

HUGH S. GORMAN

Associate Professor of Environmental History and Policy

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Education

Ph.D., History and Policy, Carnegie Mellon University, 1996.
M.S., Applied History, Carnegie Mellon University, 1992
M.A., Professional Writing, Carnegie Mellon University, 1985.
B.S., Electric Power Engineering, Rensselaer Polytechnic Institute, 1979.

Academic Positions

Associate Professor of Environmental History and Policy, Michigan Technological University 2002 - present
Haas Fellow, Beckman Center for the History of Chemistry, Chemical Heritage Foundation, 2003 - 2004
Assistant Professor of Environmental History and Policy, Michigan Technological University 1996 - 2002

Research Interests

I study the historical interactions between policy choices, technological innovation, and environment change, with the main goal being to inform efforts to construct effective policy. My research revolves around the question: "how do societies and communities construct environmental objectives and craft policies that encourage complex socio-technological systems to evolve in directions compatible with those objectives?" Currently, I am working on a history of society's changing interaction with the nitrogen cycle.

Publications

Books

Hugh S. Gorman, *Redefining Efficiency: Pollution Control, Regulatory Mechanisms, and Technological Change in the U.S. Petroleum Industry*. Akron: University of Akron Press, 2001.

Edited Volumes

Hugh S. Gorman and Alex Farrell, eds., *Monitoring the Environment: Taking a Historical Perspective*, special issue of *Environmental Monitoring and Assessment* 106 (July 2005).

Journal Articles and Book Chapters

Hugh Gorman and Betsy Mendelsohn, "Where Does Nature End and Culture Begin? Converging Themes in the History of Technology and Environmental History" in *The Illusionary Boundary: Historical Research at the Intersection of Technology and the Environment*, ed. Stephen Cutcliffe and Martin Reuss, (University of Virginia Press, forthcoming 2010).

Samir Qadir and Hugh S. Gorman, "The Use of ISO 14001 in India: More Than a Certificate on the Wall?" *Environmental Practice* 10 (2008): 53-65.

- Hugh S. Gorman, "The Houston Ship Channel and the Changing Landscape of Industrial Pollution" in *An Environmental History Of Houston and the Gulf Coast*, ed. Martin V. Melosi and Joseph Pratt (University of Pittsburgh Press, 2007): 52-68.
- Hugh S. Gorman and Kathleen E. Halvorsen, "The Regulation of Alternative Onsite Wastewater Technologies in the Great Lakes Region," *Small Flows Quarterly* 7 (2006): 23-37.
- Kathleen E. Halvorsen and Hugh S. Gorman, "Onsite Wastewater Treatment along the Great Lakes and the USEPA 'Homeowner Awareness' Model," *Environmental Management* 37 (2006): 395-409.
- Hugh S. Gorman, "Laying the Foundation for the Control of Industrial Pollution, 1930-1970: Two Canals, a Refinery, and Clarence W. Klassen," *Journal of Illinois History* 8 (2005): 182-208.
- Hugh S. Gorman and Erik Conway, "Monitoring the Environment: Taking a Historical Perspective," *Environmental Management and Assessment* 106 (2005): 1-10.
- Hugh S. Gorman, "Urban Areas, Environmental Decision Making, and Uses of History to Inform Public Choices" in *Public History and the Environment*, Martin V. Melosi and Philip V. Scarpino (Krieger, 2004).
- Hugh S. Gorman, "Brownfields in Historical Context," *Environmental Practice* 5 (2003): 21-24.
- Hugh S. Gorman and Barry D. Solomon, "The Origins and Practice of Emissions Trading," *Journal of Policy History* 14 no. 3 (2002): 293-320.
- Hugh S. Gorman, "Conflicting Goals: Superfund, Risk Assessment, and Community Participation in Decision Making," *Environmental Practice* 3 (March 2001): 27-37.
- Hugh S. Gorman, "Efficiency, Environmental Quality, and Oil Field Brines: The Success and Failure of Pollution Control by Self Regulation," *Business History Review* 73 (Winter 1999): 601-640.
- Barry D. Solomon and Hugh S. Gorman, "State-Level Air Emissions Trading: The Michigan and Illinois Models," *Journal of the Air and Waste Management Association* 48 (December 1998): 1156-1165.
- Hugh S. Gorman, "Manufacturing Brownfields: The Case of Neville Township, Pennsylvania, 1899-1989," *Technology and Culture* 38 (July 1997): 539-574.

