Mapping Desires

Historically, human wants have stimulated movement. Desires have fueled travel to near and distant seas and lands in the form of exploration, trade, and conquest. The Mediterranean provides an example of such travels across space and time. The seafaring peoples, including the Greeks and Phoenicians, ventured over land and water to establish trade routes for procuring valued objects such as tin and amber, which were rare in the Mediterranean basin. Once traversed, those highways and their destinations required description to enable continued access. Those markings were, for Europeans, the birth of geography or the naming and locating of space and its natures.

In addition to commerce, the fourth-century B.C. military expedition and conquests of Alexander the Great extended the knowledge and boundaries of the Mediterranean world from the Greek homeland to the Indian extremity. "Not only were the foundations of the science [geography] laid by the Greeks," a noted geographer observed, "but it was mainly through them that the observations made in the course of military campaigns, and the knowledge gained through the spread of trade, were recorded."

AIRS, WATERS, SITES

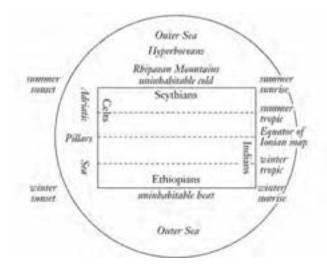
Alexander's engagements with novel lands and peoples contrasts sharply with the theoretical and philosophical knowledge favored by some ancient Greeks. About 600 B.C., philosophers in Ionia sought release from the bonds of superstition and religion through formal and systematic explanation. Assuming that *kosmos*, or order, pre-

vailed 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 such ideas as 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 first map of the earth on the basis of that learning, and Hecataeus later revised that "world island," thereby establishing the science of mapmaking.²

—making. Map 1. about here.

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 to the west. Beyond the habitable lands was 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 B.C., 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.³ Expanding upon that notion of climatic zones and life's possibilities, Hippocrates, in his On Airs, Waters, and Sites (c. 410 B.C.), discussed the effects of climate on human health and character (nature). A blend of theory with observation, Hippocrates' remarkable 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 than Europeans is the uniformity of the seasons," the "father of medicine" explained. "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." Fur-



MAP 1. The Ionian "world island" with its possibilities and limits as conceived by Anaximander, c. 580 B.C. From J. Oliver Thomson, *History of Ancient Geography* (Cambridge: Cambridge University Press, 1948), 97.

thermore, 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."

Europeans, by contrast, experience frequent and sharp seasonal changes, which in turn favor "the greatest diversity in physique, in character, and in constitution." In Asia, where the land is "rich, soft, and well-watered," the people are "fleshy, ill-articulated, moist, lazy, generally cowardly in character." 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." "Take these observations as a standard when drawing all other conclusions," Hippocrates advised and promised his readers, "and you will make no mistake." 5

By the time of Aristotle, those ideas of the island world were a commonplace, and although he devoted little attention to geography Aristotle considered the earth in relation to other heavenly bodies in "Meterologica" 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 and two frigid zones where life was impossible, and between them temperate zones north and south of the equator.⁶ Aristotle concurred with and enlarged upon Hippocrates' 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." 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." 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 bestgoverned of any nation, and, if it could be formed into one state, would be able to rule the world."7

IMPERIAL SCIENCE

The empire envisioned by Aristotle was being created during his lifetime by one of his students. Alexander the Great crossed the Hellespont in 334 B.C. with an army of 40,000 men and, for the next eleven years, advanced across Asia. A voyage of exploration and conquest, that expedition included soldiers but also scholars and scientists who recorded the conqueror's exploits and the geography of the vanquished lands and peoples. Although a Macedonian, not a Greek, Alexander and the kings of Macedon claimed Greek lineage, and his war against Persia was ostensibly waged to avenge the sufferings inflicted upon the Greeks during the Persian wars about a century and a half earlier. Turned back from reaching the Ganges only by the threat

of mutiny among his own ranks, Alexander fell ill and died in Babylon in 323, leaving behind a divided empire of oft-warring factions and kingdoms because of dissension among his generals.

