Donald Worster, History and Ecology: A Latin American Tribute to One of the Most Influential Environmental Historians

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In 2023, the Sociedad Latinoamericana y Caribeña de Historia Ambiental-SOLCHA, celebrated two decades of promoting environmental history developed in Latin America and the Caribbean. When we reflect on the intellectual legacies and theoretical, methodological, and conceptual frameworks in the field of environmental history and its impacts in this region, Donald Worster is among the most read, most cited, and most influential. In 1991, a version of the essay "Doing Environmental History" was published in the journal *Estudos Históricos*, translated by the Brazilian historian José Augusto Drummond, and published in Portuguese as "Para Fazer Historia Ambiental", which became a reference for all Brazilian researchers interested in this emerging field in the country. Brazil is one of the countries in Latin America in which environmental history has developed the most, and the country's ecological particularities--separated into large biomes--have also influenced researchers to understand and dialogue very directly with ecology. And in this sense, Donald Worster's work also proves to be fruitful, pertinent, and fundamental, especially his famous "Nature's Economy: A History of Ecological Ideas".

Donald Worster despite not having a work entirely dedicated to Latin America, has also been an inspiring light in studies involving frontier and nature, especially through his reflections on the American West and the relationship between history and the natural world. And he is an esteemed historian by Latin American researchers and has participated with Latin Americans and Latin Americanists in different conferences in "Nuestra America".

In this sense, as part of the celebration of SOLCHA's 20th anniversary, and reflecting on the theoretical references of our profession in the debate on society and nature in Latin America, we pay tribute to one of the most influential historians in "Nuestra America".

Viva Donald Worster! Viva SOLCHA!

Figure 1. Donald Worster in a tomato greenhouse on his visit to China, 2015

Source: Donald Worster Personal Archive

INTERVIEW

You are recognized as one of the founders of Environmental History for your fascinating academic and scientific production in this particular historiographical field. We would like to start our conversation by asking you how your interest in studies on the environment came about and what it was like to introduce environmental themes in historical studies.

Donald Worster: What was it like? It has been hard to start a new kind of history, much harder than I thought it would be. Even now, I feel resistance from others and know my own limits and failings. But a hard road was what I deserved.

In 1966 I became a graduate student at Yale University, having taken only three college-level courses in history before that. Yale was then ranked first among history departments in the US, so I was privileged to be there. But I was also uncouth and ignorant. Like a guest who has been welcomed to stay a while, I felt gratified to be there. But quickly, I started trying to rearrange the furnishings in the place. My teacher-hosts tolerated my rudeness, but given the chance, I soon began looking for a different kind of history.

Later, one of my fellow graduate students asked, what is this environmental history that you talk about? Is it a history of bears? And I replied, “right--we need bears in our history. But it's not just about bears. We need a history that regards humans as one species among many, as a species interacting with the earth as our home environment.”

For a while I was considered by some colleagues to be an eco-freak–part of the political gang of environmentalists, who were viewed by many rightists and leftists as a distraction and hopelessly irrelevant to history. It was a radical, questioning time in many ways. I had marched and demonstrated with fellow students against the Vietnam

War, for civil rights, even though my companions feared that environment and ecology were distractions. A few were intolerant. But mostly they were good humored, so I got along with them.

Later, a former fellow student wrote a kind of apology, "I see now that you were on to something!" My best friend in graduate school days, who never poked fun at me about my environmental project, who shared many of my views, has recently written a wonderful appraisal for a festschrift that was put together by two of my students. [See Daniel Rodgers, "The Distinctiveness of Environmental History," A Field on Fire: The Future of Environmental History, ed. Mark Hersey and Ted Steinberg (2019).

Today at Yale my kind of history would be considered much more mainstream and respectable. A while ago, I spent a term there as distinguished visiting professor, though it was in the School of the Environment, not in the Department of History. I dare to think that I've paid back my considerable debts. And I seem to have had some influence, even among those who went in other directions.

