
Unsettling the imperial sciences

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Abstract. Latitudes of climates and constitutions, like the allied myth of continents and races, have a deep and persistent past within European and US imperial discourses both as language and ideology. Taxonomies that name, classify, and attribute natures to lands, waters, climates, plants, animals, and peoples discipline, interpellate, and exert dominion over them. Those sciences create subjects, and in their imposition of order and hierarchies, they constitute the imperial project. Conversely, reconstituting space by deconstructing the racialized, gendered, and sexualized attributions of islands and continents, the tropical and temperate zones can unsettle the imperial order and endanger the privileges and poverties they sustain. Toward that end, this essay suggests a remapping of our Earth according to tectonic geographies, in their plenitude inclusive of both lands and waters and their biotic communities and their ceaseless movements and engagements.

Histories (like maps) name, order, and confer meanings to space. They, by and large as a European craft, create, occupy, and populate space with historical actors, and they narrate events, selectively of course, as they unfold over time. As social and human inventions and enactments, they reveal power and its manifestations. In that way, although historians might pose as impartial scribes, their landscapes and staging of space might more accurately bear the name ‘imperial history’, as correctly identified by essayist Paul Carter, who reserves the label for a particular variety of history that gains legitimacy through the logic of cause and effect and the logic of creating order from chaos. The primary object of imperial history, he explains, “is not to understand or to interpret: it is to legitimate” (1987, page xvi). When historical writing assumes mastery over space/time, imposing its spatial boundaries, linear chronologies, and causal explanations, it warrants the title ‘imperial’.

“There is much to be said for the view that Victorian geography was the science of empire par excellence”, wrote geographer David Livingstone (1994, page 134). Begun in the 1830s during anxieties over the British empire, the Royal Geographical Society of London staked its claim to existence as of “first importance” to “mankind in general” and in particular “paramount to the welfare of a maritime nation like Great Britain, with its numerous and extensive foreign possessions” (page 135). One of its first presidents, W R Hamilton, expanded upon that ambition by noting that geography was “the mainspring of all the operations of war, and of all the negotiations of a state of peace ...” (Livingstone, 1994, page 135). Any imperial power, he reasoned, required knowledge about the lands and waters of its colonies and their opportunities for engaging in commerce, for “enlarging her powers of civilizing yet benighted portions of the globe, and for bearing her part in forwarding and directing the destinies of mankind” (Livingstone, 1994, pages 134–135; see also, Hudson, 1977). In that way, 19th-century geography was a discipline of empire, remaking the world literally and figuratively in the name of modernity and progress.⁽¹⁾

⁽¹⁾ On the erasure and reinscription of empire as “a quintessentially geographical project”, see especially the introduction to Godlewska and Smith (1994).

Islands and continents⁽²⁾

“Oceanic islands”, a distinguished professor of geology began, “are small, young, isolated, simple, and subjected to a limited range of environmental factors” (Menard, 1986, page 1). Accordingly, scientists, famously Charles Darwin on the Galápagos Islands and Margaret Mead on Samoa, found them to be ideal research laboratories because of their finite variables and controlled conditions. By contrast, he continued, “[C]onsider the continents. They are aggregates of every type of rock produced for billions of years, and most of their history is obscure ... The whole is obscured by every type of soil and by plants. Across the continents migrate animals and plants in constant flux. One can have little reason to hope that nature has conducted many controlled experiments on the continents” (Menard, 1986, page 1).⁽³⁾

Those sentiments—those attributions of islands and continents, involving stasis and movement, simplicity and complexity—are neither unique nor confined to that branch of human sciences. Instead, geology flourishes in a teeming and fecund pond of Western intellectual life from which emerges a commonsense about continents and islands, constituting metageographies or “spatial structures through which people order their knowledge of the world” (Lewis and Wigen, 1997, page ix).

Widely held to be “tiny spaces” absent significance or moment, islands are commonly represented as feminine—vacant, passive, acted upon, stirred only by outside manly manipulations (see Williamson, 1986, pages 99–118). That gendered definition of self or continents as large, unbroken landmasses has its other, islands, as distant, small bodies of land surrounded by water. Boundedness appears to be an island’s natural state; and boundlessness, a continent’s. Yet, in reality, there are no divides between islands and continents anchored as they both are onto tectonic plates, which form the Earth’s mantle, albeit of different densities beneath and above the oceans.

A vastly unfamiliar landscape emerges from that spatial formation of the Earth’s surface. Asia and Europe form a single borderless Euroasian plate, and islands, such as the Pacific island chains, are revealed as broad and high mountain ranges rising above the massive and immense Pacific plate. Humans, who act at different times upon political agendas, including the power to name and exert mastery over lands, peoples, and resources, are the ones responsible for those demarcations between islands and continents.