Encyclopedia Entries, Newsletters, and Other Publications

- Hugh S. Gorman, "What Cap and Trade Programs are Really About," op-ed, *History News Network*, June 29, 2009, <http://www.hnn.us/>.
- Hugh S. Gorman, "The Nitrogen Cycle," *Encyclopedia of Geography* (Sage Publications, forthcoming, 2010).
- Hugh S. Gorman, "Emissions of NO_x and Policy Lessons," *Chemical Heritage* 22 (2004): 31-32.
- Hugh S. Gorman, "Petroleum and the Early Oil Industry (1860-1920)" in Char Miller, ed., *Atlas of U.S. and Canadian Environmental History* (Routledge, 2003).
- Hugh S. Gorman, "Do Public Advisory Councils (PACs) Work?" *Focus* 23 (March 1998): 11-12.
- Hugh S. Gorman, "Acid Rain," *Dictionary of American History* (New York: American Reference Publishing Company, Inc., 1996).

Book Reviews

- Review of *Ecological Futures: What History Can Teach Us* by Sing C. Chew. In *Environmental History* (forthcoming).
- Review of *What We Know About Climate Change* by Kerry Emanuel and *Climate Change: What It Means for Us, Our Children, and Our Grandchildren* by Joseph F. C. Dimento and Patricia Doughman, eds. In *Chemical Heritage* 26 (2008): 42-43.
- Review of *The Strategic Petroleum Reserve: U.S. Energy Security and Oil Politics, 1975-2005* by Bruce A. Beaubouef. In *Business History Review* 82 (2008): 405-406.
- Review of *Inventing Pollution: Coal, Smoke, and Culture in Britain since 1800* by Peter Thorsheim. In *Business History Review* 81 (2007): 832-834.
- Review of *The Texas Railroad Commission: Understanding Regulation in America to the Mid-Twentieth Century* by William R. Childs. In *Journal of Economic History* 66 (2006): 529-531
- Review of *Crude Politics: The California Oil Market, 1900-1940* by Paul Sabin. In *Business History Review* 79 (2005): 640.
- Review of Melanie Depuis, *Smoke and Mirrors: The Culture and Politics of Air Pollution*. In *American History Review* 110 (2005): 1493-94
- Review of Spencer Weart, *The Discovery of Global Warming*. In *Chemical Heritage* 23 (2005): 42-44.
- Review of Jonathon W. Singer, *Broken Trusts: The Texas Attorney General Versus the Oil Industry, 1889-1909*. In *Business History Review* 78 (2004): 526.
- Review of Vaclav Smil, *Enriching the Earth: Fritz Haber, Carl Bosch, and the Transformation of World Food Production*. In *Chemical Heritage* 22 (Fall 2004): 48-49
- Review of Gerald Markowitz and David Rosner, *Deceit and Denial: The Deadly Politics of Industrial Pollution*. In *Technology and Culture* 45 (2004): 219-221.
- Review of Frederick Buell, *From Apocalypse to Way of Life: Environmental Crisis in the American Century*. In *Technology and Culture* 45 (2004): 638-639.
- Review of Paul Hendrix, *Sir Henri Deterding and Royal Dutch-Shell: Changing Control of World Oil, 1900-1940*. In *Business History Review* 77 (Winter 2003): 803-804.
- Review of Christian Warren, *Brush with Death: A Social History of Lead Poisoning*. In *Business History Review* 76 (Summer 2002): 396-397.
- Review of Kenneth Warren, *Wealth, Waste, and Alienation: Growth and Decline in The Connellsville Coke Industry*. In *Ohio Valley Review* 2 (Fall 2002): 39-40.
- Review of Joseph A. Pratt, William H. Becker, and William M. McClenahan, Jr., *Voice of the Marketplace: A History of the National Petroleum Council*. College Station: Texas A&M University Press, 2002. In *Business History Review* (Spring 2003): 141-142.
- Review of Brian Black, *Petrolia: The Landscape of America's First Oil Boom*. In *Historical Geography* 28 (2002).
- Review of Charles David Jacobson, *Ties that Bind: Economic and Political Dilemmas of Urban Utility Networks*. For EH-Net Book Reviews in *Economic History* (2002).
- Review of Craig E. Colten, ed., *New Orleans and Its Environs: Centuries of Change*. In *Technology and Culture* 43 (2002): 617-618.
- Review of David Stradling, *Smokestacks and Progressives: Environmentalists, Engineers, and Air Quality in America, 1881-1951*. In *Technology and Culture* 42 (2001) 149-150.

