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An Environmental History of the Early Modern Period

My research residency at the Rachel Carson Center has as its purpose the completion of a book on the environmental history of the early modern period, part of the series “Enzyklopädie Deutsche Geschichte” (Encyclopedia of German History). The volumes conform to a tripartite structure: the first part gives an encyclopaedic overview of the topic, the second presents research trends and perspectives, while the third consists of a thematically arranged bibliography.

The introduction of the encyclopaedic first part will give an overview of the genesis and development of environmental history, followed by a treatment of the issue of periodization and structuring. Based on the idea of environmental history as interaction between humans and nature and vice versa, this topic can be approached from two angles: firstly focusing on nature and her actions, and secondly by focusing on humans and the effects of their actions on nature. The classification of processes into “natural” and “anthropogenic” is of course only one approach, thus we also talk about the human environment as being a natural, nature-orientated, societal, mental or built environment.

In the early modern period, those natural conditions which humans were not able to manage or control were chiefly climate and weather. They were beyond human influence, and climatic extremes and disasters generally struck unexpectedly. The basis for this is the recent research into the climate history of the “Little Ice Age,” and I will present, in this order, climate and agriculture, weather constellations, climatic extremes and natural disasters (gales, thunderstorms, floods, earthquakes and landslides). The demographic shift during this period is also largely the consequence of forces that early modern humans were subjected to: the uncertain living conditions and life expectancy were in particular the result of microbial infections. The plague and various other infectious diseases were particularly significant. In these contexts, people were fully in the thrall of the forces of nature and confronted with a “threatening nature.” A second approach to the period focuses on the “anthropogenic environment(s);” here, the analysis is concentrated on the way that human agency shapes the environment—how humans use, abuse, protect, observe, interpret, describe, understand scientifically, and, indeed, threaten their environment. This process will be illustrated through a range of different contexts (cultural landscapes, watercourses, cultural plants, fauna, mining and metallurgy, industry, and towns).

The second part of the book will address “elementary problems and tendencies in research.” Among those controversial topics that will be discussed will be, for example, “The Little Ice Age and the climate,” in which both climate reconstruction and impact research will be presented. Different forms of interpretation and management will be discussed under the heading of natural disasters. Research into epidemics was for a long time the preserve of medical historians, and has since been expanded to include social-historical analysis and which, given the ecological nature of infectious diseases, is fertile ground for interdisciplinary research. Then, once the “scientific revolution” comes on the scene, I will discuss the process by which the natural sciences came into being under the heading “nature and science.”

Ecosystems have also been understood to be energy systems, borrowing the idea from the history of technology; these research practices are closely connected to discussions of “the wooden age.” Forests and wood have from the very beginning played a central part in environmental history, initiating debates about sustainability. Sustainability is a buzzword in current discussions about the environment, but is difficult to operationalize and contextualize as an analytical term. I will examine the use and utilization of resources and corresponding strategies under the heading “The Flow of Materials: Using Resources.” While the environmental history of the modern city is one of the central fields in environmental history, only certain aspects (such as supply and waste systems, infrastructure, etc.) have been the subject of the various academic disciplines; a systematic environmental history of the city is only in the very early stages.

In each of these sub-chapters I will present the main research trends and controversial positions in order to lay bare further perspectives for future research in a short summarizing chapter.