What is Global Environmental History?

Conversation with
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forum edited by Gabriella Corona

The following telematic debate has provided historians from different historiographic traditions and distant countries with an opportunity to compare views on the different interpretive paradigms. A wide range of subjects was covered: the definition of the discipline's field of research, themes, and chronological scope; the relationship between global and local; the role of the West in history and historiography; the perspective of the dominated; the discipline's role in policy making; and its relationship with the natural sciences.

Gabriella Corona

As stressed in the editorial of the first issue of this journal, studies on the global aspects of the historical transformation of reality seem to open up new uncharted research terrain for the historian. For some decades already, under the impulse of growing awareness of the global character of the environmental question, historical research has been investigating the implications of the great processes of economic and social transformation affecting the modern and contemporary world, and analyzing the transnational aspects of the material and scientific construction of environmental situations. In spite of this, and in spite of important and authoritative pioneering studies, global environmental history still appears to be struggling to take hold among historians. It has been encountering strong methodological and academic obstacles, and we are still waiting for its epistemological statute to be established, and its object and chronological scope defined, in a public debate. Indeed, even the exact meaning of the term "global" is not yet clear, nor is the way it should be interpreted when associated with the term "environment". What is global environmental history? What themes and issues is it mainly concerned with?

Piero Bevilacqua

I believe that global environmental history arises from a need for knowledge that is specific to the contemporary age. More precisely, it is connected to the global dimension that environmental phenomena have attained during the last forty years. Now, a historian may need to look at history at the global scale even when dealing with the ancient world. If we want to understand the major erosion processes that affected the Mediterranean basin in antiquity, we need to take account of the woodcutting carried out by local populations for several centuries. And this phenomenon is connected, in its turn, to Mediterranean commerce, the building of fleets, the civil uses of wood, and the pottery industry; in a word, to quote Braudel, to the "world economy" of the region at that time. One could easily find similar examples for the Medieval and Modern world.

But the global environmental history being discussed today should,

in my opinion, have more specific ambitions. It should provide a historical perspective on phenomena whose true nature and magnitude can only be understood at the global scale. We need only to think of the most significant environmental phenomena of our time. How could we study the history and present situation of acid rains without adopting an international spatial scale, at the very least? The forests of Scandinavia have suffered damages not by effect of the fumes of Scandinavian industries, but due to pollution from the United Kingdom, or from Dutch intensive livestock farms. The ozone hole is the result of the planet-wide use of fluorocarbon gases, and its effects on human health have themselves been planet-wide. How can we explain the destruction of tropical forests without looking at its connection with economic models imposed by high-income countries and the international trade in prized woods and beef for Western consumers?

Global environmental history should adopt a new, broader perspective, as the sciences have done through the creation of the Intergovernmental Panel on Climate Change. (It goes without saying that global environmental history is not the only possible form of environmental history.)

Guillermo Castro

Environmental history, as Elinor Melville used to say, deals with the interactions of social and natural systems over time, and the consequences of these interactions for both. The key element here is the presence of our species in history. You can do ecological history, understood as the history of ecosystems, or natural history, in the traditional sense of the history of species, with or without dealing with the human race. But you cannot do this with environmental history, because it encompasses both the natural history of humans and that of society as the ecological niche we – as no other species does – create for ourselves to develop in. Environmental history becomes increasingly global from the 16th century onward. Before that it is essentially local or regional, as in the American continent before the European conquest.

Ranjan Chakrabarti

Global Environmental History is the historicized part of the story of the lives of humans, societies and species, both human and non-human, as regards the various aspects of their relationships with the physical and biological environment. Its intellectual origins, Richard Grove

has argued, can be traced to the encounter of 17th and 18th-century western Europeans, especially naturalists, medical officers and administrators, with the startlingly unfamiliar environments of the tropics, and to their realization of the damage being done to these environments in the course of resource extraction by European empires.