The accumulated observations of plants, animals, lands, and peoples from Alexander's march enabled a larger and more detailed apprehension of the world. Uncertainties of distances and latitudes from Alexander's expedition, however, resulted in erroneous mappings such as the one drawn by Eratosthenes (c. 276–196 B.C.), the "father of systematic geography" and head of Alexandria's immense library. Relying on the centuries-old causal connection between climate and character, Eratosthenes applied the descriptions of Alexander's chroniclers to his mapmaking and placed Ethiopia and India on the same latitude because, according to the archive of accumulated knowledge, they shared a climate, plants and animals, and black people. The result reveals the Greek reliance on theory to help organize and make systematic observation and the persistence and power of certain ideas such as climatic and geographic determinism.

Despite its empire's spread, Roman understanding of the world remained largely derivative of Greek learning, including ideas of climatic zones and their life forms. The ancient Romans conducted a flourishing trade with India, and reports like the remarkable Periplus of the Erythrean Sea (Circuit of the Indian Ocean, c. A.D. 50), written by an anonymous Roman subject from Egypt, gave detailed descriptions of the Indian Ocean trade, its ports, products, and peoples. 10 Still, wrote one historian, "factual knowledge was limited, and it was frequently impossible for the most sincere and critical commentators to separate myth from fact, or to distinguish clearly one Eastern area or people from another. India, as distinguished from China, was the scene of marvels and the habitat of monstrous animals and peoples." And, as if to prod the imagination further into the realm of the fantastic, Romans imported parrots, monkeys, elephants, rhinoceroses, furs, skins, rugs, ivory, pearls, pepper, cinnamon, and possibly banana, which may have been grown in Rome. During the Roman age, accordingly, "the myth of Asia as a land of griffons, monsters, and demons, lying somewhere beyond the terrestrial Paradise, slowly enmeshed the popular imagination of medieval Europe and gradually penetrated the popular literature of the crusading era."11

NATURAL LAW

After the breakup of the Roman Empire and up to the sixteenth century, the Christian church and its theology mediated geographic thinking, distancing itself from Ionian and Athenian science and approaching a return to faith. ¹² That spiritual kingdom, although powerful and long-lived, failed to dominate absolutely. Legal scholar Jean Bodin "moved away from the authoritarian [religious] toward the natural [secular]," according to his translator, and although he believed that God moved the heavenly bodies he also distinguished between knowledge derived from the divine and the human, or "natural." Bodin's *Method for the Easy Comprehension of History*, first published in 1566, strived to uncover "universal law," which he believed was revealed in the recounting of human experience. Bodin, a Renaissance man, marked a transition from the medieval (faith) to the modern (science), and he saw geography as the gateway for an "easy comprehension" of history. ¹³ The major geographic tenet and "universal law" subscribed to by Bodin was the climate's sway over human affairs and constitutions drawn from Hippocrates and his intellectual descendants. ¹⁴

Bodin modified the ancient Greek notion of habitable latitudes by dividing the earth into a sparsely populated polar zone, a thickly settled and developed temperate zone, and a tropical band. Each zone, he maintained, had its own place assigned to it by geography and the environment, and, as in Plato's republic, the whole functioned to create universal harmony, unity amidst diversity in a "republic of the world." The center of his analysis, however, and the latitude of superior peoples was the temperate zone. With the European "discovery" of America, Bodin's world extended beyond the Celts to the west, and he knew from voyages that the tropics and equatorial zones, despite "incredible heat," were habitable. Still, like Eratosthenes, Bodin held erroneously that Ethiopians and Indians lived in the same latitude and were consequently black by "seed," and that men in cooler climates possessed "inner warmth," which ignited energy and enabled robust activity, while Africans were devoid of "internal heat" and were thus lazy though bearing "work and heat patiently."

