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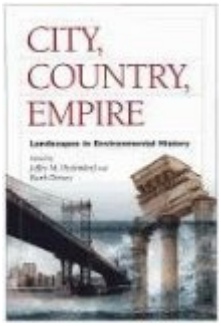

Jeffry M. Diefendorf, Kurk Dorsey, eds.. *City, Country, Empire: Landscapes in Environmental History.* Pittsburgh: University of Pittsburgh Press, 2005. viii + 288 pp. $50.00, cloth, ISBN 978-0-8229-4257-3.

Reviewed by Kathleen Brosnan

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Editors Jeffry M. Diefendorf and Kurk Dorsey have established challenging goals for this new collection of essays in environmental history--to capture important trends in the field and to make the field more relevant within the broader discipline of history. In the end, as with any other edited volume, readers must consider three questions. Are the individual essays rigorously researched and insightfully conceived? Do clearly articulated and important themes connect the articles so as to make the whole greater than the sum of its parts? And finally, how well does the book meet its stated objectives?

For *City, Country, Empire*, the answer to the first two questions is definitely yes. Ten exceptionally strong essays highlight the breadth of topics now contemplated by environmental historians with innovation and lucidity. As explained below, the editors' introductions tie them together while an afterword by Alfred Crosby provides an appropriate cautionary word about an underlying Americanization of environmental history.

The third question, however, presents more complicated issues, in part, because the aims here are so ambitious and their full realization may be impossible to determine. Diefendorf and Dorsey open their introduction to this volume by discussing Ted Steinberg's essay in the June 2002 edition of *The American Historical Review*.[1] Steinberg urged other historians to give the category of nature the same significance as those of class, gender, and race. In an effort to illustrate that "nature is a force that cannot be overlooked" (p. 2), Diefendorf and Dorsey have collected essays that reflect two significant trends in the field of environmental history: its incorporation of the concerns of urban and social history and its increasing internationalization, both in terms of the scholars engaged in it and the subjects they cover. The essays capture these trends and reveal the intellectual depth of the field, but it is unclear whether this book will reach scholars who are not engaged in environmental history.

To highlight the importance of environmental history for any time and place, the editors link the essays through the continuum of city, country, and empire. As William Cronon and others previously demonstrated, the rise of individual cities is

tied to the development of the countryside's natural resources through the creation of industrial landscapes, the application of brute-force technologies, and the intersection of science and socioeconomic politics. Empires emerged through the transformation of urban and rural places by these same processes--processes that reveal how "political boundaries rarely match ecological boundaries, and ideas, trade, and pollution all cross both types of boundaries with ease" (p. 4).

Part 1 focuses on cities and immediately displays one of the more useful aspects of this volume. The editors provide four-page introductions to each section. In this first section on cities, the authors examine the general ecological impact of industry and large human populations, and different types of pollution in particular. In each story, a unique intersection of politics and science influenced and often delayed definitive decision-making in the search for meaningful solutions.

Part 1 appropriately opens with an essay from Joel Tarr, who along with a few others, was prominent in bringing urban issues to the forefront of environmental history. In "The Metabolism of the Industrial City: The Case of Pittsburgh," Tarr analogizes the Steel City to a living organism that transforms certain inputs, such as clean air, food, water, fuel and construction materials, into an urban biomass and its attendant waste products. Over time, the growing metropolis draws essential resources from an expanding hinterland, extending its ecological imprint farther and farther. Tarr contemplates Pittsburgh's metabolism by focusing on certain inputs, water and land, and outputs, wastewater and smoke.

Tarr concludes with a notion that requires greater consideration because it suggests the limits of his otherwise highly useful metaphor. Other living organisms select inputs and excrete waste materials in order to survive, but the humans who constituted Pittsburgh and other cities used and misused environmental resources "predicated upon a value system that emphasized production and material progress" (p. 37). One of the great contributions of environmental history as a field is its ability to recognize and explain the interplay of organic and other physical conditions and these competing value systems.