Today's world is facing an environmental crisis. This is not to say that environmental problems did not feature in the intellectual agenda of past human societies. Concern for the environment in human society has always been there. One of the flash points in conflicts within human societies of the past was the issue of legitimate uses of the natural world. However, the current environmental crisis is totally new. The earth's protective layer of stratospheric ozone is no longer very healthy. Until the first self-sustaining nuclear reaction in 1942 there was no nuclear waste anywhere on earth, but by now things have fundamentally changed. The last century was an era of unusual environmental turbulence. Human practices such as forest clearance, the use of fire and fuel, fishing, farming, industrialization, use of advanced technology, etc., have altered things in the 20th century. Many of the present environmental problems were triggered by human activities. The scale of human-induced change is growing. The fundamental question that has now come to the fore in the current debate is what a "legitimate use" of the environment by humans should be. Global environmental history therefore does matter. The grand quest for a legitimate use of nature, I believe, will continue to dominate the discipline of history, as well as all other disciplines. Global environmental history is rooted in environmentalism and historians now have to decide what the salient features of "Global Environmentalism" should be. This would be useful to find solutions as regards the use of the natural world.

As to the issues and themes of global environmental history, I can suggest a set of options, without implying that they are the ideal or only possibilities:

1. Social, economic, cultural and intellectual histories under the umbrella of global environmental history, and studies on themes such as race, ethnicity, class, community, gender, power, knowledge, etc.

2. Forest, deforestation, soil erosion, resistance, politics of environment, subsistence, the animal and insect worlds in tropical forests, hunting or *shikar*, poaching, forest crime, smuggling, etc. (Hunting has recently become a significant historical theme.)

3. Climate, impact of climatic changes on history, demography, natural calamities such as earthquakes, cyclonic storms, hurricanes, tornadoes, floods, rainfall, tsunamis, volcanic eruptions, mudslides and forest fires.

4. Air and water pollution, history of sound and smell.

5. History of public health, epidemics, medicine.

I expect a boost in research in these areas of environmental history in the near future.

Kobus du Pisani

Global environmental history is certainly not clearly defined yet. It is part of a growing trend among historians in different parts of the world to globalize their perspectives on the past.

The field that has been called New Global History in recent historiographical discourses may provide some clues as to the direction in which global environmental history will develop. New Global History is defined as a new and distinctly different approach to the study of global processes in contemporary history. It focuses firstly on the historical roots of the factors of globalization, and secondly on processes (e.g. pollution and global warming) that are best studied on a global rather than a local, national, or regional level.

I think these two components also feature in global environmental history, which will more often than not be of a transcultural, multinational and interdisciplinary nature. Comparative studies of, for instance, human responses to specific environmental challenges (e.g. adaptive strategies to cope with drought) will also be part of global environmental history.

Though they may deal with big issues, global environmental studies are likely to be of limited, less than total, scope. In my opinion there is the possibility in global environmental history both for theorizing and empirical research.

John R. McNeill

Global environmental history is many things to many people. It does not have a precise definition, nor, I suppose, does it need one. However, for my own part, I would say it typically involves international if not interregional subjects and cannot be only local in scope. This is true of any sort of global history, whether environmental or not. A study

of water pollution history in Bologna is not global environmental history. A study of water pollution history in Bologna and Beijing might be. A study of water pollution history in Bologna, Beijing, and Buenos Aires surely qualifies. Just about any variety of environmental history, whether material, political, or cultural, may be pursued on the global scale. Some subjects lend themselves more readily to global-scale analysis than do others. For example, studies of the chemical composition of the atmosphere and its relation to climate change. But even matters that have distinct local features, such as land use regulations, may be studied more broadly, either in a comparative framework or simply in a search for broad patterns. Cultural environmental history, e.g. the writing of nature poetry, can be pursued as a global-scale project, although it would be challenging for a researcher to master the nuances of poetry in multiple languages. Still, there are scholars equipped to do it.

Donald Worster

To think globally about environmental history means to take an all-inclusive view, to see the world as one whole, to study the planet as a single environmental system that has been radically reorganized by a single, integrated economy, technology, and culture. It means transcending national boundaries or local concerns in order to grasp the linkages that today bind all peoples and all ecosystems together and to understand how that happened and what the consequences have been.

Such history reflects what Marshall McLuhan had in mind when it talked about the world becoming a "global village" – a point in history when people on every continent began to experience more or less the same reality, to eat from the same bowl as it were, and to satisfy their personal needs by drawing on the most remote parts of the earth.

