

**Exploratory Workshop
“An Environmental History of the Early
Modern Period—Experiments und
Perspectives”**

**Rachel
Carson
Center**

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Sponsor: Rachel Carson Center for Environment and Society

Conveners: Martin Knoll (Darmstadt), Reinhold Reith (Salzburg)

Presenters: Wolfgang Behringer (Saarbrücken), Simona Boscani-Leoni (Heidelberg), Salvatore Ciriaco (Padua), Richard Hölzl (Göttingen), Manfred Jakubowski-Tiessen (Göttingen), Martin Knoll (Darmstadt), Franz Mauelshagen (Essen) Christian Pfister (Bern), Marcus Popplow (Salzburg), Reinhold Reith (Salzburg), Gerrit Schenk (Darmstadt), Martin Schmid (Vienna), Georg Stöger (Salzburg), Verena Winiwarter (Vienna)

A quick glance at the long list of publications and seminars in environmental history is enough to demonstrate the enormous productivity and innovation of this historical sub-discipline, a field that, moreover, is very open to methodological and thematic impulses from other disciplines. Environmental history holds great potential for the development of the discipline, but is not without its pitfalls. It is precisely because of this diversity of topics and methodologies that this field can appear somewhat “undisciplined!”

In the formative early years of environmental history, the approach of taking modern-day problems as a starting point favored a focus on contemporary and industrial history. The early modern period served for many as a mere backdrop; in theoretical analyses that looked at the process of modernization, the early modern period was, at best, the pre-modern starting point. But evidence of the transitory nature of the early modern period in questions of land use, processes of globalization, and, not least, the realization by climatologists that the early modern period coincided almost exactly with the “little ice age,” have changed the position of the early modern period within environmental history. Increasingly, the early modern period is showing itself to be a more than fertile territory for research and experimental approaches from and in the field of environmental history.

In view of the broad thematic content, the diverse methodologies, and the different stages of individual research projects, it seems sensible to take a step back and take stock of the current situation. With this aim, **MARTIN KNOLL** and **REINHOLD REITH**, supported by the Rachel Carson Center for Environment and Society in Munich, invited participants to an exploratory work-

shop. As well as attempting to identify specific lines of research, weigh up research findings, and discuss different perspectives and fields for future research, this workshop also tried to define the position of environmental history as a subdiscipline of history and look at its presence (or absence) in national curricula, in particular at the possibilities for including early modern environmental history in university history courses and graduate programs.

The first panel, on climate, saw **CHRISTIAN PFISTER** profile historical climatology as a field with three primary aims; climate reconstruction, “impact” research (that is, research into the effects of the climate on society, and society’s relationship with climate), and the history of climate perception and discourse. Pfister showed the enormous methodological progress that has been made in the area of climate reconstruction, leading to the establishment of a generally accepted climatic history of Western and Central Europe after 1500. Pfister described the challenge that lies in a proper integration of climate into general history, given the (latent or explicit) climate determinism that is especially prevalent in the sciences.

For **WOLFGANG BEHRINGER**, the cultural consequences of climate change, what might be called the cultural history of the climate in the broadest possible sense, are essential for the analysis of past societies. This approach foregrounds a society’s perception of nature and its reactions during times of change. Periods of unfavorable weather and extreme weather events during the early modern period had a multitude of implications; from economic and social, to mentality-changing, scientific, and cultural. For example, shorter summers (and thus shorter vegetation cycles) led to a reduction of the territory available for cultivation or livestock grazing. The accumulation of crises and wars is just as tied up in this as the development of the “out-of-control” economy of sin,” which culminated in the witch hunts. Not to be left out of this picture are the tendencies towards secularization from the seventeenth century onwards, likewise increasingly pacifist and scientific strategies of coping with societal problems. In his commentary, **FRANZ MAUELSHAGEN** took up the different approaches to historical climatology, making it clear that producing climate histories without reference to the human aspect of the story is untenable in the long-term. Historical analysis is the only approach which allows a high-definition look at climate change.