Entering as a naïve graduate student, I was oblivious to the fact there were no courses at all dealing with what I was interested in. The faculty at Yale were thinking in different terms. They were deeply committed to history as part of the humanities, not history allied to the natural sciences. They were mostly intellectual and cultural historians, believing that culture explains everything. Only culture mattered. For a while I agreed and followed expectations, because I knew nothing and to some extent thought the same way as my professors. I listened and followed their lead. But environmental history, for me, would become much more than the cultural history of the idea of nature or environmental attitudes. It would involve a conceptual alliance with the natural sciences.

Part of my brashness was due to my unconventional, outsider status. I had come to Yale, which is in New Haven, Connecticut, about 90 miles from New York City, from the West—from the Great Plains, the grasslands that were my home. I had been born in Southern California, but nowhere close to the urban side of California, say, Los Angeles or Berkeley. I was born in a small, hot railroad town called Needles, which sits on the

border with Arizona, on the banks of the Colorado River. I grew up in the American West, the arid West. It was partly because of that upbringing that I became an environmental historian, keen to write about deserts, dust storms, prairies, tornadoes, and rivers.

Water was extremely precious to us westerners. So was climate and so was land. We thought a lot about such things. My parents had been farmers, as were my grandparents. I grew up close to the soil and fascinated with water. But when I got to Yale, such things did not seem to matter to historians. I was disappointed. I had come to a place where water was abundant, flowing freely everywhere, and was taken for granted. It was not a scarce resource or a fragile habitat.

In the New England spring, the deep winter snow would melt, and the water would start flowing. The ground would become very muddy. Then spring would arrive, and it was a glorious season for all forms of life. The spring peepers would begin to sing in the woods, and the woods would thicken with new leaves. I lived in the Connecticut forest, where every day we could see wildlife, birds, deer, where such creatures were a regular part of reality. But none of that was ever reflected in my courses. How, I began to wonder, could historians not be interested in such a splendid country and such a fertile, beautiful planet?

By my third year I began asking myself, how can I put such things--my background, my west, my deserts and mountains and prairies--into history. But also, the New England environment--how can that be put into the study of history?

Meanwhile, I was reading a lot of American, British, and European history where the environment was missing. Mostly it was cultural and intellectual history, so I learned what conventional historians had been thinking, even though I was not interested in all their subjects. It took two or three years for me to realize that I was free to do something different.

That point came when what I had to choose my dissertation topic. I sought a subject that would help me create a new kind of history. Remarkably, nobody stopped me, for which I am immensely grateful. I spent a whole year thinking and exploring,

and then I finally decided to do something that some of my professors may have thought was crazy. Without any training in the history of science, I decided to write a history of ecology. No such guide to its past existed. I would write about the culture and ideas of ecology as it developed through time, not the conventional history of science.

Figure 2. Donald Worster together with interviewers Sandro Dutra e Silva and Samira Peruchi Moretto—also with Regiane and Eunice Nodari—during the ASEH Conference, Boston, 2023.

Source: Moretto's personal archive

I did so aware that the subject would not help me in the job market. Nobody wanted to hire somebody versed in scientific ecology, someone who had taught himself to think ecologically. My committee included acclaimed historians of science who may have thought mine was too strange and too ambitious a topic. Graduate students were

not supposed to take on subjects like that. But then that dissertation was published as a trade book, Nature's Economy (1978), sold well, and it is still in print fifty years later. It has been translated into six or seven languages.

How many dissertations end up like that? In terms of plotting an academic career, I may have been wrong or misguided. But the book's subject was right for me, and it started me down the path to environmental history, which is sometimes called ecological history.

My professors, no matter how smart and well-educated they were, did not quite understand where I was headed. I suppose they asked themselves, how could trees, grasslands, or water be part of history? They may have shaken their heads in disbelief. My view was that all such things have a history. They have all evolved, and in my view that is history. But to understand history through the lens of science requires us to respect and know the sciences. Many scientists are historians of a sort, and so they have been ever since Darwin. So it should have been easy and possible to marry history and science into a common perspective. Or so I thought.

