The Case for Ecology and the Environment in World History Instruction

nce, in anticipation of the British Museum's acquisition of fragments from a colossal statue of Egyptian pharaoh Ramses II, two poets, Percy Shelley and Horace Smith, challenged one another in writing sonnets to capture the meaning of the statue's existence and its piecemeal arrival in London. Each poem entitled "Ozymandias," a Greek name for Ramses, used the imagery of broken statue fragments all but lost in the sand to critique human pretentiousness and affirm our temporal existence, highlighting the irony that the achievements of Ramses—his capital, his empire, his reign, and the statue meant to memorialize it all forever, had been swept away by time and ecological change (see Image 1). Smith's poem even proposed the same fate to the city of London, suggesting the ruins left from its future collapse might one day become only a curiosity to a future witness. This was a bold suggestion considering the context of the time period: industrializing London became the world's most populated urban center for much of the 19th century and the capital of the largest empire ever in terms of territory ruled. The British Museum, a grandiose repository of global history, represented a conquest of historical records that paralleled Britain's geopolitical dominance.

. . . And on the pedestal these words appear:
'My name is Ozymandias, king of kings:
Look on my works, ye Mighty, and despair!'
Nothing beside remains. Round the decay
Of that colossal wreck, boundless and bare
The lone and level sands stretch far away.

—Percy Shelley, Ozymandias (1818)

We wonder,—and some Hunter may express Wonder like ours, when thro' the wilderness Where London stood, holding the Wolf in chace, He meets some fragment huge, and stops to guess What powerful but unrecorded race Once dwelt in that annihilated place.

—Horace Smith, Ozymandias (1818)²





Image 1: The ruins of the Rammeseum at Thebes, Egypt, where the "Ozymandias" statue fragments were salvaged. Source: "Lightning over the ruins at Memnonium at Thebes, Egypt." Colored lithograph by Louis Haghe after David Roberts, (1849). Available at Wellcome Collection under the license Attribution 4.0 International (CC BY 4.0).

In emphasizing the decay of Ramses' legacy across time and space, the poems allude to existential questions for the historian and the history teacher: what to remember, what perspectives to emphasize, and why? Perhaps our historical lenses should be focused less on "Ozymandias" himself and more on the sands in which he nearly drowned forever . . . less on the marbles of the Athenian acropolis and Michelangelo's David, and more on the changes in atmospheric and ecological conditions which have forced their respective restoration or retirement from public space to avoid the same fate as "Ozymandias." This article argues that in our historical narratives of pharaohs, caesars, caliphs, sultans and khans, the environment also needs a central role. In addition to the conquests of the British Empire, world history courses should enable students to investigate why Shelley, in a separate poem, suggested, "Hell is a city, much like London—a populous and smoky city."

Many of the most pressing issues of the 21st century are global in scale and hinge upon ecological relationships between humans and the natural environment. However, typical history courses in secondary education, the narratives that inform our cultural identities, neglect environmental perspectives as counter-cultural or as political activism unworthy of mainstream academic study. Our lenses for historical study are shaped by a modern culture

that often decouples human endeavors from the environment and assumes a trajectory of limitless development and endless consumption of resources. Western, industrial, democratic nation-states have amassed unprecedented wealth and power, but their cultural tendencies also subvert environmental awareness. Environmental history and ecological perspectives tend to remain beneath the scope of the humanities, and historical study cultivates chronic shortsightedness toward increasing rates of ecological degradation and climate change.

The world history movement encourages us to "see the forest for the trees" in the historical sense, but to what extent are we teaching a historical narrative that includes the actual trees, the natural environment, and ecological perspectives? There exists ample scholarship in the field of environmental history yet, regrettably, the history presented to our students remains only about crossing oceans and not sustaining them . . . about conquering and exploiting territory rather than developing sustainable relationships with the landscape.

Our students' preparation for the tides of globalization and ecological change, waves which are amplified by technological accelerations of human processes and interconnectedness, demands a pivot: Rather than a peripheral topic, ecology that includes the environment must be a central theme permeating our world history courses to offer meaningful perspectives for climate change, sustainability, and conservation of our ecosphere. If the "Spanish" Flu outbreak of 1918 can inform our response to the spread of COVID-19, and the Great Depression can inform our current economic policies, what history can prepare us for successful sustainability and preservation of nature, or dealing with the consequences of resource depletion and degradation of the planet's air, waters, soils, and forests? The challenges of designing and managing world history curricula for our students remain daunting, but the value of big-picture history with ecology as its focus offers tremendous opportunities for meaningful, practical content that transcends political boundaries and nationalist narratives to view humanity as one species, sharing a common home.

What follows is an examination of our cultural aversion to environmental perspectives of history and recognition of the potential for world history courses to better prepare our students for the global ecological and environmental challenges that humans have always encountered and often endeavored to dismiss, but now face on unprecedented scales.

The Cultural Aversion to Environmental History

"Is the presence of environmental science in the household of the humanities like a fox in a chicken coop?"

