

**Thomas Zeller**  
**Intersections: History of Technology and Environmental History**  
Oakland University, 2002

*Course Description*

One of the most innovative fields of historical research these days is the interstices between environmental history and the history of technology. While environmental historians increasingly realize that understanding technology is an important way to understand how humans have altered their environments, historians of technology can no longer afford to downplay the environmental consequences of technologies as mere side effects. In this course, we will read and discuss major new works in this field and analyze the prospects and limitations of studying environment and technology simultaneously.

*Course Requirements*

In order to acquaint themselves with the relevant literature, students are required to read key books and articles in this newly emerging field. Therefore, a thorough reading and rigorous analysis of these texts is a quintessential requirement for fruitful discussions. We will compare historians with different approaches, methodologies, and research agendas and subsequently evaluate how appropriate a particular approach is for a given topic. The classroom discussions count for 30% of the final grade. In addition, you are responsible for two book reviews. Please follow the example of book reviews in either *Environmental History* or *Technology and Culture* and write concise, two-page book reviews contextualizing the works by the due dates. These reviews are worth 10% each. A research paper is due on the last day of class. It should be 25 to 30 pages long and explore one particular aspect discussed in class. The topic should be agreed upon with the instructor in a personal meeting during office hours; a five-page prospectus is due by March, 9. The research paper contributes 50 % to the final grade.

*Readings*

James Rodger Fleming and Henry A. Gemery (eds.), *Science, Technology, and the Environment: Multidisciplinary Perspectives*

Jill Ker Conway, Kenneth Keniston, and Leo Marx, Leo (eds.), *Earth, Air, Fire, Water: Humanistic Studies of the Environment*.

David Nye, *Technologies of Landscape*

William Irwin, *The New Niagara: Tourism, Technology, and the Landscape of Niagara Falls*

Richard White, *Organic Machine*

Martin Reuss, *Designing the Bayous: Control of Water in the Atchafalaya Basin, 1800-1995*

Jeffrey Stine, *Mixing the Waters*

Christopher Sellers, *Hazards of the Job: From Industrial Disease to Environmental Health Science*

James Williams, *Energy and the Making of Modern California*

Joel Tarr, *The Search for the Ultimate Sink. Urban Pollution in Historical Perspective*

Virginia Scott Jenkins, *The Lawn: A History of an American Obsession*

William Cronon, *Nature's Metropolis: Chicago and the Great West*

Dale H. Porter, *The Thames Embankment*

John Opie, *Ogallala: Water for a Dry Land*

Mark Fiege, *Irrigated Eden: The Making of an Agricultural Landscape in the American West*  
Bernard Mergen, *Snow in America*

*Weekly Schedule*

Week 1: Introduction  
Stine/Tarr (Course Pack)

Week 2: Interstices  
Fleming/Gemery, *Science/Technology* (select papers); Conway, *Earth, Air* (select papers)

Week 3: The Landscape Idea and its Realities  
Nye, *Technologies* (select papers); Daniels/Cosgrove, Daniels, Matless, Wilson (CoursePack)

Week 4: Controlling Crystals  
Mergen, *Snow*; Reich (CoursePack)

Week 5: Making Rivers  
Irwin, *Niagara*; White, *Organic Machine*; Cosgrove (CoursePack)

Week 6: The Army Corps' Version of Water  
Reuss, *Designing*; Stine, *Mixing*; Peña (CoursePack)

Week 7: City and Hinterlands  
Cronon, *Nature's Metropolis*

Week 8: The City as the Juncture of Environment and Technology  
Tarr, Review Essay (<http://www2.h-net.msu.edu/~environ/historiography/usurban.htm>); Tarr, *Ultimate Sink*; Melosi, Rome, Hassam (CoursePack)

Week 9: City on the River: London  
Porter, *Thames Embankment*

Week 10: Body and Environment  
Sellers, *Hazards*; Stradling/Tarr, Colten, Snyder, Russell (CoursePack)

Week 11: Questions of Power  
Williams, *Energy*; Rosen/Sellers, Stradling/Thorsheim, Brüggemeier, Uekoetter (CoursePack);  
Black, *Petrolia* (excerpts, handout)

Week 12: The Dry West, the Wet West  
Opie, *Ogallala*; Fiege, *Eden*

Week 13: Pathways to Nature  
Stilgoe, Davis, Louter, Lekan, Rollins, Kemp (CoursePack); Zeller in Nye, *Technologies*

Week 14: Mowing and Meaning  
Jenkins, *Lawn*

*Readings*

1. *Intersections*

- ◆ Rosalind Williams, "Nature Out of Control: Cultural Origins and Environmental Implications of Large Technical Systems", in: Miriam R. Levin (ed.), *Cultures of Control* (Amsterdam: Harwood, 2000), 41-68.
- ◆ Jeffrey K. Stine and Joel A. Tarr, "At the Intersection of Histories: Technology and the Environment," *Technology and Culture* 39 (Oct. 1998): 601-640

