

THE CHANGING NATURE OF
ENVIRONMENTAL HISTORY: AN INTERVIEW
WITH JOEL A. TARR

Allen Dieterich-Ward

When Joel Tarr edited a special issue of this journal on the environmental history of Pennsylvania more than ten years ago, he was already one of the field's most respected and influential thinkers. His research at the intersection of the history of cities, nature, and technology has influenced two generations of scholars, and a number of his former students have contributed essays to the present volume. During his more than forty years teaching at Carnegie Mellon University, Dr. Tarr has produced dozens of articles and essays as well as six monographs and edited volumes. In 2008 the Society for the History of Technology awarded him its highest award, the Leonardo da Vinci Medal, capping a career in which he won numerous other prizes for his scholarship and teaching. This degree of accomplishment is all the more remarkable considering that he earned his PhD in 1963, before urban history or environmental history even existed as distinct fields and the social history of technology was still in its infancy.

PENNSYLVANIA HISTORY: A JOURNAL OF MID-ATLANTIC STUDIES, VOL. 79, NO. 4, 2012.
Copyright © 2012 The Pennsylvania Historical Association

This is the third interview with Dr. Tarr published in a scholarly journal and as such seeks to avoid too much overlap with these other easily accessible sources. Noted oral historian Bruce Stave conducted the first interview, which appeared in the *Journal of Urban History* in 1983. This interview, subtitled “Urban History and Policy,” devoted significant time to exploring Tarr’s childhood in Jersey City, New Jersey, and his influences during college and graduate school at Northwestern University. At the time of the interview’s publication, he had begun moving away from the more traditional political framework of his first book, *A Study in Boss Politics: William Lorimer of Chicago* (1971) and toward the study of the urban environment, a transition he linked explicitly to his move to Pittsburgh in 1967. By 1983 he had published a number of important essays on urban environmental history including an influential edited issue on “Cities and Technology” in the 1979 *Journal of Urban History* that included his essay on “The Separate and Combined Sewer Question,” and articles on the smoke-control issue in Pittsburgh in the *Journal of Social History* and *Technology and Social Change*. Indeed, in the interview Stave joked that Tarr had become widely known for his study of history from the bottom up—“in the sense of sewers.”¹

Environmental historians Marc Cioc and Char Miller conducted a second interview, which appeared in the January 2011 issue of *Environmental History*. This article highlighted some of the enormous body of work Tarr had published in the intervening decades, including *Technology and the Rise of the Networked City in Europe and America* (1988), coedited with Gabriel Dupuy; *The Search for the Ultimate Sink: Urban Pollution in Historical Perspective* (1996); *Devastation and Renewal: An Environmental History of Pittsburgh and Its Region* (2003); and *The Horse in the City: Living Machines in the Nineteenth Century* (2007), coauthored with Clay McShane. Shorter than the Stave interview, the interview by Cioc and Miller nevertheless covered a wide variety of topics ranging from Tarr’s influences to his role in nurturing young scholars and his advocacy for merging history and public policy.²

The breadth of Tarr’s work combined with the relative brevity of the 2011 interview left considerable room for further discussion of those issues most relevant to the readers of *Pennsylvania History*, particularly the ways in which Tarr’s career highlights the importance of the Mid-Atlantic region for understanding broader relationships between humans and the rest of nature. I met with Dr. Tarr on August 4, 2011, in a conference room at the University Club in Pittsburgh, where Dr. Edward K. “Ted” Muller, his long-time friend and frequent collaborator, graciously agreed to join us. The interview below

is an edited version of that conversation, which took place over the course of about three hours. So that this essay might be used as a roadmap of sorts to the development of the field of environmental history, I have included information about the scholars and works referenced in the discussion. A more complete listing of Tarr's publications can be found in the 2011 *Environmental History* interview.³

ADW: You became involved very early in what would become the field of environmental history. What drew you to the study of the interactions between humans and the natural world?