Sarah Elkind similarly addresses an urban waste product--air pollution--in "Los Angelesâ??s Nature: Urban Environmental Politics in the Twentieth Century." Her intriguing essay more explicitly develops the intersection of politics and science in the search for solutions to the environmental problems that plagued twentieth-century cities. First, Elkind reminds us that it was not simply industrial activity that created the dramatic smog problems. Its very geography made Los Angeles more susceptible to the consequences of human choices. "The same atmospheric conditions that bring Los Angeles its celebrated sunny weather also create temperature inversions in which a layer of cold air traps warm air close to the ground. Particularly during the summer, these temperature inversions act as a lid on the Los Angeles basin, preventing polluted air from dispersing over the mountains to the west and north of the city" (p. 40).

In 1943, these inversions resulted in five severe "gas attacks" that left the air thick, dark and acrid. Given the location of the attacks, many blamed the Southern California Gas plant producing a synthetic rubber. While the company took significant steps to reduce butadiene fumes, it also launched a marketing campaign to convince Angelinos that rubber was a strategic material in the U.S. war effort, thus trumping health concerns. After the war, the Chamber of Commerce continued to pursue a strategy that called for voluntary smoke reductions and controlling non-industrial pollution. New scientific understandings of the invisible, but dangerous exhaust of automobiles gave all local parties a common and distant enemy. As editors Diefendorf and Dorsey neatly summarize, "the solution had to come from Detroit in the form of new technology (catalytic con-

verters) rather than real changes in the behavior of Californians" (p. 13).

Demonstrating the increasing internationalization of environmental history, the editors draw us across the Atlantic Ocean to Germany's Ruhr basin. Like Pittsburgh, the Ruhr was a center of steel and coal production and experienced the same type of environmental problems associated with rapid nineteenth-century industrialization and the post-World War II decline of these factories. In "The Environmental Transformation of the Ruhr," Ursula von Petz introduces Robert Schmidt, a water engineer, who viewed cities as living organisms and became Essen's planner (1901-1920). Picking up on calls for reform that dated back to the nineteenth century but were delayed temporarily by World War I, Schmidt expressed an intuitive understanding of the connection between city and country. Under his guidance, the Ruhr Regional Planning Authority emerged in 1920 to promote regional planning as the means to healthier living through the promulgation of green spaces. Tarr and Elkind reveal that, after World War II, Americans had looked to organizations which reached beyond city borders, but those entities rarely had the authority or reach of the Ruhr agency, reflecting perhaps the greater power of the European state in controlling land and resources.

Petz also highlights how the power of the state undermined environmental efforts when leaders such as those in the Third Reich pushed for military production and introduced misguided notions of eugenics and racial purity into their natural resource policies. Finally, a new regional plan appeared in 1966 that not only emphasized the protection of green spaces, but also called for the possible resurrection of brownfields. One of the biggest obstacles remained the persistently negative image of a "black country." Over time, local actors succeeded by developing "a growing interest in seeing derelict industries as 'historic sites' and understanding the era of industrialization as a historical period now overâ?¦. [T]his history has become part of the region's potential for revival" (p. 68). Petz concludes that the International Building Exhibition (IBA) Emscher Park in the state of Northrhine-Westphalia was new stage in a continuing regional approach. The Emscher landscape has used the greenbelt system of the 1960s as its basis, but has enhanced it by re-naturalizing (rather than restoring) its canal system and using industrial monuments as cultural landmarks.

Petz enhances her article on the Ruhr with maps and photographs, and James McCann's essay on West Africa is well served by a map of the distribution of maize and an appendix illustrating the spread of a destructive fungus. One persistent weakness in this otherwise strong edited volume is the absence of similar images in any other essays.

With her emphasis on regional planning, Petz's essay provides an appropriate segue to Part 2--"Countryside." Although it is not a clearly articulated theme in the editors' introduction to the volume, this section introduces the importance of law and technology in both defining and reflecting the value systems that emphasized production and material progress. In each of the three cases presented in this section, the editors note, "human actors have tended to see the land both as something completely malleable and as something whose value is best measured in terms of economic productivity" (p. 77).