Long before humans appeared on the earth, environmental history began unfolding. But then after humans appeared, all history on this planet was always closely tied to the history of nature and evolution. What I was looking for was how to integrate those long-separated histories. We can put all these histories, I thought, together. What is stopping that from happening? The problem was that too many scholars were, and still are, intensely anthropocentric and humanistic in their assumptions, examined or not. Some are even proud of that. They draw a rigid distinction between humans and nature. Nature should be left to the sciences, they say, while history should concern only people, culture, and civilization.

I've been thinking a lot about that assumption among historians. The problem began, I think, with Judeo-Christian religion, which separates humans from the Creation and makes humans the special children of God. Historians have been influenced by the dichotomy, and even secular humanists follow it. They place too much emphasis on ideas, philosophy, religion in explaining change. Consequently,

historians have not thought enough about the material world and its influence or dared imagine other kinds of history.

In the 1960s, it is true, some began talking about “history from the bottom up,” but that “bottom” meant only the bottom of human society; it would leave out millions of species, all the continents, landforms, climates, and so forth. I wanted to wedge my feet down to a deeper, more solid bottom, as Henry Thoreau said.

Figure 3. Donald Worster participates together with a group of Latin American and Latin Americanist researchers--including Adrián Zarrilli, Angus Wright, Stephen Bell, Sandro Dutra e Silva, Robert Wilcox and Claúdia Leal--in the Panel "Science, Biodiversity and Natural Resources: the Agricultural Frontier in the Americas", 3rd World Congress of Environmental History, Florianópolis, Brazil, 2019.

Source: WCEH, Florianópolis 2019

In Brazil, and even in Latin America (in general), historical studies were greatly influenced by European historiographical production, whether in conceptual use and appropriation or even in theoretical-methodological choices. Much of your historiographical production sought to relate the history of the American West to environmental issues. So, how do you think these themes could be better worked on in the Latin American context?

Donald Worster: Perhaps like me, you grew up thinking that Europe is the center of everything good and intelligent in the world. Of course, there is much to be learned and respected in European history and European culture. But also, like me, you may have become aware that there are a lot of important ideas, problems, issues, identities, and places that are not strictly European. They have a history too.

If you think about building alliances with the natural sciences, you must admit that the science is a key part of Europe's gift to the world. I don't deny that. But if you follow the development of the natural sciences, you know that this planet we live on and the continents and the valleys and so forth, all the places we inhabit, have in the eyes of science histories of their own, sometimes unique, sometimes converging with other histories.

You cannot study European thought very long before you realize that part of the gift given by natural science has been to push us beyond a parochial European culture. Charles Darwin and Alexander von Humboldt, for example, took the non-European part of the planet seriously. Traveling changed their mental world and opened their hearts and minds.

That's the European attitude we should respect: the adventuresome, exploring, encompassing openness of Humboldt and Darwin, who came to South America to observe the tropical rainforest, to travel across savannas, then went back home to Europe to think about it all. They came and they learned to ask new questions about people, planet, and the past. Why can't we do that today and still be grateful to Europe's significance? Why can't we follow their example of openness?

In my graduate program I had to do a lot of reading about the British Victorians and the German philosophers, about Puritans in New England and plantation owners and slaves in the American South. The examples of Darwin and Humboldt were left to be appreciated later, when I was back on my own.

I am happy to see that young scholars in Brazil and other places in the New World are doing what I did: start with where you are and let it lead you to whatever kind of history you want to write. See the frontier or periphery as an important place to discover something new. Sometimes on the periphery you can see what is important, not just to Europeans, nor just to historians, but to the planet, to the world.

Figure 4. Donald Worster at Nankai University debating Chinese modernization and global development. China, 2020

Source: NKU, Galery

In "Under the Western Skies" you present yourself as a Western Historian. And that you often need to explain that this West is the American West, because this expression, for example, in China, can be understood as a historian of Western civilization. To what extent was being born and educated in Kansas, and at the same time studying at Yale with Dr. Howard R. Lamar influence your choices for western historical studies? What were your main references for this choice?