The topic of the second panel, entitled “Natural Disasters in the Early Modern Period,” was introduced by **MANFRED JAKUBOWSKI-TIESEN**, who outlined some areas where further research is needed. According to Jakubowski-Tiessen, it is not just interest in the historical roots of current events (climate change and natural disasters) that have driven research in this area and led to its central position in environmental history, but also the multiple perspectives that are a feature of historical disaster research. Research into natural disasters in the early modern period can be linked to investigations that focus on transformations in ruling systems, mentalities, religious under-

standing, experience, and scientific knowledge in the early modern period. Jakubowski-Tiessen pointed out that the connection between perceptions of disasters and risks and practical strategies for coping with them has yet to be fully explored. He discussed the definition of the term “risk” and the concept of “cultures of disaster” (Bankoff) and “cultures of risk” (Rohr). The largest question still to be answered by historical research, that of a comparative history of disasters in the early modern period, has still not progressed beyond a number of case studies of individual disasters in the vein of a “histoire totale.” The commentary by **GERRIT SCHENK** underlined the integral significance of research subjects for environmental history. Schenk outlined a selection of diverse projects and focused on questions of societal vulnerability and resilience, and the role of medialization.

In the panel “Aquatic and Fluvial Environmental Histories,” **SALVATORE CIRIACONO** characterized water as a central resource of pre-modern economies and societies. His research has shown that an understanding of environmental history that is disconnected from economic and social histories is insufficient. Water can be investigated from the perspective of energy (mills and hydraulics), in the context of water provision in cities, as wastewater, in irrigation, and as a factor in land clearance and cultivation. Particularly in the case of land clearance through drainage, the description of the process would be enriched by an investigation of the underlying motives and/or the demographic, climatic, and technical context. As the presentation by **MARTIN SCHMID** pointed out, there are still large gaps to be filled in the environmental histories of flowing waterways. Not least, the European rivers of the early modern period have not yet been examined in their entirety. Schmid characterized the rivers as hybrid landscapes and put forward the concept of “socio-natural sites” in order to make clear the co-evolution of natural and socio-cultural processes played out in them.

Many research projects focusing on the early modern period concentrate, in Schmid’s view, on the connections between the political and institutional structures on the one hand and the changing perceptions of nature on the other. This raises the methodological question as to whether it is possible to reconstruct the perceived landscapes as they might actually once have looked. Schmid outlined the work of the interdisciplinary Danube Environmental History Initiative (DEHI), which investigates the changing Danube, as one of Europe’s most important rivers, in the light of its increasing encroachment by society. In view of the long-term perspective necessary for fluvial environmental histories, Schmid questioned the sense of using strictly defined epochal boundaries, both in terms of the end of the middle ages and of the beginning of modernity. In the subsequent discussion, the global aspect of aquatic and fluvial histories was emphasized, and the potential of aquatic landscapes for energy provision, exploitation, ecology, and nature perceptions was the subject of debate.

The early modern city has long been neglected, both by traditional urban history and by the emerging field of environmental history, with its initial focus on the industrial city. In this fourth panel, **MARTIN KNOLL** advocated the inclusion of material aspects of urban development in historical research. The identification and analysis of the flow of materials in an urban context facilitates an understanding of specifically early modern types of cities. Fortified cities, royal cities, and mining cities each generated specific and extensive material flows which invite analysis by environmental historians. Contemporary debates about supply routes, waste disposal, and hygiene, which are often dismissed in the context of “dirty” pre-modern cities, call out for more precise and comparative investigation. Finally, Knoll highlighted the need for further research into knowledge and perceptions of the environment by pre-modern city dwellers, and into the environmental histories of colonial cities. In his commentary, **GEORG STÖGER** called for a new approach to the environmental history of the early modern city; he advocated that these histories should not simply be the stories of particular problems, and he pointed to the potential of sources which hitherto have been largely overlooked.

Following the panel on cities was one on forests, which was opened by **REINHOLD REITH** sketching the development from the earlier histories of forestry (*Forstgeschichte*) via the regional studies that were produced from the late 1980s to the advent of a new history of forests (*Waldgeschichte*). This newer forest history seeks close links to agricultural history and is driven by impulses from historical geography and social, economic, and urban histories as well as from the history of technology, but has yet to build systematic links to historical climatology. **RICHARD HÖLZL** highlighted in his commentary the need to explore the question of the specific logic of forest exploitation and to investigate both the significance of religion in the perception of forests, and the way in which different contemporary perceptions of the forest interlock. He echoed the paradigm shift (away from the narratives of degradation that characterize the linear progression towards modernity) and emphasized the fruitful nature of interdisciplinary research in the history of forests.