Bodin represented a curious mixture of traditions of science and religion when he declared that climate and celestial bodies failed to exercise complete control over humans, "yet men are so much influenced by them that they can not overcome the law of nature except through divine aid or their own continued self-discipline." Further, he believed that the environment shapes human physiques, body forms reveal "habits of the mind," and those characteristics constitute "the inborn nature of each race." Reduced to its essence, body type, intellect, and natures are "in the blood" and "from blood." "The elements are disturbed by the power of the celestial bodies," Bodin wrote in summation, "while the human body is encompassed in the elements, the blood in the body, the spirit in the blood, the soul in the spirit, the mind in the soul." 18

NATURAL INEQUALITY

Bodin, in his search for universal law, provided, in the words of a recent study of the modern idea of race, "a history of mankind divided up into peoples and dispositions arranged according to astrological and astronomical influences, climate, language, geographical location." Those groupings, loosely marked by "the inborn nature of each race," would later achieve solidity as "races" by the scientific classifiers of the eighteenth century. In 1775, Johann Friedrich Blumenbach published his doctoral dissertation, *On the Natural Variety of Mankind*, for which he is considered the father of anthropology and, more specifically, physical anthropology. In that edition, Blumenbach described four "varieties" of humans—European, Asian, African, and American—and the factors that led to that diversity—climate, mode of life, and hybridity. Climate, the anatomist claimed, can alter body shape and therewith culture, though humans and animals can move to unfamiliar climatic zones and change their physiques. Likewise, mode of life and hybridity can produce new body forms. Differentiation, however, has its limits, Blumenbach cautioned, and, despite "the unity of the human species," there are four "mere varieties" differentiated by "the structure of the human body."

Europeans, Asians, Africans, and Americans, Blumenbach noted, differ in "bodily constitution, stature, and colour," and those features are due "almost entirely to climate alone." Thus, thinking like Hippocrates, "in hot countries bodies become drier and heavier; in cold and wet ones softer, more full of juice and spongy," and that is why the bones of Ethiopians are "thick, compact, and hard." Where the climate is mild

(as in Asia), people are smaller and less fierce, and Ethiopians have black skin color because of the climate, temperature, soil, and mode of life. That idea, Blumenbach acknowledged his debt and pedigree, "is the old opinion of Aristotle, Alexander, Strabo, and others." But Ethiopians can lose their blackness by moving to northern Europe, where their skin will become brown, and white Spaniards living in the "torrid zone" have "degenerated" to the color of the soil. These examples point to changes induced by the environment but not the creation of new species. ²¹

Blumenbach's third edition, issued in 1795, proposed five principal "varieties" of mankind—Caucasian, Mongolian, Ethiopian, American, and Malay. And it highlighted a concept first introduced in the earlier version, the notion of "degeneration" as seen in skin color, hair texture, stature, bodily proportion, and skull shape, caused by diet, mode of life, hybridity, and above all, climate, which was "almost infinite" in its power over bodies. Climate has "the greatest and most permanent influence over national colour," Blumenbach stated, and skin color is the most reliable indicator of "variety" because, "although it sometimes deceives, [skin color] still is a much more constant character, and more generally transmitted than the others." Europeans are white, thus, Mongolians yellow or "olive-tinge," Americans copper or "dark orange," Malays tawny, and Ethiopians tawny-black to "pitchy blackness." In the "torrid zone," abundant heat and carbon induce the liver to produce an excess of bile, or "black bile" in Bodin's words. Consequently, "the temperament of most inhabitants of tropical countries is choleric and prone to anger." "22