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2. *Landscape*

- ◆ Stephen Daniels and Denis Cosgrove, "Introduction: Iconography and Landscape", in: Denis Cosgrove/Stephen Daniels (eds.), *The Iconography of Landscape* (Cambridge: Cambridge UP 1989), 1-10.
- ◆ Stephen Daniels, "The Pictorial Iconography of Woodland in Later Georgian England", in: Denis Cosgrove/Stephen Daniels (eds.), *The Iconography of Landscape* (Cambridge: Cambridge UP 1989), 43-82.
- ◆ David Matless, *Landscape and Englishness* (London: Reaktion Books, 1998):
- ◆ ch. 5: Landscapes of War, 173-200.
- ◆ Alexander Wilson, *The Culture of Nature. North American Landscape from Disney to the Exxon Valdez* (Cambridge/Oxford: Blackwell, 1992),
- ◆ ch. 1: "The View from the Road", 19-51
- ◆ ch. 3 "Nature at Home: A Social Ecology of Postwar Landscape Design", 88-115

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3. *Water*

- ◆ Denis Cosgrove, "An Elemental Division: Water Control and Engineered Landscape", in Denis Cosgrove/Geoff Petts (ed.), *Water, Engineering, and Landscape. Water Control and Landscape Transformation in the Modern Period* (London/New York: Belhaven Press, 1990), 1-11.
- ◆ Carolyn Thomas de la Peña, "Recharging at the Fordyce. Confronting the Machine and Nature in the Modern Bath", *Technology and Culture* 40 (1999), 746-769.

4. *Cities*

- ◆ Martin V. Melosi, "The Place of the City in Environmental History," *Environmental History Review* (Spring 1993), 1-23.
- ◆ Adam Rome "Building on the Land: Toward an Environmental History of Residential Development in American Cities and Suburbs, 1870-1990," *Journal of Urban History* 20 (May 1994): 407-434.
- ◆ Andrew Hassam, "Portable Iron Structures and Uncertain Colonial Spaces at the Sydenham Crystal Palace", in: Felix Driver and David Gilbert, *Imperial Cities. Landscape, Display, and Identity* (Manchester/New York: Manchester UP, 1999), 174-193.

5. *Environment and Business*

- ◆ Christine Meisner Rosen and Christopher C. Sellers, "The Nature of the Firm: Towards an Ecocultural History of Business", *Business History Review* 73 (1999), 577-600.

- ◆ David Stradling with Peter Thorsheim, "The Smoke of Great Cities: British and American Efforts to Control Air Pollution, 1860-1914," *Environmental History* 4 (1999), 6-31.
  - ◆ Franz-Josef Brüggemeier, "A Nature Fit for Industry: The Environmental History of the Ruhr Basin, 1840-1990", *Environmental History Review* 18 (1994), 35-54.
  - ◆ Frank Uekoetter, "Divergent Responses to Identical Problems: Businessmen and the Smoke Nuisance in Germany and the United States, 1880-1917", *Business History Review* 73 (1999), 641-676.
  - ◆ David Stradling with Joel Tarr, "Environmental Activism, Locomotive Smoke, and the Corporate Response: The Case of the Pennsylvania Railroad and Chicago Smoke Control," *Business History Review* 73 (1999), 677-704.
  - ◆ Craig E. Colten, "Chemical Waste Disposal: Policy and Practice, 1900-1960", *Environmental History Review* 18 (1994), 85-116.
  - ◆ Lynne Page Snyder, "'The Death-Dealing Smog over Donora, Pennsylvania': Industrial Air Pollution, Public Health Policy, and the Politics of Expertise", *Environmental History Review* 18 (1994), 117-139.
  - ◆ Edmund P. Russell III, "The Strange Career of DDT. Experts, Federal Capacity, and Environmentalism in World War II", *Technology and Culture* 40 (1999), 770-796.
6. *Streets and Railways*
- ◆ John R. Stilgoe, *Metropolitan Corridor. Railroads and the American Scene* (New Haven/London: Yale UP, 1983):
  - ◆ Ch. 9 "Zone" 77-103
  - ◆ Timothy Davis, "Mount Vernon Memorial Highway: Changing Conceptions of an American Commemorative Landscape," in: Joachim Wolschke-Bulmahn (ed.), *Places of Commemoration. Search for Identity and Landscape Design* (Washington, D.C.: Dumbarton Oaks, 2001, forthcoming)
  - ◆ David Louter, "Glaciers and Gasoline: The Making of a Windshield Wilderness, 1900-1915," in: David Wrobel (ed.), *Seeing and Being Seen: Tourism and the American West* (Lawrence: University Press of Kansas, 2001, forthcoming).
  - ◆ Thomas Lekan, "Regionalism and the Politics of Landscape Preservation in the Third Reich", *Environmental History* 4 (1999), 384-404.
  - ◆ William Rollins, "Whose Landscape? Technology, Fascism, and Environmentalism on the National Socialist *Autobahn*", *Annals of the Association of American Geographers* 85 (1995), 498-504.
  - ◆ Louis Ward Kemp, *Aesthetes and Engineers: The Occupational Ideology of Highway Design*, *Technology and Culture* 27 (1986), 759-797.
  - ◆ Leonard Reich, "Ski-Dogs, Pol-Cats, and the Mechanization of Winter: A History of Snowmobiling in North America," *Technology and Culture* 40 (1999), 484-516.