Geographical taxonomy at its most basic, a geographer and historian show, is the core problem. Whether segmenting the world into seven continents or directions, East, West, North, and South, or political alignments, First, Second, and Third Worlds, they explain, “like areas are inevitably divided from like, while disparate places are jumbled together” (Lewis and Wigen, 1997, page 1). They make the obvious though often overlooked point that geographies, like the myths that surround continents and islands, are human inscriptions upon the Earth and as such mirror ideologies specific to peoples, times, and places.

Instead, those social constructions have carried the imprimatur of science, which claims to explain an objective reality transcendent of time and place, and in that rendering, continents form the basic building blocks of landmass, biotic communities, and human groupings, all of which are conceived of as constituting a class apart because of alleged shared characteristics that distinguish it from other groups. Thus, the African continent’s wildlife and peoples are rendered as categories distinguishable from the European continent’s flora, fauna, and peoples.

⁽²⁾ This section is a revised version of part of my *Island World* (2008, pages 11–17, 206–210).

⁽³⁾ On islands as scientific laboratories, see Menard (1986), MacArthur and Wilson (1967), and Larson (2001).

Carolus Linnaeus, in his founding text of taxonomy, *Systema Naturae* (1758), classified humans as conterminous with the four continents of his day, Europe and the European, Asia and the Asian, Africa and the African, and America and the American (or in today's terms, Native American). For Linnaeus and his student, Johann Blumenbach, author of the seminal text, *On the Natural Variety of Mankind* (1775), then, continents gave rise to the origin of human 'varieties' and 'races', which name, differentiate, and describe the species *Homo sapiens* ever since as manifested, for instance, in US history (Gould, 1981, pages 401 – 412).⁽⁴⁾ In a 1959 decision affirming Virginia's Racial Integrity Act of 1924, which banned marriages between whites and nonwhites, trial judge Leon Bazile followed Blumenbach when he declared that "Almighty God created the races white, black, yellow, malay and red, and he placed them on separate continents The fact that he separated the races shows that he did not intend for the races to mix" (Odo, 2002, page 359; also see Pascoe, 2009, page 275).⁽⁵⁾

Continental divides were not always the rule, even within the European mind. The ancient Greeks conceived of their Earth as a 'world island' consisting of the intersection of Europe, Asia, and Africa, lands circled by water (figure 1). Despite their cosmology that equated land with order and the familiar, and the oceans with land's fringes, chaotic and strange, the ancient Greek world was undivided.⁽⁶⁾



Figure 1. [In colour online, see <http://dx.doi.org/10.1068/d7210>] Greek world island (source: Hecataeus of Miletus, 520 BCE, reconstruction in the public domain, http://en.wikipedia.org/wiki/file:Hecataeus_world_map-en.svg).

⁽⁴⁾ Blumenbach's 1795 edition added a fifth race, the Malay, deviating from his continental scheme while forming a racial geometry.

⁽⁵⁾ As cited by US Supreme Court Chief Justice Earl Warren in overturning the original conviction in *Loving v Virginia* (1967), which ended miscegenation laws in the US.

⁽⁶⁾ For a summary of ancient Greek views of the ocean, see Gillis (2004, pages 5 – 10).

After its discovery by Europeans, America shattered that world island idea and lent credence to the notion of separate landmasses that eventuated into solitary continental communities estranged and dissimilar from one another. Still, as late as the 19th century prominent geographers favored dividing the world into two parts, old (Europe, Asia, Africa) and new (America), and they saw them as islands or lands surrounded by water (see Lewis and Wigen, 1997, pages 26, 29).⁽⁷⁾

An exception that soon became the rule, however, was Carl Ritter, the most influential human geographer of the time, who viewed continents as the major organizing principle of spatial design. “Each continent”, he was positive, “is like itself alone ... each one was so planned and formed as to have its own special function in the progress of human culture” (Lewis and Wigen, 1997, page 30). Inevitably, bound to that notion of social evolution and organization was Ritter’s view that at the apex was Europe, the homeland of white people, followed by Asia, the homeland of yellow people; Africa, of black people; and America, of red (see Lewis and Wigen, 1997, pages ix, 30). Continents, accordingly, suggested a metageography and a history of the ascent of racialized peoples.

By the 20th century continents were not only assumed to demarcate Earth’s surface but also to be a ‘natural’ state. In the US about mid-century, America was divided into North and South America and Antarctica and Australia acquired continental status. The resulting seven continents scheme gained rapid and widespread recognition, despite its glaring defects in the light of zoogeography’s demonstration that life forms move relatively freely across continental borders and the geology of tectonic plates that reveals India to be a part of Australia and not Asia and America’s seamless connection to Asia under the Bering Sea. Continents not only prove inadequate as a schema of physical geography but of human geography as well insofar as they purport to map cultural and racial assemblages, differences, and ranks. Still, because they conform to “the basic patterns of land and sea that spring to the eye from a world map”, the continental system appears sensible and true (Lewis and Wigen, 1997, page 30).