Unlike Bodin, whose historical schema of progress and stagnation relied upon an almost mystical quality of blood, Blumenbach catalogued differences on the basis of his measurements of skulls and cranial capacities, teeth, breasts, penises, hands, feet, and statures.²³ The result was a scientific nomenclature and classification of human types, which provided a foundation for the studies that followed. And by citing "degeneration" as the process involved in differentiation, Blumenbach established a hierarchy among his five varieties of humankind. As he explained, his use of the word "Caucasian" to denote his former "European" derived from the Caucasus Mountains, because that area produced "the most beautiful race of men, I mean the Georgian."²⁴ All others represented "degenerations" from that ideal type, like the Ethiopian of Bodin's description, who was "very keen and lustful" and "small, curly-haired, black, flat-nosed,

blubber-lipped, and bald, with white teeth and black eyes."²⁵ And Blumenbach's Caucasian hair was soft, long, and undulating, whereas Mongolian and American hair was black, stiff, straight, and scanty.²⁶ Furthermore, despite a recognition of the essential unity of humans as a single species and the ties between "varieties" that "run together," Blumenbach offered a history, an evolution of human types distinguished by physical and behavioral characteristics that were transmitted through reproduction and formed correspondences with mappings of climates and constitutions.²⁷

Taking up Blumenbach's theory of degeneration and Bodin's of "blood," Arthur de Gobineau wrote as early as 1853 *The Inequality of Human Races.* His principal concern, having witnessed the global spread of Europeans and their implantations in the tropical band, including trade outposts, colonies, and interracial encounters, was the "inequality" of the races and the lowering of white blood by inferior elements. "The pure-blooded yellow and black races," "backward" and "weaker" strains, have spread from the tropics to the temperate zone to all corners of the globe, and because their labor is indispensable to their "masters" they coexist and "the mixture of blood finally takes place." As a result, the "primordial race-unit is so broken up and swamped by the influx of foreign elements" that "the people has no longer the same intrinsic value as it had before, because it has no longer the same blood in its veins, continual adulterations having gradually affected the quality of that blood." Like nations that have died because of degeneration, whites faced extinction through the impurities, which eroded their inner constitutions.²⁸

Gobineau and many of his contemporaries were more impressed by the power of "blood" than that of climate or institutions, which played roles in but failed to account for "racial inequality."²⁹ In his scheme, society and geography formed nondetermining environments in and to which humans operated and reacted, explaining how "inferior" peoples like the Hawaiians could mimic but not fully absorb civilization, and North American Indians could live in a temperate and resource-rich land for hundreds of years but fail to advance to a high state, as he defined it, of civilization.³⁰ Gobineau, thus, parted company with the geographic determinism of his forebears and proposed just three races based upon skin color—white, yellow, and black—with all others derivatives of those main groups. He believed in the unity of all humans, like Blumenbach, and placed white at the apex and yellow and black as "degenera-

tions" of that ideal. "I... have no hesitation in regarding the white race as superior to all others in beauty," Gobineau stated categorically. "Thus the human groups are unequal in beauty [and intellect]; and this inequality is rational, logical, permanent, and indestructible." Accordingly, he claimed, there was "irreconcilable antagonism between different races," and "innate repulsion" supplied the main motive force of history, determining its course. "In the property of the state of the superior of the

RACE/GENDER ISOTHERMS

Whereas race mixture may have posed a problem for Gobineau, hybridization was a possible solution to the "problem of tropical colonization," for Ellen Churchill Semple, given the "debilitating effects of heat and humidity" and tropical diseases, which made the tropics the "white man's grave." Semple, an interpreter of eminent naturalist and human geographer Friedrich Rätzel in her *Influences of Geographic Environment* (1911), sought to reinsert "geographic factors and influences" in the shaping of society and its institutions and to connect them with the formation of races and "ethnic stocks." Geography's influence over history had fallen into disrepute, Semple regretted, because of caricatures of the science that simplified complex explanations.

