

WORLD HISTORY AND ENVIRONMENTAL HISTORY

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Summary

The environmental approach offers new chances for global history, because by this way natural laws come into play, which are the same all over the world. But does environmental history deal merely with natural preconditions of human history, not with history itself. There has always been a limited number of fundamental environmental problems in different cultures and periods of history; but there is an unlimited number of potential solutions, and these are influenced by the diversity of cultures. In any case, however, there is a close affinity between the quest for sustainability and the quest for power:

This is one of the reasons why environmental history has to do with mainstreams of history. But there is still another cause: This chapter proposes the thesis that environmental historians should refer not only to human relations to non-human nature, but deal with human nature, too; that might be a further promising way into the mainstream of history. In order to do this, we need a concept of human nature suitable for the historian. Apparently, there exists a common human nature which is more or less equal for humans all over the world and during historical time; but there exists a "second human nature", too, which is imprinted by culture, especially by the way of life, the material foundations, the collective fears and hopes. In its second part, this chapter proposes a periodization of modern history since the 16th century according to

the described approach.

1. Some Theoretical Reflections

1.1. The Environmental Approach: a New Chance for World History

In 2008, the topic of the annual conversation organized by the American Historical Review was: “*Environmental Historians and Environmental Crisis*”. Lise Sedrez, expert for environmental history of Latin America, started with the statement: “a characteristic of environmental history in the twenty-first century is that it seems to be – slowly – leaving its niche; that is, no longer, the exclusive domain of ‘environmental historians’”. Especially the last ten years have shown “an active inclusion of environmental history’s concerns and debates by ‘mainstream historians’”. (*AHR 113 (Dec. 2008): pp. 1431 ff.*) Fernand Braudel, in many eyes – foremost in Latin America – the greatest historian of the 20th century, rises as the new star of a new environmental history which swims boldly in the midst of the mainstream of history.

Indeed, environmental historians could do something better than to increase even more the growing number of hyphenated histories and sub-histories. The shining example of Braudel awakes the hope that the growing demand for global history, too, may promote environmental history out of its Cinderella position, as environmentalist issues open new and attractive chances for a global approach to history. (*Joachim Radkau, Für eine grüne Revolution im Geschichtsunterricht – für eine Historisierung der Umwelterziehung: zehn Thesen, in: Geschichte in Wissenschaft und Unterricht 54 (2003), pp. 644-657.*) It is not easy, however, to become a Braudel. By widening history towards a global horizon, the empirical basis becomes glib; the global approach usually raises the danger of speculative constructions and fashionable dilettantism.

In the hitherto historiography, we recognize extreme contrasting ways towards a global environmental history. First the old optimist model on the one hand, the vision of progress to a more perfect human domination of nature; the eco-pessimist apocalyptic model on the other hand, characteristic for the new age after 1970. Braudel, who wrote big history without any scruples, was deeply steeped in the tradition of the belief in progress though he sometimes seemed to make nature – the sea, the mountains as well as rice and maize – the main actor of history (*Claudia Honegger (ed.), M. Bloch, F. Braudel, L. Febvre u. a. Schrift und Materie der Geschichte. Vorschläge zur systematischen Aneignung historischer Prozesse, Frankfurt 1977, pp. 23 f.*). He even paid scant attention to the dangers of overpopulation; instead, like an 18th century politician bent on increasing the population, he raged still in the 1980ies against the practices of birth control that began to spread in Enlightenment France. (*Fernand Braudel, Frankreich, vol. 2, Stuttgart 1990, p. 183.*)

Clive Ponting, on the other hand, who wrote the first “Green History of the World” quite in the apocalyptic spirit of the early environmentalist era, made the fate of the Easter Island culture which was supposed to have committed ecological suicide the frightening paradigm for the whole environmental history of the world (*Clive Ponting, A Green History of the World, London 1991, pp. 1 ff.*): a view which has been repeated again and again and was popularized by Kevin Costner’s “eco-movie” *Rapa Nui*. In

fact, however, Easter Island seems rather to be a paradigm for the necessity of a critical stance toward deforestation-catastrophe scenarios. The Dutch admiral Roggeveen, who discovered the island in 1722, still found there a flourishing agriculture with a rich variety of fruit. What has been called suicide, seems rather to be a murder, committed by Peruvian slave traders in the 19th century. (Joachim Radkau, *Nature and Power: A Global History of the Environment*, Cambridge 2008, pp. 166 and 373.)