JT: I never thought of myself as an environmental historian, although I began working directly on environmental issues like wastewater problems and later smoke pollution, and so on. I thought of myself as an urbanist first and was very interested in the technology of the city. I remember very well the early days of the field of environmental history because Pittsburgh had two environmental history pioneers—Sam Hays at the University of Pittsburgh and John Opie at Duquesne University. John became interested in environmental issues relatively early, and in the mid-1970s he began editing an environmental history newsletter. While an important first step, I didn't find it especially relevant to the themes I wanted to emphasize in environmental history, basically industrialism and urbanization.⁴

In the early 1970s, after my book on Boss Lorimer of Chicago was published, I began a project on the impact of changing transportation technology in Pittsburgh modeled partially after Sam Bass Warner's important book, *Streetcar Suburbs*.⁵ However, I wanted not only to do what Sam had done—explore suburban growth in response to streetcar development—but also to examine what happened at the core of the city, as you have these flows of commuters going back and forth. So I began working on that. And I became involved with Carnegie Mellon's Transportation Research Institute with mostly engineers working on transportation issues. I began to think along the lines of—"What is policy about?" and "How does policy relate to history?" I began to adopt a problem-solving kind of perspective. I never had a single course in urban history, much less environmental history or the history of technology, all of which were new fields emerging at that time. They didn't exist when I went to graduate school. So, under the influence of an engineering perspective, I began to think about history as this problem-solving endeavor, and about the possibility of training historians in that way. And that's partially because of the job crisis that existed at that time.⁶

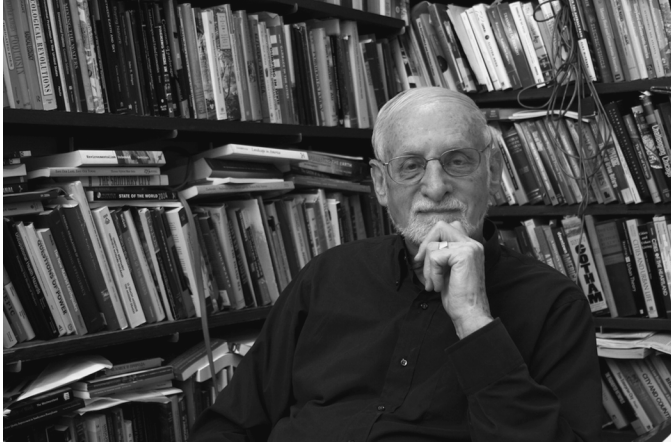


FIGURE 1: Dr. Joel A. Tarr, Richard S. Caliguiri University Professor of History and Policy, Carnegie Mellon University. (Courtesy of Carnegie Mellon University.)

ADW: It seems like what you are saying is that even though you came to environmental history from an urban history background, there began to be a convergence in your activities by the mid-1980s at which point you played a pivotal role in pushing the field to engage with urban environments. How did that come about?

JT: I got to know Sam Hays pretty well because Sam and I walked the same path to our universities—Carnegie Mellon and the University of Pittsburgh.⁷ For me this was really a great privilege because Sam had been one of my academic heroes while attending graduate school. One day he said, “You really ought to be involved with the new group of environmental historians,” and so I agreed to give a paper at the environmental history section at the next OAH.⁸ If my memory serves me I gave a paper on water and sewer problems. That’s when I met the members of the American Society for Environmental History for the first time. But I didn’t think of myself as necessarily being with that group at all. Even though John Opie was here, we really didn’t talk about this particularly, because his orientation was more toward the West, and mine was really more concerned with urban-type infrastructure/technology problems and their environmental effects. As I became more involved in environmental history, I was not happy with a lack of attention to the East and to industrialization, and so on. A group of young scholars such as Marty Melosi, Mark Rose, and Harold Pratt had emerged in the area of urban-environmental studies and deserved

recognition within the society. So then, in the early 1990s Bill Cronon asked me if I'd be willing to sponsor an environmental history conference in Pittsburgh to be held in 1993.⁹ I well remember that conference not only because of the excellent papers and the exciting group of scholars from Finland and France who attended, but also because on the first evening we had a heavy snowfall, creating havoc for arrivals. Fortunately, the sun shone every day after that.