Review of Roger M. Olien and Dianna Davids Olien, *Oil and Ideology: The Cultural Creation of the American Petroleum Industry*. In *Business History Review* 74 (2000): 504-506.

Review of Allan Mazur, *A Hazardous Inquiry: The Rashomon Effect at Love Canal in Environmental History Review* 4 (October 1999): 596-597.

Review of Alan Derickson, *Black Lung: Anatomy of a Public Health Disaster*. In *Environmental History* 4 (July 1999): 449-450.

Review of Samuel P. Hays, *Explorations in Environmental History: Essays by Samuel P. Hays*. In *Pennsylvania History* 66 (Spring 1999): 249-250.

Review of John Wargo, *Our Children's Toxic Legacy: How Science and Law Fail to Protect Us from Pesticides*. In *Technology and Culture* 39 (Jan 1997): 175-176.

Reports

Kathleen E. Halvorsen, Hugh S. Gorman, and Kristine Bradof. *Strengths and Weakness of Great Lakes Onsite Sewage System Regulatory Programs*, funded by the Joyce Foundation, Aug. 2004.

The Management of Onsite Wastewater Systems in Houghton County: Overview and Assessment, prepared with students in 2003 Environmental Decision Making class.

Recycling and Waste Reduction Programs in Hancock, Michigan: Review and Recommendations, prepared with students in 2002 Environmental Decision Making class.

Community Guide to the Regulated Uses of the Shared Environment by the Murphy Oil Refinery, prepared with students in 2000 Environmental Decision Making class.

Science, Technology, and Democracy in the Cold War and After: A Strategic Plan for Research in Science and Technology Studies: Report to the National Science Foundation, 1995. Assisted in drafting the report.

Pittsburgh Environmental Profile: Historical Trends, 1994. Drafted one section of this consulting study.

Research Presentations

"The Story of N: Sustainability and Society's Changing Interaction with the Nitrogen Cycle," History of Science and Technology Spring Colloquium, University of Minnesota, Feb. 6. 2009.

"From Sludge to Biosolids: Closing the Rural-Urban Loop in the Cycle of Nitrogen, 1890-1990," American Society for Environmental History, Tallahassee, Florida, Feb. 26 2009.

"Managing Resources versus Managing a Commons: Sustainability and Societal Interactions with the Nitrogen Cycle," Managing the Unknown: Natural Resources in Historical Perspective, workshop sponsored by German Historical Institute, Feb., 21-23, 2008.

Hugh Gorman, "Overcoming Innovational Gridlock: Oil Tankers, Policy, and the Evolution of Energy Technologies," American Energy Policy in the 1970s, workshop, University of Houston, Nov. 9-10, 2007.

"Common Ground? Perspectives on the Integration of STS and Environmental History Thus Far," roundtable comments, Society for the History of Technology, Washington, D.C., Oct. 2007.

"On-Site Waste Water System Regulations and the Use of Alternative Technologies in the Great Lakes Region," presented at the Conference on the State of Groundwater

in the Great Lakes Basin conducted by the Science Advisory Commission, International Joint Commission, Syracuse, N.Y. June 2006.

“N in the City: Learning to View an Urban Pollutant as a Regional Concern,” presented at the American Environmental History annual meeting, Minneapolis, Minn., March 2006.

“The Transformation of Industrial Effluent and Emissions into Factors of Production,” presented at the Business History Conference, Minneapolis, Minn., May 2005.

“Changes in Land Use, Technology, and Perceptions: The Regulation of Septic Systems in the Great Lakes Region,” Great Lakes History Conference, Grand Valley State University, Oct. 29-30, 2004.

“Technology-Forcing Policies and the Control of NO_x: Clear Skies Initiative in Historical Perspective,” presented at the Beckman Center for the History of Chemistry, March 2004.

