodyscapes', *Contributions to Indian Sociology*, 36:1-2 (2002), 151-189.

——, *The Goddess and the Nation: Mapping Mother India* (Durham: Duke University Press, 2010).

Rankin, W., *After the Map: Cartography, Navigation, and the Transformation of Territory in the Twentieth Century* (Chicago: University of Chicago Press, 2016).

Richards, J., 'The Indian empire and peasant production of opium in the nineteenth century', *Modern Asian Studies*, 15:1 (1981), 59-82.

——, 'The opium industry in British India', *The Indian Economic & Social History Review*, 39:2-3 (2002), 149-180.

——, 'Fiscal Strains in British India, 1860-1914', XIV International Economic History Congress [working paper] (Helsinki, 2006).

Roberts, L., 'Situating Science in Global History: Local Exchanges and Networks of Circulation', *Itinerario*, 33:1 (2009), 9-30.

Robinson, A. & Petchenik, B., *The Nature of Maps* (Chicago: University of Chicago Press, 1976).

Robinson, A., *Early Thematic Mapping in the History of Cartography* (Chicago: University of Chicago Press, 1982).

Roepstroff, K., *The Politics of Self-determination* (Abingdon: Routledge, 2013).

Rose-Redwood, R., Barnd, N., Lucchesi, A., Dias & Patrick, W., *Cartographica: Special Issue on Decolonizing the Map,* 55:3 (2020), 151-214.

Roy, S., 'The National Archives of India during 1947', *Bulletin of the IHR*, 23:68 (1950), 200-202.

Royle, N., *Jacques Derrida* (London: Routledge, 2003).

Samarendra, P., 'Census in Colonial India and the Birth of Caste', *Economic and Political Weekly,* 46:33 (2011), 51-58.

Sarangi A. & Pai, S., (eds.), *Interrogating Reorganisation of States: Culture, Identity and Politics in India* (New Delhi: Routledge, 2011).

Sarkar, O., 'Science, Surveying and Scientific Authority: The Brothers Schlagintweit in 'India and High Asia', 1854–57', *South Asia: Journal of South Asian Studies*, 40:3 (2017), 544-565.

Saxer, M., 'A Spectacle of Maps: Cartographic Hopes and Anxieties in the Pamirs', *Cross-Currents: East Asian History and Culture Review*, 6:1 (2017), 122-150.

Schaffer, S., Roberts, L., Raj, K. & Delbourgo, J., (eds.), *The Brokered World: Go-Betweens and Global Intelligence, 1770–1820* (New York: Science History Publications, 2009).

Schulten, S., *Mapping the Nation: History and Cartography in Nineteenth-Century America* (Chicago: University of Chicago Press, 2012).

Schulz, J., 'Jacopo de' Barbari's View of Venice: Map making, city views and Moralized Geography before the year 1500', *The Art Bulletin*, 60:3 (1978), 425-474.

Seegel, S., *Mapping Europe's Borderlands: Russian Cartography in the Age of Empire* (Chicago: University of Chicago Press, 2012).

Sen, S., 'George Abraham Grierson, 1851-1941', *Hermathena*, 172 (2002), 39-55.

Sengupta, P., *Language as Identity in Colonial India: Policies and Politics* (Singapore: Palgrave Macmillan, 2018).

Simpson, A., (ed.), *Language and National Identity in Asia* (Oxford: Oxford University Press, 2007).

Simpson, T., '"Clean out of the Map": Knowing and doubting space at India's High Imperial Frontiers', *History of Science*, 55:1 (2017), 3-36.

——, *The Frontier in British India: Space, Science, and Power in the Nineteenth Century* (Cambridge: Cambridge University Press, 2021).

Singh, G. & Kim, H., 'The limits of India's ethno-linguistic federation: Understanding the demise of Sikh nationalism', *Regional & Federal Studies*, 28:4 (2018), 427-445.

Smith, D., Correspondence, *Imago Mundi*, 39 (1987), 91-93.