—John Opie, founder of the American Society for Environmental History⁵

The headwinds inhibiting the inclusion of ecology and the environment in history instruction are numerous and formidable. As much as historical forces have created the modern world, modern existence reciprocally influences our lenses for viewing and sharing history. Instruction in history often becomes a culturally-affirming feedback loop. Societal norms that shape curriculum and instruction, many stemming from Western humanism, liberalism, capitalism, nationalism, and colonialism often overwhelm the impetus for including global and environmental perspectives. Environmental historian J. Donald Hughes explains: "The theme of virtually every world history textbook in recent times is 'development' . . . The story, as usually told, takes humankind from one level of economic and social organization to the next in a nearly triumphal ascent." World history courses track the greatest political, economic, and social achievements of outstanding human beings and civilizations, a trajectory resulting in the "ever-increasing use of the Earth's resources for human purposes" with little regard for sustainability or preservation. ^Z

The most dramatic periods of change emphasized by world history courses—the Neolithic Revolution, the Columbian Exchange, and the Industrial Revolution—are often presented as ultimately "good" developments that enabled modern human existence. However, each of these accelerations of human processes also resulted in surging rates of our impact on the environment. The triumphant civilizations of the past few centuries have typically been western, educated, industrialized, rich, democratic (WEIRD) nation-states.⁸ Their ascent paralleled the greatest acceleration of mass production, mass consumption of energy and resources, and general degradation of the environment in human history. This model for modern dominance of the planet has also created a culture of idolizing humans and ignorance of, or even aversion to, assessing environmental relationships and consequences. In the same way that behavioral scientists found biases in psychological studies that tend to use subjects from only WEIRD nations, our own "world" history courses continue to be viewed from lenses that ultimately, if not intentionally, celebrate the development of western, educated, industrialized, rich, democratic states. Each of these WEIRD biases compounds the neglect of environmental history, or at least amplifies the perception of environmentally-conscious history as "counter-cultural" and outside the proper realm of the humanities:

Western Humanism and Abrahamic Ideologies

The values of "Western Civilization" tend to diminish the role of the environment in historical narratives of human affairs. The environment, often viewed only as a resource or obstacle, lacks agency in typical narratives that celebrate humanity. Ancient Greek culture emphasized *arete*, meaning human excellence and fulfillment, as well as the worship of immortal, but very human, gods and goddesses. The works of Greek philosophers and scholars, including historians like Herodotus and Thucydides, established humanist traditions that stressed anthropocentric views of ecology. As Hellenistic and Roman periods of imperialism spread these values throughout the Mediterranean world and beyond, worshiping humanity became the ideological backbone for the largest empires in the West.

Faith in human reason and agency were preserved and enhanced by Muslim scholars and Christian scholastic movements and were rebranded "humanism" within a Christian framework in Renaissance Europe. A syncretic blend of humanism with Abrahamic views of a fatherly god, who created man in his image and promised his creation for human stewardship, put humans at the center of all existence and spawned subsequent philosophical movements that put a premium on human ingenuity to master the environment and transform wilderness into civilization. While animistic and polytheistic religious traditions once prioritized spirits of nature and ecological processes, historian Stephen Mosley explains, "the Judeo-Christian tradition . . . stressed humankind's right to dominate and subdue the natural world (Genesis 1:26–9) . . . Cartesian science and the rise of capitalism were highly compatible with Europe's leading religion, Christianity, which emphasized the theme of human domination of nature." Western imperial powers, during the past 500 years, expanded the impact of human self-centeredness and environmental domination in the process of colonizing roughly eighty-five percent of the planet's lands.

The extent to which Christianity has impacted humankind's relationship with nature may be a complex and controversial topic, but what cannot be denied is the compatibility of Judeo-Christian traditions with Western patterns of conquest, including environmental conquest. Abrahamic traditions often aggressively displaced the animistic and polytheistic traditions that worshipped natural forces and phenomena. Historian Lynn White, Jr. argues that despite the few environmentally-conscious individuals like Saint Francis of Assisi,

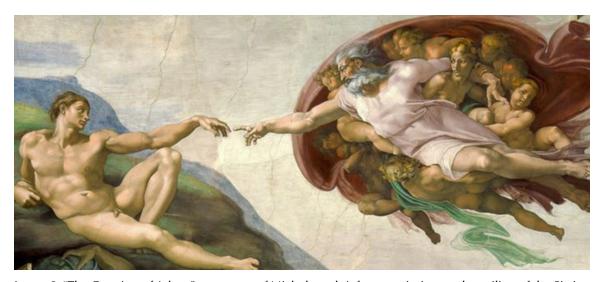


Image 2: "The Creation of Adam," a segment of Michelangelo's fresco painting on the ceiling of the Sistine Chapel in the Vatican (1508–1512). In this moment of creation, according to Genesis 1:26, the god of Abrahamic faiths said, "Let us make mankind in our image, in our likeness, so that they may rule over the fish in the sea and the birds in the sky, over the livestock and all the wild animals, and over all the creatures that move along the earth." Source: A photographic reproduction available in the Public Domain at https://commons.wikimedia.org/wiki/File:Michelangelo_-_Creation_of_Adam_(cropped).jpg.

