

Curriculum Vitae

DR. JOHN R. EHRENFELD

Education

Massachusetts Institute of Technology, Chemical Engineering, Sc. D., 1957; S. B., 1953.

Harvard Business School/Kennedy School of Government, Senior Managers in Government Program, 1979.

Professional Experience

International Society for Industrial Ecology, New Haven, CT

Executive Director (2000-2009). Founding executive director of new scholarly society.

School of Forestry and Environmental Management, Yale University

Senior Research Scholar (2004-2009)

Visiting Fellow, (2000-1)

John Ehrenfeld & Associates, Cambridge, MA

Principal (1986-). Environmental consulting for government agencies and private clients.

Massachusetts Institute of Technology, Cambridge, MA

Senior Research Associate and Lecturer (Retired) (1986-2000). Director, MIT Program on Technology, Business, and Environment. Senior Research Associate, Center for Technology, Policy and Industrial Development. Senior Lecturer in the Technology and Policy Program. Taught courses on environmental management and policy; technology and policy. Research on pollution prevention, industrial ecology, environmental management and policy, environmental practice in businesses.

Abt Associates, Inc., Cambridge, MA

Senior Environmental Research Manager (1985-86). Policy analysis and regulatory support for EPA. Policy analysis for the EPA Offices of Water, Policy Analysis, Solid Waste, Drinking Water, and others. Private sector assignments in litigation support.

Arthur D. Little, Inc., Cambridge, MA

Senior Consultant and Corporate Environmental Practice Coordinator (1981-85). Research and consulting in hazardous waste management; risk assessment; environmental and resource policy development, planning, and management.

New England River Basins Commission, Boston, MA

Chairman (1978-81). Appointed full-time head of this Federal/State resource-planning agency by President Jimmy Carter. Headed a staff of 50-60, including three satellite offices in Northern New England. Developed regional plans and policies for issues such as hydropower, water supply and water conservation, ground water protection, port development and harbor management, and dredging. Chaired national Task Force on Planning Procedures and Plan Utilization for the U.S. Water Resource Council.

Energy Resources Company, Cambridge, MA

Vice President and Technical Director (1975-78). Overall direction of professional staff of 80-100, in energy and environmental policy, regulatory, and scientific/technical studies.

Department of Chemical Engineering, Massachusetts Institute of Technology, Cambridge, MA
Visiting Lecturer (1973-76, part-time). Graduate seminars on environmental problems and pollution control. Process development fundamentals

Walden Research Corporation (later a division of Abcor, Inc.), Wilmington, MA
Founder, President, and Technical Director (1967-75). Planned organized and raised capital for environmental research company. Senior technical contributor to contract programs. Environmental impact statement preparation. R&D planning for air pollution control. Legal and economic aspects of environmental control. Conceived and developed several pollution monitoring systems.

GCA Corporation, Technology Division, Bedford, MA
Director, Applied Research (1962-67). Established environmental research activity. Research on hypervelocity impact phenomena.

Prototech, Inc., Cambridge, MA
Senior Chemical Engineer (1961-62). Developed novel fuel cell electrode system for hydrocarbon fuels.

Arthur D. Little, Inc., Cambridge, MA
Senior Staff Engineer (1957-61). Low temperature heat transfer and thermodynamics. Particle light-scattering and electrical phenomena.

US Army Chemical Corps, Edgewood, MD
1st. Lt. (1957-59). Engineering analysis of chemical processes and protective devices. Field study of early case of contamination from improperly disposed chemical wastes.

Academic Activities

Visiting and Adjunct Appointments

- Adjunct Faculty, Viridis Graduate Institute, 2013-
- Board of Trustees, Viridis Graduate Institute, 2011-
- Distinguished Fellow of the Fowler Center for Sustainable Value at the Weatherhead School of Management, Case Western Reserve University, (2011-16).
- Adjunct Faculty, Marlboro College MBA in Managing Sustainability, 2009-2012.
- Adjunct Professor, Bainbridge Island Graduate Institute, 2002-8.
- Visiting Professor, Technical University of Delft, 2000-1 Academic year
- Core faculty member, Sustainable Enterprise Academy, York University, 1999-2003
- Adjunct faculty, National Technical University, Trondheim, Norway, 1997-2002
- Visiting Professor, Instituto Superior Técnico, Lisbon, Portugal, Spring, 1999.
- Visiting Fellow, IMD, Lausanne, Switzerland, Spring, 1996.
- Adjunct faculty, University Gabriela Mistral, Santiago, Chile, 1993-7.

MIT Committees:

- Program on Environmental Education and Research (PEER), Co-Chair 1997-8.
- Technology and Policy Program Curriculum Review and Admissions
- Center for Technology, Policy and Industrial Development Advisory Board
- Hazardous Substances Group, 1988-93.
- Large-scale Systems, 1992-4.
- Siegel Writing Prize Selection, 1991.
- Urban Studies Curriculum Review, 1990.