Donald Worster: Yes, I have had trouble now and then explaining the importance and uniqueness of the American West, not only to the Chinese, but to scholars who come from other regions in the US. They have been led by Hollywood and the movies to think that the American West is not a serious topic for consideration. For a while I thought I should write about the intellectual history of the American West. But that was a wrong response, just mimicking the intellectualist path that my teachers marked out. Everything that could be considered important had to have an intellectual or cultural core. If one wanted to be taken seriously, the West had to be seen as a place for ideas, religion, philosophy.

My teachers did not doubt that New England or the American South were important to history, for they were considered to hold high moral significance. But not the American West.

At Yale, there was, to be sure, Howard Lamar, a dear soul who taught the history of the American West (sadly, he recently passed away). He was a smart, capable scholar, and served for a while as president of Yale. He had come from Georgia in the American South, and to my juvenile mind he didn't seem to know well the West I experienced--the 20th century west of Okies and irrigation, railroads and mining camps. So ironically, I ended up working with a historian of American religion, the late Sydney Ahlstrom, not because he was an ecologist or materialist but because he encouraged what I wanted to do. Much later, I became known as a historian of the American West, but that happened only after my history of ecology was published. Then I turned to becoming a historian of my West.

In my graduate school there was no geography department, else I might have switched to it. Instead, I fulfilled my regional longings by reading West Coast novelists, poets, and geographers. I read West Coast poets like Gary Snyder and geographers like Carl Sauer and Clarence Glacken. But their perspective was not my west either.

They knew the west of Berkeley or San Francisco. They didn't speak to my needs as much as I hoped, though Snyder was quite inspiring. But along the way, with time, I discovered other writers and scholars who influenced me, including John Steinbeck, Mary Austin, and Wallace Stegner.

Even at or near Yale, there were inspirational figures who seemed to know the West, even my west, though they were not generally in the history department. Among them was a plant ecologist named Paul Sears. A Midwesterner, he had taught in the 1930s at the University of Oklahoma and published an admirable book, Deserts on the March, which was important in first attempt at real environmental history, Dust Bowl: The Southern Plains in the 1930s (1979). Sears was one of the first popularizers and philosophers of ecology.

There were others to learn from, including G. Evelyn Hutchinson from Great Britain, one of the world's leading theoreticians of ecology. There was a wonderful school of forestry, with a great library and a faculty doing things that had a "western" feel to them.

But I also learned to appreciate New England and the role it had played in American environmental consciousness. It was not my home region, but it was full of splendid regional thinkers. Probably the book that most influenced me in the early years as a westerner studying at a New England university was Rachel Carson's Silent Spring. Then there were the eloquent works of Loren Eiseley, an anthropologist down at U Penn, but a native of Nebraska. There were the writings of a displaced native of Tennessee named Joseph Wood Krutch, who taught comparative literature at Columbia University and had lived in Connecticut. I found regional voices wherever I could, just as I sought to become interdisciplinary and not get trapped in any region or discipline.

After reading Krutch's book The Twelve Seasons, I immediately saw what was missing in my seminars. There was no nature there-- no presence or influence of the land. No soil, no countryside, no smell of skunk cabbage, no sound of spring peepers. Historians seemed to have forgotten that until very recently, almost all people, whatever their home region, lived intimately with other species and with the wind and weather, as intimately as they did with their own kind. To ignore that long connection was to distort history.

Today I tell graduate students: "You don't have to follow this or that senior professor's lead or seek his permission to reimagine history. That's the dark side of European influence: to follow along. Follow your own trail, expect to end up in unexpected places. Fortunately, my graduate training was not as closed or narrow as the European educational system has been.

We imagine that you are aware of the impact of your work in Brazil, but also in all of Latin America. Even with few works translated into Portuguese, for example, you remain the main theoretical and methodological reference for those interested in Environmental History. Are you aware of your legacy for the environmental historiography produced in Brazil, and also in Latin America? And if so, to what do you attribute this fascinating repercussion?