Unstated in Semple's reprise of geography's primacy was the prevailing enthusiasm for race, or "blood," as in Gobineau, and the ideas known as social Darwinism and the new science of "eugenics" introduced by Darwin's cousin Francis Galton in 1883. Eugenics sought to establish through mathematics the hypothesis that bodily conformation or physique and mental abilities or intelligence were passed through the blood from one generation to another according to the Darwinian laws of natural selection. It took a social activist turn in its attempt, through laws, institutions, and behavior, to regulate and cultivate "good" gene pools and eliminate or segregate "bad" ones. 34

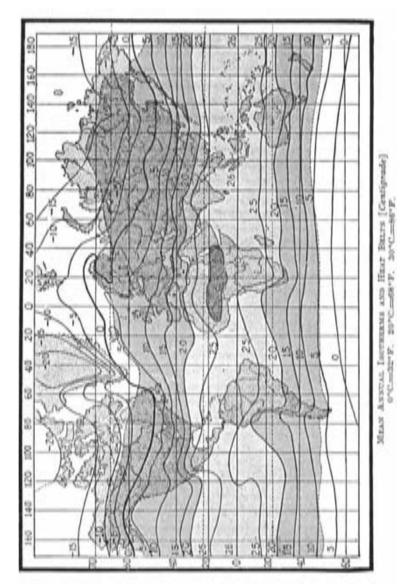
"Man is a product of the earth's surface," began Semple, in that it feeds, nurtures, and molds his body, circumscribes his ideas and ambitions, and even shapes his religion, despite man's claims to have conquered nature. Rather, the environment has quietly and persistently made the man. And because all 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." Those geographic influences include the direct physical effects of the environment in forming diverse "races and peoples"; their size, skin color and thickness, and hair; the psychical 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 the processes of natural selection and inheritance. ³⁶

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," 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 nineteenth century into the early twentieth was a period of European expansion to and colonization of the tropics, stimulated in large part 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." Conversely, small, weak, and primitive races, colored and womanly, occupy limited territories. Semall, weak, and primitive races, colored and womanly, occupy limited territories.

Although humans can escape "the full tyranny of climatic control" and its effects are often be overstated, Semple admitted, climate, meaning temperature and moisture, is not merely the context for people's activities but shapes their bodies, physically and psychologically. It influences their immune system and resistance to diseases, "their temperament, their energy, their capacity for sustained or . . . intermittent effort," and thus "their efficiency as economic and political agents." Man can make himself at home in any zone, but "zonal locations" (latitudes of temperature and rainfall) fix the borders of human habitation and determine "race temperament" and civilization. Those ideas are a twentieth-century rendition of some of the founding geographic formulations of the ancient Greeks.

—Greeks. Map 2. about



MAP 2. Like the mappings of climatic and biotic zones by the ancient Greeks, Semple's isotherms and heat belts delineate civilizations and "race temperaments." From Ellen Churchill Semple, Influences of Geographic Environment (New York: Holt, Rinehart and Winston, 1911), 612.

Semple's zonal locations produce and explain racializations. "The northern peoples of Europe," Semple wrote, like Hippocrates and Aristotle, "are energetic, provident, serious, thoughtful rather than emotional, cautious rather than impulsive." By contrast, and unlike the ethnocentric Greek philosophers' notions, "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." 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 there are drawn down the path of economic and social "retardation."

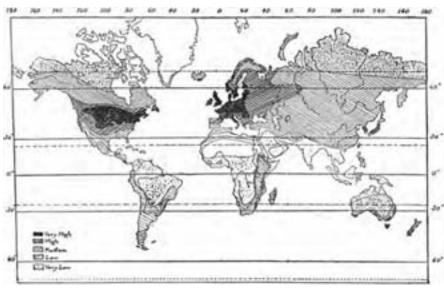
"These broad belts," then, "each with its characteristic climatic conditions and appropriate civilization, form so many girdles of culture around the earth," Semple posited. The temperate band "is the seat of the most important, most steadily progressive civilizations, and the source of all the cultural stimuli which have given an upward start to civilization in other zones during the past three centuries." In the tropics, 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." Like a womb and prison, this "nursery has kept him a child." "As the Tropics have been the cradle of humanity, the Temperate Zone has been the cradle and school of civilization," Semple summarized. "Here Nature has given much by withholding much. Here man found his birthright, the privilege of the struggle." "41

In an age of European imperialism, Semple wrote, "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." According to this historical geography, then, "nature" (and in other renditions "destiny") has preordained the expansion of "the conquering white race" as if impelled by science and the laws of the natural world. Accordingly, Semple likened the "great historical movements in the form of migration, conquest, colonization, and commerce" to "convection cur-

rents" that "seek to equalize the differences and reach an equilibrium." ⁴³ The direction of those drafts, we know from the physical world, is from (white and manly) areas of high densities, pressures, and activities to (colored and womanly) vacant and inert spaces.