Likewise, islands, with few exceptions, emerge as tiny specks of land visually, especially when seen from the perspective of the ocean’s immensity.⁽⁸⁾ “Views of the Pacific from the level of macroeconomics and macropolitics often differ markedly from those from the level of ordinary people”, explained the writer and anthropologist Epeli Hau’ofa of his “sea of islands” (1994, page 148).⁽⁹⁾ Accordingly, the macroview of world history depicts ‘the Pacific’ as its rim circled by economic and political giants, continental Asia and America. And while seas might serve as fertile breeding grounds for exchanges of goods, peoples, and ideas, they are ordinarily conceived of not as places of generation and production but as mere watery routes, unlike landed roots, or even barren deserts, a land metaphor, to traverse and endure.⁽¹⁰⁾

Oceania’s smallness is a state of mind, ‘mental reservations’, imposed upon its peoples by European colonizers. As Hau’ofa came to understand it, “Continental men”, exercising their imperial powers, “drew imaginary lines across the sea, making the colonial boundaries that confined ocean peoples to tiny spaces for the first time” (1994, page 153). But to Oceania’s peoples, explains Hau’ofa, “their universe comprised

⁽⁷⁾ American exceptionalism and its claim of distinction from ‘old’ Europe abetted that continental metageography.

⁽⁸⁾ For evolving European views of islands, see especially Gillis (2004), Edmond and Smith (2003), and Fowles (1978). On Pacific islands, see Smith (1960), Denning (1980), Edmond (1997), Thomas (1997), and Howe (2000).

⁽⁹⁾ For an earlier version of Hau’ofa’s “Our sea of islands”, and responses to it, see Waddell et al (1993).

⁽¹⁰⁾ For a study of the social construction of oceanic space, its uses, regulations, and representations, see Steinberg (2001).

not only of land surfaces, but the surrounding ocean as far as they could traverse and exploit it, the underworld with its fire-controlling and earth-shaking denizens, and the heavens above with their hierarchies of powerful gods and named stars and constellations that people could count on to guide their ways across the seas. Their world was anything but tiny” (1994, pages 152–153).⁽¹¹⁾

Although refiguring the schemes of “continental men”, the new Oceania and its “sea of islands” occupy the same position on the globe as the old colonial Oceania, and its assertion of a large Oceania simply inverts, without repudiating, the illusion that size matters. Similarly, the insightful critique of “the myth of continents” by Martin Lewis and Kären Wigen surrenders to a conventional “world regions” metageography in their eagerness for sureties against postmodernism’s contingency and indeterminacy (Lewis and Wigen, 1997, pages 14–15, 157–188).⁽¹²⁾ After historicizing and thereby undermining the assumption that continents are fixed spatial, biological, and cultural categories, the authors divide the world into “refined” regions, which cohere through “shared ideas, related lifeways, and long-standing cultural ties” (page 158): East Asia, Southeast Asia, South Asia, Southwest Asia and North Africa, Central Asia, Western and Central Europe, Russia/Southeast Europe/Caucasus, Sub-Saharan Africa, North America, African America, Ibero America, Australia and New Zealand, Melanesia, and Micronesia and Polynesia.

With few exceptions, this world regions “refinements” approaches the area studies of our times in which landed proximity maps social affinities and groupings of peoples, which suffice as justification for areas and fields, including Asian, European, African, American, and Pacific studies. I would like to suggest otherwise. Hawai’i, for instance, is in constant motion and multiply situated and might belong culturally to the Polynesian triangle; biologically to the diasporic human, plant, and animal communities of Southeast Asia and Okinawa;⁽¹³⁾ and physically to the mobile Pacific plate, its hot spot and its waters. Likewise, the islands called Okinawa might be located within East Asia through its conquest and annexation by Japan since 1609, but they also form kinships with waters and lands to their south, including Taiwan, the Philippines, Micronesia, Malaysia, and the Indo-West Pacific triangle of oceanic life. Those ties, mainly cultural and economic, reach deep into the Ryūkyūan (Okinawan) past.⁽¹⁴⁾

The world historian Felipe Fernández-Armesto noted that civilizations are commonly considered land-based formations, ignoring the fact that they “are grouped around waterways”, from the China Sea to the Indian Ocean, the Mediterranean, and the Atlantic and Pacific (1995, page 20). This is a reality extended by Barbara Watson Andaya in her 2006 presidential address at the annual meeting of the Association for Asian Studies in San Francisco. In that exhortation to untie Asia from its area studies anchorage, Andaya (2006) urges a focus on human interactions between land and sea because by stressing only landed initiatives we miss the interconnections and exchanges taking place upon the ocean’s fluid, seemingly borderless space.

What Fernández-Armesto failed to consider, and Andaya only gestured at, is that continents and islands, the visible land formations upon which they center their contention, bed upon tectonic plates that exceed land’s end, extending into ocean

(11) See also, Steinberg (2001, pages 39–67) for a comparative view, including a Micronesian perspective, of the ocean.