I believed that an important way to push the urban-environmental perspective was through special issues of journals, as I had done with the edited city and technology issues of the *Journal of Urban History*. I proposed a special journal issue on technology and the environment for the *Environmental History Review* with Jeff Stine as coeditor. We began soliciting papers from people I knew who were working in these areas and they were almost all from younger people, many of whom became very prominent in the field.¹⁰ So that was one move towards trying to push the field. The next came in the *Journal of Urban History* where Christine Rosen helped me edit a special issue entitled, "The City and the Environment." As that issue proceeded, we found that we were short the necessary number of papers and I was questing around for something to complete the journal. It so happened that at the environmental history conference in Pittsburgh Adam Rome had delivered a paper from his dissertation and later book about the suburbs that I thought was very impressive. So, I sat down and wrote down a number of revisions that Chris and I thought had to be made if it was to be included. I called up Adam and said, "Would you like to be published in the *Journal of Urban History*?" He said, "Oh boy, I'd love to!" He made the suggested revisions and we published that paper when he was still in graduate school.¹¹

ADW: In thinking about the development of environmental history, why do you think there is so much emphasis on western history, and what do you think a history of the eastern U.S. could bring to the field?

JT: Environmental history as a field really began in the West with a concern with nature, with forests, with building dams on waterways, and with the destruction of different species of animals. It was essentially not thinking about nor oriented towards the issues of industrialization and urbanization. If you look at the major environmental organization, the Sierra Club, it began in the West and its focus, too, for quite a while, was on themes that were not oriented towards industrialization and urbanization. And notice I don't say "regional." I didn't say the East necessarily. So I don't necessarily know if it's only a regional kind of issue because we know that there were environmental

groups in the East that were important. I do think that the environmentalists rejected the conservation concept in favor of preservation—that is, for the kinds of nature that they wanted to preserve. Sam Hays's book, *Conservation and the Gospel of Efficiency*, was an immensely important volume in explaining the roots of some of this. But don't forget that book was published in 1959, before environmental history was a movement.

In the West when national parks were formed there were large areas of land that had not been extensively developed. The land had been "used" by Native Americans but not extensively altered in the same way that eastern areas had been. In many cases creating a "pristine" natural area involved kicking the Native Americans off their site. But when you create national parks and forests in the east, such as the Great Smoky Mountains National Park and the Allegheny National Forest, you are dealing with areas that have been extensively exploited. In some cases you are taking abandoned farms, areas that had been deforested, and trying to restore them to something that no longer existed. And I think that Ellen Stroud has a very interesting manuscript that is going to be a book soon, in which she talks about reforestation and the urban areas, and their importance in terms of trying to understand the complexity of what's happening here as compared to the West.¹²

ADW: So, while we often think of the environmental movement as well as environmental history as being concerned early on with the American West, it seems you are suggesting that there was another important locus of activity here in the urban-industrial East that scholars may have overlooked, at least in part?

JT: I think that one of the things that happened in cities, and Pittsburgh is the example I use so often, is that there was this movement against the pollution that industrial cities were burdened with. And what was the motivation for residents? Was it because of an embracing of environmental values? I think that in most cases it had to do with the difficulties that living with smoke and water pollution created in both a nuisance sense—dirt, no sun—and sense of health and well-being. Affluence is critical to environmentalism and environmental improvements had to wait until some economic threshold was passed to focus on them. In Pittsburgh you also had concerns that smoke and floods would lead to economic decline. People would not move to Pittsburgh. You couldn't attract qualified people to town because it was a very badly benighted kind of environment. Pittsburgh was, of course, a very early model in terms of refocusing on the importance of environmental goods, even though I don't think the Allegheny Conference people ever talked about being part of the environmental movement in the same way.¹³

As the years went by, the field of environmental history broadened and began to study a variety of urban and industrial issues. Many of these concerned Middle Atlantic states. A growing cohort of historians studied problems of urban areas, such as pollution, deindustrialization and brownfields, and environmental justice. I don't mean to say that western and southern areas did not have these type of problems—of course they did, but they tended to be spotlighted after issues relating to preservation and nature. Now historians in the West are exploring issues that had previously been primarily examined in an eastern and midwestern context.¹⁴ In all areas of the country, as we suburbanized, we increasingly encountered problems relating to natural resource exploitation such as polluted streams and wells and improperly capped oil and natural gas wells.¹⁵ In many ways the West is different from the East, but it is important to understand those environmental and urban issues that are similar and those that differ.