The section opens with "Of REITs and Rights: Absentee Ownership at the Periphery" by Elizabeth Blackmar, and it may be the book's most important essay in an effort to achieve the editors' more lofty goal of taking the work of environmental history beyond the field and to the broader discipline. Blackmar focuses on the legal tools that created a new American property regime, increased the power of absentee owners and semi-anonymous trusts in the development of subur-

ban and exurban land, and diminished the ability of local residents to thwart them.

The expanse of available land on the urban periphery whetted American appetites for real estate. Through interstate highway expansion, the Federal Housing Authority, the Veterans Administration, tax shelters, and other policies that underwrote commercial building, the nation state played a central role in suburban development from the 1940s into the 1960s. Since then, Blackmar contends, the boon has been driven more and more by absentee owners. "Institutional investors and especially pension funds, real estate investment trust (REITs, pronounced 'reets'), and deregulated banks--all using a panoply of new financial instruments--channeled vast amounts of capital into the American countryside to produce a landscape that not only embodied the art of the deal but also defeated local opposition" (pp. 82-83). The Teachers Insurance and Annuity Association (TIAA), the nation's largest pension fund, has been an active player in this game, involved in properties such as the famous, or infamous, Mall of America. And again the federal government facilitated this development when Congress "authorized the formation of [REITs], which sold investors shares in either mortgages (mortgage REITs) or land (equity REITs)" (p. 89). REITs avoided corporate income taxes because they paid out all their profits and significantly made the ownership of real estate highly liquid.

The concentration of this outside capital in commercial development on the urban fringe undermined the power of local residents. They first turned to zoning boards but often found officials unwilling to withhold building permits. They subsequently raised environmental arguments less out of a belief in ecological sustainability or the protection of species and more as a defense of their communities. However, the problems associated with development, such as traffic congestion, were not measurable by EPA standards and these court cases often failed. As Blackmar observes, the problem ran much deeper. The EPA could not "impose sanctions on the habits of waste enshrined by consumer institutions" (p. 92). Blackmar does not contemplate the environmental implications of these legal battles but intriguingly sets the stage for others to follow. "It is environmentalists who are confronted with the task of taking the measure of the rights and powers of absentee ownership that have turned millions of Americans, including ourselves, into renters while severing our connection to the land that sustains us" (p. 98).

Blackmar's suggestion that wetland preservation has proven to be one of the few areas of environmental regulations that stopped or slowed development offers a bridge to the next essay by Nancy Langston. In "Floods and Landscapes in the Inland West," Langston explores how different groups have responded to flooded wetlands in southeastern Oregon since the late 1800s, moving toward methods of adaptive management. While not explicitly a legal history, this essay suggests that laws surrounding land and water rights have profoundly influenced interactions with the Blitzen River landscape in what is now the Malheur National Wildlife Refuge, a critical region for migratory waterfowl. Over the decades the lands in the basin went through multiple sales while drought, overgrazing, conversion to grain agriculture, dredging, channelizing, and elimination of riparian habitat reduced large parts of the valley to dust. Finally the federal government purchased much of the land in an effort to protect water levels in the Malheur Lake Bird Reservation, although some property remained under private development. Federal managers regularly tried to control which fields flooded rather than allowing natural processes to occur and often eliminated the habitat of other native species if they seemed to threaten waterfowl. Moreover, other federal agencies continued policies that underestimated the ecological value of wetlands and subsidized farmers' efforts to turn them into crops. "Drainage became a patriotic mission, part of the postwar

dream of using agriculture to feed a hungry world" (p. 108). Faith in humans' ability to control nature dissipated in the 1980s when a series of floods filled much of the closed basin and erased farms, roads, culverts, and "the post-Second World War belief that riparian landscapes could be reshaped into an orderly agricultural and duck machine" (p. 111).