(12) The world regions approach, the authors admit, “relies heavily on that of continents, even as it attempts to displace them”, and carries heavy geographical determinism baggage (Lewis and Wigen, 1997, pages 157, 183).

(13) Both Southeast Asia and Okinawa might benefit from turns away from their ‘mainlands’, Asia and Japan, to the Pacific as islands.

(14) See my forthcoming book *Disciplining Subjects: Self and History*.

depths rarely penetrated by human comprehension. And along the plates' margins, where mass bumps up against mass, molten rock can ooze through the cracks and, given time, solidify and create seamounts, islands, and majestic mountain ranges packed with life's diversity. The totality of those biotic communities and their agencies, including but not limited to humans, should constitute the multiple, fluid subject matters of our concern.

In addition, as Andaya noted, oceans are not mere appendages to lands; nor are they unadorned and alienating waterways around which civilizations are established. As Pacific Islanders long held, the seas were a destination as well as a crossing—water spaces were marked and named as readily as mountains and valleys—and they formed relationships, including kinships, with those oceanic places and their resources and populations. Islanders, thus, occupied water spaces and thereby rendered them into places of social constitution and production. “Nearly every aspect of life in Micronesia is significantly influenced or controlled by the sea”, a study noted. “As compared to the power and moods of the sea, the land is insignificant, humble, dull. The rhythm of life is dictated by the sea” (Steinberg, 2001, pages 53, 55).

Tropical and temperate zones⁽¹⁵⁾

In ancient Greece about 600 BCE, philosophers in Ionia sought release from the bonds of superstition and religion through formal and systematic explanation. Assuming that ‘kosmos’ or order prevailed in the universe and that there was an ultimate ‘nature’ or substance, they relied upon theory and inquiry to make sense of the world. Ionian observations of the movement of the sun and planets, eclipses of the sun and moon, and the fixed and changing locations of stars led to ideas like the zodiac and the influence of heavenly bodies over earthly affairs, the disk (flat) shape of the Earth, and time (sundial and seasons). Anaximander drew the map of the Earth based upon that learning, and Hecateus later revised that ‘world island’, thereby establishing the science of map making (Thomson, 1948). Centered on a disk girdled by an ocean stream, the island was inhabited by Scythians to the north and Ethiopians to the south, Indians in the east, and Celts in the west. Beyond the habitable lands were the uninhabitable north, where extreme cold made life impossible, and the uninhabitable south, where inordinate heat prevailed. Greece, situated between the excesses of hot and cold, was ideally tempered and thus favored.

Pythagoras, an Ionian who migrated to Italy in about 530 BCE, deduced through abstract reasoning that the Earth was a globe and not a flat disk, and applying the Greek division of the heavens into zones, he delineated an equatorial or summer zone that was uninhabitable due to the heat, a polar or winter zone that was also uninhabitable because of the cold, and an inhabitable temperate zone between those extremities.⁽¹⁶⁾ Expanding upon that notion of climatic zones and life's possibilities. Hippocrates, in his *On Airs, Waters, and Sites* (late 5th century BCE), discussed the effects of climate on human health and character (nature). A blend of theory with observation, Hippocrates's influential treatise and explanation held that climate shaped the physical and biological world, including the physiques and natures of people. To illustrate that determining power of climate, Hippocrates contrasted Europe with Asia. The mild and uniform climate of Asia, he noted, with its hot and stagnant air and water, nurtured lush vegetation, but laziness among the people, who appeared yellow as if suffering from jaundice. “With regard to the lack of spirit and courage among the inhabitants, the chief reason why Asiatics are less warlike and more gentle in character

⁽¹⁵⁾ This section is a revised version of pages 5–8, 14–20 in my *Pineapple Culture* (2009).

⁽¹⁶⁾ Some attribute to Parmenides, who lived about a generation after Pythagoras (c. 569–475 BCE), this notion of zones (Bunbury, 1959, page 125; Tozer, 1935, page 60).

than Europeans is the uniformity of the seasons”, the ‘father of medicine’ explained (Hippocrates, 1923, page 115). “For [climatic] uniformity engenders slackness, while variation fosters endurance in both body and soul; rest and slackness are food for cowardice, endurance and exertion for bravery.” Furthermore, their form of government, which is despotism, mirrors and reinforces that “slackness”. “Courage, endurance, industry and high spirit could not arise in such conditions”, Hippocrates concluded, “but pleasure must be supreme ...” (page 109).⁽¹⁷⁾

Europeans, by contrast, experience frequent and sharp seasonal changes, which in turn favor “the greatest diversity in physique, in character, and in constitution” (Hippocrates, 1923, page 135). In Asia, where the land is “rich, soft, and well-watered”, the people are “fleshy, ill-articulated, moist, lazy, generally cowardly in character” (page 137). But in Europe, where the land is “bare, waterless, rough, oppressed by winter’s storms and burnt by the sun”, there you will find “men who are hard, lean, well-articulated, well-braced, and hairy; such natures will be found energetic, vigilant, stubborn and independent in character and in temper, wild rather than tame, of more than average sharpness and intelligence in the arts, and in war of more than average courage” (page 137). And, Hippocrates advised and promised his readers, “take these observations as a standard when drawing all other conclusions, and you will make no mistake” (page 137).⁽¹⁸⁾