Whereas Semple may not have worried over the capacity of whites to flourish in the tropical hinterland or fear the swamping of the white by migrating nonwhite races in the temperate homeland, ⁴⁴ Yale geographer and president of the board of the American Eugenics Society Ellsworth Huntington shared the nineteenth-century European anxieties over race mixture and degeneration as a consequence of human movements and empire. In his *Civilization and Climate* (1915), Huntington cited 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" produce "the fruit known as civilization." Of the three, Huntington regretted, the significance of climate as an explanation has been eclipsed by race and institutions because, this proponent of the "new science of geography" declared, of ignorance of the latest findings in archaeology, which reveal the intimate connection between climate and civilization. The clear lesson of antiquity, Huntington reported, is that "a certain peculiar type of climate prevails wherever civilization is high," as in ancient Egypt and Greece, where the climate filled the people with "a virile energy."

Race, however, should not be discounted altogether, the Yale researcher cautioned, like Gobineau, for a favorable climate will not cause "a stupid and degenerate race to rise to a high level." Studies have shown that "the brain of the white man is more complex than that of his black brother," and that no amount of training can compensate for that "ineradicable racial difference in mentality." The Hampton Institute, ⁴⁶ for instance, demonstrates how "the Christian spirit" and "proper training" can help but ultimately fail to overcome "the handicap of race." 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 declared, "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." Samuel Chapman Armstrong, Hampton's master teacher and commander of African American troops during the Civil War, similarly believed that "the Negro," loyal



MAP 3. "Human energy" flows from the "climatic energy" concentrated, as mapped by the ancient Greeks on down, in temperate latitudes. From Ellsworth Huntington, *Civilization and Climate* (New Haven, Conn.: Yale University Press, 1915), 142.

Map set before call to stay within section, Ok? MLG/ICS

and self-sacrificing, made good soldiers: "They are noble under leadership, often wonderful in emergencies." 48

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." 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—Huntington expressed two concerns: Tropical "natives," he noted, 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." Accordingly and contrary to Semple's proposal, interracial "breeding" is 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" thus threaten to weaken the white stock through fatigue, dilute and pollute it through miscegenation, and sap it of "human energy," which is the engine for civilization and which, in turn, derives from "climatic energy."

—energy." Map 3. about

Huntington closed 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 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." 50

SPATIAL VIOLATIONS

The two major problems of the age of European empire, the late nineteenth and early twentieth centuries, involved the presence of whites in the tropics and its reciprocal, the movement of people of color from the tropical to the temperate zones. Those concerns spawned numerous studies on the subject, those by Ellen Churchill Semple and Ellsworth Huntington among many others. Premier imperialists, the British were among the leaders in this work, including historian Charles H. Pearson and sociologist Benjamin Kidd.

In agreement with Huntington's dire future for white supremacy, Pearson recalled that white desires for tropical products propelled their movement from the temperate to the tropical band, where they introduced modern industry and medicine and hygiene and thereby increased native productivity and population growth. Given those developments, Pearson predicted, "the day will come, and perhaps is not far distant, when the European observer will look round to see the globe girdled with a continuous zone of the black and yellow races, no longer too weak for aggression or under tutelage, but independent, or practically so, in government, monopolising the trade of their own regions, and circumscribing the industry of the European." Further, those

"black and yellow races" will "throng" to the "salons of Paris" and "English turf," intermarry with whites, and "we shall wake to find ourselves elbowed and hustled, and perhaps even thrust aside, by peoples whom we looked down upon as servile and thought of as bound always to minister to our needs." 51