who insisted on the "equality" of all creation, Christianity was infused with "the idea of man's limitless rule of creation," and that "our present science and our present technology are so tinctured with orthodox Christian arrogance toward nature . . ." Catholicism's current pope, whose papal name and inspiration come from Saint Francis, agrees that for both Christians and non-Christians, major cultural changes are needed to prevent further ecological degradation. His encyclical *Laudato Si: On Care for Our Common Home* offers an indictment of mankind's exploitation of the natural world. 12

Western humanism, often paralleled by Abrahamic spirituality, contributes to our narcissistic, anthropocentric historical consciousness where, according to environmental historian John Opie, "the civilizational process is seen in the humanities as inevitably a separation or distancing from nature" and a celebration of individual or civilizational achievement rather than ecological existence.

Liberalism and Capitalism

Protestant versions of Christianity, Max Weber famously argued, synergized with European developments in capitalism and private enterprise. The rise of capitalism and classical liberalism in Western culture prioritized individual success through free-market competition rather than collective, ecological harmony. These ideologies encouraged unrestricted extraction of natural resources and commercialization patterns resulting in ever-accelerating environmental exploitation. Environmental historian Donald Worster offers three maxims for the "ecological values taught by the capitalist ethos": "1) Nature must be seen as capital . . . 2) Man has a right, even an obligation, to use this capital for constant self-advancement . . . [and] 3) The social order should permit and encourage this continual accumulation of personal wealth." ¹⁴

The reach of this ethos expanded rapidly via the growth of global, multinational corporations, and resulting environmental degradation could be neglected as localized consequences that were not witnessed or directly experienced by global consumers. Financial dependence on growth and unregulated, competitive relationships between commercial producers and consumers ensured shortsighted, profit-minded ecological views and little concern for sustainability or preservation of nature.

Did alternatives to capitalism result in more sustainable models of development? While Karl Marx emphasized the roles of capitalism and industrialization in the dysfunctional relationships between humans and nature, state-directed socialist and communist economies of the twentieth century, including the Soviet Union and the People's Republic of China, also "recast and despoiled their environments" for growth, centralized power, and higher living standards in competition with capitalist nations and corporations, according to Mosley. In seeking to alleviate the social costs of unbridled capitalism, socialist and communist economies also largely failed to concern themselves with sustainable relationships with the environment.

Our course narratives often depict modern world history as a race, by various nationstates, for economic and political supremacy in their patterns of production and consumption. Historian J.R. McNeill summarizes that "the firm devotion of states to industrial growth; the devotion of Western firms to profit; the fervid commitment of the communist bloc to out-producing the West" led to global neglect of human health and the environment. 16

Imperialism and Nationalism

The cultures of modern, industrialized states advance historical narratives that legitimize their political and economic conquests while belittling their ecological abuses. This continues a trend in historiography across time and space: whether presented by minstrels or bards, African griots or Confucian court scholars, history has routinely been formed and financed in the processes of affirming cultural identities and legitimizing the political rule of kingdoms, nations, and empires. Students in world history courses today are heavily exposed to the creation of states and imperial processes of conquest. Political, economic, and social relationships are emphasized, and when the environment is included in these traditional historical narratives, it is often only as a resource for exploitation or an obstacle to be outmaneuvered. Almost universally, students in our world history courses will learn how, in the words of J.R. McNeill, "the most powerful states and societies regard adjustments to



Image 3: Industrial plants on the Rhine river at Ludwigshafen. Source: "BASF Werk Ludwigshafen 1881," by Robert Friedrich Stieler. Available in the Public Domain at https://en.wikipedia.org/wiki/File:BASF_Werk_ Ludwigshafen_1881.JPG.

nature . . . as a route to greater prosperity and power." Ancient Egyptians mastered the cycles of the predictable Nile River, Persians and Romans created quants and aqueducts to quench their water needs, and the Industrial Revolution turned fossil fuels into cotton textiles, food for billions of humans, and the means for global distribution.

As it intensified during the 19th and 20th centuries through revolutions, independence movements, and global conflicts, nationalism ensured competitive nations would prioritize industrial growth and economic strength as well as patriotic historical narratives that would legitimize their ascent. In this same vein, our world history textbooks and curricula tend to focus on the accelerating emergence of Western, industrialized nation-states and empires rather than their accelerating patterns of environmental exploitation.