“Two Canals, a Refinery, and Clarence W. Klassen: Managing Industrial Pollution in Illinois, 1930-1980,” presented at the Beckman Center for the History of Chemistry, Oct. 2003.

“Transforming Emissions and Effluents into Managed Transactions,” presented at the Environmental History of Houston Conference, Houston, Texas February 2003.

“Carbon Sequestration, Nuclear Power, and the Hydrogen Economy,” invited speaker, conf. on “U.S. Energy Consumption and the Environment,” Athens, Ohio, April 2003.

“Oil Refineries, Industrial Ecology, and the Disposal of Acid Sludge,” presented at the American Society for Environmental History annual meeting, Denver, Colorado, March 2002.

“The Origins and Limitations of Emissions Trading,” paper presented at the 2000 Policy History Conference, Bowling Green, Ohio, June 2-4, 2000.

“Conflicting Goals: Superfund, Community Participation, and Risk Assessments,” paper presented at the 2000 Environmental History Conference, Tacoma, Washington, March 15-19, 2000.

“The Gospel of Efficiency and Measures of Environmental Quality: Congressional Debates and the Oil Pollution Act of 1924,” paper presented at the American Society for Environmental History Conference, Tucson, Arizona, April 14-18, 1999.

“Oil Tankers, Pollution Control, and the Interaction Between Regulations and Technological Innovation.” Paper presented at the Annual Meeting, Society for the History of Technology, Baltimore, October 1998.

“The Problem of Oil Field Brine: A Case History of the Engineering Response to an Environmental Concern,” paper presented at the Annual Meeting, Society for the History of Technology, Charlottesville, Virginia, October 19-23, 1995.

Workshops Organized

“Monitoring the Environment: Scales, Methods, and Systems in Historical Perspective,” sponsored by the Society for the History of Technology, held at the Hagley Museum and Library, Wilmington Delaware, July 17-18, 2003.

Courses Taught

Environmental Decision Making (1997 to 2006): Graduate-level group practicum in which students contribute to a decision-making process associated with a local environmental program or concern.

Global Environmental Systems (2006-present). Graduate-level group practicum in which different approaches to understanding economies and ecologies as part of the same system are examined.

U.S. Environmental History (1997 to present): Examines how natural systems and the environment, uses of the environment, and perceptions of nature have changed over time in the U.S., starting with the encounter between Europeans and Native Americans and ending with current environmental issues.

Science, Technology, and Society: Interactions and Interrelationships (1996 to present): Examines how scientific advances and technological innovations have influenced and been influenced by ethical and political choices.

Institutions: Capitalism, Democracy, and Globalization (2000 to 2006): A general education course in which students examine the development of the major institutional systems that have shape society: government, markets, religion, family, and education.

Environmental Policy (1996 to 2000): Examined the construction of U.S. environmental policy.

Western Civilization (1996 to 2000): A lecture-based one semester course in Western Civilization.

Grants and Support

Faculty Development Grant, Michigan Technological University (2008)

John C. Haas Fellowship, Chemical Heritage Foundation, “The Evolution of NO_x Air Quality Monitoring” (2003-2004)

Society for the History of Technology, funding for 2-day workshop/conference

Joyce Foundation, co-PI, “Great Lakes Septic Standards and Enforcement: A Comparison across Jurisdictions” (2002-2003)

National Science Foundation, PI, “Monitoring Technology: An Examination of the Regulatory Interface in the Implementation of Pollution Control Regulations, 1970-2000.” (1999-2002)

Oil and Gas Institute, Educational Initiative (1998)

Faculty Development Grant, Michigan Technological University (1997)

Herbert Hoover Presidential Library Research Fellowship (1995)

National Science Foundation Dissertation Improvement Grant (1995)

Hagley Museum and Library Travel Grant (1995)

Current Professional Organizations

American Society for Environmental History

Society for the History of Technology

Treasurer, 2008 – present

Envirotech special interest group, co-chair 2006 - present

Society for Industrial Archeology

Pre-Academic Employment

Free-lance writer, various clients on a contract basis (June 1983 to Sept 1991)

Design engineer, Westinghouse Electric Corporation, Pittsburgh, Pa. (1979 - 1982)