

The Anthropocene and Environmental History in the USA

John Robert McNeill ¹

In the pages that follow I will explore three related themes. The first is the traditions of environmental history as practiced over the past 40 years in the USA. The second is the impact upon those traditions of the concept of the Anthropocene. And third is the current situation in the USA with respect to environmental history. I write for audiences that are unfamiliar with these subjects.

THE TRADITIONS OF ENVIRONMENTAL HISTORY IN THE USA

Environmental history in the USA originated as a self-conscious academic field in the 1970s. It resulted partly from the zeitgeist of that decade, with its surge in popular environmentalism around the world, including in the USA. But it also arose from the initiative of specific individuals who shared in this zeitgeist and determined that they would pioneer a perspective on history that emphasized aspects of the

¹ Ph.D. en Historia por la Duke University. Profesor en la School of Foreign Service y en el Departamento de Historia en la Georgetown University, Washington, DC, Estados Unidos de América.

human-environment relationship. They did so both individually, in their work, and collectively, in founding a journal and an association – the American Society for Environmental History, created in 1976.²

Most of the original impetus came from what in the USA is called “Western history.” That means the history of the US West, the region from the great plains to the Pacific coast – roughly half the country. US historians typically recognize two regions of the country as especially distinctive: the South, with its history of plantation slavery, and the West, with its history of conquest and displacement of Amerindian societies followed by frontier settlement by farmers, ranchers, and miners. The history of the West always included a strong emphasis on nature and the use of natural resources, partly because mining played such a large role in the region’s history, partly because water was often scarce and so its use was contested, and partly because until about 1940 the West’s economy remained centered on primary production of goods drawn directly from nature.

An extraordinary proportion of early environmental history in the USA was concerned with the concept of wilderness and the formation of national parks (the first of which were opened in the 1870s). Wilderness refers to lands, or ecosystems, that are wild, not managed or regulated. For some people it means pristine ecosystems, never modified by human action. It also has religious overtones, because the word is used more than 300 times in standard English-language translations of the Bible (several different Hebrew and Greek words become “wilderness” in English).

The obsession with parks and wilderness was linked to the *zeitgeist* of the 1970s. Millions of citizens objected to the ongoing development of western lands, the expansion of cities, irrigation schemes, energy infrastructure, roadways, and the attendant reduction in what they considered wilderness. Environmental historians sought to make their contributions to the preservation of wilderness by exploring its past, and the laws and politics that established parks in an earlier age of

² Among the key individuals of this founding generation were John Opie, J. Donald Hughes, Donald Worster, Susan Flader, Samuel Hays, and Carolyn Merchant.

environmentalism, c. 1870-1915. Most of those early parks, such as the iconic ones of Yellowstone and Yosemite, were in the West.

By the 1980s, urban environmental history had arrived. Its first practitioners focused on air and water pollution and on the creation of infrastructure such as sewerage, roads, gas and electricity, garbage collection, and clean water. A brief debate ensued between scholars who claimed that only rural environments should be included in environmental histories, and others who regarded urban environments as equally legitimate subjects. The latter prevailed, and urban environmental history became, and remains, a vital component of the field as practiced in the USA.

US environmental historians of the early decades concentrated heavily on US subjects. The chief exceptions to this were J. Donald Hughes, whose work considered the ancient Mediterranean, and Alfred Crosby, whose books dealt with the entirety of the Atlantic world. But in the 1990s, US-based environmental historians increasingly sought to explore other regions of the world, particularly Latin America, Africa, and China. Curiously, while other historiographical traditions within the US typically pay abundant attention to Europe, environmental historians did not. Spain, for example, received almost no attention. Neither did Russia. The Arab world received even less. So environmental history in the US underwent a partial globalization, a process which accelerated in the 1990s and continued ever since. By 2010, less than half of the environmental historians working in the US worked on the US, and by 2015 important work on both Russia and the Arab world had appeared.