Industrialization and Urbanization

Industrial processes and expanding use of fossil fuel energies resulted in exploding rates of productivity and consumption, dramatically transforming human life and transitioning Earth into the "Anthropocene." This timescale label, used by an increasing number of scholars in various fields, recognizes human processes as the most significant force impacting climatic and environmental change. Humanity has deployed more energy since 1900 CE than in all preceding human history, as mechanization and accelerating rates of technological advancement created the wealthiest states and cultures, but also skyrocketing rates of environmental exploitation and degradation. The technological innovations of modern civilizations often created solutions faster than new problems, leading to higher populations, life-expectancies, and rates of production and consumption while also creating, for many, a mirage of ecological sustainability: "The tables have been turned through the workings of science, technology, and industry, and now it is the habitat that is vulnerable, and not the inhabiter," argues Opie. 19

Industrialization and mechanization continue to displace rural agricultural jobs, resulting in traumatic rates of urbanization. In today's world, more than half of all humans live in cities and are increasingly disconnected from nature in their occupations and activities. Modern sanitation and health technologies have made this more than suitable for human beings, but concentrated urban populations increase the strain on global ecologies. Contributing to our ignorance or apathy, the modern city disguises humankind's dysfunctional relationship with nature, preserving small samples of the natural environment in the form of parks, zoos, and green spaces, while further separating the city-dweller from the waste and pollution one produces. The traffic of people and products proceed in view of all; the rivers of sewage and trash are concealed. Mosley explains this illusion: "Most urbanites associated smoking industrial and domestic chimneys with progress, employment and prosperity, rather than aesthetic loss, declining biodiversity or a waste of finite resources . . . "20

The modern dominance of westernized, rich, industrial states has resulted in what environmental historian J. Donald Hughes describes as a "contemporary culture adapted



Images 4: Urban density in the Shinjuku district of Tokyo, Japan (2017). The end of both feudalism and the rule of shoguns during the Meiji era, starting in 1868 CE, led to rapid westernization and industrialization of the archipelago nation. Source: Photograph licensed under the Creative Commons Attribution-Share Alike 4.0 International at https://commons.wikimedia.org/wiki/File:Shinjuku_shopping_street1.jpg.

to abundant resources, fossil fuel energy, and rapid economic growth, patterns that will not easily be altered should circumstances change, and the behavior of human economy in the twentieth century has increased the inevitability of change."²¹ In these states, which are also largely democratic, this culture directly dictates policy-making in politics, economics, and education . . .

Democratic, Popular, Corporate Governance

In garnering the popular vote, political parties, campaign finance, and corporate interests control political power and policymaking in WEIRD nation-states. This policymaking includes public education systems created on national and local levels. We should not be surprised that curricula and textbook selection for history courses bends toward the affirmation of the cultural norms of its creators and intended audience. Regarding political, economic, and social history, political parties are quick to assert which history should be required and taught. An ongoing illustration of the politicization of history education is the clamor over the "1619 Project" to give greater historical focus to the role of slavery in the rise of the United States, and the creation and subsequent abandonment of the "1776 Commission" to restore "patriotic" history by the Trump and Biden administrations, respectively.22



Image 5: Mt. Rushmore, where ecology in the Black Hills of South Dakota was reconfigured as a monument to American presidents. The historical ownership and use of the land is not without controversy. Source: Used with permission from EarthTrekkers.com.

The current inhabitants of a United States built on exploited energy and resources, including slave labor and neo-colonial dominance of foreign markets, continue to debate the instruction of sociopolitical and economic history. State curricula, standards of instruction, and textbook selections are made by panels appointed by party-affiliated governors or legislatures and the content that informs both teachers and students is identity-affirming. A textbook comparison by the New York Times revealed how California and Texas might lack cultural consensus on "fundamental questions—how restricted capitalism should be, whether immigrants are a burden or a boon, and to what extent the legacy of slavery continues to shape American life," but their processes of curriculum-development and textbook adoption both demonstrate how "classroom materials are not only shaded by politics, but are also helping to shape a generation of future voters."23 This politicization of content applies to the environmental history, or typically lack thereof, in history textbooks for secondary education. The same study noted that while the California version of a textbook references the challenge of "balancing industrial production and environmental concerns," the Texas version "celebrates free enterprise," critiquing environmental policies that regulate the economy. Both texts view climate change as primarily a concern for future economic activity and infrastructure.²⁴

Lobbyists and corporate financing make a clear impact on the development of educational programming. Funding from Koch Industries presents a high-profile example affecting the inclusion of environmental history into mainstream classrooms in the United States. As a major stakeholder in the fossil fuels industry, the group invests in nationwide programs like "The Bill of Rights Institute," which advocates for libertarian, capitalist perspectives in social studies instruction, yet avoids critical discussion of ecological issues like climate change and environmental degradation.²⁵

In a democratic system racing to win the next election with what is immediately popular and profitable, what WEIRD biases would lobby for environmental awareness in politically-selected history's identity-affirming feedback loop? Recognizing the neglect of environmental history, J. Donald Hughes laments, "decision-making falls prey to short-term political considerations based on narrow special interests." 26

The Result: Cultural Aversion to Environmental History

Politically-charged deliberations do occur regarding environmental history and environmentalism, only the vast majority of cultural forces suggest avoiding these topics as inconvenient or blasphemous. The values of WEIRD societies have produced incredibly powerful and affluent nations and populations, but these same values engender an aversion to environmental determinism, declensionist narratives, and activist approaches to environmental awareness. How can a democratic society with deeply sewn western, capitalist, and industrialized culture, a society like the United States, which historian J.R. McNeill calls an "ecological shark," be trusted to indict itself in its own history instruction?²⁷

