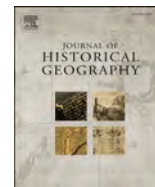




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Mapping race and environment: Geography's entanglements with Aryanism

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ABSTRACT

This article examines how theories of Aryanism influenced geographic theories of race and environmental influence. The argument is made that the entanglements between Aryanism and geographic theories of race provide a new site in assessing the history of geographic thought. It begins by illuminating the rise of Aryanism in colonial India. As it moved across time and space, Aryanism became a foundational element in racial science, and informed a number of disciplines, including geography. The majority of the article is devoted to exposing the influence of Aryanism in American geography from the mid nineteenth to the early twentieth centuries. The paper finds that the influential geographers Arnold Guyot, Nathaniel Shaler, Friedrich Ratzel, Ellen Semple, and Ellsworth Huntington were all indebted to Aryanism in the production of their theories of race and the environment.

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This article will show how theories of Aryanism in colonial India influenced human geography's constructions of race in the mid nineteenth and early twentieth centuries. In its origins in British and German Orientalism, Aryanism posited that the linguistic similarities shared by a wide swath of humanity lay in a proto-Indo-European language that traveled across Eurasia with human migrations. Aryanism's initial emphasis on language shifted into a theory of race in the mid-nineteenth century and found favor with colonial bureaucrats, anti-colonial Indian nationalists, and natural scientists. Arguing that a superior race of people known as Aryans conquered Europe, Iran, and the Indian subcontinent, Aryanism helped fuel the rise of racial science across fields of knowledge. Geography proved to be no exception. In this discipline, Aryanism permeated theories of environmentalism, which identified a range of physical geographic features, such as landforms and climate, in order to explain racial and cultural superiority, ascendancy, and

decline.

Critical assessments of geography have exposed its development through the expansive projects of race that include slavery, American manifest destiny, and colonialism.¹ Yet within this vast literature the specific entanglements between Aryanism and geography's environmentalism remain underexplored. I, therefore, show how the prominent geographers Arnold Guyot (1807–1884), Friedrich Ratzel (1844–1904), Nathaniel Shaler (1841–1906), Ellen Semple (1863–1932), and Ellsworth Huntington (1876–1946) used the Aryan idea in their environmentalist understandings of race. These geographers have received much attention. They are often regarded as formative for the discipline's establishment in the United States, and their environmentalist theories relied on a variety of racial ideologies. I argue that their statements on India, however fleeting within their corpus, provide an important lens for interpreting how

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¹ D. Livingstone, *The Geographical Tradition*, Malden, 1993; A. Kobayashi and L. Peake, Unnatural discourse. 'Race' and gender in geography, *Gender, Place and Culture: a Journal of Feminist Geography* 1 (1994) 225–243; D. Livingstone, Climate's moral economy: science, race and place in post-Darwinian British and American geography, in: A. Godlewska and N. Smith (Eds), *Geography and Empire*, Malden, 1994, 132–154; D. Arnold, *The Problem of Nature: Environment and Culture in Historical Perspective*, Oxford, 1996; A. Kobayashi, Critical 'race' approaches to cultural geography, in: J. Duncan, N.C. Johnson, and R.H. Schein (Eds), *A Companion to Cultural Geography*, Malden, 2004, 238–249; K. McKittrick, *Demonic Grounds: Black Women and the Cartographies of Struggle*, Minneapolis, 2006; A. Nayak, Geography, race, and emotions: social and cultural intersections, *Social and Cultural Geography* 12 (2011) 548–562; M. Mahtani, Toxic geographies: absences in critical race thought and practice in social and cultural geography, *Social and Cultural Geography* 15 (2014) 359–367.

Aryanism helped shape the discipline.

By examining Aryanism in environmentalism, this article begins the process of reorienting the loose canon, understood as both texts and concepts, that has comprised the discipline of geography.² While my account of the history of the discipline does not unearth new archival sources, I bring together new histories focusing on colonial knowledge production and the work of Orientalists who developed Aryanism to read anew these geographers' published writings on race in India. These texts constitute an archive by containing the racial classifications that formed the basis of colonial power. This archive is, of course, partial. It is limited to sources in English, and English translations. Future scholarship on the links between Aryanism and geography will require turning to original language sources and private papers about Aryanism and Indology. In addition, the need remains for further research that explores the entanglements between geography and Aryanism that had different disciplinary articulations in its various national settings. The present study is confined to establishing that Aryanism traveled across continents and disciplines and found its way into geographic theories of environmentalism.

My analysis therefore exposes a new discourse that informed geographic constructions of race, namely, Indology. Aryanism's interaction with geography reveals how the discipline was shaped by Orientalist knowledge, from philology to racial classification. I argue that attending to Aryanism's influence on geographers' writings reveals the intricate and expansive role of colonial ideologies that traveled across national contexts and helped shape American geography. While British geographers developed and deployed colonial classifications of race in India, my focus on Aryanism in American geography enlarges the context in which the discipline's history is cast.

To better understand how Aryanism made its way into American geography, we must first examine Aryanism's colonial genealogy and geography. The first section provides an account of the development of Aryanism as it shifted from a category of language to one of blood and traversed colonial networks that wove together Britain, Germany, India, and the United States. I then turn to the aforementioned geographers, who, writing in the mid nineteenth through the early twentieth centuries, advanced explanations of racial, cultural, and civilizational variations through the forces of physical geography. Environmentalist explanations of race and civilization, of course, existed well before the rise of racial science and Aryanism. Glacken's comprehensive analysis of environmentalism showed its modifications in relation to other theories of culture dating back to Mesopotamia and ancient Greece.³ In addition, environmentalism found validation in interpretations of the Bible in which God granted Europeans geographical and cultural superiority.⁴ By the nineteenth century, this Eurocentric vision appealed to science and today, it remains embedded in popular and scholarly forms of 'neo-environmental determinism'.⁵ The geographers discussed in this article developed their theories of environmentalism in these discourses, but also engaged with Aryan idea.

² I. M. Keighren, C. Abrahamsson, and V. della Dora, On canonical geographies, *Dialogues in Human Geography* 2 (2012) 296–312; R. Johnston and J.D. Sidaway, Have the human geographical can(n)ons fallen silent; or were they never primed?, *Journal of Historical Geography* 49 (2015) 49–60.

³ C.J. Glacken, *Traces on the Rhodian Shore: Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century*, Berkeley, 1973.

⁴ J.M. Blaut, Environmentalism and Eurocentrism, *Geographical Review* 89 (1999) 391–408.

⁵ A. Sluyter, Neo-environmental determinism, intellectual damage control, and nature/society science, *Antipode* 5 (2003) 813–817.

Genealogies and geographies of Aryanism

Thomas Metcalf observed that the Aryan idea 'joined England and India in a compelling discourse at once of history and of science'.⁶ Following Metcalf's point, I will now chart the rise of this discourse from the late eighteenth to the early twentieth centuries. As Aryanism dispersed from its origins in philology, or comparative linguistics, to race science, it also came to span the multiple spaces of empire, from colonial India to New Zealand.⁷ Aryanism's passage across geographical and disciplinary boundaries led to its use by American geographers.