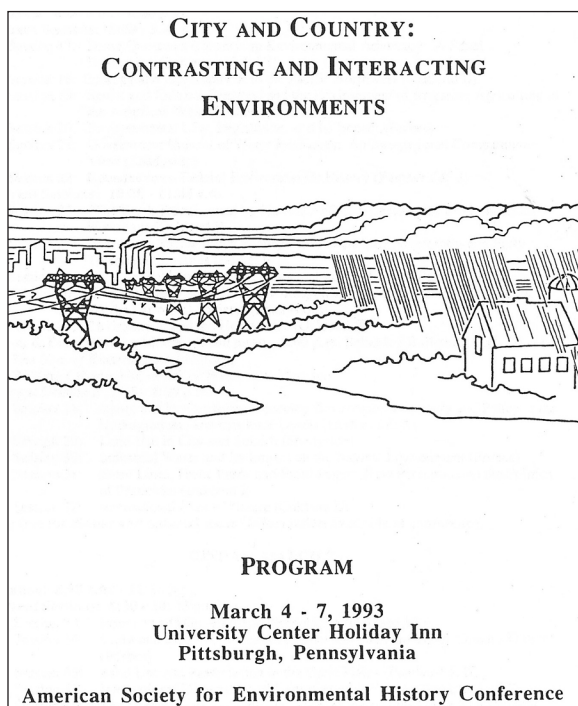


FIGURE 2: Cover of the program for the American Society for Environmental History's 1993 annual meeting held in Pittsburgh with the theme "City and Country: Contrasting and Interacting Environments." (Courtesy of the American Society for Environmental History.)

EM: Let me ask you a question. As I think about these eastern roots of the environmental movement, in Adam Rome's scholarship on the open space movement, easterners and urbanites worried that land was being gobbled too fast and we were running out of space. Then we have in urban areas in the East, the terrible desecration of the environment, whether it's air, water, or land from Boston Harbor to Pittsburgh.¹⁶ It seems to me there's a third origin, potentially, and I wonder what you have to say about this. I'm thinking of environmental justice—Craig Colten hints at this issue in his book on Love Canal and Andrew Hurley tackles it head on in his work on Gary.¹⁷ Is that a particularly eastern thing to begin with?

JT: Well, it is a powerful question. I'm not really an historian of the environmental justice movement, but I don't think there was much of a consciousness of environmental justice as a major issue among early environmental scholars. Certainly some labor historians were involved, because you could argue that the smoke pollution affected people in the mill towns more heavily than it affected others. We also know that water pollution affected working-class people who didn't have treated water or piped-in water more than it affected middle-class people. But I don't think necessarily we either articulated or thought of it in that kind of way.¹⁸

ADW: Since you edited the last special issue of *Pennsylvania History* on environmental history in 1999, what do you think have been the most important books or articles in the field with particular relevance to the East?

JT: I do think that there are some very interesting things going on. One domain, for instance, is certainly the environmental history of cities, which I've been particularly concerned with. For example, Marty Melosi and I coedit a series of volumes at the University of Pittsburgh Press called *History of the Urban Environment*. In regard to Pennsylvania, I edited a book on Pittsburgh, but also commissioned one on Philadelphia that Brian Black is editing. I should mention that Ted Muller was extremely helpful in putting the Pittsburgh book together and we coauthored the first essay in the book on the Pittsburgh landscape as well as other pieces over the years. These edited works need to have themes, it seems to me, that are unique to the urban area you're looking at as well as continuing important issues that other volumes have talked about. Cities have different topographies and different locations and different geographies; different ethnic groups inhabit them. No city is necessarily the same, although maybe some of them in the East particularly have more similar characteristics in terms of their industrial character or