Studies in the humanities tend to avoid both environmental determinism, the concept that humans are more at the mercy of the environment and climate than we like to believe, and "declensionist narratives" which suggest human responsibility for ecological degradation over time. The association between environmentalism and declensionist narratives is explained by Hughes: "Environmentalists and developers alike assume that to protect the environment is to curb development, and to develop is typically, if perhaps not inevitably, to degrade the environment."²⁸

To the same extent that our democratized curricula and textbooks are identity-affirming, our world history instruction, especially for younger audiences, centers on narratives of triumphal development, arching upward to our present WEIRD pedestal of perspective. How inverse might such a trajectory look from an environmental standpoint? Do we dare engage our students with the "culture shock" that might result from presenting world history as an environmental tragedy? We might begin with historian Yuval Harari's argument that *Homo sapiens* have always been "ecological serial killers," even during the paleolithic period, when human migrations directly led to megafauna extinctions and the reordering of ecosystems "long before humans invented the wheel, writing or iron tools."

Then Jared Diamond's assertion that agriculture was possibly "the worst mistake in the history of the human race." Followed by Alfred Crosby's evaluation, in The Columbian Exchange (1972), that the planet has been increasingly "impoverished" by human development and that our existence has been ecologically catastrophic.³¹

There are nuanced alternatives to only triumphant or tragic narratives, which shall soon be discussed, but WEIRD cultural norms tend to subvert environmentally-conscious history as counter-cultural, counter-productive "history for hippies." John Opie explains the suspicion of environmental history as a "specter of advocacy," the perception that the field promotes activism rather than objective approaches to historical studies. He resents the way a potential infusion of environmental science into the humanities is often "dogged" with accusations of critiquing human agency or progress.³²

Are broader perspectives of history that include the environment and recognize its agency inherently guilty of "activism" calling for reform? It may be a necessary epiphany to recognize that all history is, in its own way, activism—an activation of memory and attention. In choosing to remember, record, narrate, and teach history, we reveal and advance

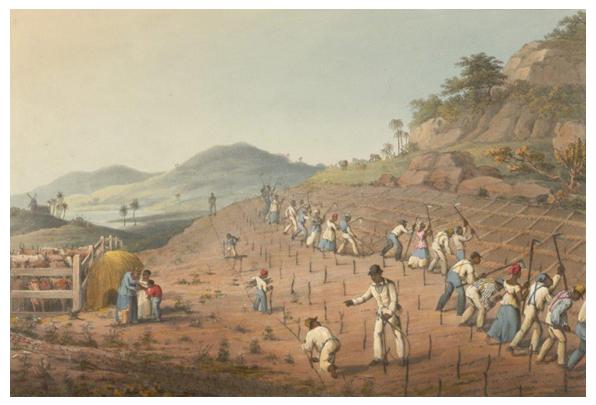


Image 6: A visual of the demographic and environmental effects of the Columbian Exchange and subsequent sugar cane production. Source: Aquatint from "Ten Views of the Island of Antigua," by William Clark (1823). Provided by the British Library Collection under the Creative Commons CCO 1.0 Universal Public Domain Dedication at https://commons.wikimedia.org/wiki/File:Digging_the_Cane-holes_-_Ten_Views_in_ the_Island_of_Antigua_(1823),_plate_II_-_BL.jpg.

our priorities and our ideals. When history confirms the prevailing cultural norms, it is readily accepted as scholarship; when it suggests current trajectories are unsustainable or declensionist, it is vulnerable to dismissal as "advocacy." The same threat faces all minority-report histories, but history with environmental perspective may suffer this fate the most.

Concerning social and political history, there is opportunity, excitement, even the expectation to engage students of world history with a mosaic of perspectives representing various human experiences of the past. However, the momentum for ecological, environmental views to history remains well-outside the mainstream of primary and secondary education. J. Donald Hughes explains, "historians turned to the hitherto obscured accounts of those who had seemingly lacked power: to women's history; the histories of racial, religious, and sexual minorities; and the history of childhood. It is a tempting extrapolation to look at environmental history as part of this progression."³³

The inclusion of environmentally-conscious history, especially in mainstream courses for students during their formative education, requires an escape from the weight of WEIRD culture and narrow, triumphant narratives. The venture of "World History," with designed transnational and ecological pursuits, offers opportunity for just such an escape.

The Opportunity for Ecology and the Environment in World History Instruction

World history survey courses in secondary education may offer the best potential for incorporating environmental history because world history pursues a communal, ecological approach that attempts to avoid monolithic cultural viewpoints. In a way, world history attempts an environmental approach to humanity, viewing us as a single species sharing a global home. However, instructors often struggle to manage and present the field's scope, complexity, and interdisciplinarity. The sheer mass of potential content creates a gravity that threatens to collapse the entire project, eliminating potential gains for students and usually resulting in the world history teacher's return to what their own culture has prioritized: the emergence of a WEIRD-dominated world.