Aryanism's emergence as a category of language

The East India Company's ascendancy accelerated when it gained Diwani status, or the right of revenue collection, from the defeated Shah Alam II in 1765. With these profits from the regions of Bengal, Bihar, and Orissa, the Company funded Indian scholarship in hopes of resting their tenuous legitimacy on the stable ground of India's political and cultural past. The Company held translations and interpretations of Sanskrit and Persian texts, via *pandits* and *uluma* (both terms for learned men or scholars), to be vital in securing their expanding control over India.⁸ Indeed, Warren Hastings, the first Governor General of Fort William (Calcutta), promoted Company officials who studied Indian languages.⁹ It was in this context that the concept of Aryanism emerged.

In the Asiatic Researches of 1786, Bengal High Court Justice William Jones posited a vanished proto-Indo-European language that united Sanskrit, Latin, Greek, Celtic, Gothic, and Persian.¹⁰ Sanskrit, Jones speculated, must have first appeared in India's distant past by invaders, 'conquerors from other kingdoms in some very remote age', who subjugated the subcontinent's indigenous inhabitants.¹¹ Two decades later, the German orientalist Friedrich and August Schlegel and the latter's student, Franz Bopp, conducted comparative studies and advanced a monogenetic theory that suggested these related languages shared a single origin.¹² Friedrich Schlegel's work in particular transformed Jones' emphasis on linguistic similarities into racial affinities.¹³ In Schlegel's aftermath, Aryan, meaning 'noble' or 'pure' in Sanskrit, became the designation for a distinct race.¹⁴

In his pioneering work in Sanskrit studies, Friedrich Max Müller asserted that there was a 'time when the ancestors of the Celts, the Germans, the Slavonians, the Greeks, and Italians, the Persians and Hindus were living together within the same fences'.¹⁵ Müller theorized that Aryan migrations consisted of two groups, one bound for Europe, the other headed towards India and Iran. As Aryans conquered and civilized the spaces they migrated across, their encounters with indigenous inhabitants and the natural

⁶ Metcalf, *Ideologies of the Raj*, Cambridge, 1997, 81.

⁷ T. Ballantyne, *Orientalism and Race: Aryanism in the British Empire*, Basingstoke, 2002.

⁸ M. Ogborn, *Indian Ink: Script and Print in the Making of the English East India Company*, Chicago, 2008.

⁹ M. Adas, *Machines as the Measure of Men*, Ithaca, 1989.

¹⁰ L. Poliakov, *The Aryan Myth: A History of Racist and Nationalist Ideas in Europe*, New York, 1974, 190.

¹¹ W. Jones, *The Works of Sir William Jones*, London, 1807, 34.

¹² R. Thapar, The theory of Aryan race and India: history and politics, *Social Scientist* (1996) 3–29.

¹³ Poliakov, *The Aryan Myth*; J.J. Clarke, *Oriental Enlightenment*, London, 1997; B. Ashcroft, Language and race, *Social Identities* 7 (2001) 311–28.

¹⁴ B. Ashcroft, *Caliban's Voice: The Transformation of English in Post-Colonial Literatures*, London, 2009.

¹⁵ M. Müller, *A History of Sanskrit Literature*, London, 1859, 14.

environment produced differences in the Aryan family.¹⁶ Müller depicted the Europe-bound group as aggressive and they developed a national form of community. Their passive counterparts, meanwhile, found solace in the otherworldliness of religion and philosophy.¹⁷ Despite these differences, the Aryans of India and Europe retained an underlying unity and resilience. Though Müller later regretted the confusion between language and race, his work, as George Stocking has pointed out, contained the traces of the concept of race that ethnology would come to popularize.¹⁸

While contemporary research has maintained that linguistic similarities do indeed form an Indo-European language family, the focus here is not in solving what accounts for their shared features, an issue of much scholarship that archaeologist Colin Renfrew has called the puzzle of Indo-European origins.¹⁹ Instead, it is to track Aryanism's emergence and diffusion. As an Orientalist discourse, Aryanism granted the colonial state with the power to unearth India's history as well as to locate the sources of India's difference from the West.²⁰ Yet, Aryanism's diffusion across disciplines, including geography, reveals the shifts within Orientalist discourse that underscored colonial power's ambivalence and instabilities.²¹

Aryanism's diffusion as a biological category of race

Aryanism's construction of unity between India and Europe shifted from language to biology in the mid nineteenth century. From its initial theorization in philology, Aryanism's development in ethnology and race science led to the concept's diffusion across not only fields of knowledge, but across sites including India, Britain, Germany, France, and the United States.²²

Aryanism's movement into biology must be contextualized within the broader development of the concept of race. At its most fundamental, race uses arbitrary physical features and cultural practices as the basis for human classification. In the late seventeenth century, French physician Francois Bernier, who spent twelve years as a physician to Mughal emperor Aurangzeb, divided humans into four species.²³ Bernier grouped Europeans and Indians together, attributing their differences in skin color to exposure to the sun.²⁴

In the next century, the German naturalist Johann Blumenbach further divided humans into five racial groups. Caucasians were the primary race, with the remaining four — Mongolian, Ethiopian,

Malay, and American — as products of racial degeneration.²⁵ From their original home between the Caucasus and Hindu Kush mountain ranges, Caucasians conquered Europe, Persia, and India.²⁶ While India's races were Caucasian, Blumenbach stated that they became 'effeminated by living in such a soft climate'.²⁷ American physician Samuel George Morton supported polygenetic theories of race, or the plural origins of humans. Fellow polygenesis proponent, Louis Agassiz, the Swiss naturalist and director of Harvard's Museum for Comparative Zoology, lauded Morton's scientific objectivity.²⁸ In *Crania Americana*, Morton divided Blumenbach's racial hierarchy into twenty-two families.²⁹ Though Morton did not refer to Aryanism by name, his racial schema nevertheless made use of its basic features. The 'Indostanic family' belonged to the Caucasian race and, therefore, had the capacity for 'the highest intellectual endowments'.³⁰

French, British, and German orientalism in the mid nineteenth century increasingly turned to miscegenation as an explanation for the decline of India's Aryans.³¹ Indebted to Morton's earlier findings, influential French race theorist Joseph-Arthur de Gobineau, in his four-volume *An Essay on the Inequality of the Human Races*, published 1853–55, argued that the world's races were inherently unequal.³² He Indians among one of the ten major civilizations. Because of their Aryan origins, Indians were a 'branch of a white people'.³³ Although India's Aryans had mixed with India's inferior native inhabitants, Gobineau averred that the caste system, with its Brahman domination, had ensured the reproduction of a relatively distinct and undiluted Aryan race in the subcontinent.³⁴ The superior race's preservation in India provided a hopeful contrast to Europe, where Gobineau saw racial decline.³⁵ As Kris Manjappa has recently argued, geopolitical anxieties over the declining status of the contemporary white man underwrote Gobineau's theories of the Aryan race.³⁶

Especially after its English translation in 1915, Gobineau's ideas informed racist policies and popular discourse in the United States.³⁷ Gobineau's work found company in a larger corpus of racial science that included William Ripley's *The Races of Europe* which argued that Europe was composed of not one, but three main racial groups— the Teutonic, Mediterranean, and Alpine.³⁸ Ripley influenced eugenicist Madison Grant, who wrote his cautionary tale about the decline of the Nordic race, whom he referred to as 'the original Aryans'.³⁹ These theories fueled anti-immigrant organizations, such as the Immigration Restriction League, and ultimately led to American immigration policies the enforced broader

¹⁶ Ballantyne, *Orientalism and Race*, 43.