The following two panels focused on questions of land use and the history of knowledge transfer and perception. **VERENA WINIWARTER** discussed land use and agricultural knowledge as subjects for early modern environmental histories. By defining the specific characteristics of the period, she was able to show that in early modern agricultural societies, agricultural knowledge was of elementary and far-reaching importance. Within relatively modest limits, these agricultural societies attempted to increase their productivity by using fertilizer, tilling the soil, or draining wetlands, to give just three examples. The state of research into land use is facilitated by a plethora of regional studies that are not explicitly studies in environmental history. Some important gaps to be filled,

according to Winiwarter, concern research into agrology with respect to agents of knowledge transfer, and the analysis of the consequences for land use of the Thirty Years' War, both in terms of the destruction it wrought and the retrieval of nitrogen and potassium for gunpowder manufacture. Following on from this, **SIMONA BOSCANI LEONI** presented tendencies and sources in the history of science and epistemology in respect to the Alps. Recent years have seen cultural historians challenge and reshape our understanding of early modern perceptions of the Alps, which has generally involved looking at the landscape more as the product of natural-human interactions. Useful source material for studies into perceptions of nature can be found in works of natural history, correspondence between scholars, and contemporary observations and travel accounts. This area, too, calls out for further empirical research and the inclusion of new source materials. In his commentaries to these two presentations, **MARCUS POPFLOW** posed a question as to the feasibility of developing a "History of Environmental Knowledge" in the early modern period and extrapolating concrete methodological concepts. Referring to Boscani Leoni's case study, Popflow emphasized the utility of a history of knowledge that examines the process of knowledge production, taking into account different actors, their utilization of media and objects, and their respective institutional bases. This would, as shown by Boscani Leoni, provide us with a more nuanced picture of our understanding of the Alps than the schematic dichotomy of "practical" and "scientific" knowledge. As far as the relationship between agricultural history and environmental history is concerned, Popflow noted the need for the two sub-disciplines to agree on thematic intersections in the early modern period, and for the attention of agricultural historians to be drawn to the sorts of questions formulated by environmental historians.

The discussions that constituted the second phase of the workshop were concerned with the place that environmental history of the early modern period has in higher education curricula and institutional structures, and the potential for development in this field of research. From the status reports given by participants, we were able to discern that environmental subjects are increasing in influence within the historical discipline, which nonetheless is only institutionally recognized in a small number of specialized graduate programs. This is especially true of early modern environmental history. The growing need of society and politicians for solutions to environmental problems that take the long-term historical perspective into account was reiterated by many participants, as was the opportunity that this represents for the development of the research field. The question as to the relevance of research in environmental history was viewed differently by different participants, however. **MARTIN SCHMID** considered it the role of historians to provoke and antagonize in present-day environmental debates, while **FRANZ MAUELSHAGEN** prioritized the need for more historical expertise in the sciences and social sciences in order to better define the parameters for their scenarios. **DONALD WORSTER (Kansas)** praised the successful establish-

ment of environmental history as a solid thematic focus within the humanities in many institutions after an advocacy struggle of some thirty years; he was more skeptical of any further blurring of the boundaries between the sciences and the humanities. This skepticism was contrasted with the situation in Europe, in which it is primarily interdisciplinary research projects (the graduate research training groups in Göttingen and Kiel, the Faculty for Interdisciplinary Research and Training in Klagenfurt/Vienna, the Institute for Advanced Study in the Humanities (KWI) in Essen, and of course the Rachel Carson Center in Munich) that are responsible for influencing the development of environmental history. In view of this situation, **CHRISTOF MAUCH (RCC Munich)** expressed concern that a strong focus on early modern environmental history might narrow the community and isolate it from the wider context of cultural environmental studies. Regardless of this, **VERENA WINIWARTER** and **REINHOLD REITH** both stressed the specific relevance of early modern environmental history. Winiwarter pointed to the shift in this period in the way that the environment was perceived, and reiterated the necessity of extending the scope of investigations into the unintended consequences of human interference in ecosystems to cover preindustrial societies as well as industrial ones. It is these studies in particular which could contribute to the avoidance of teleological short circuits in histories fixated on the story of industrialization. They could prove that traditional, experience-based ecological understanding was a pillar of sustainable societies in the pre-modern era. Reinhold Reith also took up the idea of sustainability; it is precisely the early modern period, with its measure of both similarity and difference, which could enrich current debates with a longer-term perspective on the world and its problems.

Hieronymus Bitschnau