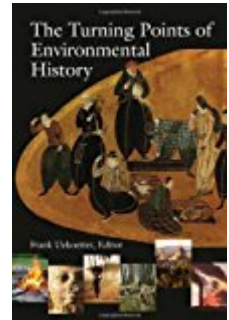


Frank Uekötter, ed.. *The Turning Points of Environmental History*. Pittsburgh: University of Pittsburgh Press, 2010. 220 pp. \$25.95, paper, ISBN 978-0-8229-6118-5.



Reviewed by Richard Tucker

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In the past decade several single-author surveys of global environmental history have appeared. *The Turning Points of Environmental History* stands apart from the others, as it integrates the specializations of nine authors. In the introduction, editor Frank Uekoetter points to key trends in environmental history, to add broad perspectives to the proliferating specialized writings on short time periods and limited spaces. He defines “turning points” as periods of profound change when several factors came into synchronicity: first in the mid-1800s, but not again until the 1950s, a decade that marked sharp acceleration of global environmental stress.

The challenge of defining “turning points” is provocative, enticing the contributors to speculate explicitly on the key elements of environmental change. But if the emphasis is on trends, how do Uekoetter and the contributing authors interpret the meaning of “turning points”? Most of the authors prefer not specific dates (in contrast to political history) but qualitative shifts of technology, material consumption, institutions, and ideology.

The authors’ approach is thematic, in broad-stroked chapters that teachers and students of environmental history should find highly valuable. An opening chapter by John McNeill, “The First Hundred Thousand Years,” lucidly summarizes the major stages of human expansion across the planet, especially in the 10,000 years since the last Ice Age. The following chapters are largely restricted to modern times, primarily in western Europe and North America. “The Nation-State,” by Thomas Lekan, sets a broad context, tracing the rise of modern European bureaucratic-scientific regimes from the early eighteenth century, leading to the “high modernism” of the twentieth century’s developmental state. To illustrate the state’s significance for the exploitation of the natural world, he points to the proliferation of large dams and the domestication of entire river basins in many world regions, including the Soviet Union and the major population centers of Asia.

Deborah Fitzgerald’s chapter, “Agriculture,” traces three profound changes in agricultural technique and productivity. Preferring to label

these as “revolutions,” she points first to early modern England’s increased use of livestock, systematic manuring, root crops, and enclosure of public lands, with its tropical extension in the slave plantation system of the Caribbean region. The second agricultural revolution, the rise of scientific agronomy, appeared in the mid-nineteenth century. The third, precipitated by World War II, has centered on revolutionary developments in plant genetics, embodied in the institutional momentum epitomized by the Green Revolution.

In a companion essay, “Forest History,” Bernd-Stefan Grewe surveys the major types of change in forest composition, extent and use in Europe and North America, from sixteenth-century Germany onward. Grewe argues that most changes in forests have been both gradual and local, making any continent-wide generalization dubious. Yet two major transformations have accelerated the reduction of species diversity across different forest types: the commercialization of timber production and the rise of forest science.

The theme of reduced vegetation is even more pronounced in Alon Tal’s essay, “Desertification,” which surveys processes of dessication throughout the northern hemisphere, beginning with the 1930s Dust Bowl in midwestern North America. Tal, a specialist on the contemporary Middle East, warns that the international community is only now beginning to take this major dimension of environmental decline seriously.

Joel Tarr adds “Urban Environmental History,” centering on urban development in the United States, with a brief but useful nod to environmental studies of European cities in modern times. Tarr defines four periods in American urbanization, culminating in what he defines as “the era of spreading and splintering urbanization” since around 1970. He points to the major environmental legislation of the years around 1970 as a foundation of efforts to manage urban pollution and sprawl effectively.

Frank Uekoetter’s essay, “The Knowledge Society,” probes the recent acceleration of the science of both resource exploitation and more effective resource management. Noting that “in some cases expert knowledge allowed the mitigation of environmental problems that were themselves the result of scientific knowledge” (p. 134), he points to increasing efficiency in the use of fossil fuels, pollution controls, agronomy, and wildlife management as examples. He acknowledges that many scientific advances, such as genetically modified organisms, are highly controversial since their long-term outcomes are still uncertain.

Complementing the scientific trends, the rise of environmental politics is the focus of Jens Ivo Engels’s discussion of “Modern Environmentalism,” presenting an analytical review of the rise of the environmental movement (largely in West Germany and the United States). Engels notes three criteria in arguing for 1970 as a sharp turning point: the condition of the environment, environmental political movements, and environmental protection.

In “The ‘1950s Syndrome’ and the Transition from a Slow-Going to a Rapid Loss of Global Sustainability,” Christian Pfister synthesizes the implications of the other essays. Tracing the suddenly increasing rate of global energy use and accumulation of atmospheric carbon dioxide in those years, he brings together rapid economic growth, accelerated population increase, the discovery of massive oilfields in the Middle East and elsewhere, the resulting low market price of fossil fuels, the global spread of chemical-intensive agriculture, the automotive economy, and other uses of petroleum.

Other fundamental dimensions of ecological change are mentioned less extensively in these essays. Underlying demographic trends and pressures are noted briefly but with emphasis by Tal, Tarr, and Pfister. Fitzgerald and Grewe note the environmental consequences of mass conflict, indicating that the major wars of the twentieth cen-

tury have had decisive impacts on environmental conditions. Energy history and climate history are most clearly addressed by Pfister. There is considerably less coverage of world regions outside the United States and Germany. Integrating these regions into a thematic collection remains to be done. This volume could usefully be paired with William Beinart and Lotte Hughes's *Environment and Empire* (2007), a penetrating set of thematic essays on European empires in Asia and Africa. Yet even these two collections together leave Latin America neglected.

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