¹⁷ Thapar, *The theory of Aryan race and India*; S. Arvidsson, *Aryan mythology as science and ideology*, *Journal of the American Academy of Religion* 67 (1999) 327–354.

¹⁸ G. Stocking, *Victorian Anthropology*, New York, 1987.

¹⁹ C. Renfrew, *Archaeology and Language: The Puzzle of Indo-European Origins*, Cambridge, 1987; R. McCrum, W. Cran, and R. MacNeil, *The Story of English*, New York, 2003.

²⁰ E.W. Said, *Orientalism*, New York, 1978; T. Mitchell, *Colonising Egypt*, Berkeley, 1988; R.B. Inden, *Imagining India*, Bloomington, 1990; C.A. Breckinridge, P. Van der Veer (Eds), *Orientalism and the Postcolonial Predicament*, Philadelphia, 1993; T.R. Metcalf, *Ideologies of the Raj*.

²¹ H. Bhabha, *The Location of Culture*, London, 1994; L. Lowe, *Critical Terrains: French and British Orientalisms*, Ithaca, 1994.

²² N. Stepan, *Idea of Race in Science: Great Britain, 1800–1960*, London, 1982.

²³ T.F. Gossett, *Race: The History of an Idea in America*, Oxford, 1997.

²⁴ S. Stuurman, Francois Bernier and the invention of racial classification. *History Workshop Journal* 50 (2000) 1–21.

²⁵ C. Kidd, *The Forging of Races: Race and Scripture in the Protestant Atlantic World, 1600–2000*, Cambridge, 2006, 85.

²⁶ J. Leopold, British applications of the Aryan theory of race to India, 1850–1870, *The English Historical Review* 89 (1974) 578–603; R. Horsman, *Race and Manifest Destiny*, Cambridge, 1981; D.N. Livingstone, *Science and society: Nathaniel S. Shaler and racial ideology*, *Transactions of the Institute of British Geographers* (1984) 181–210.

²⁷ J.F. Blumenbach and T. Bendyshe. *The Anthropological Treatises of Johann Friedrich Blumenbach*, London, 1865, 230.

²⁸ S.J. Gould, *The Mismeasure of Man* New York, 1996.

²⁹ S.G. Morton, *Crania Americana: Or a Comparative View of the Skulls of Various Aboriginal Nations of America* Philadelphia, 1839.

³⁰ Morton, *Crania Americana*, 2.

³¹ J. Leopold, British applications of the Aryan theory of race to India, 1850–1870; K. Manjappa, *Age of Entanglement*, Cambridge, 2014; J. Mohan, The glory of ancient India stems from her Aryan blood: French anthropologists 'construct' the racial history of India for the world, *Modern Asian Studies* 50 (2016) 1576–1618.

³² G. Blue, Gobineau on China: race theory, the 'yellow peril,' and the critique of modernity, *Journal of World History* (1999) 93–139.

³³ A. Gobineau, *The Inequality of the Human Races*, London, 1915, 210–211.

³⁴ Gobineau, *The Inequality of Human Races*, 32.

³⁵ K.P. Murti, *India: The Seductive and Seduced "Other" of German Orientalism*, Westport, 2001.

³⁶ K. Manjappa, *Age of Entanglement*.

³⁷ N.I. Painter, *The History of White People*, New York, 2011.

³⁸ W. Ripley, *The Races of Europe*, New York, 1899; H. Winlow, Mapping moral geographies: W. Z. Ripley's races of Europe and the United States, *Annals of the Association of American Geographers* 96 (2006) 119–41.

³⁹ M. Grant, *Passing of the Great Race* New York, 1916, 242; C. C. Alexander, Prophet of American racism: Madison Grant and the Nordic myth, *Phylon* 23 (1962) 73–90.

racist and xenophobic discourses.⁴⁰

In the hierarchical 'racial chain of being' that emerged over the course of the nineteenth century, Aryans occupied the top, with Africans at the very bottom. The 'variety of "familial" connections' from language to blood provided the sources of similarity between Indians and Europeans, however remote.⁴¹ A Bengali correspondent's remark in 1874 captures the impact of theories of Aryanism: 'we now niggers at one time. We now have become brethren'.⁴²

Such claims of brotherhood, however, carried starkly different interpretations regarding the shared and distinct paths of cultural development. Leaders of the organization, the Brahma Samaj, made appeals to Indo-English unity to promote their calls for reform. Other Hindu nationalists focused on Aryan cultural and political superiority that harkened back to India's precolonial period.⁴³ The idea that Aryan Brahmins invaded India and then dominated lower caste Dravidians created pervasive narratives of race and caste that continue to shape Indian political and social life.⁴⁴

Aryanism became foundational to many projects of racial classification. It was used both by proponents of polygenesis and monogenesis.⁴⁵ It moved across German, British, and French Orientalism, natural science, and made its way to American conceptions of race that in turn structured immigration policies and academic disciplines.⁴⁶ Aryanism also influenced geographers, who turned to this very concept as an illustration of racial and cultural decline.

Aryanism enters geography

It is well known that geographers played a crucial role in colonialism. With the help of native informants, geographers mapped the territorial extent of empires, charted new navigation techniques, and detailed the wealth of natural resources ready for extraction.⁴⁷ Colonialism also gave geography its institutional and disciplinary visibility, as seen in the Royal Geographical Society's grand surveying and cartographic projects under the auspices of the Colonial and India Offices.⁴⁸ Geographers did more than provide colonialism with its political cartography, however.

In this section, I consider how Aryanism influenced the racial theories of Arnold Guyot, Nathaniel Shaler, Friedrich Ratzel, Ellen Semple, and Ellsworth Huntington. These geographers united environmental geography and ethnology by testing the impact of physical geography on theories of Aryan origins, migrations, and the future of the race. In the process, they broadened the philosophical and scientific discourses on climate and regional and

human variation.⁴⁹ Although the geographers that I discuss did not share the same opinion about the relationship between race and the environment, their theories brought together what Livingstone called the 'moral discourse of climate' with Aryan racial theory.⁵⁰

Aryanism at the foundations of American geography: Guyot and Shaler

Arnold Guyot and Nathaniel Shaler used theories of Aryanism to illustrate climate's negative impact on the presumed superior race. Their ideas, which represent the passage of Aryanism into early American geography, are closely tied to Agassiz's intellectual and personal influence. Guyot arrived in the United States in 1848 at the urging of Agassiz, his friend and colleague from Neuchâtel, Switzerland.⁵¹ As Agassiz's student, Shaler maintained the belief in polygenesis and challenged Darwin's theory of evolution by promoting the neo-Lamarckian theory of inheritance of acquired characteristics.⁵² Both Guyot's blend of 'environmental determinism and providential theology' and Shaler's scientific racism, as will become clear, were influenced by Aryanism and colonial systems of classification.⁵³