By the time of Aristotle (384–322 BCE), ideas of the island world were commonplace, and although he devoted little attention to geography, Aristotle considered the Earth in relation to other heavenly bodies in “Meteorologica” and “On the Heavens”. Like Pythagoras, he believed in a spherical Earth located at the center of the universe, and like Parmenides, he held that there were a torrid zone and two frigid zones where life was impossible, and between them, temperate zones north and south of the equator (Bunbury, 1959; Tozer, 1935). Aristotle concurred with and enlarged upon Hippocrates’s contention that climate molded human nature and institutions in his disquisition on politics. The cold climate to the north of Greece, the philosopher taught, bred Europeans who are “full of spirit, but wanting in intelligence and skill; and therefore they retain comparative freedom, but have no political organization, and are incapable of ruling over others” (Aristotle, 1988, page 165). Whereas to the east, the uniform climate gave birth to Asians who are “intelligent and inventive, but they are wanting in spirit, and therefore they are always in a state of subjection and slavery”. In fact, Aristotle maintained, Asians are “by nature slaves”, and they “do not rebel against a despotic government” (page 165). The Greek “race”, on the other hand, situated between Europeans and Asians, “is likewise intermediate in character, being high-spirited and also intelligent. Hence it continues free, and is the best-governed of any nation, and, if it could be formed into one state, would be able to rule the world” (page 165).

That imperial science of geographical determinism produced similar mappings of human types about the time of Linnaeus and Blumenbach when German Enlightenment philosopher Immanuel Kant claimed that in “hot countries the human being ... does not ... reach the perfection of those in the temperate zones. Humanity is at its perfection in the race of the whites” (Kant, 1997, page 63). Furthermore, “the inhabitant of the temperate parts of the world, above all the central part, has a more beautiful body, works harder, is more jocular, more controlled in his passions, more intelligent than any other race of people in the world” (page 64).⁽¹⁹⁾

⁽¹⁷⁾ See also, Glacken (1967, pages 80–115). Asia’s moisture, heat, and sensuality parallel women’s wetness, softness, gluttony, and insatiable sexuality in these representations. See Carson (1990, pages 137–145), Dean-Jones (1944, pages 41–109, 115, 120–121, 123–125), and King (1998).

⁽¹⁸⁾ For the centrality of Hippocrates’s idea of geographical determinism, see Isaac (2004, pages 55–168).

⁽¹⁹⁾ See also Kant (1960, pages 109–114).

By contrast, the following century generated an enthusiasm for biological determinism as is seen in the writing of Arthur de Gobineau whose *The Inequality of Human Races* (1853) argued that ‘blood’ and not climate sired the constitutions and inequality of human races. That line of reasoning was taken up by the eugenicists and social Darwinists of the late 19th century and early 20th century for whom natural selection and genetic pools explained races and their rankings.⁽²⁰⁾ Those modern ideas of biological determinism, like those expressed by the father of eugenics Francis Galton in his *Hereditary Genius* (1869), are derivative of ancient Greece. Hippocrates wrote that human attributes were passed on through “the seed”, and Plato, in his *Republic*, proposed that “the best men must have sex with the best women as frequently as possible, while the opposite is true of the most inferior men and women, and, second, that if our herd is to be of the highest possible quality, the former’s offspring must be reared but not the latter’s” (Isaac, 2004, page 124).

To restore climate to its former preeminence was a motivation for geographer Ellen Churchill Semple, a president of the Association of American Geographers and an interpreter of the naturalist and human geographer Friedrich Rätzl. In her *Influences of Geographic Environment* (1911), she proposed that “man is a product of the earth’s surface” in that it feeds, nurtures, and molds his body, limits his ideas and ambitions, and even shapes his religion, despite man’s claims to have conquered nature (page 1). Rather, the environment has quietly and persistently made the man. And because all of human activity, history, takes place on the earth, historical development is “more or less molded by its geographic setting”. History, in fact, is simply “a succession of geographical factors embodied in events” (Semple, 1911, pages 10–11). Those geographical influences include the direct physical effects of the environment in forming diverse “races and peoples”, their size, skin color and thickness, and hair; the physical impact of the climate on the “temperament” and character of the various races; the earth’s provisions that advance or retard wealth and hence cultural and political possibilities; and the effects on human migration. Accordingly, racial and social differentiation arises from “modifications in response to various habitats in long periods of time” and, she concedes, the processes of natural selection and inheritance (1911, page 33).