Two other important trends characterized US-based environmental history in the 1990s. The first was a growing professionalization of the field and a concomitant reduction in the political commitment and motivation of scholars. A number of factors combined to explain this trend. First, more and more environmental historians turned their attention to earlier periods in which the connections to today's environmental issues are slender. It is much harder for a historian of early medieval Italian water use to write in ways relevant to current politics than it is for a historian of California's 20th-century irrigation schemes. Second, as more US-based scholars turned to non-US subjects, their connections to US environmental politics became

more attenuated. Third, whereas the first generation of environmental historians consisted of scholars already well into their careers who were drawn to environmental history mainly by their concerns for the environment, by the 1990s a new generation had arisen that came to environmental history as an academic subject, sometimes attracted to it for political reasons and sometimes not.

As US-based environmental history lost some of its initial political character, it acquired a more rigorous and academically respectable quality. This is not to say that the work of the first generation was not academically respectable; almost all of it was. But a glance through the pages of the ASEH's journal will confirm that the work published there by the 1990s was, on average, more academically sophisticated than the work published in the journal's first few years. By 1990, major academic publishers, such as the New York office of Cambridge University Press, had made commitments to environmental history in the form of a book series, initially edited by Donald Worster and Alfred Crosby.

At the same as environmental history in the US was growing less political and more professionalized, it underwent something of a "cultural turn." This phrase is used to refer to a general shift in emphasis to cultural topics. That shift was characteristic of history and the social sciences in the 1980s and 1990s. With respect to environmental history, the cultural turn meant new topics came in for consideration such as zoos, TV shows about nature, nature photography, artwork depicting nature, natural history museums and so forth. Many more scholars, whose interests and skills fit snugly within cultural and intellectual history, now came to consider themselves environmental historians as well. The meetings of the ASEH and the pages of its journal, *Environmental History*, clearly reflected the cultural turn.

CHALLENGES OF THE ANTHROPOCENE

Beginning in 2000, the Dutch atmospheric chemist Paul Crutzen began to popularize the term Anthropocene as a way to refer to an (unspecified) modern interval of geological time, one in which human activities constitute the most important driving forces behind environmental change. Crutzen privileged the

chemistry of the atmosphere and regarded the Anthropocene as beginning with the beginning of intensive fossil fuel use at the end of the 18th century.

Whatever Crutzen may have intended by the concept of the Anthropocene, since 2000, and especially since 2010, the term has colonized the humanistic disciplines and some of the social sciences. It has, thus far, made little impact upon economics or political science. But in philosophy and literature above all, in theology and anthropology as well, the Anthropocene idea has recently become remarkably popular. Most of the articles published in English with “Anthropocene” in their title are in either literature or philosophy rather than the sciences.

Historians in general have been slow to embrace the concept of the Anthropocene, but insofar as they have done so, it is environmental historians who have led the way. For historians in general, the procedures and expectations of stratigraphy – the sub-discipline of geology that is responsible for slicing up the Earth’s past into intervals of geological time – are foreign. Stratigraphers require geological time – eras, epochs, and periods – to be synchronous, that is, to begin and end at the same time all around the world. Historians never expect historical periodization to serve for the world as a whole, and are content with periodization schemes that are different for Spain, the USA and China, for example.

Stratigraphy also requires clear markers in rock or ice that demarcate the beginning and end of units of geological time. So the Anthropocene must have such a marker (a global stratigraphic section and point, or GSSP to use the language of stratigraphy). No matter how much evidence there may be to suggest a given slice of recent time is distinctive in the history of the Earth, without a GSSP there can be no Anthropocene. The International Union of the Geological Sciences oversees discussion of periodization and organizes official and binding votes when proposals for a change to the international geological time chart are proposed. There will likely be a preliminary vote soon on the Anthropocene. It will take some years before any clear resolution is reached.

Historians are uncomfortable as well as unfamiliar with such rules about periodization. We are more anarchic. No official body claims jurisdiction over periodization. There are no votes. And we don't care about synchronicity: no one regards it as improper that the Renaissance might have begun earlier in Italy than in the Netherlands, for example. So it is hard for historians to accept an Anthropocene that corresponds to the formal requirements of geology.