From 1854 to 1880, Guyot was a professor of physical geography and geology at what is now Princeton University. There, he helped build the discipline of geography in the United States.⁵⁴ By focusing on the interactions of the human and physical world, Guyot's geography synthesized Karl Ritter's and Alexander von Humboldt's contrasting geographical methods.⁵⁵ As the former's student, Guyot brought Ritter's comparative geography to the United States.⁵⁶ Unlike Humboldt's rich descriptive writing, Guyot instead presented 'the broadest facts, the largest inductions' and 'little into anything approaching the picturesque detail'.⁵⁷ Guyot staked out a synthetic identity for geography that continued, albeit under radically different guises, into at least the mid twentieth century.⁵⁸

Guyot's twelve Lowell lectures delivered in Boston in 1849 sought to reveal the influence of nature on human development. These lectures were shortly thereafter compiled as *The Earth and Man*.⁵⁹ The book experienced great popularity, with the original edition quickly selling out and it was subsequently reprinted over thirty times in the United States.⁶⁰ As such, the text represents a foundational treatise for the discipline of geography in the United States. Guyot's ninth Lowell lecture added physical geography to the tenets of a colonial imaginative geography based on a dualism

⁴⁹ D.N. Livingstone, Race, space and moral climatology: notes toward a genealogy, *Journal of Historical Geography* 28 (2002) 159–80.

⁵⁰ D.N. Livingstone, The moral discourse of climate: historical considerations on race, place and virtue, *Journal of Historical Geography* 17 (1991) 413–434.

⁵¹ W. Libbey, The life and scientific work of Arnold Guyot, *Journal of the American Geographical Society of New York* 16 (1884) 194–221.

⁵² G.W. Stocking, *Race, Culture, and Evolution*; D.N. Livingstone, The history of science and the history of geography: interactions and implications, *History of Science* (1984) 271–302.

⁵³ D.N. Livingstone, *The Geographical Tradition*.

⁵⁴ S. Schulten, *The Geographical Imagination in America, 1880–1950*, Chicago, 2001.

⁵⁵ H. J. Mackinder, Modern geography, German and English, *The Geographical Journal* 6 (1895) 367; P.J. Bowler, *The Earth Encompassed: A History of the Environmental Sciences*, New York, 2000.

⁵⁶ W.A. Koelsch, A Seedbed of reform: Arnold Guyot and school geography in Massachusetts, 1849–1855, *Journal of Geography* 107 (2008) 35–42.

⁵⁷ D. Lowenthal, George Perkins Marsh on the nature and purpose of geography, *The Geographical Journal* 126 (1960) 413–417.

⁵⁸ J. Herbst, Social Darwinism and the history of American geography, *Proceedings of the American Philosophical Society* 105 (1961) 538–44.

⁵⁹ My analysis of Guyot relies on the English translation of the second edition by C.C. Felton. See A. Guyot, *The Earth and Man*, Boston, 1870.

⁶⁰ B. Gundlach, *Process and Providence: The Evolution Question at Princeton, 1845–1929*, Grand Rapids, 2013, 34. A. Guyot, *The Earth and Man*, 272.

⁴⁰ T. Gossett, *Race: the History of an Idea in America*, New York, 1997; J.W. Crampton, Maps, race and Foucault: eugenics and territorialization following World War I, in: J.W. Crampton and S. Elden (Eds), *Space, Knowledge and Power: Foucault and Geography*, Aldershot, 2007, 223–44; C. Lavery, Situating eugenics: Robert Decourcy Ward and the Immigration Restriction League of Boston, *Journal of Historical Geography* 53 (2016) 54–62.

⁴¹ A. Burton, *Africa in the Indian Imagination: Race and the Politics of Postcolonial Citation*, Durham, 2016, 65.

⁴² Quoted in Ballantyne, *Orientalism and Race*, 44.

⁴³ J. Leopold, The Aryan theory of race, *The Indian Economic & Social History Review* 7 (1970) 271–297.

⁴⁴ A. Rao, *The Caste Question: Dalits and the Politics of Modern India*, Berkeley, 2009.

⁴⁵ E. Lurie, Louis Agassiz and the races of man, *Isis* 45.3 (1954) 227–242.

⁴⁶ For Aryanism's role in American immigration policy see I.H. Lopez, *White by Law: The Legal Construction of Race*. New York, 1997. Notions of race as a caste system dominated American sociology during and after the Second World War. See O.C. Cox, Race and caste: a distinction, *American Journal of Sociology* 50 (1945) 360–368. For a more recent use of race as caste, see I. Wilkerson, *The Warmth of Other Suns*, New York, 2010.

⁴⁷ M.H. Edney, *Mapping an Empire: The Geographical Construction of British India, 1765–1843*, Chicago, 1997.

⁴⁸ F. Driver, *Geography Militant: Cultures of Exploration and Empire*, Oxford, 2001.

between the 'continents of the North, with their more perfect races', in contrast with 'those of the South, with their inferior races and their savage tribes'.⁶¹ In Asia, nature was 'unconquerable', while in Europe, 'brute strength' had given way to 'culture', cultivating a civilized people 'far superior to the preceding'.⁶² The future of human development and civilization, Guyot insisted, existed in North America.⁶³ Guyot's global geography of race presented a slightly more complex distribution in comparison to Ritter's strict delimiting of race as Guyot detailed in his later text, *Physical Geography*.⁶⁴ The 'central or white race' that once lived in the 'heart and center of the great mass of the Old World' has since migrated and spread across Europe, northern Africa, the east coast of North America, and the Indo-Gangetic plain of the Indian subcontinent.⁶⁵ This geographic distribution of race echoed Bernier's and Blumenbach's earlier systems of classification.

Guyot's statements about Indians, from their similarity to European races in antiquity to their contemporary stationary, stagnate state, followed the sentiments of his onetime professor at University of Berlin, G.W.F. Hegel. Guyot added a geographical explanation to Hegel's famous characterization of India's ahistorical nature.⁶⁶

In India, the nations of the white race, sprung from the West, have founded a civilization wholly different, the character of which is explained at once by the primitive qualities of the race and the climate... But the influence of the climate of the tropics gives to the intuitive faculties an exaggerated preponderance over the active faculties. The real, positive world disappears from his eyes ... [India] is the civilization of the western races transported and placed under the influence of the East.⁶⁷

What is striking about this passage is not just the mere recitation of colonial tropes that positioned Asia as an unchanging object for claims of Western superiority. Rather, it is also Guyot's evaluation of Indian civilization as part of Western civilization, an indebtedness to Aryanism that anticipated the idea's popularity in Müller's work in the next decade. While the subcontinent contained the 'Hindoo' family of the 'white race', Guyot equivocated on the causes of degeneration, citing both 'race' and 'environment' in the above passage.⁶⁸ Nevertheless, by pointing to distinctions in the Aryan race, Guyot provided the contours of the relations between race and environment that many geographers pursued in his wake.