Sridharan, P., *"Agglutinating" a Family: Friedrich Max Müller and the Development of the Turanian Language Family Theory in Nineteenth-Century European Linguistics and other Human Sciences.* Unpublished dissertation (PSU, 2018). Paper 4341.

Stebbins, H., *British Imperialism in Qajar Iran: Consuls, Agents and Influence in the Middle East* (London: IB Tauris, 2016).

Stewart, J., 'The Pundits: Surveying the frontiers of India in the Great Game', *Asian Affairs*, 48:1 (2017), 90-102.

Stone, J., 'Bismarck and the Great Game: Germany and Anglo-Russian Rivalry in Central Asia, 1871-1890', *Central European History*, 48:2 (2015), 151-175.

Styles, S., *The Forbidden Frontiers: The Survey of India from 1765 to 1949* (London: Hamish Hamilton, 1970).

Thrower, N., *Maps and Man* (Englewood Cliffs: Prentice-Hall, 1972).

Tilley, H., *Africa as a Living Laboratory: Empire, Development and the Problem of Scientific Knowledge, 1970-1950* (Chicago: University of Chicago Press, 2011).

Trautmann, T., *Languages and Nations: The Dravidian Proof in Colonial Madras* (Berkeley: UC Press, 2006).

Urban, M., *Sprachlandschaften: Über die Rolle von Sprache in der Beziehung zwischen Mensch und Umwelt* (Würzburg: Königshausen & Neumann, 2018).

Varma, S., *G. A. Grierson's Linguistic Survey of India: A Summary, Part 1* (Hoshiarpur: Panjab University, 1972).

Vasunia, P., 'Greek, Latin and the Indian Civil Service', *The Cambridge Classical Journal*, 51 (2005), 35–71.

Vorsey, L. de., 'Amerindian Contributions to the Mapping of North America: A Preliminary View', *Imago Mundi*, 30 (1978), 71–78.

Wagner, K., 'Confessions of a Skull: Phrenology and Colonial Knowledge in Early Nineteenth-Century India', *History Workshop Journal*, 69:1 (2010), 27–51.

Wagner, P., 'Remarks on the Geography of Language', *Geographical Review*, 48:1 (1958), 86-97.

Wagoner, P., 'Precolonial Intellectuals and the Production of Colonial Knowledge', *Comparative Studies in Society and History*, 45:4 (2003), 783-814.

Walby K. & Haan, M., 'Caste Confusion and Census Enumeration in Colonial India, 1871–1921', *Histoire sociale/Social history,* 45:90 (2012), 301-318.

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

Winichakul, T., *Siam Mapped: A History of the Geo-Body of a Nation* (Honolulu: U. Hawaii Press, 1994).

Withers, C. & Mayhew, R., (eds.), *Geographies of Knowledge: Science, Scale, and Spatiality in the Nineteenth Century* (Baltimore: Johns Hopkins University Press, 2020).

Wood, D & Fels, J., *The Natures of Maps: Cartographic Constructions of the Natural World* (Chicago: University of Chicago Press, 2008).

Wood, D. (with J. Fels), *The Power of Maps* (New York: The Guilford Press, 1992).

Wood, D., 'The Fine Line between Mapping and Map Making', *Cartographica*, 30:4 (1993), 50-60.

Wright, S., *Language Policy and Language Planning: From Nationalism to Globalisation* (Basingstoke: Palgrave, 2016).

Zeige, L., 'Northern Europe in Linguistic Maps', in J. Grage & T. Mohnike (eds.), *Geographies of Knowledge and Imagination in 19th century Philological Research on Northern Europe* (Newcastle: Cambridge Scholars Publishing, 2017), 56-84.

Zimmermann, K. & Kellermeier-Rehbein, B., (eds.), *Colonialism and Missionary Linguistics* (Berlin: de Gruyter, 2015).

Zou, D. & Satish Kumar, M., 'Mapping a colonial borderland: Objectifying the geo-body of India's Northeast', *The Journal of Asian Studies*, 70:1 (2011), 141-170.