metropolitan character than other places. Pittsburgh's topography obviously affects air quality very severely here. We dealt with the air pollution—smoke—in several essays in *Devastation and Renewal*. In addition, my student Jim Longhurst just published a book, *Citizen Environmentalists*, that examines the important role that Pittsburgh's Group Against Smog and Pollution played in securing regulation of Pittsburgh air pollution, and a German scholar who studied with me for a time, Frank Uekoetter, published a comparative study of smoke control in Germany and the U.S., *The Age of Smoke*, in our History of the Urban Environment series in 2009.¹⁹

The edited volumes on cities serve a very useful purpose, I think, as wedges to opening up new areas of investigation and curious people may come back and want to investigate them at a deeper level, maybe more than is done in a particular essay. We have a book that just came out on Montreal, for example, that is really excellent.²⁰ I've asked people in different cities if they would be interested in doing a conference and then a volume—that's the sequence we try to develop. Sometimes you can find funding for the conference like Andy Hurley did for his book on St. Louis. Why not Baltimore or Cincinnati? Perhaps I can persuade my friend David Stradling at the University of Cincinnati to do a study of his city.²¹

EM: The point you made about how different cities addressed environmental problems differently speaks to the public/cultural side of things, which then brings me back to Sam Hays's concluding essay in *Devastation and Renewal*. He was challenging this region as not having an environmental culture. He's largely on target, though the city does have a limited environmental culture with certain boundaries. So that is always a problem in an older industrial area trying to change itself. A great example of this in Pittsburgh is the industrial rivers. I wrote a journal article in 1989, which says that this area didn't really see the rivers as "real water"; real water that you could actually use for something other than an industrial or municipal sewer was always somewhere else. Today, urban residents can't get down to the river fast enough. There are two or three more new rowing clubhouses going up. There are all these guys out there in kayaks on the river. Talk about a flip in environmental culture!²²

JT: I do think that understanding the eastern culture is critical. I think how you get at it is also very important. From my perspective even this type of cultural history needs to be tied strongly to specific kinds of policy changes.

Pittsburgh's rivers are terrifically important. You have similar concerns in Philadelphia, of course, with the Delaware River and the estuary. We have a book in our History of the Urban Environment series, *Urban Rivers*, that's going to be coming out, for instance.²³ A major issue here is the lack of similarities between urban areas. Is Philadelphia going to be like Pittsburgh? Is Pittsburgh going to be like Boston or St. Louis? There are similar aspects, but there are many differences in the ways in which different cities have dealt with different types of problems. Where does the drive come from toward obtaining certain environmental goals, for instance? Does it come from a desire to make sure that new industries come to town? Does it come from a desire to attract new population to town? Does it come from a desire to make the rivers more swimmable and fishable?

Karl Jacoby's book, *Crimes Against Nature*, I thought was terrific. It's a very good model of what can be done in terms of different groups, different attitudes toward the land and what's going on there. Sam Hays used to talk about rural peoples quite a bit and the tensions that they felt with those who were either trying to exploit areas in terms of natural resource development, such as longwall mining with coal, or development for vacation and suburban homes. It's distressing to me, I must tell you that, to see how little has really been done on the issue of natural resource extraction, particularly in this state, aside from a few works such as Brian Black's book on petroleum. Take natural gas, for example. I became involved in the "fracking" issue, and went looking for work on the early history of natural gas exploration and development, and there's almost nothing aside from David Waples's useful *History of Natural Gas in Appalachia* and he is not a trained historian! There is a huge literature on labor and coal mining, right? And mine disasters have been covered in books like Davitt McAteer's *Monongah*. But, what about some of the other guts of the coal mining industry?²⁴

ADW: Chad Montrie has a chapter in his book on strip mining in Pennsylvania, but you're absolutely right, the labor history of coal mining is fine for Pennsylvania, but there is not much environmental history.²⁵