It is not easy to put precise dates on that era, which is still incomplete. But we should acknowledge as foundational the discovery of the western hemisphere, the invention of new communication and transportation technologies, and the appearance of worldwide markets. At its core, global environmental history must deal with capitalism as the pioneering, and still the most important, architect of that new integrated world economy.

Corona

As we wrote in the editorial of the first issue, our journal will strive to provide a medium for communication and discussion among scholars from very distant – culturally as well spatially – parts of the world, seeking to highlight the relationship between global phenomena and local factors. Thus, the journal's objective cannot be merely to analyze the global aspect of historical processes without taking account of the "local" dimension. In what way do you think that environmental global history should take account of local conditions? In what way do you think that it should be "glocal"?

Bevilacqua

I believe there is an inseparable relationship between global environmental history and local history, in at least two ways. For one thing, global history must necessarily be founded on an analysis of a large number of local cases. If historians want to study climate change at a European scale, they need data about climate trends on the Alps as well as in Andalusia, on the coasts of Sicily as well as in Dublin. But there is also a less obvious side to the relationship of global history with the local dimension. Environmental history, by its very nature, casts a new, universal gaze on reality. Its protagonists are the sun, the air, water, energy, plants, animals, human beings as natural creatures (as well as social and historical ones), resources, and habitats; all intrinsically global entities. Thus, every local history inevitably investigates, at a smaller scale, the history of these universal and fundamental actors. Environmental history always retains this general dimension, even when it analyzes a local case, such as the history of a forest, of a polluting factory, etc. Environmental history must necessarily dialogue with *Nature* as a whole, and is understandable to all human beings inasmuch as they are *natural* beings.

Castro

Contemporary environmental history – that is, the environmental history of the modern world system in the Braudel–Wallerstein sense of the expression – is necessarily glocal. The question must be posed otherwise: global environmental history cannot be studied within the

theoretical and methodological framework developed for the history of the Nation state. And this is probably not an entirely new challenge, but a postponed one whose time has finally come. We must remember that – as the *Communist Manifesto* magisterially synthesized it in 1848 – the exploitation of a world market gave "a cosmopolitan character to production and consumption in every country," whereby national economies "are daily being destroyed […] dislodged by new industries, whose introduction becomes a life and death question for all civilized nations, by industries that no longer work up indigenous raw material, but raw material drawn from the remotest zones; industries whose products are consumed, not only at home, but in every quarter of the globe." And this new interdependence also includes "intellectual production", where "National one-sidedness and narrow-mindedness become more and more impossible, and from the numerous national and local literatures there arises a world literature." The glocal level, as formulated by environmental history, reflects precisely this process. It deals with the environmental consequences of what some economists define as the asymmetrical character of global interdependence – other call it an unequal and combined development process – that affects every place on Earth in our time.

Chakrabarti

In global environmental history all issues are global issues. Both local and global problems have equal importance. It is on the basis of micro-studies on local ecosystems that macro-analysis is made. In global environmental history, the nation state may not be the ideal geographical unit to explore. Ecological changes take place across man-made national boundaries. Comparative environmental history on a global scale would be an interesting and absorbing field to pursue. But such studies should not overlook the local. Indeed, I believe global environmental history will take on an increasingly "glocal" character.

du Pisani

In my opinion, global environmental history must be built from the bottom up, starting with the study of local conditions. This, I think, is how history as a discipline should be developed, by first collecting and interpreting local data before comparisons can be made and broader patterns, trends and processes determined. In Africa, for example, it

took a body of meticulous local-level empirical studies to refute the myth of the rolling desert.

On the other hand, local studies must always be seen in their regional and global contexts, and this is exactly where a journal such as *Global Environment* can make valuable contributions. It is true that global historians study global interactions, but a major challenge to them is to conceptualize these complex interactions through their varied culturally conditioned manifestations.

Glocalization, although it is an ideologically contested concept which is interpreted in many different ways, has special significance in the context of environmental studies, because it refers to individuals or communities who are willing and able to "think globally and act locally".

Glocalization opens up possibilities for local communities to, on the one hand, subvert traditional power hierarchies and, on the other, not only survive the negative impacts of processes of globalization, but also reaffirm their cultural identity.