William McNeill, a founder of modern movements for global history, offers the following central challenge in teaching world history: "Every scale of history requires teachers to leave things out. Only so can the past become manageable, meaningful, and interesting. But how to choose what to include and what to skip over?" This challenge is especially true in developing world history courses—*The whole world and all of its people? For all of history?* And what should students be expected to remember or do with the history they have examined?

McNeill's own career traced the emergence of world history as a field: In the initial volume of the *Journal of World History*, that appeared in 1990, he criticized his own earlier work, *The Rise of the West* (1963) for its narrow focus and lack of global contextualization.³⁵ Modern globalization patterns have indeed supported a world history movement, but

world history proponents should be wary of stagnation, even regression. Jeremy Adelman, professor of history at Princeton University, clarifies powerful cultural forces that threaten global perspectives of history, namely "resurgent ethno-nationalism" and predominantly ethnocentric history departments and curricula. In the United States, Britain, and Canada, this manifests itself as "Anglospheric" views of the world and abundant data to show that "less than one-third of historians [in the U.K., U.S., and Canada] are interested in the world beyond the West." History in secondary education remains primarily focused on national histories and Western Civilization. In the United States, individual states adopt standards and less than half require world history or studies in non-western civilizations. Nearly twice as many AP exams in European and United States History were administered in 2019 than in World History. What can accelerate world history instruction and moving beyond WEIRD-biased, selective "harvesting" of the rest of the world?

According to McNeill, the consensus for teaching world history is emerging and may be "described as ecological: asking what it was, in successive ages, that was conducive to human survival and the expansion of our collective control and management of the world around us. And what, from time to time, acted in the opposite direction, depopulating some localities and disabling or diminishing various local civilized societies." Jeremy Bentley, professor of world history and the founding editor of the *Journal of World History*, vindicates the venture and "implications" of world history, arguing that global problems require global solutions and world history might "align with movements seeking to advance the causes of global citizenship, cosmopolitan democracy, cross-cultural dialogue, and related projects. It would be a major step forward from xenophobic and hyper-patriotic versions of the global past that are all too prominent in schools throughout the world, including the United States." A timely addition to Bentley's list of "projects" must be confronting environmental degradation and ecological change.

An obvious value of world history, truly global history, is that humanity's current challenges are increasingly global in scope and clearly ecological. Yet the "ecology" presented in our history courses for secondary students in the United States often focuses only on humans interacting with each other—the rise and fall of political organizations, the economic systems of production and consumption, the belief systems of people, and our periods of cooperation and conflict. In our investigations of human history, the natural environment is given short shrift. What do these results look like in a typical course in modern world history? Ample attention paid to the World Wars, the Holocaust, and famines from the policies of Stalin and Mao, without recognition that the combined death toll from these catastrophes was in fact surpassed by the number of deaths resulting from air and water pollution during the twentieth century.

Ecologically-focused world historians like Alfred Crosby and Jared Diamond are celebrated for their global scope, but there are also numerous critics that argue their works paint reductionist patterns with too broad of a brush, contain too much environmental

determinism, or unsuccessfully challenge traditional understandings of history with their declensionist narratives. "Initially, Alfred Crosby could not find a publisher who wanted his book *The Columbian Exchange* (1972), which charted the ecological fallout of the integration of the New World biome into the Eurasian system," according to Adelman. Diamond's approaches are notoriously irritating to the WEIRD-wired historian or anthropologist that might expect traditional, triumphant humanism, or find his construction of universal narratives vulnerable to counterexamples.

Other recent contributors to environmentally-conscious world history are engaging the complexities of human relationships with the environment, rather than polarizing the debate between humans as either centerpieces or "serial killers." Environmental historian William Cronon suggests we must be wary of simplistic "progressive" or "tragic" stories of "heroes and foils." In examining historiography, especially the challenges of environmental history, he articulates the double-burden of the historian, who must pursue objectivity and truth, but unavoidably must also develop "cultural constructions," stories or plots that allow history to be recognizable and understandable. Acknowledging no perfect solution, Cronon aspires to create better stories, incorporating environmental perspectives that transcend humanity so that we might better understand ourselves and our relationship with nature. If, as humans, we are only capable of concerning ourselves with stories, Cronon suggests the grandest plotline of all: "what is the mutual fate of humanity and the earth?" ⁴⁵

In addition to the "best-selling" narratives of Harari and Diamond, instructors in modern world history should strongly consider J.R. McNeill's *Something New Under the Sun* (2000), a highly engaging environmental history praised for its objective, emotionally-detached approach to ecology. This work utilizes thematic approaches and case studies to make a global, ecological history relatable to world history instructors and students that may have little prior exposure to environmental science. While McNeill avoids activism, politicization, or dramatizing triumphs and tragedies, the text constantly considers the sustainability of human relationships with the environment. This is no small feat considering any reference to sustainability suggests some degree of human restraint, a major violation of the "capitalist ethos," described by Worster, which permeates much of WEIRD culture.