JT: Let's take forests, for another example. We have Sam Hays's work, but where is the broader history of the deforestation of Pennsylvania? What happened to those thousands and thousands of acres of woods? What about the industries that grew up because of them? Where were they located? Who was employed in them? How were they affected by the disappearance of the forests? My student Vogel Keller has explored the wood chemical industry,

the tanning industry, and the rural steel industry in his dissertation on rural brownfields and I hope it will be published soon so his work can get the wider circulation it deserves.²⁶

ADW: Let me ask the ultimate historian's questions about both of these themes—"So what?" What would additional attention to urban history of the cities in the Mid-Atlantic or to natural resource exploitation in Pennsylvania or New York or anywhere really add to the literature? How would you convince a young scholar that this is a promising avenue to go down?

JT: I am often grabbed by contemporary events, like the whole thing with the Marcellus shale fracking. From my perspective, historians need to help provide some understanding of where we are today, and try to shape policy. We have policy toward Marcellus shale being enacted in the state that is completely insufficient in regard to environmental protection. I'm not saying that the industry should not be developed; I think it should be, but we damned well better know what the long-term effects are. We don't have any idea about what those long-term consequences are in some of these natural resource exploited areas, and I think that it is important to try to understand and take a look at these problems from an historical perspective.

I think you are more likely to make a name for yourself if you write in an area that hasn't received attention before than if you write on some aspect of social history or environmental justice or whatever it might be that's really very well covered. Clearly, there are environmental history themes that badly need exploration and development. I sketched out some of them already and there are new tools available that could really broaden the ways in which we deal with some of these issues and problems. You can do so much more research right on the Web today. I spent two years going through Chicago newspapers—day by day—for my dissertation. I could have done that in two or three weeks now. Also, I can't think of a more valuable tool for understanding the interactive factors in metropolitan areas and pinpointing changes that occurred, for instance, than GIS. Finally, there are people coming out of graduate schools from some places that have much more sense of the necessity of an interdisciplinary approach than others. It seems to me that using these new perspectives and tools could be the most exciting way to approach some of these things. I also believe, as I recently posted on H-Environment, that considering the continuing shortage of academic jobs it is important for environmental historians to be trained in ways that makes them attractive to nonacademic employers. Hopefully, they can put their historical talents to work alongside other more policy oriented skills in these positions.²⁷

NOTES

1. Bruce Stave, "A Conversation with Joel A. Tarr, Urban History and Policy," *Journal of Urban History* 9, no. 2 (February 1983): 195–232.
2. Mark Cioc and Char Miller, "Joel Tarr," *Environmental History* 16 (January 2011): 121–36.
3. I would like to express my sincere gratitude to the University of Pittsburgh's University Club for use of their conference room and Edward "Ted" Muller for making this eminently agreeable arrangement possible. In the following interview, I have denoted my own words as ADW, those of Dr. Tarr as JT, and those of Dr. Muller as EM. I am also grateful to my graduate assistant, Victor M. Ordóñez, for transcribing the interview in its entirety.
4. Dr. John Opie helped found the American Society for Environmental History (ASEH) in 1977 and published a number of books in the field including *Americans and Environment: The Controversy Over Ecology* (Lexington, MA: D. C. Heath, 1971), *Ogallala: Water for a Dry Land* (Lincoln: University of Nebraska Press, 1993), *Nature's Nation: An Environmental History of the United States* (Fort Worth, TX: Harcourt Brace, 1998), and *Virtual America: Sleepwalking through Paradise* (Lincoln: University of Nebraska Press, 2008). For more information on Opie and other early member of the ASEH, see "Oral Histories with ASEH Founders," available at <http://aseh.net/about-aseh/> (accessed January 3, 2012).
5. Sam Bass Warner, *Streetcar Suburbs: The Process of Growth in Boston, 1870–1900* (Cambridge: Harvard University Press, 1962).
6. For a more extended analysis of his ideas in this area, see Joel Tarr and Peter Stearns, "Curriculum in Applied History: Toward the Future," *The Public Historian* 9 (Summer 1987): 111–25.
7. Dr. Samuel Hays retired in 1991 from the University of Pittsburgh, where he had been on the faculty since 1960. He is the author of many influential books on environmental and political history, including *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890–1920* (Cambridge: Harvard University Press, 1959), *Beauty, Health, and Permanence: Environmental Politics in the United States, 1955–1985* (New York: Cambridge University Press, 1987), *Explorations in Environmental History* (Pittsburgh, PA: University of Pittsburgh Press, 1998), and *Wars in the Woods: The Rise of Ecological Forestry in America* (Pittsburgh, PA: University of Pittsburgh Press, 2006).
8. The OAH is the common abbreviation for the Organization of American Historians.
9. Tarr is referring here to the ASEH annual meeting held in Pittsburgh in March 1993, with the theme "City and Country: Contrasting and Interacting Environments." Dr. William Cronon was a pivotal influence on the development of the field of environmental history, with extensive publications that include three landmark volumes: *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York: Hill and Wang, 1983), *Nature's Metropolis: Chicago and the Great West* (New York: W.W. Norton, 1991), and *Uncommon Ground: Toward Reinventing Nature* (New York: W.W. Norton, 1995). Cronon served as ASEH president from 1989 to 1993.
10. The special issue of *Environmental History Review* in spring 1994 was titled "Technology, Pollution, and the Environment." In addition to coeditors Stine and Tarr, contributors included Franz-Josef Bruggemeier, Christopher Sellers, Craig E. Colton, and Lynne Page Snyder. Tarr and Stine also coauthored an influential historiographical review entitled "At the Intersection of Histories: Technology and the Environment," which appeared in 1998 in the journal *Technology and*