McNeill

I maintain that all global history should take account of local conditions, whether it is environmental history or any other variety. It requires what natural scientists (especially those who work with satellite imagery) call "ground truthing". Moreover, most of the time global environmental history must be a composite, that is composed of many smaller pieces, some if not all of which are local in scope. It is of course possible to offer global history, environmental and otherwise, that is made up entirely of theory with no concrete data. But I have never seen this done, nor do I ever hope to see it. So my view is that in this there is nothing distinctive about environmental history: global environmental history, like all global history, should include both microscopic and macroscopic lenses, and provide local examples or case studies together with the larger analyses or conclusions. Correspondingly, I think that all local history, whether environmental or not, should take into account larger perspectives, often, not always, global ones.

Worster

To think of the world as a whole does not mean ignoring the multiplicity of local places that are being integrated. Nonetheless, it is difficult to pursue an understanding of any totality without losing some

intimate knowledge of its parts. What one gains in the global view, one loses in local understanding.

Local ecologies, like local human communities, have lost power along with visibility and familiarity. A drought in one small region no longer has the same impact (or significance) when people can import food and even water from far away. But at the same time that they escape the limits of their location, they give up control over their lives to distant concentrations of wealth and power. This seems to be an iron law of history.

Paradoxically, the global economy has its own ecological vulnerabilities that must be studied by historians. An outbreak of disease in some obscure, distant place can more quickly spread to the ends of the earth. Oil-rich countries can hold far-away nations hostage. Historians have a lot of stories to tell about how the global economy has often been disrupted by local catastrophes or local degradation that can ramify across space and time. So somehow we need to pursue environmental history at both ends of the scale.

Corona

There is a wide consensus among historians that Western hegemony over the last two centuries has been mainly founded on the appropriation of the natural resources of colonized countries. In spite of this, it is too simplistic today to interpret this circumstance in terms of a simple dualistic antithesis between European and North-American countries, on the one hand, and the rest of the world, on the other. While it is true that over the last centuries the world's economic system has evolved under Western hegemony, it is equally true that its history has witnessed continuously mutating spatial overlaps, connections, and confluences, which our "dualistic", "developist", and "Westerncentric" paradigm has blinded us to. Do you think that is it possible to go beyond this perspective? How?

Bevilacqua

First of all, I would like to stress that, as far as I'm concerned, the interpretation of the history of the contemporary world as history of West-

ern domination over the other populations of the Earth retains all its validity. The events of the last 30 years, in spite of the progress of decolonization in so many countries, have done nothing but consolidate, under new guises, this century-long domination. However, it would be shortsighted and historically wrong to interpret the history of what we today call "developing countries" as a mere negative image of Western domination. Those countries have their own original history, also as regards the environment. Their populations often have a very different relationship with their resources than industrialized countries. Family agriculture, for example, has long played a crucial role in those societies, allowing farmers to regenerate the fertility of the land. Women in those regions of the world, who are usually in charge of water and wood supplies, preparing food, and raising children, have a sensitivity to environmental equilibriums that is rarely found among women in wealthy societies. In sum, the South of the world has its own original history, culture, values, and perceptions of the natural world. These need to be further discovered and understood, and related in new ways to the history of the dominators.

Environmental history can help us to understand cultural and political resistance and countertrends among former colonial populations. Many "poor" societies have non-utilitarian cultures that should be given adequate consideration if we are to fully comprehend the history of those societies.

Castro

"Hegemony" is an ambiguous term that comes to us from political science, an intellectual discipline closely associated with the development of the Nation-state as the basic unit of the modern world system between the 18th and the 20th Centuries. During this period, the center of gravity of the world system was in the North Atlantic basin, but it is now shifting to the North Pacific basin, as new, diverse components, such as Japan, China and California, gain in importance. But this is a system of interdependences, where the "North/South" and "East/West" labels are mostly metaphoric and tend to blur the fact of the association of elites everywhere for mutual benefit, with losers affected everywhere in the process, mostly – but certainly not only – in the lower strata and the more "traditional" sectors of every society involved. Unequal and combined development – and the global ecological footprint as its environmental consequence – are probably more useful to define a

situation where Brazilian and Argentinean, as well as North Atlantic elites, benefit from the growing demand for biofuels within an energy framework that interacts with nature in ways that are ultimately disastrous for the biosphere we all depend upon.