The third essay in part 2 contemplates a very different human interaction with water. In "The Industrial Alchemy of Hydraulic Mining," Andrew Isenberg joins others in dispelling the myth of the lone prospector panning by the stream. His story of the California gold rush involves an industrial landscape in which law and technology facilitated the exploitation of abundant natural resources, but it came with a heavy environmental toll. "By reducing the high costs of labor, hydraulic mining initiated the transformation of the gold country from a place dominated by independent prospectors to an industrial place characterized by wage laborers" (p. 126). California courts quickly extended the same rights to hydraulic mining companies that prospectors enjoyed. For more than two decades, the California legislature and courts, in an application of the law designed to promote dynamic economic interests, favored miners. However, by the 1880s, "the expansion of agriculture undercut the hydraulic miners' claim to be economically indispensable to California" (p. 135). The law eventually changed because of the harm to another vital industry rather than out of a concern for the environmental damage inflicted by water cannons and their sequelae. By 1880, agriculture's economic value had superceded that of mining. Isenberg might have benefited here from a reference to Arthur McEvoy's book on California fisheries, but this is a minor criticism of an excellent essay.[2]

Part 3 takes the reader from city and countryside to empires and their "interactions of culture and nature on a larger scale" (p. 139). The four essays that follow continue certain themes from the earlier sections of the book, particularly historical actors' reliance on science and technology in their efforts to transform distant landscapes and their resources and the ways in which domestic and international politics shaped the application of science and technology. In "West Africa's Colonial Fungus: Globalization and Science at the End of Empire, 1949-2000," James McCann uses an environmental crisis to illustrate how imperialism created ecological networks across oceans and how imperial institutions continued to dominate political economies in former colonies even after empires had faded. Introduced to Africa in the 1500s, New World maize spread across the continent and by the twentieth century, achieved a prominent status in the food supply. Reflecting the business and politics of empire and "despite maize's growing importance in much of colonial Africa, agricultural research had neglected the crop, concentrating research investments on cash crops such as coffee, cotton, palm oil, groundnuts, and cocoa that linked African economies more directly with emerging world commodity markets" (pp. 147-148).

The seemingly random appearance of maize rust in 1950 and its rapid dispersion throughout West Africa changed the scientific agenda. When a nearly 50-percent loss of maize crops prompted substantial price increases for this staple, an international effort, led primarily by the British and Americans, attempted to identify resistant strains that would adapt to farming conditions on the continent. These efforts reflected the persistence of colonialism as outside organizations, such as the Economic Cooperation Agency, an adjunct program of the Marshall Plan, instigated this strategy with little meaningful input from local farmers. Somewhat anticlimactically, the American rust receded just as quickly three years later. However, given the ecological links created by global interactions over centuries, the greater lesson to deduce from this episode and from McCann's essay is the prominent role international science and such multilateral agencies (from the United States

and Europe) would play in post-World War II environmental politics.

Paul Josephson's article, "When Stalin Learned to Fish: Natural Resources, Technology, and Industry under Socialism," suggests that the reliance on science and technology to control nature and the hubris underlying this reliance are not endemic to the West, but are instead perhaps an extension of the modernity that defines the nation state and all economic systems in the industrial era. Following the revolution, the Soviet Union found itself a new nation rich in natural resources but lacking an industrial infrastructure. In an effort to create a more productive fishing industry, the Bolsheviks implemented what Josephson calls brute-force technology. "BFT refers to overemphasis on unforgiving technologies of massive scale, and to the premature search for monocultures based on incomplete understanding of the biological impact of human activitiesâ?¦. They are based on standard engineering practices applied in several areas of human activity without considering at length potential exogenous costsâ?¦. Those standard techniques delay incorporation of the knowledge of climatological, geophysical, hydrological, and biological differences in decisions to apply BFTs" (p. 164). In the case of its fisheries, as well as the exploitation of other resources, the Soviet Union relied on centralized, authoritarian planning and management that overreached technological capacities and neglected environmental damage and issues of sustainability.