Nathaniel Shaler, the Harvard geologist who studied with Agassiz and who would later train the geomorphologist William Morris Davis, shared Friedrich Ratzel's anthropogeographic concern of environmental influence on human civilization.⁶⁹ Shaler's environmentalism would become a mainstay for later geographers who focused on the guiding force of climate in human development/degeneration. Shaler elaborated on the influence of climate with reference to the origins and permutations of the Aryan race, 'the most plastic of the world-peoples'.⁷⁰ For Shaler, Aryan superiority developed in the Scandinavian Peninsulas, given the

severity of the winters and geographical isolation.⁷¹ As for 'the Aryans of India', Shaler suggested that 'though a world apart in its conditions from those which gave it character in its cradle', they nevertheless retained 'qualities' that are 'distinctly akin to that of the home people'.⁷² Thus, despite the tropical environment's degrading impact on civilizations, Shaler contended that Indians remained racially similar to the Aryans of Europe. Aryans the world over were adaptable to a variety of environments.

Shaler's arguments about the Aryan race went beyond claims of its resilience based on ancient connections. He also directed his theories towards the politics of race and white supremacy in the United States. The wilderness of the American frontier, Shaler contended, offered a new source of vitality for the Aryan race.⁷³ Furthermore, Shaler advocated curbing immigration to the United States from countries that he felt were home to inferior racial stocks. African Americans, meanwhile, could achieve social assimilation, but only under the watchful eye of the superior Aryan race.⁷⁴ Shaler consigned each race to a particular environment with blood ensuring the persistence of acclimatization, a belief that underwrote his advocacy for the deployment of African American soldiers to the Philippines during the United States' occupation that followed the Spanish-American War.⁷⁵

A strong commonality characterizes Guyot's and Shaler's theories on race. Both look to India as the fate of Aryans in a hostile environment, while North America represents the Aryan space of hope. Yet slight differences between the two also emerge in their statements about India. Guyot focused on Aryan degeneracy as a result of climate. For Shaler, on the other hand, biology proved a stronger measure of civilization and racial adaptability and thus, stressed Aryan resilience. Shaler's explanations for India's civilizational decline reflected the rise of theories of racial immutability that had become prevalent following the 1857 Mutiny.⁷⁶

Aryanism in Ratzel's geography

In the last quarter of the nineteenth century, German geography influenced the establishment of geography as a professional discipline in the United States.⁷⁷ In addition, the 'Indomania' that swept across Germany made the country home to the greatest number of Sanskrit professors in all of Europe by the late nineteenth century.⁷⁸ Given Indology's and geography's importance in Germany, Friedrich Ratzel's *The History of Mankind* is one text that illustrates the comingling of Indology and geography that would later be adopted by American geographers.

At the University of Leipzig, Friedrich Ratzel was driven to 'do for human geography what Oscar Peschel and Ferdinand Richthofen had done for physical geography — that is, to make it a science'.⁷⁹ Applying his training in zoology to the human world, Ratzel's expressed his scientific desire in a Darwinian inspired anthropogeography that relied on a model of society as an organism. This

⁶¹ A. Guyot, *The Earth and Man*, 272.

⁶² Guyot, *The Earth and Man*, 280.

⁶³ Koelsch, *Seedbed of reform*.

⁶⁴ A. Guyot, *Physical Geography*, New York, 1873.

⁶⁵ A. Guyot, *Physical Geography*, 114.

⁶⁶ Guyot, *The Earth and Man*, 288; G.W.F. Hegel, *Philosophy of History*, Kitchener, 2001.

⁶⁷ Guyot, *The Earth and Man*, 286–287.

⁶⁸ Guyot, *Physical Geography*, 117.

⁶⁹ P.E. James, G.J. Martin, *All Possible Worlds: A History of Geographical Ideas*, New York, 1981; Livingstone, *Science and society: Nathaniel Shaler and racial ideology*, *Transactions of the Institute of British Geographers* (1984) 181–210.

⁷⁰ N.S. Shaler, *Nature and Man in America*, New York, 1891, 164.

⁷¹ Livingstone, *Science and society: Nathaniel S. Shaler and racial ideology*, 1984.

⁷² N.S. Shaler, *Nature and Man in America*, 165–66.

⁷³ D. Livingstone, *Environment and inheritance: Nathaniel Southgate Shaler and the American frontier*, in: B. Blouet (Ed), *The Origins of Academic Geography in the United States*, Archon, 1981.

⁷⁴ Livingstone, *Science and society*.

⁷⁵ W. Anderson, *Immunities of empire: race, disease, and the new tropical medicine, 1900–1920*, *Bulletin of the History of Medicine* 70 (1996) 94–118.

⁷⁶ Metcalf, *Ideologies of the Raj*.

⁷⁷ G.J. Martin, *American Geography and Geographers: Toward Geographical Science*, New York, 2015.

⁷⁸ D.T. McGetchin, *Indology, Indomania, and Orientalism*, Madison, 2009.

⁷⁹ I. Keighren, *Bringing Geography to Book: Ellen Semple and the Reception of Geographical Knowledge*, London, 2010, 19.

perspective, as we will see in his comments on India, naturalized the rise and fall of civilizations and justified colonial domination.

Despite the vast scholarship devoted to Ratzel's ideas, his statements on India have gone unaddressed. The subcontinent, however, provided an important illustration in his organicist theories of civilizational growth and decline. In *The History of Mankind*, Aryan racial theory pervaded Ratzel's mapping of India's races, from their similarities and differences with Europeans, to his imagining of India as a land of repeated conquest.⁸⁰ 'Hindoos of the higher castes' adorned with 'European dress', Ratzel contended, 'most directly resemble Greeks or Southern Italians'. Moving east across the Indus basin, Ratzel noted an 'increase in the darker tints' with 'the lightest Indians and the proudest dwell[ing] in the north-west'. Rajputs — their women and children in particular — were singled out for their light skin 'as to put many a South Italian to shame'.⁸¹ Ratzel's summary of Rajputs echoed the comments of James Tod, the East India Company official and Orientalist scholar. Tod argued that Rajputs descended from Aryans and had the same origins as the tribes of Europe.⁸² In these passages, Ratzel spatialized the regions of Aryan purity. In doing so, he followed then dominant theories of Aryanism that characterized India's north-west as the home of one of the 'martial races', the term for those groups who retained their racial stock as opposed to those who had degenerated through miscegenation with the Dravidians.⁸³

Recent appraisals of mid to late nineteenth century German geography have argued that its theories, laden with social Darwinism, liken the human world to the plant and animal worlds and thus provide a natural basis for domination and extermination.⁸⁴ While reducing Ratzel's theories to social Darwinism remains contentious, his references to Aryanism portray colonial domination as the inevitable outcome of India's long civilizational decline. Unlike the other 'greater nations' of Asia, India occupied a unique position, since no other people group has been so 'broken up, pulverized, kneaded, by conquerors as the Indian; among none has the vital marrow of independence been so destroyed'. India was thus a collection of peoples, of 'thousands of ethnologic, social, and religious fragments'. Like the Orientalists who cast Indian society in the image of long-lost autonomous Saxon village communities existing in relative isolation, Ratzel saw Indian society as lacking a 'predominant nationality'.⁸⁵ Ratzel's imagining of India, thus, contained the German Indology's positioning of India as a reflection of premodern Europe.⁸⁶ Unlike Europe, India's stagnation and the absence of a dominant national and racial group made its colonial subjugation unavoidable.