Until now, great and impressive syntheses of global environmental history are mostly written by authors coming from outside professional history: by Jared Diamond, Marvin Harris, Alfred W. Crosby and H. H. Lamb, having a biologic, ethnologic, epidemiologic or climatologic background. To be sure, environmental historians owe to these authors, fresh ideas as well as strong impulses and not the least an encouraging confidence that a comprehensive global environmental history is really possible and even opens an approach to the historical mainstream. But these authors coming from without, like to write more or less in a state of historical innocence. If you have only one single model of explanation in your mind, you find affirmations of this model everywhere in history. If you are eager to explain all by climate change, you may find that the medieval minstrels fit well into the medieval warm period – but the crusades, too, were fought during the same epoch. You may find that the terrible witch trials fit well into the grim Little Ice Age; but the cooling of climate raised the wood prices and made the burning of witches more expensive. And let us not forget: The idea of human rights stems from the Little Ice Age, too.

A contrasting case are two works both written by British geographers: “*Global Environmental Change – A Natural and Cultural Environmental History*” by Antoinette M. Mannion and “*Global Environmental History*” by Jan G. Simmons. Historical geography is perhaps the branch most close to environmental history, though this affinity has hitherto rarely resulted in cooperation. It is a science which has lost its big theory after the decay of Ellsworth Huntington’s theses on the impact of climatic change upon world history. Indeed, both books are full of facts and even fine observations, but without any master narrative, any comprehensive concept of the interaction between man and nature in the course of history.

The renunciation of big narratives may be honest from the standpoint of meticulous empirical research; but without any concept of this kind specialist studies on environmental history are somehow hanging in the air. Therefore we need medium-size concepts: not too far away from the sources and empirical facts, without concealing open questions, but widening the horizon and opening greater contexts for specialist studies. The ambition to write global environmental history over the millennia consequently following one single straight line might be misleading; we should accept a lot of zig-zag in environmental history. But we need guidelines which interrelate specialist studies. In the three big volumes of the “*Encyclopedia of World Environmental History*” there is a fascinating multitude of potential building stones for a new kind of world history which integrates environmental aspects into historical mainstreams; but we need some kind of architectural design in order to make history out of these single elements.

A first chance for writing a new kind of global history by an eco approach results from

the fact that in environmental history natural laws come into play. If you scan a great many studies on the regional history of forests, pasture, or irrigation, you experience the eternal return of the similar and get the impression that the problems – the causes of environmental crises – are on some level rather simple. Jared Diamond even maintains that “the pattern of ecological collapses of past civilizations is a familiar, almost banal one.” (*Jared Diamond, Ecological Collapses of Past Civilizations, in: Proceedings of the American Philosophical Society 138 (1994), p. 368.*)

Perhaps we should better be a little more cautious; but, whereas we are not dealing with a single story in environmental history, we are more or less dealing with a limited stock of stories, which in typical cases become intertwined and set a vicious circle in motion. Overpopulation leads to an overuse of pastures and forests; for many observers, this process – for which already exists the abbreviation PPR, population pressure on resources – is the very essence of the entire global history of the environment from the beginning until today: the Malthusian effect completed by ecology and by that way turned even more into a vicious circle. Desperate need spawns new troubles, as famines and unbridled competition over limited resources renders a sustained and forward-thinking form of economic life impossible – the present wins over the future. Shortsighted self-interest prevails over the long-term, collective interest in survival. The forest pasture destroys the forest. The pasture develops into a nomadic or semi-nomadic economic form and deprives the arable land of fertilizer. Deforestation leads to soil erosion and the accelerated drainage of rainwater; in combination, the two effects produce in one area steppe and desert, in another swamp and malaria. Artificial irrigation causes an increasing salinization of the soil.

For two modern historians of China – one of whom was deputy chairman of the Chinese environmental protection office –, the leitmotiv of China’s environmental history across the millennia is quite simple: it is population growth, which has led to an initially slow but then rapidly progressing degradation of Chinese soils. (*Qu Geping and Li Jinchang, Population and the Environment in China, Boulder/Colo. 1994.*) John McNeill has noted that the environmental tragedy of the Mediterranean is now repeating itself in the mountain areas of the tropic: overpopulation, overuse, deforestation, erosion. (*John R. McNeill, The Mountains of the Mediterranean World: An Environmental History, Cambridge 1992, p. 356.*)

As we can see, the universal leitmotifs of environmental history for the most part boil down to crisis. But the point is: that is not the only story. These vicious circles are, first of all, ideal-typical processes in the sense of Max Weber. Writing environmental history, to be sure, we need these kinds of ideal-typical models about the mutual interaction between humanity and the environment – yet no one should believe that perfect examples of these processes can be found in the sources. We must never forget that these are ideal types that must not be confused with reality. One must always take a very close look to determine whether a certain type of environmental destruction actually implies in a concrete case.