- Culture*. This essay is available at <http://www.h-net.org/~environ/historiography/ustechnology.htm> (accessed January 3, 2012).
11. The special issue of the *Journal of Urban History* titled "The City and the Environment" appeared in May 1994 and contributors included Christopher Hamlin, Andrew Hurley, Martin V. Melosi, and Adam Rome. Between 1979 and 2004, Tarr also edited four other special issues of the journal on the theme of "Technology in the City." Rome's article was part of a book project that became *The Bulldozer in the Countryside: Suburban Sprawl and the Rise of American Environmentalism* (New York: Cambridge University Press, 2001), winner of the Frederick Jackson Turner Award and the Lewis Mumford Award.
 12. Ellen Stroud, *Nature Next Door: Cities and the Rebirth of Northeastern Forests* (Seattle: University of Washington Press, 2012). See Stroud's essay in this volume.
 13. The Allegheny Conference on Community Development was a booster organization that spearheaded postwar redevelopment in metropolitan Pittsburgh. For more information, see Sherie Mershon and Joel Tarr, "Strategies for Clean Air: The Pittsburgh and Allegheny County Smoke Control Movements, 1940–1960," in *Devastation and Renewal: An Environmental History of Pittsburgh and Its Region*, ed. Joel Tarr (Pittsburgh, PA: University of Pittsburgh Press, 2003), 145–73.
 14. Recent examples of this shift in the literature of Western history to include urban and industrial environments include Andrew Isenberg, *Mining California: An Ecological History* (New York: Hill and Wang, 2005); Matthew Klinge, *Emerald City: An Environmental History of Seattle* (New Haven: Yale University Press, 2007); and Timothy LeCain *Mass Destruction: The Men and Giant Mines that Wired America and Scarred the Planet* (New Brunswick, NJ: Rutgers University Press, 2009).
 15. For more on this issue, see Joel Tarr, "There Will Be Gas," *Pittsburgh Post-Gazette*, August 2, 2009, as well as several essays in this volume.
 16. On the environmental history of Boston, see Anthony N. Penna and Conrad Edick Wright, eds., *Remaking Boston: An Environmental History of the City and Its Surroundings* (Pittsburgh, PA: University of Pittsburgh Press, 2009).
 17. Craig Colten and Peter Skinner, *The Road to Love Canal: Managing Industrial Waste before EPA* (Austin: University of Texas Press, 1996). Colten explores issues of urban environmental justice more explicitly in *An Unnatural Metropolis: Wrestling New Orleans from Nature* (Baton Rouge: Louisiana State University Press, 2005). Muller is referring here to Andrew Hurley, *Environmental Inequalities: Class, Race and Industrial Pollution in Gary, Indiana, 1945–1980* (Chapel Hill: University of North Carolina Press, 1995) also explores environmental justice issues in an industrial city. For a more recent analysis focused on the Mid-Atlantic region, see Thomas Belton, *Protecting New Jersey's Environment: From Cancer Alley to the New Garden State* (New Brunswick, NJ: Rutgers University Press, 2010). See also Vogel Keller's essay in this volume.
 18. See Clayton Koppes and William P. Norris, "Ethnicity, Class, and Mortality in the Industrial City," *Journal of Urban History* 11, no. 3 (May 1985): 259–79.
 19. Tarr, ed., *Devastation and Renewal*; Brian Black and Michael Chiarappa, eds., *Nature's Entrepot: Philadelphia's Urban Sphere and its Environmental Thresholds* (Pittsburgh, PA: University of Pittsburgh Press, 2012); James Longhurst, *Citizen Environmentalists* (Medford, MA: Tufts University Press, 2010); Frank Uekoetter, *The Age of Smoke Environmental Policy in Germany and the United States, 1880–1970* (Pittsburgh, PA: University of Pittsburgh Press, 2009).