Aryan racial theory in environmental determinism

I now turn to Ellen Semple's and Ellsworth Huntington's distinct approaches to Aryan racial theory. For Semple, Aryanism functioned as one of many examples illustrating the environment's

influence on race that followed Ratzel's and Shaler's depictions of the subcontinent. Her work is situated at the intersection between colonial classifications of Indians and geographic representations of the world. For Huntington, Aryanism played a pivotal role. As we will see, the search for the Aryan homeland and the diffusion of the Aryan race initiated his two expeditions to India. His travels to India led him to evaluate the character and morality of Indians within a scientific discourse of race and environment that gripped much of the discipline of geography. Taken together, their writings on India indicate that geography's environmentalism, especially as it became environmental determinism in the early twentieth century, reveals the connection between American geography and colonial South Asia.

After studying with Ratzel in Leipzig in the closing decade of the nineteenth century, Semple returned to Kentucky and then joined the faculty at the University of Chicago. Semple was the first American woman with an advanced degree in geography, and she joined the ranks of the Association of American Geographers.⁸⁷ From this formidable position within the discipline, Semple promoted geography through the lens of Ratzel's anthropogeography.⁸⁸ Writing a few years after Ratzel's death, Semple applied Ratzel's theories in *Influences of Geographic Environment*, a sweeping historico-geographical study based on a secondary reading and synthesis of existing accounts that argues for the environment's causal role in shaping civilizational and cultural development.⁸⁹

Semple's text drew from a range of examples from various civilizational groups as evidence of the primacy of the environment over human culture. While the global scope of her text made it a popular text, it also proved to be the source of its criticism. Semple's critics included Ellsworth Huntington, who otherwise shared her view of environmental impact, and Carl Sauer, who rejected them outright. They both found that Semple conveniently discarded cases that contradicted her theories of environmental influence.⁹⁰ Her selective illustrations reinforced existing notions of race, but explained the wide variability within each distinct racial group as a result of the environment.

Semple's references to India conflate biological, linguistic, and environmental constructions of race. Structuring India's human geography through a racial cartography of Dravidian natives and Aryan invaders, Semple concurred with Ratzel's earlier claim that the purest Aryans were found in Punjab and the Rajputana desert.⁹¹ India's Aryans had been sapped of their 'plasticity' in which they 'succumb[ed] to the ordeal of adaptation to contrasted climatic conditions'.⁹² India's climate not only brought the downfall of India's Aryans in distinction to their European counterparts living in the temperate zones, but also blocked the advance of Aryan invasions south of the Tropic of Cancer. Yet, characterizing the Singhalese as a 'hybrid tropical offshoot' of the Aryan race, Semple notes that through language Aryan influence extended as far south as Ceylon.⁹³

Semple's environmentalist reading of widely held beliefs about deviations within the Aryan race circumscribed racial development to distinct climate zones. In bringing greater attention to the environmental impacts on the Aryan race, Semple argued that

⁸⁰ My analysis of Ratzel relies on the English translation of the second edition by A.J. Butler. See F. Ratzel, *The History of Mankind*, A.J. Butler (Trans.), New York, 1898.

⁸¹ F. Ratzel, *The History of Mankind*, New York, 1898, 358.

⁸² J. Tod, *Annals and Antiquities of Rajast'han, Or the Central and Western Rajpoot State of India*, London, 1873; R. Inden, *Imagining India*.

⁸³ Metcalf, *Ideologies of the Raj*, 84.

⁸⁴ M. Bassin, Imperialism and the nation state in Friedrich Ratzel's political geography, *Progress in Human Geography* 11 (1987) 473–495; R. Weikart, Progress through racial extermination: Social Darwinism, eugenics, and pacifism in Germany, 1860–1918. *German Studies Review* 26.2 (2003) 273–294; C. Abrahamsson, On the genealogy of Lebensraum, *Geographica Helvetica* 68 (2013) 37–44.

⁸⁵ Ratzel, *Origins of Mankind*, 359.

⁸⁶ D. Ludden, Orientalist Empiricism: Transformations of colonial knowledge, in: C.A. Breckinridge and P. van der veer (Eds), *Orientalism and the Postcolonial Predicament: Perspectives on South Asia*, Philadelphia, 1993, 250–278.

⁸⁷ Schulten, *The Geographical Imagination in America, 1880–1950*.

⁸⁸ Keighren, *Bringing Geography to Book*; Schulten, *The Geographical Imagination in America, 1880–1950*.

⁸⁹ E.C. Semple, *Influences of Geographic Environment, on the Basis of Ratzel's System of Anthro-Geography*, New York, 1911.

⁹⁰ Keighren, *Bringing Geography to Book*, 2010.

⁹¹ Semple, *Influences of Geographic Environment*, 104.

⁹² Semple, *Influences of Geographic Environment*, 100.

⁹³ Semple, *Influences of Geographic Environment*, 104.

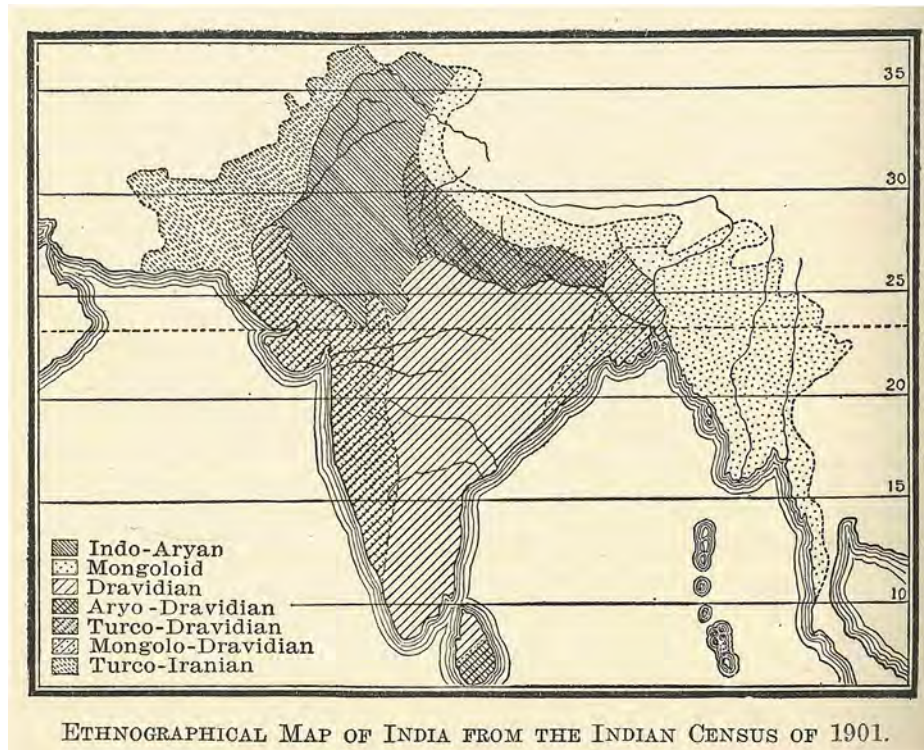


Fig. 1. Semple's map of India based on the 1901 Census. Source: E.C. Semple, *Influences of Geographic Environment, on the Basis of Ratzel's System of Anthro-Geography*, New York, 1911, 102.