Irrigation systems do not promote salinization and malaria under all conditions: much depends on whether the irrigation systems are covered and protected from evaporation, whether drainage is functioning properly, and whether ponds and flooded rice paddies

are home to fish and frogs who eat the larvae of the mosquito, the host of the malaria parasite. Population growth does not automatically lead to environmental degradation; rather, agricultural terraces, which protect against soil erosion, require a high population density for their maintenance: under such conditions, it is just a decline in population which leads to soil erosion. Not only the overpopulation, but also the depopulation of the hills may cause a decline of the landscape. And not every deforestation of which we read in the sources has really happened: As the danger of deforestation has been everywhere used as legitimization of forest rule, we need a careful criticism of the sources especially with regard to deforestation.

We should note that ultimately it is not a law of nature which affects these vicious circles, but a supposed essential feature of *human* nature: the short-sighted egoism – the *Selfish Gene* to quote the title of Richard Dawkin's famous book. But man has billions of genes; the whole history of society seems to demonstrate that the selfish gene cannot be the only one.

On the whole we even can assume that human beings were aware – at least up to a certain degree – that they are destroying the basis of their own existence, and that they had the technical means to take steps against it. Humans are neither blind nor crazy, at worst half-crazy. Precisely because many environmental problems are thousands of years old and in essence rather simple, there has also existed since time immemorial a good deal of knowledge about how to deal with them. If one wanted to, it was not difficult to keep sheep and goats from destroying the forest; and much that is known about the usefulness of forests is not a new insight. But humans were by no means always able – or encouraged by their living conditions – to act with an eye toward the long term; likewise, institutions and legal traditions capable of providing effective protection for the life-sustaining environment were not always present.

The crucial point is evidently that adequate strategies for overcoming environmental problems do not follow a few simple basic patterns the same way that the problems do by themselves. This is where culture and society come into play, and, not the least, power and domination. The strive for sustainability is at the same time the driving force of power; consequently, the politics of environment protection are intimately linked with the politics of power and therefore are laden with the problems and pitfalls of power politics. This holds true for water protection as well as for forest protection from old times till today. Dikes and fortifications are congenial structures. The terms of nature are not innocent but in many cases are terms of power. And exactly this is the main point why environmental history has a good chance to expand towards a *histoire totale*.

Tolstoy's remark that happy families are all alike but every unhappy family is unhappy in its own way should rather be reversed with regard to environmental history: The basic traits of environmental problems are in many cases analogous; but the solutions have a lot of stories, and an adequate interpretation frequently demands detective capabilities. In many cases, effective solutions were not a recognizable response to a given problem, but a component of the culture or political system that was presumably reinforced by environmental pressures, though not created by them. A cultural preference for homosexuality might have been consistent not only with classic Attic

democracy, but also with the overpopulation of Attica in the classical period, whereas in Tibet much later, polyandry and the large number of unmarried monks correlate with the tightly limited food supply.

The solutions to environmental problems are often hidden within social and cultural history, and it is there that we must first decipher them. It would appear, however, that solution strategies, though much more manifold than the problems themselves, were also not infinitely variable; rather, the more natural laws came into play, the more they were confined to a limited number of typical strategies. A comparative study of how drinking water was supplied and wastewater disposed of in Berlin and Istanbul concluded, by and large, that the most important determinants were found not in different cultures, but in different natural conditions. From that perspective, Istanbul's greatest problem was always supplying water, while Berlin's greatest challenge was increasingly the disposal of wastewater. (Noyan Dinckal and Shahrooz Mohajeri (eds.), *Blickwechsel. Beiträge zur Geschichte der Wasserversorgung und Abwasserentsorgung in Berlin und Istanbul*, Berlin 2001; Noyan Dinckal, *Istanbul und das Wasser. Zur Geschichte der Wasserversorgung und der Abwasserentsorgung von der Mitte des 19. Jahrhunderts bis 1966*, München 2004.)

