

Gerd Modert
Ludwig-Maximilians-Universität München
Institut für Neuere Geschichte
Lehrstuhl Prof. Dr. Wolfram Siemann
Trautenwolfstrasse 3/1
D-80802 München
Germany
Phone: ++49/89/21802960
Fax: ++49/89/21802961
E-mail: Gerd.Modert@lrz.uni-muenchen.de
München, 1999-02-01

About the role of historical research in the current discussion of environmental issues

How can humans redirect the global ecology to make the planet ecologically sustainable?

This question borrowed in a slightly adapted form from the website circular about this conference possesses all the power to make the historian feel doubtful about his choice of career – at least at first glance.

But feeling humble can be an excellent starting position from which to explore the potentials our discipline can offer to an integrational discourse about the ecological challenge we are facing. So please follow me on a quick tour from the basics of historical research to an academic history committed to environmental issues.

I would like to set off with a first step called “the historian’s material”, that is, the sources that all historical research depends upon.

In a second part “the historian’s tools” some of the central instruments and methods of historical analysis will be sketched.

This is then followed by a third section titled “the historians’s workpiece or the application: an example from environmental history” where I would like to demonstrate how to put historical analysis into praxis. I am drawing upon my research into the historical development of a rural society’s relations to the forests of its region.

Concluding I will make some general remarks about my understanding of the “potentials and limits” that characterize the role which historical research can play in the intellectual endeavour to explore the historical dimension of current ecological issues and predicament.

- Now to the first step: “The historian’s material”

The substance required to lay the foundations of historical insight are the sources - or call it data. The quality of studies in environmental history depends largely on the historian’s understanding of this term: a broad concept of what might be rated as suitable data is crucial. On the one hand there are the traditional types of sources: files from the various levels of

public administrations, correspondence between local authorities and central government bodies, expert reports, parliament papers. In my research this often means papers on agricultural planning, forest administration, programmes to develop the region's infrastructure or the legal system. On the other hand there is the material used for studies in economic or social history and for research into the history of everyday-life: that is, court records, statistics, illustrations, fiscal files, documents from private and public accountancy, data series on the annual harvest, the medical situation and the climate, diaries and all types of private writing.

Additionally the historical analysis of environmental issues is intrinsically connected with work done in other scientific disciplines. It requires the integration of research results from the natural sciences. This constitutes a particular challenge for historians are usually socialised in the humanities and the social sciences. It is often via the indirect way – publications from natural scientists – that we get access to such data as findings from pollen and vegetation analysis, meteorology, geology, botany, medicine and chemistry.

- The second part: “The Historian’s Tools”

The work with the historical data then mainly consists of the management, the opening-up, the evaluation and the interpretation of the sources. The last two processes mentioned - evaluation and the interpretation – are particularly significant. Historical facts and developments left traces in documents which we use to reconstruct them in the present.ⁱ Potentially objective data need to be analysed with a critical approach. That is, the language of historical documents, the content of statistical figures is hardly ever transparent and it is this opacity of the substance we have to face.ⁱⁱ The key to this is contextualization:

- The sources need to be put into the context of human behaviour, knowledge and thought of the time that produced them.
- They are to be interpreted within the prevailing political, legal, ecological and economic conditions of the period.
- The data have to be related to the results of comparable studies about different regions and other ecological sectors.

Transferred to my research into the a rural society's relations to its forest environment this contextualization comprises the living conditions of a largely agrarian population. In such a rural community behaviour was influenced or directed by specific social and religious values, traditional concepts of the role of the natural environment, traditional knowledge about agricultural and environmental problems and a limited access to contemporary scientific knowledge.

The historical context of the 19th century was further shaped by the modernization policy of the Prussian state and the German Empire later on. Rural areas were not only affected by the industrialization and the growing networks of infrastructure in the neighbouring regions but they were integrated into programmes for economic development. A new right of ownership and a new forest law only symbolize a broad political process of regulating more and more areas of life by statute law. The harsh geological and climatic conditions that determined the natural environment of the region limited the local population's prospects to earn their living and to change their economic status.

And the final context I would like to mention is the one set by current historical research on different regions and environmental sectors. It is the review of related research and mainly the comparison with their conclusions which help detecting typical continuities and changes. This work facilitates verifying or falsifying the historian's individual analysis of his or her own limited selection of sources and isolating the more general features in the history of socio-environmental dynamics.ⁱⁱⁱ

- The third part of the presentation is titled "the historian's workpiece or the application: an example from environmental history"

The scene of historical development at which my research is directed is the forest. Given the restricted time budget I would like to concentrate my explanations on only one single environmental medium: water. A second medium "earth" - or to be more precise - soil is just mentioned here to point at court records as an additional type of historical sources: These sources result from legal proceedings about the redemption of traditional rights which entitled the rural population to use some resources in the forests.

But let me please focus on the water issue. How did the population of a region in the German Rhineland, the public and the authorities in Prussia and the German Empire discuss severe natural risks? How were such environmental challenges perceived, faced and managed in the 19th century? Used in this historical context the term "risk" might have caused surprise until only recently because it alludes to the modern discussion about features and perspectives of the "risk society". But the special historical discussions about the reasons of flood dangers along the river Rhine and the leaching of soils due to the agricultural use of forest resources can be related to a more general discussion about social and environmental risks.^{iv}

The flood debate

The available **sources** to reconstruct the historical debate about the dangers and causes of the floods at the middle reaches of the river Rhine are quite traditional. Papers from the National and the Prussian Parliament, files from the lower levels of the administration of interior and

agricultural affairs, local authority and forestry service papers, articles from the press and expert reports. Contemporary and modern scientific literature about climatic changes and presumably anthropogenic influence on rivers, public and private data about the weather, flood frequencies, environmental changes – all this should be added to this collection of sources. This list could still be extended considerably.