Cronon describes sustainability in a way that offers timely guidance for instructors of history: "Learning to honor the wild—learning to remember and acknowledge the autonomy of the things and creatures around us—means striving for critical self-consciousness in all of our actions. It means that deep reflection and respect must accompany each act of use, and means too that we must always consider the possibility of non-use. It means looking at the part of nature we intend to turn toward our own ends and asking whether we can use it again and again and again—sustainably—without its being diminished in the process."

Typical world history courses might cue nature as an asset or obstacle to the protagonist, and increasingly highlight environmental factors in civilizational conquests or collapses, but there are rarely opportunities in curricula and textbooks for illustrating successful sustainability or human restraint as described by Cronon. Such content and scholarship exist, and an extension of this article's work should be developing curricular and pedagogical approaches. Overviews like J. Donald Hughes' *What is Environmental History?* (2016) and Stephen Mosley's *The Environment in World History* (2010) catalogue examples of sustainability, including models of agricultural husbandry and transhumance pastoralism, sustainable hunting and farming practices by Native Americans, and 17th century reforestation efforts by the Tokugawa Shogunate of Japan and several European states, the 20th century Chipko movement to protect access to forests in South Asia, and Wangari Maathai's Green Belt Movement in Sub-Saharan Africa. As demoralizing as many narratives of modern environmental history can be, J.R. McNeill's *Something New Under the Sun* highlights numerous examples of industrial cities, societies, and governments grappling with sustainability and sometimes witnessing success.

More than stories about Ramses, these are narratives modern students need and often crave as ecological participants and potential citizen-activists. As an extension of global history's potential for narratives that relate to and can engage all students, at least one textbook publisher has recognized the value and the appeal of environmental history: Marketing material for Norton's fifth edition of *Worlds Together*, *Worlds Apart* (2017) advertises the inclusion of "NEW cutting-edge scholarship" focused on "a topic students care a lot about: the environment's role in world history." Incorporation of environmental history into world history courses is occurring at the university level, where instructors are less restrained by politically-crafted standards and textbook selections. Professors Elizabeth Drummond and Amy Woodson-Boulton of Loyola Marymount University successfully frame their survey courses in world history with environmental history. Their approaches and methodologies are described in "Teaching Modern World History, Or: How We Learned to Stop Worrying and Embrace the Urgency of Climate Change."

As for secondary education teachers who rely heavily on curricular standards, an example of progress and unrealized potential can be found in the course framework for Advanced Placement World History: Modern, an installment of the high-school courses offered throughout the United States that are designed by the College Board in consultation with collegiate faculty. The course description lists "Humans and the Environment" as the first course theme, stressing "how the environment shapes human societies" and how "these populations, in turn, shape their environment." The environmental theme appears in the course often, but usually only as nature's role in facilitating or inhibiting human development. Human impact on the environment receives little attention.

Glaring examples include the topics on "the Environmental Consequences of Connectivity" and "the Columbian Exchange," which stress the diffusion of new crops for

human consumption and the spread of disease, but not the ecological effects of migrating species or monocrop agriculture. While Crosby's *Columbian Exchange* detailed catastrophic effects on the environment and biodiversity, these standards only apply the catastrophe to indigenous populations. In topics on the Industrial Revolution, students are expected to "explain how environmental factors contributed to industrialization" and commodify nature or recognize its potential as infrastructure, yet the topic on "Consequences of Industrialization" does not include environmental effects.

Modern environmental issues listed in the framework include deforestation, desertification, and "the release of greenhouse gasses and pollutants," but only as causes for "competition for resources," "debates about the environment," "debates about the nature and causes of climate change," and "environmental reform movements." Other than listing Greenpeace and Wangari Maathai's Green Belt Movement as illustrative examples of "Calls for Reform," the course does not suggest opportunities for recognizing successful patterns of sustainability or the preservation of natural ecology. Like many sets of standards for social studies courses in the United States, the AP World History course primarily portrays nature as a potential asset and environmental consciousness as sociopolitical activism.

There are ongoing curricular developments toward "big history," which seeks to expand the chronological and ecological contexts for understanding the existence of *Homo sapiens*. The "OER Project," an online "open educational resource," has developed course frameworks for both "Big History" and "World History" that spawned from the work of historian David Christian. These curricula provide more extensive opportunities for students to engage in relevant environmental history. Units including "the Anthropocene" and "the Environment in an Age of Intense Globalization" engage the scholarship of Crosby and J.R. McNeill and provide pedagogical guidance for instructors. A separate online project, "World History for Us All," presents a framework developed by the UCLA Department of History as part of its National Center for History in the Schools. This free curriculum map lists "Humans and the Environment" as one of three main themes with the rationale that "understanding our changing relationship with the environment is at the core of historical understanding." ⁵⁹

The transcendent nature of "Big History" and the freedom of "open educational resources" that do not need political approval may facilitate an escape from WEIRD perspectives, but how many secondary schools are offering, let alone requiring, courses in big history or utilizing these online curricula? What will motivate and enable instructors to supplement their courses with environmental perspectives when mandated curricula sets contain limited connections to environmental history that focus on human activism and reform movements rather than directly engaging human impact on the environment?