Typical patterns in solution strategies also arise from the fact that as the management of environmental problems moves to higher levels of the state, it becomes increasingly subject to the laws of power and of the preservation of authority. The regulation of resource problems had had its attractive side for systems of political control since antiquity. Karl August Wittfogel even championed the thesis that the central bureaucracies of the world have been rooted in the control of large irrigation systems. The steady stream of forest regulations which began to flow in Central and Western Europe from the 16th century on served the growth and expansion of the early modern territorial state. Environmental history is always the history of political power, too – and the more it moves away from practical problems on the ground and into the sphere of high-level politics, the more it will be involved into political powerplay. And the more environmental historians make progress in a critical use of their sources, the more they will discover the intimate connection of nature and power politics. By this way, environmental history moves on a straight way into the mainstream of world history.

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Bibliography

Buller D. J. (2005). *Adapting Minds. Evolutionary Psychology and the Persistent Quest for Human Nature*. 550 pp. Cambridge, Mass.: MIT Press

- Crosby A. W. (1986). *Ecological Imperialism. The Biological Expansion of Europe, 900-1900*. Cambridge: Cambridge University Press.
- Diamond J. (1997). *Guns, Germs and Steel. A Short History of Everybody for the Last 13.000 Years*. 480 pp. London: Random House.
- Diamond J. (2005). *Collapse. How Societies Choose to Fail or Succeed*. New York: Viking
- Guha R. (2000). *Environmentalism. A Global History*. 161 pp. New York: Longman.
- Habermas J. (2001). *Die Zukunft der menschlichen Natur. Auf dem Weg zu einer liberalen Eugenik?* 163 pp. Frankfurt: Suhrkamp.
- Krech S., McNeill J. R., Merchant C. eds. (2004). *Encyclopedia of World Environmental History*, 3 vols., 1429 pp. New York, London: Routledge.
- Mannion A. M. (1997). *Global Environmental Change. A Natural and Cultural Environmental History*. 387 pp. 2nd ed., Harlow, UK: Longman.
- Marks R. S. (2007). *The Origins of the Modern World. A Global and Ecological Narrative from the 15th to the 21st Century*. 221 pp. Lanham, Maryland: Rowman & Littlefield.
- McAnany P., Yoffee N. (2009) *Questioning Collapse. Human Resilience, Ecological Vulnerability, and the Aftermath of Empire*. New York: Cambridge University Press.
- McNeill J. R. (2000). *Something New Under the Sun. An Environmental History of the 20th-Century World*. 421 pp., New York: W.W. Norton.
- Pinker S. (2002). *The Blank Slate. The Modern Denial of Human Nature*. 509 pp. New York: Penguin.
- Ponting C. (1991). *A Green History of the World*. 432 pp. London: Penguin.
- Radkau J. (2008). *Nature and Power. A Global History of the Environment*. 430 pp. New York: Cambridge University Press.
- Shepard P. (1982). *Nature and Madness*. 178 pp. Athens, Georgia: University of Georgia Press.
- Simmons I. G. (2008). *Global Environmental History 10.000 BC to AD 2000*. 271 pp. Edinburgh: Edinburgh University Press.

Biographical Sketch

Joachim Radkau was born in 1943, since spring 2009 retired Professor of Modern History of the University of Bielefeld in Germany, where he taught since 1980. His academic teachers were foremost Fritz Fischer and Hans-Ulrich Wehler; from 1970 to 1974 cooperation with George W. F. Hallgarten (Washington) at the book: *Deutsche Industrie und Politik von Bismarck bis zur Gegenwart* (1974, several editions). Habilitation work on the history of nuclear energy (book: *Aufstieg und Krise der deutschen Atomwirtschaft*, 1983). Afterwards research project on the connections between forest history and technological developments from the 16th to the 19th century (book: *Holz – Ein Naturstoff in der Technikgeschichte*, 1987, new and revised edition 2007); in the following years on the influence of national environments on technological paths (book: *Technik in Deutschland – Vom 18. Jahrhundert bis heute*, 1989, new and revised edition 2008). Subsequently excursion into the historical “human nature”: psycho-history and body history (book: *Das Zeitalter der Nervosität*, 1998, pocket 2000). Partly from this starting-point, a comprehensive biography of Max Weber (*Max Weber – Die Leidenschaft des Denkens*, 2005, English edition 2009). In 2000, publication of “*Natur und Macht – Eine Weltgeschichte der Umwelt*”, Chinese edition 2004, American edition 2008.