Historians have other difficulties with the geological approach to the Anthropocene. Stratigraphers are not much concerned with causation, which is at the core of what historians do. For stratigraphers, the markers, the GSSPs, are of critical importance but the reasons behind them, or the reasons why one geological unit of time differs from the one before it, are less significant. For historians, the opposite is true. So, for all these reasons, historians in the US have been slow to make use of the Anthropocene concept.

Environmental historians are a partial exception. The reasons are straightforward. As students of environmental change, environmental historians are drawn to any idea that might emphasize the significance of their subject. The Anthropocene idea, in effect, makes environmental history more important within the history discipline and outside it as well. It gives environmental historians a claim to relevance that historians of US labor, the Meiji Restoration, or Mughal taxation cannot equal.

As a result, several environmental historians have waded into the debates about just what the Anthropocene is. Some argue that it should have different meanings and a different chronology in different parts of the world – in direct contradiction to the traditions and requirements of stratigraphy. They are comfortable with the concept of a Chinese or African Anthropocene, and often resist the globalizing tendency required by stratigraphy. Some argue for an Anthropocene that began with the Columbian Exchange in 1492. Others, agreeing with Crutzen, prefer an Anthropocene that began in the late 18th century. At least one, Greg Cushman, argues for a mid-19th century origin of the Anthropocene. Still others see 1945 or 1950 as the onset of the Anthropocene. By and large, those environmental

historians who use the concept prefer an Anthropocene that begins in the time period in which they happen to specialize.

Geologists may or may not formally adopt the Anthropocene as a unit. My prediction, based on several years as a member of the Anthropocene Working Group, is that they will not.³ But in any case, the Anthropocene of the humanists is immortal. They do not need geologists to recognize the Anthropocene formally and will continue to use the term freely, with no fixed definition, for the indefinite future. Many environmental historians will do so as well.

CURRENT TRENDS IN ENVIRONMENTAL HISTORY IN THE USA

Environmental historians in the USA have turned increasingly to a handful of subjects and methods previously little explored, partly in response to debates over the Anthropocene. One conspicuous example is the history of climate and climate changes. While European historians since the 1950s have occasionally taken up climate as a subject worthy of their attention, in the USA that was left to physical geographers and natural scientists. But no longer. A surge of work has appeared in the last ten years on climate shifts and shocks, on vulnerability and resilience.

The reason for that is straightforward. The current anxieties about climate change are stronger than ever in the US, despite the prevailing political situation. Scholars of all sorts, including environmental historians, are responding by making climate a larger part of their work. Environmental historians have always responded to the environmental concerns of the day, and lately that has meant climate change more than anything else.

This surge of climate history includes work on almost every part of the world and every time period for which there is evidence. Probably the most dynamic part of this trend is the numerous studies of the Little Ice Age as manifested in Europe, the

³ The Anthropocene Working Group, in existence since 2008, is formally charged by the International Union for the Geological Sciences with making a proposal for the Anthropocene, complete with a suggested GSSP. That proposal must survive votes by the members of the Sub-commission on Quaternary Stratigraphy, the International Commission on Stratigraphy, and the IUGS. That proposal is not yet formalized; things happen slowly in geology.

Middle East, North America, and China. The sources used for these studies includes the conventional textual ones so familiar to historians, but they extend to the various forms of proxy evidence typically used in paleoclimatology, e.g. ice cores, speleothems, palynology, dendrochronology, among several others. Environmental historians do not create or collect such data. They use the published work of paleoclimatologists and other natural scientists.

Another current trend in environmental history in the USA is the rise of what is now called neo-materialism. This term refers to a philosophical position, advanced by Jane Bennett in particular, that argues that things (as well as people and social groups) have agency. So, for example, different kinds of coal have different properties, such as higher or lower sulfur content. When people burned coal to heat buildings or power machines, the properties of that coal carried consequences for pollution, specifically of sulfur dioxide and its offspring, acid rain. Copper has certain properties that make it especially good as a conductor of electricity, so people chose to mine it widely after 1890 when electrical grids were under construction. That mining, and the smelting that went with it, loosed quantities of arsenic into the environment, which led to health difficulties for people and animals that otherwise would not have occurred. According to the neo-materialist approach, things as well as people should be understood as agents of historical change. Some authors write of “distributed agency” when adopting this point of view.