Benjamin Kidd proposed to shift Pearson's stress on the education and expansion of tropical peoples to the "development in progress amongst the Western peoples." In his Social Evolution (1894) and The Control of the Tropics (1898), Kidd issued "a clear call of duty" interlaced with "moral force" for white management of the tropical band. Independence in Central and South America had not led to "a state of high social development," he charged, but to political corruption and economic bankruptcy, and he contrasted that "degeneration" with the advances in European natural and social sciences that had brought coherence to disparate bodies of learning, as demonstrated in the work of Charles Darwin and its applications to human societies. Altruism and the principle of "the native equality of men," Kidd assured, governed white relations with "the coloured races outside the temperate regions," and not conquest, occupation, and exploitation, which contradicted the ideals of civilization and were "anachronisms." European development of the tropics, "the richest region of the globe," was made necessary only by "a permanent state of uncertainty, lack of energy and enterprise amongst the people, and general commercial stagnation."52 Yet the burden of white interest in the torrid zone, Kidd conceded in the end, was based upon the fact "that the complex life of the modern world rests upon the production of the tropics to an extent which is scarcely realized by the average mind."53

A contemporary of Pearson and Kidd, Scottish geographer James Bryce claimed that human migration was "the most potent factor in making the world of to-day different from the world of thirty centuries ago" and in shaping the future of "the race." The march of Alexander the Great through Asia and the Spanish colonization of America, he wrote, were examples of "permeation," the movement of "a small, number of persons of a vigorous and masterful race into a territory inhabited by another race of less force, or perhaps on a lower level of culture." 54

With the United States poised to join the club of European imperialists by acquiring territory in the Caribbean and Pacific, Bryce was asked to offer some advice based on the British and European experience. Climate, he replied, determines the

colonial profile, which in turn corresponds with race and form of government. A temperate colony is one in which whites can "live and thrive and bring up healthy children," whereas a subtropical colony is one in which whites can maintain themselves but "cannot do hard and continuous work." In a tropical colony, whites are "forbidden by the heat not only to support open-air labor, but also to retain its original robustness of mind and body." The temperate colony, now completely occupied, he continued, is the "natural home of the European races," whereas colored people or those of "a different blood" belonging to "a lower type of civilization" are most numerous in the subtropical colony, and more marked is the race distinction in a tropical colony where a small group of "civilized" white men rule over an enormous mass of "savage or semi-civilized men . . . of a different color." Although Bryce's advice on colonial acquisition and rule provoked commentary, virtually unquestioned was his claim that climate shaped the contours of the colonial project and formed correspondences with race and civilization. ⁵⁶

That critique would come later in the work of physicians and scientists who found that white bodies, although susceptible to tropical diseases, could adapt and survive in the torrid zone, contrary to the assertions of such writers as Kidd and Bryce.⁵⁷ Disease, not climate, was the enemy of whites in the tropics, a 1919 report in the Journal of Tropical Medicine emphatically announced.⁵⁸ Building upon that finding, J. W. Gregory, a University of Glasgow geologist, noted that climate has worked an "instinctive sorting" of racial types in which "the tropics are the natural home of the coloured races and the temperate regions that of the white races." That "racial distribution" arises from the geographic principles of climate and population differentiation and density and from the struggle for land and resources in which the inferiors survive because they can get by with less. And yet the body temperature of American soldiers in the Philippines differs little from that of whites in the United States, and those soldiers have shown an ability to acclimatize to the heat and humidity of the tropics. In addition, studies indicate that the lungs, kidneys, and nerves of whites undergo no important change in the tropics, as was commonly believed, and some insurance companies have concluded that the higher rates they charge for living in the tropics are unmerited.⁵⁹

White penetration of the tropics is, then, physiologically possible, Gregory con-

cluded, but in the cohabitation of white men and colored women rests the danger. Miscegenation, he warned, is "mischievous and dangerous," as if against nature, because "the interbreeding of widely different races of mankind produces inferior offspring." Instead, the professor advised, the white should secure "as his home" the continents of Europe, North America, and Australia, and from that base "for the benefit of all, continue to conquer the forces of Nature and thereby strengthen the broad foundations of civilization." ⁶⁰