climate set strict limits on racial adaptation in new environments. British colonial officials, for example, could not acclimate to India's environment and therefore would be unable to succeed at 'genuine ethnic expansion' in India. British presence in India, Semple concluded, was driven by 'profits from tropical trade and markets for European manufacturers' and would remain so.⁹⁴

Semple's map of India divided the subcontinent into seven racial groups: the Indo-Aryan, Mongoloid, Dravidian, Aryo-Dravidian, Turco-Dravidian, Mongolo-Dravidian, and Turco-Iranian (Fig. 1).⁹⁵ This distribution of India's races was based on the 1901 Census, which was at that point the greatest product of anthropometric experimentation. By providing fixed boundaries, the Census organized India's bewildering social diversity through racial classification.⁹⁶ Anthropometry made India legible for colonial powers, and its definitive texts, such as H.H. Risley's *Census of India*, his two volume *The People of India*, and Edgar Thurston's seven volume *Castes and Tribes of Southern India*, served as manuals for colonial administrators.⁹⁷ These texts privileged race, caste, and religion as a means to locate the stable structures of Indian tradition. Semple's mapping of India's races reveals the two-way traffic between anthropometry and geography that classified India's peoples by calcifying their culture and stripping them of multiple and overlapping identities.⁹⁸

As an ethnologist who developed and applied anthropometry in his capacity as supervisor of the Ethnographic Survey of Bengal and the 1901 Census, Risley offered a scientific basis for the theory that Aryan's invaded India and conquered the subcontinent's native inhabitants known as Dravidians. He had hypothesized that the 'making of the Indian people' emerged through the invasion of a 'tall, fair-complexioned dolicho-cephalic [those with a long skull] and presumably leptorhine [narrow nosed] race' from India's north-west. As this race traversed the vast Indo-Gangetic plain, they came into contact — Risley used the word 'collision' — with 'a black snub-nosed race, who were partly driven away into Central and Southern India, where we find their descendants at the present day, and partly absorbed by the conquerors'. Akin to Ratzel's and Semple's mapping of the subcontinent through the lens of race, Risley determined that the highest degree of Aryan purity was found in Punjab and Rajputana, which gradually diluted as one moved east across the subcontinent, 'vanishing beyond recognition in the swamps of Lower Bengal'.⁹⁹

As subsequent invaders, from the Greeks to the Mughals, 'became more or less absorbed in the indigenous population', Risley concluded that 'their physique degenerated, their individuality vanished, their energy was sapped, and dominion passed from their hands into those of more vigorous successors. *Ex Occidente Imperium* [emphasis in original]'.¹⁰⁰ Risley's scientific findings on the degeneracy of Aryan invaders in India justified the 'genius' of the British Raj whose rule 'can be maintained only by constant infusions of fresh blood from the same source'.¹⁰¹ The supply of new

⁹⁴ Semple, *Influences of Geographic Environment*, 107.

⁹⁵ Semple, *Influences of Geographic Environment*, 102–103.

⁹⁶ B. Cohn, *An Anthropologist among the Historians*, Oxford, 1987; N. Dirks, *Castes of Mind*, Princeton, 2001.

⁹⁷ H.H. Risley, *Census of India, 1901, volume 1*, Calcutta, 1903; E. Thurston, *Castes and Tribes of South India*, Madras, 1909; H.H. Risley, *The People of India*, London, 1915.

⁹⁸ C. Bates, race, caste and tribe in central India: the early origins of Indian anthropometry, in: P. Robb (Ed), *The Concept of Race in South Asia*, Delhi, 1995; N.B. Dirks, *Castes of Mind*.

⁹⁹ H.H. Risley, The Study of Ethnology in India, *The Journal of the Anthropological Institute of Great Britain and Ireland* 20 (1891) 249.

¹⁰⁰ Risley, *People of India*, 53.

¹⁰¹ Risley, *People of India*, 53.

blood from the metropole was crucial for colonial rule since in India 'nature is stronger than man'.¹⁰² To cement these environmentalist claims via scientific legitimation for colonial rule, Risley cited the findings from Ellsworth Huntington's *The Pulse of Asia* which argued that changes in climate patterns led to India's aridity and gradually degenerated all of India's many invaders. Risley ended his reading of Huntington by stating that in relation to 'overwhelming physical forces the influence of mere human agencies, such as foreign invasions and native mis-government, sinks into insignificance'.¹⁰³

Risley's reference to Huntington conveys the latter's influence in bringing together environmental and Aryan racial theory. Huntington's theories of race developed through his fieldwork in India. Like Semple, Huntington argued that the 'province of nature' determined civilizational development and the inheritance of 'moral and mental traits'.¹⁰⁴ Huntington's work narrates the mechanistic relations between climate and the fate of civilizations, evoking a grandness that, like all environmental deterministic accounts, proved impossible to verify.¹⁰⁵ Huntington's thesis on climate's driving force over civilization found its empirical case in India's Aryans.

Huntington's *The Pulse of Asia and Civilization and Climate* were both based on findings from two expeditions conducted in the early twentieth century.¹⁰⁶ The 1903–04 Pumpelly expedition, funded by Carnegie's Washington Institute, led Huntington to central Asia, and the following year, Huntington journeyed to Kashmir in the privately funded Barrett expedition. Hermann Kreutzmann notes that the importance Huntington placed on fieldwork distinguished him from many other geographers at that time.¹⁰⁷

Pumpelly sought to unearth the Aryan race's origins by testing his hypothesis that a depleted inland sea near the Pamir mountains acted as the original home of the Aryan race.¹⁰⁸ Many German philologists regarded the mountainous northern expanse of the Indian subcontinent as the Aryan race's home. Johann Christoph Adelung, for example, went so far as to declare that the origins of the human race lay in the vale of Kashmir.¹⁰⁹ Through this expedition, Pumpelly hoped to put to rest the 'Aryan problem' that by the early twentieth century had become nothing short of 'a violent philological and anthropological war'. Pumpelly's 'reconnaissance' expedition searched for the lost prehistoric civilization from which all others emerged. They also gathered information on geological and climatic changes to explain this civilization's decline.¹¹⁰ As geomorphologist William Morris Davis' indispensable assistant on the expedition, the trip only furthered Huntington's interest in exploring the vast continent that held the keys to unlocking the dynamics of civilizational ascendancy and decline.

Embarking on his own expedition about a year after returning to the United States, Huntington hoped to refine his analysis of the relation between climate and human development. Huntington disembarked at Bombay and then headed north to Srinagar and onward to the Karakorum mountains, before making his way into

northwest China.¹¹¹ After returning to his home in Milton, Massachusetts sixteen months later, Huntington wrote *The Pulse of Asia* as a 'geographic theory of history'.¹¹² In this book, Huntington argues that pulses of wet and dry spells determined the fate of civilizations.