In 1881 the German Reichstag saw a debate about flood dangers, an imperial commission was established to hold a full inquiry into the problem.^v The local authorities and the forest administrations of the area along the Rhine and its tributaries had to report about the climatic and environmental conditions in their districts, about potential dangers and measures to be taken. Some facets of the investigations can be reconstructed from the documents through **critical evaluation**. Experts from research departments of the health administration, scientists from universities and legal experts contributed to the debate. For today's reader some of their comments sound astonishingly modern and differentiated some have become obsolete. Other contributions to the discussion were obviously misleading or motivated by personal or group interests. The contemporary press portrayed the debate in some detail.

As far as **contextualization** is concerned I can only focus on three aspects, although there is a vast number of factors to be considered for an adequate interpretation of this process.

- a) The first aspect is **Forestry**: In the course of the 19th century the usage of the German forests and the methods of forest management were revolutionized. The focus was shifted from the multiple use of forest resources towards a clear emphasis on timber production. This change was achieved by the general implementation of what is called **sustained-yield forestry**. In fact this often meant clear-cuttings, afforestation with coniferous trees and also massive investment into an extended forest service and costly reforestation programme of deforested areas.
- b) The next aspect is the policy of converting the rivers into a network of fully navigable waterways. In the early 19th century the engineer Johann Gottfried Tulla developed a "masterplan" for the "rectification" of the river Rhine. During the following decades the project was carried out and the measures were extended to many other rivers. This "rectification"-scheme aimed at promoting rapid water-transport and flood-prevention and it is one of the large-scale programmes to improve the infrastructure so typical of active economic policy of a modernizing state. The results were at least dubious since the current of the rivers and the water's speed were altered and the population of the areas along the lower reaches of the river complained about increasing flood dangers. But the environmental consequences can only be evaluated with great difficulties. The complexity

of the whole matter is the reason for the still ongoing environmental debate on flood dangers.

- c) The last aspect to be mentioned here puts the flood question into an international context. It was not at least with reference to a debate in Switzerland that a link between flood dangers and forest policy was established and that this question became part of an official investigation in Prussia. The new Swiss forest law of 1876 had been the result of a detailed debate and it included a large-scale afforestation programme initiated to tackle the pressing problems caused by severe floods.^{vi} This example shows how a look across the national border can help explaining a debate and the choice of arguments employed and thus illuminates the international dimension of an environmental discussion.
- And now in a fourth part I would like to finish my explanations with some remarks on “potentials and limits” that – in my opinion – mark the contribution historical research can make to an interdisciplinary discussion on current ecological issues.

Historical research, it seems, can develop its true qualities best if it restricts its ambition to writing what Rolf Peter Sieferle used to call “kleine Umweltgeschichte”. This might be translated as “a small environmental history”.^{vii} A broad concept of data which can be utilized as a historical source and a sound and critical analysis of such historical traces offer a promising equipment for reconstructing historical debates related to environmental issues. That is, research in environmental history can produce a close analysis of what people from a certain geographical and historical context could know, which ecologically-relevant decisions they took and how they organised their answers to ecological challenges. I doubt whether a holistic approach which would be the consistent alternative to the “small environmental history” can offer a realistic perspective for historical work.

One of the demands that motivated the establishment of environmental history as an academic discipline was to write the historical story of the current ecological conditions and dilemmas. Environmental history can offer data and arguments for the current context. It can help identifying traces within the systems of multiple causation of historical developments and here also lies its relevance for the discussion of current problems. But it is not suitable as what could be called “Applied History”. With this I mean that it is neither the task of historical research to condemn the environment-related behaviour of our predecessors nor to formulate normative criteria for how an “ecologically balanced” or even a “naturally good” environment has to look like. There is no such thing as a “really natural condition” with a somehow static character but it rather seems that both human societies and the natural environment are both dynamic.^{viii} Very often their developments are interconnected and historians can reconstruct

such relations if they succeed in detecting and interpreting the traces they produced. Environmental history can contribute illustrations of past action and conflicts to the intellectual debate on ecological questions, it doesn't turn history into a quarry in order to supply different factions with arguments for our present political discussions and it won't produce the instructions to cure complex environmental problems.

And now bearing in mind the potentials and limits described it is up to you to judge whether environmental historians should go back feeling humble or if they can play a fair role in the analysis of the dynamics of nature, society and history.

ⁱ Evans, Richard J., In Defence of History, London 1997, p.75.

ⁱⁱ Evans, p. 104.

ⁱⁱⁱ Selter, Bernward, Forstgeschichte und Umweltgeschichte in Westfalen: Definitionen und Konzepte, Forschungsstand und Aufgaben, in: Westfälische Forschungen 46 (1996), p. 569-570.

^{iv} Compare the explanations on air pollution in: Brüggemeier, Franz-Josef, Das unendliche Meer der Lüfte. Luftverschmutzung, Industrialisierung und Risikodebatten im 19. Jahrhundert, Essen, 1996, p.17.

^v Brüggemeier, Franz-Josef, Tschernobyl, 26. April 1986. Die ökologische Herausforderung, München 1998, p. 62-64.

^{vi} Pfister, Christian, Wetternachhersage. 500 Jahre Klimavariationen und Naturkatastrophen, Bern, Stuttgart, Wien, 1999, p.231.

^{vii} Siefert, Rolf Peter, Perspektiven einer historischen Umweltforschung, in: Siefert, Rolf Peter (ed.), Fortschritte der Naturzerstörung, Frankfurt/Main, 1988, p. 351.

^{viii} Siefert, Rolf Peter, Rückblick auf die Natur. Eine Geschichte des Menschen und seiner Umwelt, München, 1997, p. 13.