Inevitably, world history instruction requires the courage to make powerful choices. When done properly, the breadth and interdisciplinarity of world history can be precisely its strength and value for all students. Similar courage and effort is needed to give the

environment more agency in world history narratives and instruction. If globalization has spawned interest in global history and world history courses, perhaps climate change and environmental degradation will eventually insist upon ecology and the environment having a larger role in history instruction. "Only when long-range problems can be uncovered on a supracivilizational basis can large-scale solutions be proposed," argues Opie.⁶⁰

Conclusion

"The new narrative of world history must have ecological process as its major theme."

—J. Donald Hughes⁶¹

Though popular and prodigious, British historian Arnold Joseph Toynbee's work evolved as he became more reflective later in life. In the same way that William McNeill pivoted towards global, ecological history, Toynbee "apparently recognized that his *Study of History* failed to give ecological process the role it demanded," explains J. Donald Hughes. In the twilight of his life, Toynbee began work on a global environmental history, an unfinished but posthumously-published *Mankind and Mother Earth*, which "might be viewed as an unfinished attempt to remedy that defect."

Survey courses in history have typically decoupled humanity, especially "Western Civilization," from the natural environment. Traditional themes include imperialism, industrialization and colonization, and lessons in human dominance and economic expansion where nature exists only as a resource or an obstacle. The trajectory of humanity is refracted to appear exponentially improving, culminating in triumphant WEIRD states and culture. A historical point of view that took nature and ecological stability as its focus would likely see that trajectory as inverted, focusing on accelerating rates of energy consumption and environmental degradation.

While the adage explains "the best predictor of future behavior is past behavior," the historian must recognize that, reciprocally, current cultural norms shape our examinations of the past. Can history education, especially in WEIRD societies, continue collective amnesia towards environmental history? "A sustainable future will mean unpopular lifestyle changes . . ." suggests environmental historian Stephen Mosley. Such an evolution likely requires unpopular, counter-cultural changes to the way we teach history or, rather, the courage to pursue the essence of world history—global history that transcends individual civilizations to facilitate ecological perspectives of the past . . . history that reveals the value of achieving sustainable relationships with the natural environment, or the potential for collapse in failing to do so. For our students, infusing world history with environmental history "can be a corrective to the prevalent tendency of humans to see themselves as separate from nature, above nature, and in charge of nature," argues Hughes. William McNeill's "consensus" for teaching world history included "[preparing] our children to live more wisely (and modestly?) in the world they will inherit."

In their compositions of "Ozymandias," the dueling poets Shelley and Smith captured the arrogance and ignorance of historiography in Western Civilization. Like the statue of Ramses, idolized historical and cultural artifacts including the marbles of the Athenian acropolis and Michelangelo's *David* have not been immune to the forces of nature and time. Ironically, anthropogenic changes to the environment, including industrial emissions, car exhaust, and rainfall commonly more acidic than Diet Coke, have accelerated the destruction of these idols: "Those now living will be the last generation to see these monuments and artworks in anything like their original forms," suggests J.R. McNeill.⁶⁶

The subtitle to Jared Diamond's *Collapse* (2005) is "How Societies Choose to Fail or Succeed". Though Diamond incorporates environmental determinism in much of his work, he argues the collapse of many civilizations involved human choice and "cultural determinism." In examining the collapse of groups like the Norse settlements in Greenland, the Easter Islanders, the Maya, and others, Diamond investigates the human causes of environmental and ecological catastrophes. In many cases, the civilizations committed ecological suicide when cultural preservation superseded biological survival: "The values to which people cling most stubbornly under inappropriate conditions are those values that were previously the source of their greatest triumphs over adversity." The 2019 burning of the Notre Dame cathedral prompted an immediate global response and restoration



Image 7: Environmental serial killers? An example of pre-industrial humans and ecological disruption. Source: "Aborigines using fire to hunt kangaroos," by Joseph Lycett (1817). Copyright free image available from The National Library of Australia at https://nla.gov.au/nla.obj-138501179.

effort, receiving exponentially more care and concern than the Great Barrier Reef and the Amazon, each of which is a well-understood ongoing ecological emergency.

Perhaps we are "ecological sharks"—environmental "serial killers"—compelled to preserve a culture insistent on cheap energy and limitless production and consumption . . . a culture that continues to overwhelm our awareness of ecological devastation in the past and present. Perhaps it is only when a civilization crumbles, that a culturally-foreign observer, like Smith's futuristic witness to the ruins of London, can recognize a society's ecologically suicidal behaviors.

Or can the predominant culture of WEIRD nation-states be consciously overhauled? And to what extent must such an evolution be accompanied, or even precipitated, by changing lenses for viewing history? Let supracivilizational consciousness, informed by world history, accelerate our recognition of alternatives to mass-production coupled with mass-destruction . . . and alternatives to teaching only historical narratives that are either triumphant humanism or declensionist accounts of environmental devastation. Environmentally-conscious historical narratives can portend a potential future when ecological sustainability and human achievement are not in conflict.

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