Donald Worster: Well, if you say so, I must accept it. I have been to Brazil three times and hope to come at least three times more! Certainly, I am aware of the important work being done in environmental history in Brazil and other Latin American countries. It's amazing and wonderful to see. It testifies to the fact that universities there are awakening and maturing, professors are looking around and asking what can we do here that is more than a colonialist's or provincial's tendency to imitate. Environmental history is having a big impact there because people want to be intellectually free and create something new. They want to respond to the challenges

that are facing them, in the Brazilian rainforest and its future, and to do that they feel the need of a new and different kind of history.

Figure 5. Don Worster, Christof Mauch, and William Cronon reenacting an ancient Chinese play in the Sanqingshan mountains. China, 2014

Source: RCC 2014 News

Ecological diversity, as well as the plurality of relations between society and nature in Latin America, is something remarkable for those interested in

making an environmental history of this region or even of the regions that compose it. And in this sense, understanding the ecological ideas and conceptual bases that make up ecology as a science is an elementary role for environmental historians. Your book "Nature's Economy", for example, makes for fascinating as well as inspiring reading. Reading it, we wondered how much of these ideas were related to the historic encounter of the European colonizer with the New World, especially this tropical and exuberant Latin American world. What is your opinion about this?

Donald Worster: I have touched on this subject already by mentioning Darwin and Humboldt. Discovering the tropics and other foreign ecosystems has had a huge impact on the science of ecology. We live on an incredibly creative planet, the most creative, fertile rock in the cosmos, as far as we know. Encountering its creativity in the landscapes of Latin America was bound to stimulate creativity in the human mind and human culture, from the first migrants who arrived 15,000 years ago, down to Christopher Columbus, Ferdinand Magellan, and Francis Drake. Those three latecomers did not "discover" the Americas, but they did discover something that nobody in the old world knew about. And they discovered a world that even the people already living there knew only in fragments--for they were intensely local, not hemispheric or planetary.

Bad things happened in the contact between long isolated populations. Native peoples died by the millions. Nonetheless, something truly wonderful came out of South and North America: new knowledge of nature, for example.

I don't think you can understand fully the scientific revolution without understanding the role that the Americas played in its history. Science emerged from what I call the discovery of "Second Earth." The whole western hemisphere was like a new planet, independent and awesome, and once it became part of all people's consciousness, we could never go back to limited, local knowledge only.

Let us not forget that many good things came out of the European encounter with the Americas. And I'm not talking only about the fact that the western hemisphere became a source of new foods and minerals, but also that it became a lasting home for nearly 100 million people moving away from Europe and other parts of the world, finding a place to recreate themselves and form new communities.

Without the exploring and thinking about Brazil and Argentina and the Galapagos, the scientific revolution might have fizzled out by 1700 or 1800. And if modern history had not included the full scientific revolution, what chance would the capitalist revolution have had, or socialism or communism or liberalism? Would we have industrialization, democracy, and such cities as Rio, Bueno Aires, Mexico City, along with other innovations?

Every life has been changed, wherever you live, or whatever your species, and not only for the worse, but also for the good. Without the discovery of Second Earth, we would not have the wealth, knowledge, sciences, or universities that we have now. Or the parks and nature reserves that make it possible to see and study the creative and wonderful earth.

Your essay "Doing Environmental History" was translated into Portuguese and published in a Brazilian journal in 1991. Even after more than 30 years, the text is considered a mandatory reading for anyone who is starting to study environmental history in Brazil. Would you change or add anything in that essay? What other readings of your incredible production would you recommend for those interested in exploring environmental history?

Donald Worster: That essay "Doing Environmental History" appears in my book, The Wealth of Nature: Environmental History and the Ecological Imagination, where I tried explicitly to define the history I wanted. Some scholars who write great monographs don't tell us enough about the motives, ideas, and issues that they most

care about. That's why we need to write essays, personal and theoretical, as well as monographs. Essays give us the chance to think more deeply about the nature of history. The essay you mention was an early attempt to history and to give it form, structure, and logic.

In that essay I discussed several non-historians who helped my thinking. Among them was Marvin Harris, who called his version of anthropology "cultural materialism." He managed to challenge the heavy cultural bias one finds in the social sciences and humanities without dismissing it altogether. We can understand why the humanities might assume culture to be so important, why it is supposed to explain everything, why intellectual and cultural history have been so big over the past century. But Harris saw the downside and fought that intellectual hegemony within anthropology and made his field far more interesting by putting together an original, non-Marxian kind of materialist analysis. In my essays I tried to do the same for history, but in a shorter, accessible way.