20. Stéphane Castonguay and Michèle Dagenais, eds., *Metropolitan Natures: Environmental Histories of Montreal* (Pittsburgh, PA: University of Pittsburgh Press, 2011).
21. Tarr is referring here to Andrew Hurley's edited volume *Common Fields: An Environmental History of St. Louis* (St. Louis: Missouri Historical Society Press, 1997). David Stradling has written a number of influential works in environmental history, including *Making Mountains: New York City and the Catskills* (Seattle: University of Washington Press, 2007) and *The Nature of New York: An Environmental History of the Empire State* (Ithaca, NY: Cornell University Press, 2010). His current research is on the Cuyahoga River in Cleveland.
22. Samuel Hays, "Beyond Celebration: Pittsburgh and Its Region in the Environmental Era—Notes by a Participant Observer," in *Devastation and Renewal*, ed. Tarr, 193–215; Edward Muller, "The Legacy of Industrial Rivers," *Pittsburgh History* 72, no. 2 (Summer 1989): 64–75. Muller's essay won the 1989 Solon J. Buck Award for Western Pennsylvania History.
23. Stéphane Castonguay and Matthew Evenden, eds., *Urban Rivers: Re-making Rivers, Cities and Space in Europe and North America* (Pittsburgh, PA: University of Pittsburgh Press, 2012).
24. Karl Jacoby, *Crimes Against Nature: Squatters, Poachers, Thieves, and the Hidden History of American Conservation* (Berkeley: University of California Press, 2001); Hays, *Conservation and the Gospel of Efficiency*; David A. Waples, *Natural Gas Industry in Appalachia: A History from the First Discovery to the Maturity of the Industry* (Jefferson, NC: McFarland, 2005); Brian Black, *Petrolia: The Landscape of America's First Oil Boom* (Baltimore, MD: Johns Hopkins University Press, 2000); J. Davitt McAteer, *Monongah: The Tragic Story of the Worst Industrial Accident in US History* (Morgantown: West Virginia University Press, 2007).
25. Chad Montrie, *To Save the Land and People: A History of Opposition to Surface Coal Mining in Appalachia* (Chapel Hill: University of North Carolina Press, 2003). See also Rebecca Scott, *Removing Mountains: Extracting Nature and Identity in the Appalachian Coalfields* (Minneapolis: University of Minnesota Press, 2010).
26. Vagel Keller, "Forgotten Brownfields: Rural Industrial Districts in Pennsylvania, 1870–1930" (PhD diss., University of Pittsburgh, 2005).
27. This post and the subsequent discussion, "The Job Crisis and ASEH," took place in January 2012 and is available at <http://h-net.msu.edu/cgi-bin/logbrowse.pl?trx=lx&list=H-Environment&user=&pw=&month=12&1> (accessed January 16, 2012).