Movements have led to separation, isolation, and differentiation, but also to race mixture, assimilation, and hybridism. And despite constant migrations and “an endless mingling of races and cultures” (Semple, 1911, page 84), a general pattern prevails wherein whites remain in the temperate zone, and peoples of color, in the tropics, although white, yellow, and red can be found in every zone while black, mainly in the tropics. That global distribution of “races and cultures” reflected Semple’s time and problem. The late 19th century and early 20th century was a period of European expansion to and colonization of the tropics stimulated largely by the desire for commodities, markets, and labor. Semple racialized and gendered that imperial spread, white and manly, as indicative of a vigorous and strong race bent upon progress and civilization, and she framed it as a principle of geography and social Darwinism, “[expansion] is an expression of the law that for peoples and races the struggle for existence is at bottom a struggle for space” (Semple, 1911, page 188).⁽²¹⁾ Conversely, small, weak, and primitive races (colored and womanly) occupy limited territories (see pages 173–174, 176–177, 181–182).

⁽²⁰⁾ See, for example, Gould (1981).

⁽²¹⁾ In the colony, elites cited indigenous cultures, race mixtures, and whitening in forming a Brazilian national character and history (Stepan, 2001, pages 120–148).

Although humans can escape “the full tyranny of climatic control” (1911, page 608), and its effects can often be overstated, Semple admits climate (meaning temperature and moisture) is not merely the context for people’s activities, but it shapes their bodies, physically and psychologically. These include their immune system and resistance to diseases, and “their temperament, their energy, their capacity for sustained or ... intermittent effort”, and thus “their efficiency as economic and political agents” (page 608). Man can make himself at home in any zone, but “zonal locations” or latitudes of temperature and rainfall fix the borders of human habitation and determine “race temperament” and civilization [see Semple (1911, pages 607, 608–611, 615–616) and Ward (1908)]. Those ideas are a 20th-century rendition of some of the founding geographic formulations of the ancient Greeks.

Semple’s “zonal locations” produce and explain racializations. “The northern peoples of Europe”, Semple writes, like Hippocrates and Aristotle, “are energetic, provident, serious, thoughtful rather than emotional, cautious rather than impulsive” (page 620). By contrast, and unlike the ethnocentric Greek philosophers, “the southerners of the sub-tropical Mediterranean basin are easy-going, improvident except under pressing necessity, gay, emotional, imaginative, all qualities which among the negroes of the equatorial belt degenerate into grave racial faults” (page 620). In the tropics the heat “tends to relax the mental and moral fiber, induces indolence, self-indulgences and various excesses which lower the physical tone”. The enervating temperature makes natives lazy, and even “energetic” whites are drawn down the path of economic and social “retardation” (Semple, 1911, pages 620, 626–627).

“These broad belts”, then, “each with its characteristic climatic conditions and appropriate civilization, form so many girdles of culture around the earth”, Semple posits (page 633). The temperate band “is the seat of the most important, most steadily progressive civilizations, and the source of all the cultural stimuli which have given an upward start to civilization in other zones during the past three centuries” (page 634). In the tropics, however, where man was born “in his primitive, pre-civilized state, he lived in a moist, warm, uniform climate which supplied abundantly his simple wants, put no strain on his feeble intellect and will” (pages 634–635). Like a womb and prison, this “nursery has kept him a child” (page 635). “As the Tropics have been the cradle of humanity, the Temperate Zone has been the cradle and school of civilization”, Semple writes (page 616) in summation. “Here Nature has given much by withholding much. Here man found his birthright, the privilege of the struggle” (page 635).

In an age of imperialism, Semple writes, “nature has fixed the mutual destiny of [the] tropical and temperate zones ... as complementary trade regions”, and that empire’s creation, “the privilege of the struggle”, involved “the conquering white race of the Temperate Zone” whose desire for tropical products has driven the energetic race to the “productive but undeveloped Tropics ...” (1911, page 628). According to this historical geography, then, and like Aristotle, ‘nature’ and, in other renditions ‘destiny’, have preordained the expansion of “the conquering white race” as if impelled by science and the laws of the natural world. Accordingly, Semple likens the “great historical movements in the form of migration, conquest, colonization, and commerce” to “convection currents”, which “seek to equalize the differences and reach an equilibrium” (page 616). The direction of those drafts, we know from the physical world, moves from (white and manly) areas of high densities, pressures, and activities to (colored and womanly) vacant and inert spaces.

While Semple might not have worried over the capacity of whites to flourish in the tropical hinterland or feared the swamping of the white by migrating nonwhite races in the temperate homeland (1911, pages 625–626), Yale geographer and a former president of the board of the American Eugenics Society Ellsworth Huntington

shared the 19th-century European anxieties over race mixture and degeneration as a consequence of human movements and empire. In his *Civilization and Climate* (1915) Huntington cites race and “racial inheritance”, social institutions, and, like Aristotle and others, climate in the rise of civilization. In brief, “good stock, proper cultivation, and favorable climatic conditions” produces “the fruit known as civilization” (pages 1–2). Of the three, Huntington regrets, the significance of climate as an explanation has been eclipsed by race and institutions because, this proponent of the ‘new science of geography’ declares, of ignorance of the latest findings in archaeology, which reveal the intimate connection between climate and civilization. The clear lesson of antiquity, Huntington reports, is that “a certain peculiar type of climate prevails wherever civilization is high” (page 9), as in ancient Egypt and Greece where the climate filled the people with “a virile energy” (page 6).