Harris, I should add for your readers, laid out a two-part scheme of analysis for cultural materialism. First, he emphasized the mode of production a society has developed, whether it be agrarian or industrial. Second, he argued that ideas, values, and cultures grow out of those modes. That was the core of cultural materialism. It was Marxist to a degree, but Harris felt free to go beyond Marx's "dialectical materialism." He offered Marx without Marxism. His Cannibals and Kings showed us how to apply such analysis to the past. That book was a set of examples taken from different cultures, whose food patterns he explained by materialist analysis.

What I found missing from Harris was what we simply call "nature," the nonhuman set of forces and changes that interact with those productive modes and cultures. We need a third level of analysis, I argued. In my essay "Doing Environmental History," I tried to include nature into the equation. Which of my three levels should be the most important? The nonreductive answer must be that any of the three can be important, depending on the situation. In some cases, nature is powerful and determinative. In other times and places, the mode of production is powerful, while elsewhere it might be ideas and cultural evolution. The historian in me says, we must

be flexible in our explanations. We should not repeat our old mistake of reducing history to only one kind of determinant. Environmental history gives us a map and then warns, don't be too rigid and make this or that part into an ideology.

I have not stopped thinking about the theory of history. In my book in progress, which I have entitled "Planet of Desire: Earth in the Time of Humans," to be published by Yale University Press, I add a fourth level, one neglected by me and by historians and social scientists. That level is "human nature," which means the nature within us that we inherit and that shapes much of what we do and think. That nature is a set of urges, hungers, and desires that drive us as individuals struggling to survive. We inherit that set from our parents and ancestors, even nonhuman ancestors, some even from the first organisms. All of us are driven especially to seek food and to find sexual partners and have babies. It is deep in our nature to "multiply and replenish" our own kind, as it is in all living organisms, and perhaps in all matter.

