

nies' lobbying efforts. It did so in response to the fourth factor: technological change. Like most craft unions, the Glass Bottle Blowers Association had opposed child labor both for humanitarian reasons and to prevent cheap child labor from undercutting adult union wage scales. It changed its position, however, after the union's president, Denis Hayes, saw a demonstration of newly patented automatic bottle-making machinery in 1905. Hayes immediately recognized that the new machinery threatened his members' craft with technological obsolescence. When the patent owners decided to introduce the machinery slowly, Hayes realized that union member jobs in firms that did not adopt the new machinery could only be maintained by supporting managerial efforts to cut labor costs. Simply stated, child labor was cheap.

The author closes the volume with a detailed legislative history of the abandonment of the glass house exception, but the book's sudden ending is mildly disappointing. Flannery does not offer a concluding section that places the story into a larger historical context that demonstrates how this case study casts light on larger historical questions. Readers would benefit from a summary and conclusion that reiterate the study's overarching goals.

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The Age of Smoke: Environmental Policy in Germany and the United States, 1880–1970. By FRANK UEKOETTER. (Pittsburgh: University of Pittsburgh Press, 2009. 360 pp. Illustrations, notes, index. \$26.95.)

The Age of Smoke, an English translation of Uekoetter's 2003 German work, fits into recent historiographical trends that have come to understand the history of environmental reform to be more complex than commonly perceived. Reform, in this evaluation, has rarely been the product of upright moral crusaders protecting nature against the wiles of industrial polluters; instead, Uekoetter notes that the history of air-pollution regulation reveals that "while it is clear in some cases who was wearing the white hat and who the black, most look pretty grayish in retrospect" (11). In *The Age of Smoke*, Uekoetter argues that, in both nations, cooperation between public and private interests produced effective air cleanup well before the era of federal legislation.

The Progressive Era saw remarkable success in controlling the coal-smoke "nuisance" in the United States, largely through widespread municipal campaigns that led to local regulation. More significantly, Uekoetter maintains that this success was the result of a process that involved citizen activists, municipal government, and private industry. Industry was not universally opposed to smoke controls, and indeed some business leaders were on the vanguard of city clean-air campaigns. In Germany, the same period saw much more limited air reform, in

part because the state bureaucracy, while powerful, was the victim of numerous internal dysfunctions and lacked a uniform policy.

In the post–World War II period, however, both nations saw rapid shifts in air-pollution regulation. First, public concerns shifted from coal smoke to a broader set of relatively invisible pollutants such as automobile exhaust and toxic industrial emissions. Coinciding with this was the emergence—in both nations—of an “ecological perspective” in which the public increasingly understood air quality in terms of health and environmental degradation, a more holistic evaluation than prewar complaints about smoke “dirt.” In postwar Germany, regulation advanced rapidly, driven by sharp public outcry and government leaders eager to wield the powerful bureaucracy to satisfy it. In the United States, however, the emerging environmental revolution created new dissonance. Activists increasingly viewed cooperation with industrial interests as unacceptable, while industry and government officials, blinded by an “insider perspective,” failed to perceive reformers’ new urgency and were slow to respond in equal measure.

While industry played a role in shaping German air regulation, political leaders were quicker to adapt and lead reform, while open and extensive dialogue within the German political sphere gave priority to the expertise of politically independent engineers over industry lobbyists. In his conclusion, Uekoetter argues that, for all the celebratory attention given the legislative achievements of the environmental movement of the 1960s–70s (such as 1970 Clean Air Act), the recent history of environmental regulation in the United States has been characterized by unproductive distrust and antagonism. The inability to establish cooperative dialogue has limited the progress of reform in more recent decades.

Uekoetter draws upon an impressive array of records from local, state, and federal agencies, as well as newspapers, periodicals, and industry trade journals. While the arguments here are clearly and often gracefully expressed, at points the monograph threatens to embody the bureaucratic inertia it chronicles so well. Readers may find some of the finer distinctions between various regulatory bodies’ methodologies superfluous to the main arguments. The narrative might also have benefited from more focus on individual personalities.

Still, these are relatively minor shortcomings. Uekoetter has made an important contribution to historians’ understanding of the development of environmental policy. In a time when political belligerence abounds on environmental issues, *The Age of Smoke* may provide lessons for a way forward.

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