Race, however, should not be discounted altogether, the Yale researcher cautions like Gobineau, for a favorable climate will not cause “a stupid and degenerate race to rise to a high level” (Huntington, 1915, page 9). And studies have shown that “the brain of the white man is more complex than that of his black brother” (pages 11–12), and that no amount of training can compensate for that “ineradicable racial difference in mentality” (page 16). The Hampton Institute,⁽²²⁾ for instance, demonstrates how “the Christian spirit” and “proper training” can help but fail to overcome “the handicap of race” (page 17). Analogous to the Earth’s diverse trees and fruits, those racial differences constitute complementary parts to the whole. “Initiative, inventiveness, versatility, and the power of leadership”, Huntington declares, “are the qualities which give flavor to the Teutonic race. Good humor, patience, loyalty, and the power of self-sacrifice give flavor to the negro” (page 16). Samuel Chapman Armstrong, Hampton’s master teacher and commander of African American troops during the Civil War, similarly believed that “the Negro”, loyal and self-sacrificing, made good soldiers, “they are noble under leadership, often wonderful in emergencies”, he wrote (1887, page 84).

Climate, nonetheless, exerts itself over human affairs regardless of race, affecting both whites and blacks, and, in fact, it “controls the phenomena of life from the lowest activities of protoplasm to the highest activities of the human intellect” (Huntington, 1915, page 110). Huntington expresses two concerns when shouldering the “burden” of his race, gender, and age—the expansion of whites from the temperate to the tropical girdle because of the region’s enormous wealth. Tropical “natives”, he notes, are “dull in thought and slow in action”, and “experience shows that the presence of an inferior race in large numbers tends constantly to lower the standards of the dominant race”.⁽²³⁾ Accordingly, and contrary to Semple’s proposal, interracial “breeding” was not a eugenic solution to that intercourse. Further, the hot climate induces “tropical inertia” on white minds and bodies, lowering their intellectual capacities and physical energies, their sexual and moral inhibitions, and their resistance to tropical diseases. The temperature and humidity of the tropical band and its “native races” threaten to weaken the white stock through fatigue, to dilute and pollute it through miscegenation, and to sap it of “human energy”, which is the engine for civilization and which, in turn, derives from “climatic energy”.⁽²⁴⁾

(22) Begun after the Civil War by Hawai’i born Samuel Chapman Armstrong, the Hampton Institute employed manual and industrial education for the ‘uplift’ of African Americans and American Indians. The Institute is a subject of my *Island World* (2008).

(23) See also Huntington, 1924b, page 292, where he calls the people of the tropics “the children of the human race” and representatives of “our primitive ancestors. Their characteristics are those which unspecialized man first showed when he separated from the apes and came down from the trees.”

(24) On Huntington and race, industry, and climate, see Bender (2009, pages 40–44, 59–62, 64–67).

Huntington closes with an apocalyptic vision of an approaching climatic change, as was revealed in the archaeological record, which might favor places like Egypt, Mesopotamia, and Guatemala and which might result in “a chaos far worse than that of the Dark Ages”, in which “races of low mental caliber may be stimulated to most pernicious activity, while those of high capacity may not have energy to withstand their more barbarous neighbors” (Huntington, 1915, page 286).⁽²⁵⁾

In place of those imperial orders, whether of continents or latitudes and their social formations, conceive of the Earth as it really is geologically, as tectonic plates in constant motion across molten seas. And although discrete, the plates bump up against one another, forming connections, at times, violent. That mobile landscape, as seen below, will require a disaggregating of some of our commonplace assemblies and a remapping of our world (figure 2).