The neo-materialist approach is both inspired by the Anthropocene debates and itself a challenge to the Anthropocene concept. If agency resides not only in people but in copper and coal (and countless other things), then – the argument goes – “Anthropocene” is not the right word. Its Greek root refers to humankind and leaves out all those things that have contributed to the vast scale of recent environmental change.

Less connected to any challenges of the Anthropocene is the environmental history of war, another area of recent emphasis in US-based environmental history. That began some decades ago with work on the Vietnam War, which inflicted a considerable cost on the vegetation of Vietnam as well as on its citizens, partly due to

the use of chemical defoliants on the part of US military forces. Little of the Vietnam work, however, was done by historians. A recent surge of publications by historians in the US has shifted the emphasis in this subfield away from Vietnam to the US Civil War and the twentieth century's two world wars. The new work has enlarged the focus from simply studies of the environmental implications of campaigns and combat, to the study of war efforts more broadly – meaning the mobilization of resources, recycling programs, internments, and all the measures taken in wartime by combatant powers. The work on the American Civil War is particularly interesting in that most of the authors involved are women, who, by and large, are not numerous among scholars of military history.

It could be that the endless wars in which the US has been entangled since 2003 as a result of its invasions of Afghanistan and Iraq, account for the pulse of interest in the environmental history of war among US-based environmental historians. But it could also reflect the extraordinary energy and determination of Richard P. Tucker, who more than anyone else has encouraged and recruited new work on the subject.⁴

US-based environmental historians have recently created several other clusters of work, some of it entirely novel, some of it building on earlier examples. One example is animal history, which is not entirely new but which has grown dramatically in recent years. Horses, wolves, dogs among other species have come in for detailed study. Another is studies of resilience in the face of adverse climate or other environmental shocks or shifts. Historical studies of resilience are an unusually cheerful form of environmental history, as they show instances in which communities overcame challenges. They represent a counter-current to the dominant trend in environmental history in the USA (and elsewhere), which is sometimes summarized by the term “declensionism.” That refers to the tendency within environmental history for researchers to offer stories in which environmental conditions always get worse.

⁴ Tucker has organized several panels at environmental history meetings and co-edited multiple volumes on the environmental history of modern warfare.

One additional current trend among US-based environmental historians merits mention. That is the increasing frequency of collaborations with natural scientists. This is of course not entirely new, despite the tradition among (US-based) historians to work alone rather than in teams. Most historians still prefer to work alone and collaborations are not common. But more and more environmental historians have recently found reasons to team up with climatologists, biologists, earth systems scientists among others. In this respect, working within interdisciplinary teams, US-based environmental historians are coming to resemble their European colleagues more. The obstacles to this sort of teamwork in the US academic system are considerable, especially for younger scholars seeking to establish careers, so it is unlikely to become a dominant trend.

Also worthy of mention are some non-trends in US-based environmental history, things that might be expected but are not happening. One example is social metabolism work, which in Spain and Austria in particular plays a significant role in environmental history. In the US, it does not. (In Canada, environmental historians have showed slightly more interest in the social metabolism approach). The concept and its methods have no influence to speak of in the US, although the basic quantitative data needed to do such work is readily available. Most environmental historians in the US work in history departments and were trained in history departments, in humanities traditions of textual analysis, and are not comfortable with the quantification that is central to social metabolism approaches. Given the prominence of urban environmental history within the US, and the suitability of social metabolism approaches to urban subjects, it is all the more remarkable that social metabolism studies have so little influence. I will, incautiously, predict that this will change in the next ten years. US-based environmental historians will, in this respect as with respect to interdisciplinary teamwork, come to resemble some of their European colleagues more.

But the future is impossible to know. Environmental history as practiced in the US, like all history, is written by people who are influenced by the events of their own times. The future of the environment will influence the future of the discipline of

John Robert McNeill

environmental history more than any other single factor. For the moment that implies a continuing, and growing, emphasis upon climate history. But only time will tell.

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