Chakrabarti

It is extremely important to cope with the problems created by Western hegemony over the human quest for knowledge. The best way to overcome this westerncentric bias is to "de-westernize" and "decolonize" the knowledge systems, and place more emphasis on traditional or indigenous knowledge systems. The current global environmental crisis has acted as an eye opener and convinced us of the need to retrieve these knowledge systems worldwide and substitute them for the "westerncentric paradigms", which, we have realized now (better late than never), are essentially suicidal in character. They are suicidal in the sense that they have encouraged human "development" at the cost of wholesale destruction of the natural environment. Yes, I do believe that it is possible to achieve this by pursuing global environmental history. Global environmental historians will be able to achieve this because they are aware of the mistakes of the past, and have respect for the physical sciences and an unbounded optimism as regards the capabilities of humans.

du Pisani

It is hardly possible and probably not desirable to divorce the politics of environmental history from the broader North-South debates. I do not feel qualified to make any suggestion as to how environmental history can be incorporated into postcolonial theory or subaltern studies. What I can do is make a few observations from the perspective of an individual African scholar.

It is clear that there has been a paradigm shift in the field of African environmental history. Recent publications on African environmental histories followed the more general trend in African historiography not to view African communities as passive and hopeless victims of external factors any longer, but rather as active agents in shaping their own histories. Also, local empirical studies have refuted stereotypical allegations about the ignorance of African people as regards proper environmental management. Some excellent studies have been conducted in this do-

main, and African scholars have been gaining increasing authority in academic discourses around environmental issues.

Also, African leaders have dropped their former skepticism (1970s and 1980s) about the concept of sustainable development as something that may be used to put obstacles in the way of African development. In the new post-Cold War situation these leaders have fully espoused the cause of sustainable development and actually used it as a bargaining chip at international forums, especially around the issues of poverty reduction and development assistance.

Of course there is no single African view on environmental issues, in the same way that there is no single European or American or Asian view. But African voices are now being heard more clearly than before. In the short term these African voices will probably not make a significant impact on existing global power relations, but more common ground is gradually being created between African perspectives and perspectives in other parts of the world. In the longer term this is bound to have an impact on broader global discourses.

McNeill

I may well be in a small minority on this, but I think this "wide consensus" has it backward. I would say the appropriation of natural resources of colonized countries was founded on Western hegemony. That is, the creation of Western hegemony owed little to the appropriation of natural resources (it would have happened, in Europe at least, without any such appropriation), and the appropriation could not have happened without the military, especially naval, power that underwrote Western hegemony. Western hegemony, in my view, was created as an accidental by-product of brutal struggles within Europe for military survival and primacy, c. 1400-1815, which yielded a ruthless (and relentless until 1945) process of selection for fiscally and militarily efficient states. The necessary natural resources for this process – mainly metallic ores and eventually coal –existed in abundance within Europe. It was not until the emergence of oil in the 20th century that the appropriation of natural resources from elsewhere was required, and by that time it was feasible to purchase oil from Iran, Venezuela, Mexico and elsewhere without much if any coercion. The USA, once it had consolidated its national territory (by 1848) had all the natural resources it needed to become rich and powerful, and scarcely needed anyone

else's natural resources until the 1940s – by which time Western hegemony was well established, if not indeed already past its prime.

Worster

The Texas historian Walter Prescott Webb argued in *The Great Frontier* that the windfall of New World natural resources – gold, furs, timber, soils, etc. – created a four-hundred-year "boom" in European economies. It is an interesting idea, but it is rather difficult to establish just how much of Europe's hegemony was due to those windfall resources compared to cultural changes taking place within European borders. But whatever Europe's initial hegemony was based on, it has clearly not been permanent. The rise of the United States illustrates the possibilities for new hegemonic centers that are not strictly European.

We can now envision a time when Asians will dominate the global economy and environment. What that will mean for nature or society? Will Asians simply replicate the attitudes and institutions of the West, or will they shift global consciousness toward a new social and environmental ethic? Is some new Adam Smith waiting to be born in Thailand or Ecuador, one who will foretell a new era in the relationship between economy and ecology?

Corona

Do you think that global environmental history could give a scientific contribution to international policies? And do you think that global environmental history can be based on a social and political integration project?