LIFE'S COMPLEXION

French historian Lucien Febvre took up that concern of modernity—the relations between humans and nature—and favored human agency over the environmental determinism of earlier periods of European thought. The ancient Greeks, Febvre recalled, including Hippocrates, Plato, and Aristotle, fixed human bodies (races) and their societies (cultures, civilizations) to the land (environment) bounded by climatic zones or latitudes. Jean Bodin, he pointed out, represented an advance over the absolutism of both Greek tradition and Christian dogma and superstition, and Friedrich Rätzel helped to shift geography's center from the physical to the human in his "anthropogeography." "It is not true that four or five great geographic influences weigh on historic bodies with a rigid and uniform influence; but at every instant and in all phases of their existence," Febvre asserted, "through the exceedingly supple and persistent mediation of those living beings endowed with initiative, called men, isolated or in groups, there are constant, durable, manifold, and at times contradictory influences exercised by all those forces of soil, climate, vegetation—and many other forces besides—which constitute and compose a natural environment."

Determinism, for Febvre, is not history; rather, "the very basis of history" is the understanding of humans as "efficacious agents" of somatic and social constitutions and changes. Additionally, although climate has produced the tropical and temperate bands with their distinctive life forms and possibilities, it does not mandate human imagination or behavior, nor is it the sole factor in a multiplicity of complex influences shaping human nature and society. Geographic categories exceed the

bounds of climatic latitudes such as mountains and coasts, islands and continents with their diverse plant and animal life and human economies of hunting and fishing, pastoralism and agriculture. Boundaries, in fact, are human creations, because along the frontiers formations such as "the Eastern world, the world of Islam, the Asiatic world" and European civilization interact, blurring distinctions. The move from "determination" to "only approximations and probabilities," Febvre admitted, might lose "the beautiful simplicity and certainty of the mechanical explanations" but gain "a richer and more complex view, better matched with the exact complexion of the phenomena of life."

It was precisely that intention to capture "the exact complexion of the phenomena of life" that led to the search for formal and systematic explanations freed from superstition and religion among the ancient Greeks. And although theoretical and philosophical in orientation, these explanations more closely modeled reality in actual encounters and insisted upon evidence and demonstration. Geography, as conceived in Europe, grew from that imperative to apprehend the world, its lands and waters, its resources both animate and inanimate, its peoples, and its place in the heavens. Human movement, including migration, exploration, trade, and conquest, enabled and required mappings of familiar and novel climes and peoples. That geography posited a circular and later spherical island world of lands surrounded by seas and divided by "airs, waters, and sites" into habitable and uninhabitable girdles of freezing cold, moderation, and scorching heat. The sole causal connection they and their intellectual descendants established between environment and human physiques, natures, and organizations, as Febvre pointed out, eventuated in the influential false-hood of race and its differentiation and hierarchy. 63

The reciprocal of those movements from the homeland to the edges of the known world were imports, including goods—the objects of desire—and peoples, from the peripheries to the centers. Nature, as analogized by Ellen Churchill Semple to convection currents, is insufficient as an explanation for that traffic between the temperate and tropical bands, and "destiny," whether manifest or divinely ordained, fails to account for the naming and characterizing of those latitudes and their peoples. As pointed out by Lucien Febvre, those acts are complex and multifaceted and are, above all, interventions of "living beings endowed with initiative, called men." In fact, white

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desires for tropical products and the region's enormous array of untapped resources and fecund lands provisioned trade vessels and seeded anchorages for colonies. And from that penetration arose problems of white morbidity and the "breeding" of mixed and hence inferior stock in the tropics and the infiltration of nonwhite bodies, diseases, and cultures into the white turf and gene pool. Prodigious profits and perils were close companions, then, in this quest for tropical empires.