With specific regard to India, Huntington posited that climatic cycles had produced an arid climate that, in turn, led to the decline of this once great civilization of Asia. The following passage on Kashmir is typical of his analysis. It is, like all of India, a place of serenity and apprehension:

It seems as though the ease with which a living can be made were the chief cause of the reputed idleness and laziness of the people; and laziness, aided, perhaps, by the opportunities for dishonesty afforded by the large amount of local traffic and barter which the abundant waterways foster, may be responsible for much of the untrustworthiness which is said to be so prominent a trait of the Kashmiris.¹¹³

Prior to this passage, Huntington determined that the valley's physical geography left its population isolated, engendering the 'lazy' and 'cowardly' manner of Kashmiris.¹¹⁴ Yet, the 'invigorating winter climate of their mountain home' made Kashmiris less 'lazy' than other Indian groups.¹¹⁵ Huntington was, of course, not alone in depicting the peoples of the subcontinent this way. By the time he authored the 'Vale of Kashmir,' these depictions constituted a well-established narrative in colonial sociology's depiction of India as a degraded civilization.¹¹⁶ What Huntington added to this discourse is a geographical explanation that rendered politics and the economy irrelevant. India's state of development and colonial subjugation was but a natural outcome from its physical geography.

In his subsequent essays and books, Huntington further expounded on climate's influence over civilization. The science of geography, Huntington argued, should explain the diversity of human phenomena based on physical geography. To illustrate, Huntington compared India and Arabia. Despite what Huntington appraises as their similar physical geography, he contrasts Indian society's strict caste hierarchies — with his own encounters with caste rigidities in the subcontinent as evidence — with Arabia's 'fraternity and democracy'. Climate, once again, proved to be the decisive factor in determining India and Arabia's contrasting social relations.¹¹⁷

In *Civilization and Climate*, Huntington departed from Shaler's earlier insistence on the durability of race since inherited traits are no match for climate's influence. The colonial encounter, Huntington argued, threatened the white race's vitality. Despite the centuries of 'contact with the white man' the inhabitants of the zone that lies within twenty degrees of the equator, from India to South America, have remained 'dull in thought and slow in action'.¹¹⁸ More likely, feared Huntington, is the degeneration of the white race in the tropics. The lack of 'fourth generation Indian-born British' is cited as evidence.¹¹⁹ Huntington addressed his warning to

¹⁰² Risley, *People of India*, 55.

¹⁰³ Risley, *People of India*, 54–55.

¹⁰⁴ E. Huntington, *The Pulse of Asia, a Journey in Central Asia Illustrating the Geographic Basis of History*, Boston, 1907, 15.

¹⁰⁵ K. McGregor, Huntington and Lovelock: climatic determinism in the twentieth century, *Physical Geography* 25 (2004) 237–50.

¹⁰⁶ E. Huntington, *Civilization and Climate*, New Haven, 1915.

¹⁰⁷ H. Kreutzmann, Ellsworth Huntington and his perspective on Central Asia: great game experiences and their influence on development thought, *GeoJournal* 59 (2004) 27–31.

¹⁰⁸ G.J. Martin, *Ellsworth Huntington: His Life and Thought*, Hamden, 1973.

¹⁰⁹ Horsman, *Race and Manifest Destiny*.

¹¹⁰ Pumpelly, *My Reminiscences*, New York, 701.

¹¹¹ Martin, *Ellsworth Huntington*.

¹¹² Huntington, *Pulse of Asia*, vii.

¹¹³ Huntington, *Pulse of Asia*, 28.

¹¹⁴ Huntington, *Pulse of Asia*, 24.

¹¹⁵ Huntington, *Pulse of Asia*, 28.

¹¹⁶ E. Huntington, Vale of Kashmir, *Bulletin of the American Geographical Society* 38 (1906) 657–682.

¹¹⁷ E. Huntington, The new science of geography, *Bulletin of the American Geographical Society* 45 (1913) 641–652.

¹¹⁸ Huntington, *Civilization and Climate*, 35.

¹¹⁹ Huntington, *Civilization and Climate*, 37.

both colonial settlements in the tropics as well as to the racial composition of the United States. These anxieties shaped American immigration policy, as well as a range of colonial projects in South Asia. Imperial science's mapping of the optimal climate zones for the world's various racial groups, laws and restrictions on the diet and sexual relations of colonial officials and settlers, and the construction of hill stations all reflect the extent to which the persistent fears over the enervating impact of the tropics' natural environment guided colonialism.¹²⁰

Conclusion

Emerging in the United States during the mid nineteenth and early twentieth centuries, the discipline of geography came to be entangled with Aryanism. As I have shown, Aryanism shifted from a theory of linguistic origins to a biological category of race and traversed a wide geography that encompassed India, Britain, Germany, and the United States. From Arnold Guyot to Ellsworth Huntington, geographers used Indology and ethnology to theorize environmental influence over race and civilization. These geographers hatched their theories of environmental influence on race by relying on and reproducing discourses of Aryanism, which enabled them to evaluate racial resilience and degeneracy across space.

My tracking of Aryanism in geography reorients the development of the disciplinary canon towards the intersection of geography and Orientalist knowledge and colonial systems of classification. Aryanism's place in the discipline of geography opens new avenues of inquiry into the history of geographic thought. Future research on geography and Aryanism would reposition the archive towards connections that would further expose the transnational and interdisciplinary contexts in which geography was

established. Attention to original language sources and research notes in the archives promises to restore the links between geographers and Indologists, particularly in the correspondences between scholars working in colonial India, Britain, Germany, France, and the United States. These sources would permit an understanding of not only the intricacies in the development of geographic thought, but also aid in providing a comparative and synthetic history of race and colonialism in the social sciences and humanities. Such histories would shed new light on how the meanings and classifications of race changed over time and space as the social sciences became increasingly professionalized in the universities. Furthermore, research on specific centers would further illuminate the connections between geography and Indology. For instance, the University of Leipzig, where Oscar Peschel and Friedrich Ratzel were both professors, was a major center of Indology from the mid nineteenth century. In the United States, the University of Chicago and Harvard University, among others, both held prominent faculty in Geography and Orientalism. Finally, future work on geography and Aryanism would assess how Aryanism influenced geographers' writings about race and colonialism.

Over the course of Aryanism's history, a variety of actors that included Sanskritists, colonial officials, religious mystics, anti-colonial revolutionaries, post-colonial nationalists, and most infamously, National Socialists who based their conception of German identity on an Aryan past, promulgated this highly mobile and devastating construction of race.¹²¹ For the geographers discussed in this article, Aryanism acted as a stable category that allowed them to develop their ideas of environmental impact on race. Geography, even from the seeming distance of the United States, was hardly immune to Aryan racial theory.

¹²⁰ P.D. Curtin, *Death by Migration: Europe's Encounter with the Tropical World in the Nineteenth Century*, Cambridge, 1989; J.T. Kenny, Climate, race, and imperial authority: the symbolic landscape of the British hill station in India, *Annals of the Association of American Geographers* 85 (1995) 694–714; M. Harrison, *Climates and Constitutions: Health, Race, Environment and British Imperialism in India, 1600–1850*, Oxford, 1999; J. Duncan, *In the Shadows of the Tropics: Climate, Race and Biopower in Nineteenth Century Ceylon*, Aldershot, 2007.

¹²¹ S. Pollock, Deep orientalism? Notes on Sanskrit and power beyond the Raj, in C. Breckenridge and P van der Veer (Eds), *Orientalism and the Postcolonial Predicament*, Philadelphia, 1993,76–133.