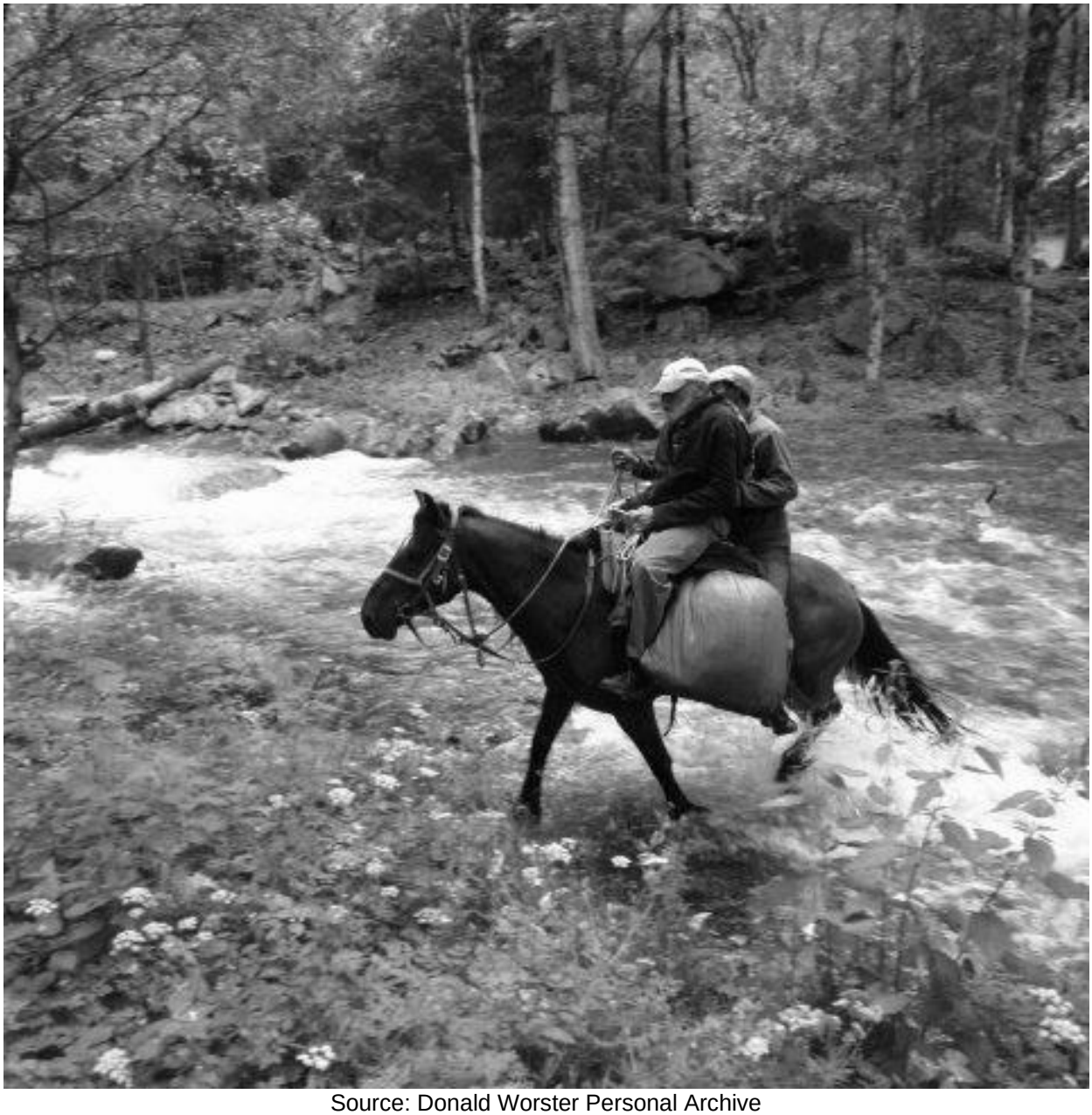
I owe thanks to environmental historian Carolyn Merchant for expanding my thinking. In response to my "Doing Environmental History" piece, she suggested adding reproduction. She was right. But if we think of reproduction mainly as a cultural drive, a set of ideas and attitudes about gender, we will miss much of its power. Reproduction is material, hormonal, and deeply wired into our brains and bodies. My point in the new book is that historians need to think about multiple causality and make it as broad and inclusive as possible. We all need to question the assumptions we make and be able to explain to others why we write history as we do.

So, after half a century of thinking about the assumptions that historians so often make without sufficient reflection, and of seeking a critical and self-examined history, I end up emphasizing the powerful materiality of population and reproduction as a crucial fourth level to consider.

History, I want to add, is not a matter of getting our moral positions right. We historians are not called to judge the people of the past or to lay out a better future. I include environmental historians in that admonishment. None of us is responsible for making our society's ideas or cultures better according to some moral standard we have

acquired by whatever means, progressive or not. To think otherwise is to make history into a kind of religious faith.

Figure 6. Donald Worster on horseback crossing a stream in the wilderness, Tianshan range, Xinjiang, China, 2016



Source: Donald Worster Personal Archive

In my early books, I was caught not only in the historians' trap of overemphasizing ideas and values, but also in their long tendency to make judgements

and to seek the triumph of good over evil. Instead, we should try to explain why the society and environment we see around us exist as they are. We are not called to persuade students or readers to care about this or that. History is not a weapon in any cultural wars. Here again, it seems to me, I learned some bad habits in graduate school, from my teachers and from American culture in the 1960s. My new book means to say, as humbly as possible, that we got it wrong. But of course, I been too irrevocably trained to overcome all moralizing.

Yet now I see that we humans, are really and truly part of nature. We have behaved like all species. Is that nature good? Then as part of nature we are good. And so is the evolution of life on earth. It is good that our nature leads us to have lots of babies, even though after 200,000 years our numbers are causing land and resource damage and shortages. Why have historians ignored that dilemma again and again, marginalizing or ignoring reproduction as a force of change?