In "Yellow Jack and Geopolitics: Environment, Epidemics, and the Struggle for Empire in the American Tropics, 1650-1900," J.R. McNeill joins McCann in effectively linking environmental history with the history of imperialism. Indeed, he contends that the reader can only understand who won and lost in the imperial contest for the Caribbean by examining the environmental and epidemiological history. In the end, the Europeans who hoped to exploit the islands created the very conditions that enervated their colonial efforts there. Europeans introduced sugar cultivation to the tropics and, when a system of indentured servitude proved inadequate, imported slaves from western Africa. "Their efforts led to multiple ecological changes. Soil erosion accelerated. Wildlife vanished. More important from the human point of view, as plantations replaced forest, conditions came to favor the transmission of yellow fever" (p. 198). Brought to the Americas on slave ships, yellow fever soon spread. The geographic range of its vector--the mosquito--determined the distribution of the disease. "Differential immunity made yellow fever decidedly and systematically partisanâ?¦. Yellow fever was most dangerous to unadulterated populations of young adult Europeans: precisely the composition of expeditionary forces" (p. 200). In the end, the losses attributable to the disease influenced decisions by Spain, England, and France to abandon colonial projects.

Thomas Dunlap's skillfully conceived essay, "Creation and Destruction in Landscapes of Empire," reminds us, according to Dorsey and Diefendorf, "that settlement and its impact on nature is still an ongoing process dependent on both natural and mental processes" (p. 141). Dunlap convincingly argues that "the vision of land as a place for individual opportunity" is not simply an American dream (p. 209). It was the core belief of settlement in all Anglo neo-Europes. This settlement was fueled by organized knowledge provided by western science and scientific societies, such as natural history. While their dreams shaped interactions with new lands and they began to form a cultural identity based on living there rather than coming there, settlers discovered that the land did not always accommodate their dreams. Climate and native biota might impede the introduction of certain crops. Unable to eliminate all animals that threatened their activities, settlers poisoned, trapped, and otherwise removed those that they could, altering natural balances and allowing other creatures to flourish in

the absence of predators and the presence of more malleable conditions. Accidental introductions, such as the chestnut blight or even the yellow fever discussed in the preceding essay, often proved deadly. When old settler dreams faded, new ones emerged. Dunlap asserts that environmentalism is such a dream, offering people in neo-Europes a connection to the land, a reliance on supportive sciences, and individual opportunities to "translate ideas into to daily action in ordinary lives" (p. 221).

The editors recruited Alfred Crosby to offer the afterword to this outstanding volume on the current state of environmental history. An eminent founder of the field, Crosby speaks with authority on "Environmental History, Past, Present, and Future." He notes, for example, that while environmental history has a transnational bent, there is an American tilt to it, perhaps reflected in the distribution of the articles in this book. Crosby appreciates the many benefits that have flowed from U.S. universities, scholars, and activists, but he worries that "we American environmentalists spend too much time looking at history through American spectacles and thus encourage others to do likewise, with myopic effects that may surprise us and that we may not like" (p. 228). This tendency is particularly disastrous when we fail to recognize the unique environmental advantages afforded by the rich American landscape and the shallow ecological footprint that preceded European and African American arrivals. Crosby argues, for example, that the use of brute-force technologies discussed by Josephson may be a result of the misguided belief that American success was more attributable to its citizens' application of such force rather than the richness of their natural environment.

Clearly this volume is an effort that environmental historians should and will embrace as a profound statement on significant directions for the field and more importantly as an introduction to some of its most innovative thinkers. Will this book will help the broader discipline of history more eagerly embrace nature as a category of analysis? Essay collections that address specific topics such as urban environments, environmental justice, or ecological diasporas, for example, might well be more appealing to specialists who study cities, race and class, or imperialism. If that is the case, then ***City, Country, Empire*** will be a good place for them to start.

Notes

[1]. Ted Steinberg, "Down to Earth: Nature, Agency, and Power in History," ***The American Historical Review*** 107(June 2002): pp. 798-820.

[2]. Arthur McEvoy, ***The Fisherman's Problem: Ecology and Law in California's Fisheries, 1850-1980*** (New York: Cambridge University Press, 1986). In ***Woodruff v. North Bloomfield*** (1884), the U.S. Circuit Court ruled that mining debris constituted a nuisance and permanently enjoined the mining company from dumping debris into the rivers.

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