Bevilacqua

I don't believe that basing itself on a social and political project would help global environmental history to produce important knowledge results. On the contrary, its scientific autonomy needs to be safeguarded, because it is what allows the discipline to produce authoritative data and evaluations. Still, I think global environmental history possesses an intrinsic political project of its own, although in implicit forms. Of course, the discipline can, and should, give an important contribution to international environmental politics. John McNeill has indicated

some useful examples of this, so I don't need to add any others. What I would like to stress in this regard is that history can bring a specific and special contribution to other sciences working at a global scale. It can link different forms of knowledge within a diachronic vision of processes, weaving data from all the other disciplines into its "narrative"; and, unlike almost all other disciplines, it strives to recognize the immediate and remote causes of present phenomena, and thereby shed light on the genesis of phenomena that tend to present themselves as reality tout court.

Castro

It is exactly the other way round, in my opinion: no social and political integration project in our times will be successful unless it is based in a clear understanding of the interactions between natural and social systems over time. As Donald Worster once said, the natural sciences can demonstrate beyond doubt that there is a crisis going on in our relations with nature, but they cannot adequately explain the origin of this situation, or how to go beyond it. This is a responsibility of the Humanities and of environmental history in particular: to provide better questions, in order to facilitate the work of the natural sciences and technical disciplines in providing better answers. And we will know that our work has been done when the time comes when technocrats forget about the environmental variables of economic policy and start considering as common sense a concern for the economic variables of environmental policy.

Chakrabarti

Yes, I do think that global environmental history can contribute significantly to dealing with issues relating to the use of the natural world. It can also exert a sobering influence on international policy formulation relating to global climate change. The environmental crisis is so important that it cannot be left in the hands of the natural sciences alone. History has demonstrated that the sciences can be as politically biased (take for instance the case of nuclear technology or the unfolding frontier of human cloning) as the social sciences. Nature is one of those spaces where we observe the most intense forms of class struggle and power politics. Those who are more privileged control the bulk of the natural resources across the world. Global environmental his-

tory will move into areas hitherto unexplored, raise questions hitherto unasked, and penetrate the mysterious mentalities of humans. Professional historians alone have the skill to historicize these questions by using archival sources. Global environmental history could use the past as a prologue to an alternative future.

du Pisani

Environmental history has a lot to offer in terms of multi-, inter- and transdisciplinary scientific approaches to contemporary global issues.

Environmental history serves as a bridge between historical studies and the natural sciences, and is able to provide an often much needed long-term perspective on environmental change. Concepts such as sustainability, biodiversity and climate change are devoid of meaning if they are not viewed in their proper historical context. By studying their causes in the past and their evolution over time today's environmental issues can be better understood and coped with.

Environmental issues must be studied in their cultural contexts and in this regard also the environmental historian can play a crucial role. In the study of the dynamic interaction between land use and land cover, for example, the environmental historian is in a good position to interpret the specialized remote sensing and "ground truth" land cover data of geographers and botanists in a specific cultural context of land use. Land cover change, like many other biophysical processes, can only be properly understood when the human factor is taken into consideration, because human nature, values and ethics are important contributing factors to processes of environmental change.

Inputs by environmental historians will therefore improve the problem-solving potential of environmental research. It is no surprise that from the 1990s onward the social-cultural component started featuring more prominently in international environmental conventions and agreements, and in the funding requirements of big donors to environmental research.

For several reasons, the majority of historians have traditionally been somewhat reluctant to actively participate in public discourses. However, the significance of the research outputs of environmental history to problem-solving and policy-making is beyond doubt. In my opinion, the voice of the environmental historian is just as important in public discourses as that of scholars in any other discipline. To es-

tablish, where possible, dialogues with politics and business will have mutual benefits.

McNeill

Global environmental history can certainly make a contribution to international policies. It already does. All efforts at international policy with respect to climate change, for example, are based on understandings of how climate is changing and might change that are, ultimately, based on climate history. The data for climate history is for the most part not collected by historians, but by other researchers, but that does not mean the data is any less historical.