In the deep past the accumulation of numbers was a much slower process than it is today, maybe a fraction of one percent increase per year. Now we add over 80 million humans every single year! That number has been going up and up; soon it may begin to drop substantially. That should be a source of hope if we need one. Why is this reproductive matter left out of almost historical writing? Is it because we have marginalized women, who bear the children? Or avoided all sexuality as a subject of research? The power of reproduction has had a major influence over agriculture, politics, international relations, attitudes toward each other and the earth. But show me a major recent work of history dealing with any period, ancient or modern, where reproduction and fertility are discussed at all.

So that's why I still worry about the future of history and historians. We are still too unthinking about what we do, too narrow in our analysis, too ignorant of the natural and social sciences, too isolated within the walls of our archives. That way lies rigidity, irrelevance, and failure.

Today, I realize that environmental history needs many critical, probing minds. We need put all four levels into the work of environmental history: the natural world

itself (outer and inner nature); the modes of production invented by societies over time; and cultural ideals, faith, and knowledge. Even now I am astonished at how little thought most of us give to the assumptions we hold. Too many of us not only ignore nature, but also the nature within us or fail to consider what makes change happen in the first place. We are still absorbed in judging the past, not understanding it.

For more than three decades his work has influenced environmental historians in Latin America, which is worthy of recognition. We express our gratitude and deep respect on behalf of our Latin American colleagues. Please, feel free to make your final remarks and comments.

Donald Worster: I grew up as a rural kid in Kansas during the 1950s. When I set out to become a professor of history, I assumed that one must become a historian of one's own nation and culture. But since retiring, I have been traveling to China and other parts of the world. The effect of that travel has been to strip away my naivete and open my head to a bigger world. One result has been a course called Planetary History that I have been teaching off and on in Beijing. And that is now the subject of my current work in progress, which goes back 200,000 years in time and takes a global view.

If we limit history to the world after 1500 or even after 1900 CE, we will fail to understand that world deeply enough. We must go beyond our home country, our academic specializations, and think deeply about the whole planet and the human condition. Write a few monographs in your field, but then stop doing that when you have said enough and step back for a bigger look.

In my new book I am focusing on two great transformations in the past and a third that may be beginning now in the 21st century. I take the phrase "great transformation from the Hungarian anthropologist Karl Polanyi, who published a book with that title in 1944. He was trying to write history in a broader way, although his focus was only on the modern era and the rise of capitalism and the market society

since about the 18th century. Aside from the fact that his perspective is the old cultural history again, it was a bold and influential piece of writing, but it needs rethinking and redoing.

There was, for example, a much earlier transformation that all historians ought to know and think about--the agrarian transformation, which began about 10,000 years ago and lasted until the earlier modern period, when it was replaced by industrial capitalism. How did those two transformations make us what we are today? What causes did they have in common? Are we entering a third transformation, which might change again who we are, how we relate to one another, and improve or degrade the ecological health of the planet?

If historians don't even think about on such scales, then where will the public go to get answers? Surely these are important historical matters. But where are the historians addressing them? Who among us is even thinking about them? They are too big for the monograph mentality that dominates our profession these days. Should we avoid such subjects altogether and keep on writing about less important matters?

As an historian, I don't think past and future transformations of this scale are caused some divine spirit nor by a group of human brains plotting and scheming. Something much deeper, broader, common, and planetary is at work in such transformations. Ultimately, I believe, such subjects must be written from the bottom up. But where is the bottom?

History is, or can be, about Homo sapiens interacting with the physical flow of energy, eating and reproducing, as they are influenced by the material forces of the planet. Whether we believe in this or that religion is less important than we have come to do. So also, politics and newspaper headlines of the day mean less in this broader perspective compared to the thousands and millions of years when the Earth has been taking form and creating life, including human life and the life of nations, civilizations, and cultural fashions.

I will conclude with a thank you for your interest and questions. And a wish that we can continue working together, North and South, and together keep history relevant

as the earth and everything on it changes. History is, and should be always valued as the search for wisdom on this planet. Not the only search, but perhaps the most important--because it is the broadest and most comprehensive.

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