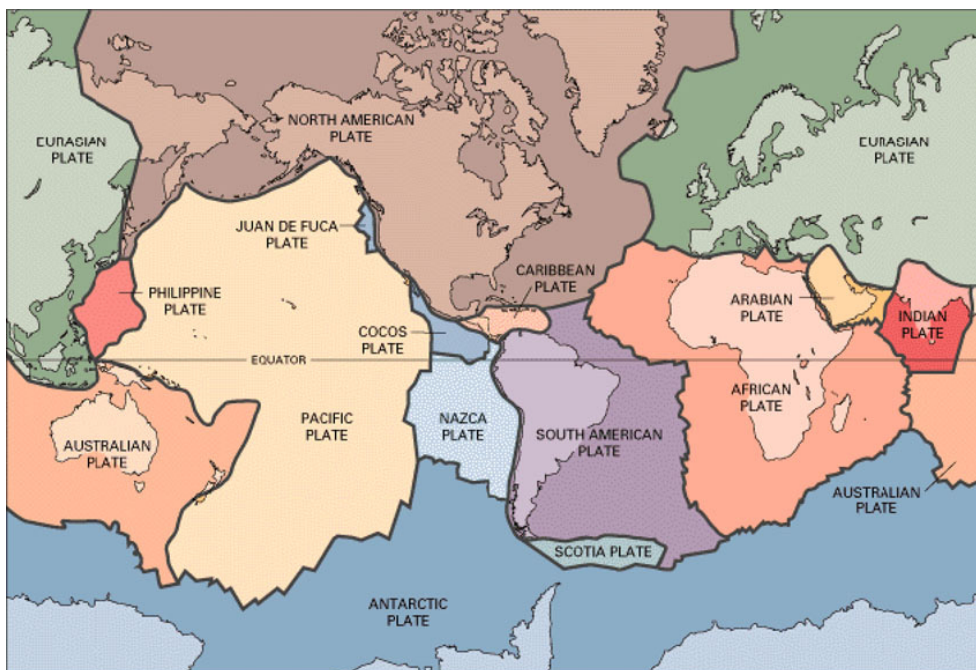


Figure 2. [In color online.] Tectonic Earth: a remapping (source: http://en.wikipedia.org/wiki/File:Plates_tect2_en.svg).

Conclusion

Latitudes of climates and constitutions—like the allied myth of continents and races—have a deep and persistent past within European and US imperial discourses both as language and ideology: not as the physics of convection currents but as human manufacturers of trade and empire and their circulations of goods, labor, and culture. Philosophers, geographers, historians, and ‘naturalists’ authorize a science of taxonomy, naming, classifying, and attributing natures to lands, waters, climates, plants, animals, and peoples, and in so doing, discipline, interpellate, and exert dominion over them. Those sciences, then, create subjects and underwrite and constitute the imperial project.

⁽²⁵⁾ Huntington’s methods and conclusions were hailed and condemned by his contemporaries. See, for example, Livingstone (1994, pages 143–144).

Like the ancient Greeks who sought to free themselves from superstition and myth through observation and science, Enlightenment thinkers initiated a disciplining of the world as they knew it. Plotted upon that grid of European sciences were history and geography, which sought to introduce order amidst disorder, movement in the face of inertia, and presence where there was only absence. In the noonday of European and US imperialism during the late 19th century, the science of geopolitics explained the rise and fall of civilizations and empires and provided guides for national greatness through world dominion. In the US Alfred Mahan's *The Influence of Sea Power on History, 1660–1783* (1890) described sea power as the key, while in Britain, Halford Mackinder, in his lecture "The Geographical Pivot of History" delivered to the Royal Geographical Society in 1904, proposed that the dominance of the Eurasian continental "heartland" was being supplanted by its oceanic periphery, the "islands" of Britain, America, Malaya, Japan, and Australia (Mackinder, 1962, pages 241–264; Parker, 1982, pages 148, 150, 152–154, 156). In his 1907 lecture "On Thinking Imperially", Mackinder urged geographers that as educators: "Our aim must be to make our whole people think Imperially—think that is to say in spaces that are world wide" (Ó Tuathail, 1996, page 75).

In our time Huntington's *The Clash of Civilizations and the Remaking of the World Order* (1996) bears a currency scripted upon a well-recited mantra of the gulf between East and West. Unlike the modernization literature, which sees convergences, homogenization, and capitalism's triumph, Huntington stresses cultural differences and the failure of Western civilization and its core values of individualism, freedom, equality, and reason to capture the non-West, especially religious traditions such as Islamic and Confucian "civilizations". Geopolitical thinking emerges in imperial initiatives such as the US expansion into the Pacific for island military bases in the 20th century, and at the dawn of the new century as enunciated in the National Security Strategy document of the George W Bush regime dated September 2002, the unilateral global 'war on terrorism'. While stating that the war was "not a clash of civilizations" (The White House, 2002, page 30), the document espouses "a struggle of ideas", the bases for Huntington's "civilizations", that divides the world between the US and its others, friends and foes, and civilized nations and the "enemies of civilization", who hate civilization's hallmarks of "freedom, democracy, and free enterprise" (The White House, 2002, pages iv–vi). As discourses, then, the imperial sciences advance ideas that acquire materiality through human agencies.

Conversely, resistant discourses and movements like the anticolonial struggles of the 20th century and its demands of antiracism and national sovereignty can unsettle the imperial order. Similarly, reconstituting space by deconstructing the racialized, gendered, and sexualized attributions of islands and continents, the tropical and temperate zones can endanger the privileges and poverties they sustain. Toward that end, I suggest a remapping of our Earth as tectonic geographies in their plenitude—that is, inclusive of both lands and waters and their biotic communities, not in relation to human ecologies alone or even centrally but in the ceaseless movements of the Earth's crust and its liquid covers, the waters, and the air above. Those spatial violations, it seems to me, suggest a more accurate account of our planet's history and geography and an escape from the imperatives of our own creation.

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