International policies with respect to fisheries are also often based on historical data (often not very accurate) about past yields, which inform estimates about maximal biologically sustainable yields. International agreements about water-sharing are also sometimes based on historical data about how water has been shared in the past, and historical data about annual river flow. The agreement that governs the division of Colorado River water between Mexico and the USA is based on river flow data from the early 20th century, years in which (it is now known) the flows were higher than normal. As a result, the amount that the USA is permitted to use is, in most years, higher in proportional terms than the negotiators of the treaty imagined. If climate change reduces the average flow of the Colorado in decades to come, as is likely, Mexico will get less water still from the Colorado, unless the treaty is renegotiated.

Worster

Knowing how we arrived at the global civilization we now inhabit, and what environmental costs were paid along the way, is as important as crafting new treaties or coming up with technologies. I am often disappointed to see how shallow the historical and cultural awareness of even brilliant scientists or legal minds can be. Many of them talk casually about inventing "a new economy" when they mean only inventing a way to take carbon out of the atmosphere or a new method of controlling emissions. They don't seem to think critically and systematically about the economy we have already got – its key institutions, its relation to government, its underlying cultural values. What will that economy allow us to do? What would a truly "new economy" look like?

Historians can help such policy makers understand what the deepest roots of our predicament are.

Someone has said that we will not get out of the global environmental crisis the way we got into it. But if we don't understand how we got into it, we will never find a way out. That is why we need historians.

Gabriella Corona

First of all, I wish to thank all who participated in this telematic forum and accepted to answer my questions. Our discussion has yielded a rich harvest of reflections on global environmental history as a paradigm for the interpretation of the past and a cultural and political instrument for action in the present. Important indications have emerged as regards the research paths a global environmental historian can follow to contribute to this field of studies. Your contributions also shed light on the values that can inspire this kind of research and the meaning that this historiographic tradition can take on in the context of a wider public debate not just on the environment, but on the subject of development, social justice, and democracy. To some degree, the differences in your views reflect the different geographical and "historiographic" areas you represent. The answers of most of you indicate that global environmental history is not a field of study like all others, a simple addition to existing disciplines. It seeks answers to questions prompted by the current world situation, and hence has a more "active" role than other disciplines. To conclude, I think it may be useful to look beyond individual argumentations to highlight different trends of thought across your contributions, which reflect different ways of interpreting global environmental history and different conceptions of its "public function".

As regards the main theme of global environmental history, your answers reflect two positions. Some among you prefer to focus on the historical roots of globalization, while others believe instead that global environmental history is a way of reading and interpreting the past. This difference in perspective leads to different definitions of the chronological scope of the discipline and its periodization. According to Guillermo Castro, if environmental history is seen as an analysis of the connections between the natural history of human beings and the social history of na-

ture, then its object only becomes truly global from the sixteenth century onward. Kobus du Pisani argues that global environmental history studies the historical roots of globalization and their repercussions on the environment. Donald Worster maintains that the discipline sees "the world as one whole", studies "the planet as a single environmental system", and can be regarded as history of capitalism as "the pioneering architect" of a permanent integrated form of world economy.

Ranjan Chakrabarti, instead, places the stress especially on the specific issues of global environmental history, which make it a non-neutral field of scientific investigation; more so that other historiographic disciplines. The global environmental historian, he argues, should study the past to be able to indicate the thresholds of environmental sustainability and help to define a "legitimate use of nature". John McNeill, instead, puts the stress on questions of scale. There is global history, he says, when a phenomenon is analyzed by comparing different geographical areas. Thus, the current issues of globalization would provide historians with a well-defined methodological indication which would lead them to privilege the study of phenomena at the global scale and interpret them by means of wider criteria that transcend the national scale. This perspective removes the chronological limits of the object of global history. Indeed, Piero Bevilacqua argues that global environmental history should also study the ancient world. The discipline's protagonists, he maintains, are universal entities (the sun, air, water, energy, plants, animals, human beings as natural creatures, resources, and habitats).

This approach also provides a key for the interpretation of the "glocal" dimension of global environmental history. Even in studies at the local scale, the actors of global environmental history maintain their universal character. You all agree that global environmental history, although it is based on the transcending of local and national boundaries, must necessarily also adopt a micro-analytical approach. This is true in many senses. As John McNeill often stresses, we need to study local cases to understand the global dimension. Besides, our discipline cannot ignore what Guillermo Castro calls the "glocal level", i.e., the asymmetrical environmental impact of the internalization of market economies on nations, especially from the nineteenth century onward. Global environmental history can reveal the originality of reactions to globalization, especially in those economic and social realities where the impact of the "unequal world system" was strongest.

"Glocal", however, does not just designate the effects of global phenomena on local realities. Donald Worster turns the concept upside down as he draws our attention to the ecological vulnerabilities of global economy. Historians should tell the story of how local catastrophes often had a destructive effect on the world economy, or how processes of decline at the local level can expand over space. Worster's important reflection grants new significance to the role of the local dimension within the global one. Thus, the two terms appear to be inextricably connected. Kobus du Pisani's reflections on the character of "glocalization" also put the stress on this facet of global environmental history. The discipline should also study how local communities have managed to survive the negative impact of globalization processes and reaffirm their cultural identities. This could be the starting point of a critique of the "Westerncentric" paradigms of global environmental history, which is the subject of my third question. Kobus du Pisani argues that the new trends in African historiography no longer look at local communities as passive victims, but rather as active agents in the making of their history. Piero Bevilacqua reminds us that environmental history can help us to understand the political and cultural resistance of colonial populations, which are relating in new ways to the history of their dominators and are becoming an important part of that same history.

To reverse the "Westerncentric" paradigm, says Ranjan Chakrabarti, more emphasis should be placed on traditional and indigenous systems of knowledge. This is a difficult task, because this paradigm has weighed heavily on interpretations of world history over the last few centuries; especially in the twentieth century, according to John McNeill. Another reason that this paradigm seems destined to change, as Donald Worster remarks, is the changing political geography of planetary power as Asian hegemony increasing; also, argues Guillermo Castro, the rise of a new center of gravity of the world system in the north Pacific basin alongside the one in the north Atlantic.

As regards the relationship between global environmental history and politics, some of you have focused on the relationship between the social and the natural sciences. In Guillermo Castro's opinion, the humanities can contribute to the natural sciences and technical disciplines. Piero Bevilacqua claims that the natural sciences could benefit greatly from environmental history's diachronic vision of processes and its use of a narrative language to communicate data. Indeed, the

natural sciences themselves are far from neutral. Nature, argues Ranjan Chakrabarti, is one of the spheres where class struggles and competition for political power can be observed in their most intense forms. Like Bevilacqua, Kobus du Pisani maintains that environmental history is a bridge between the social and the natural sciences, and allows us to study environmental change in a long-term perspective. According to John McNeill, global environmental history already contributes to international policy making in various domains. Donald Worster's, however, argues that the connection between global environmental history and global policies should be stronger, and that environmental historians should adopt a more critical attitude. Historians must help politicians to understand the historical roots of their doctrines.

Overall, your answers provide many subjects for reflection and interpretive indications. Global environmental history seems to offer a wide spectrum of cognitive approaches to environmental issues seen in a historical perspective. Indeed, the discipline has opened up boundless research scenarios and fields. It can analyze the environmental implications of globalization processes from the sixteenth century onward, and the transnational aspects of the construction of ecosystemic realities. Or it can study national responses to globalization; or, vice versa, the effects of local phenomena on global ones. This last perspective also includes histories of the resistance of colonized populations and of how they reclaimed their cultural identities. Global environmental history can also be simply a specific methodological approach employing comparative studies of different areas of the planet, even very distant ones, to provide wider and more general global interpretations of any historical period.

To conclude, I think it is fair to say that global environmental history is not only opening new perspectives on the past, but also forging a new way of writing history; one that allows the historian to live in his or her present as an active participant in political decisions and contribute significantly to the public debate on the environment. More than other historiographic disciplines, global environmental history has led to important innovation in research and study practices. In the editorial of the first issue of Global Environment, we said that the journal was to be "a medium for communication and discussion between scholars from very distant – culturally as well as spatially – parts of the world." I believe, indeed, that global environmental history can only grow and

expand through global communication. It hence requires a great effort to communicate on the part of the historian, as well as a wish and an ability to look beyond his or her own cultural and national identity, a willingness to relate to different perspectives, and a tolerance for difference. From this point of view, global environmental history may become an exercise in democracy and, in a certain measure, a vehicle of democracy as well.