Courses/Seminars taught (MIT and outside)

- Sustainability-as-flourishing by Design (Viridis Graduate Institute)
- Exploring Sustainability (Marlboro College Graduate School MBA in Managing for Sustainability)
- Radical Sustainability (Bainbridge Graduate Institute)

Academic Activities (continued)

Environmental Management and Policy (IST, Lisbon)
Environmental Policy and Management (Technical University of Lisbon)
Industrial Ecology and Product Development (NTNU, Trondheim, Norway)
Becoming a Responsible Professional Seminar (Technology and Policy Program)
Advanced Environmental Management (MEIGEN, Santiago, Chile)
Advanced Environmental Management (Sloan Executive Program)
Chemicals in the Environment: Sources and Controls
Chemicals in the Environment: Policy and Management
Technological Society and Technology Policy
Integrated Chemical Engineering (Superfund Design Module)
Technology (The Chip) and the Environment (Short Course)
Technology and Policy Proseminar (Selected lectures)
Environmental Management in the 21st Century (Summer 1990, 1991)
Thesis Preparation Seminar (Technology and Policy Program)
Thesis Preparation Seminar (Master in City Planning)
Environmental Economics and Policy Workshop (Harvard/HIID)

Graduate Students Supervised

MIT Ph.D.	8
MIT MS	51
Tufts	1 MS; 1 Ph.D.
Delft	2 MS; 1 Ph.D.
NTNU	1 MS, 1 Ph.D.
IST Lisbon	1 Ph.D.

Other Activities

Member, Harvard Institute for Learning in Retirement, 2006-
Member, HILR Council, 2015-7
President, HILR Council, 2016-7
Social Action Committee, Temple Isaiah, 2004-8.
Member, Board of Trustees, Society of Organizational Learning, 2005-9.
Member, External Advisory Board, Institute for Environmental Science and Policy, University of Illinois at Chicago, 2002-9.
Member, Advisory Committee, “Electronics Goes Green 2000+” Conference, Berlin, September 2000.
Member, Scientific Advisory Committee of the Center for Innovation, Technology and Policy Research, Instituto Superior Tecnico, Lisbon, 1999-2001.
Member, Technical Advisory Committee on Policy Issues, Multi-lifecycle Engineering Research Center, New Jersey Institute of Technology, 1998-2001.
Member, Scientific Advisory Board, Design and Management of Infrastructures Programme, Delft University, The Netherlands, 1998-2007.
Peer Review Panel, EPA Environmental Accounting Project - ComEd Case Study, 1998.
Board Member, Center for Environmental Innovation, 1997-
Co-founder and Associate Editor, *Journal of Industrial Ecology*, 1995-
The Sustainability Project, Steering Committee, 1993-4, Chairman of the Board, 1994-8.
Member, Superfund Task Force, American Institute of Chemical Engineers, 1993-7.
Environmentally-clean Manufacturing Strategic Initiative Science Advisory Committee, National Center for Manufacturing Sciences (NCMS), 1993-6.
IEEE Symposium on the Environment Program Committee, 1993-1996.
Conference Rapporteur, Dubos Forum on Population, Environment and Development, September, 1993.
Quality Environmental Management Project, President’s Commission on Environmental Quality, 1992.

Other Activities (continued)

Workshops on Industrial Ecology & Developing and Implementing Design for the Environment, National Academy of Engineers, 1992, 1993, 1994, 1995.
Thermal Destruction Task Group, Wastech '92, USEPA and the American Academy of Environmental Engineers, 1992.
Lighting Recycling, Inc., Technical Advisory Board, 1992-94.
Editorial Board, Environmental Science & Technology, 1996-2001.
Editorial Board, Journal of Sustainable Product Design, 1997-2005.
Editorial Board, Hazardous Wastes and Hazardous Materials, 1987-97.
Editorial Board, Environmental Quality Management, 1996-2000.
Editorial Board, Total Quality Environmental Management, 1993-6.
Editorial Board, Encyclopedia of the Environment, 1991-3.
Editorial Board, Journal of Hazardous Materials, 1988-95.
Editor, Journal of Industrial Ecology, 1997-2017.
Bioremediation Education Sub-committee, USDOE, 1991-2.
Rapporteur, Epcot Conference on Integrated Waste Management, 1991.
Planning Committee, New York State Center for Hazardous Waste Management, 1990-3.
Peer Review Committee, Amoco-EPA Joint Pollution Prevention Project, 1989-91.
Hambrecht & Quist Environmental Technology Fund, Advisory Board, 1989-98.
Symposium Steering Committee, Rene Dubos Center, 1989-94.
Occasional Peer Reviewer, National Science Foundation.
Workshop on Research Needs in Anticipation of Future Environmental Problems, National Academy of Sciences, 1989.
Community Assistance Advisory Board, Mass. Bureau of Solid Waste, 1988-89.
Massachusetts Water Resources Commission, Public Member, 1985-89.
Board of Governors, Massachusetts Technology Development Corporation, 1978-87 (formerly the Massachusetts Science and Technology Foundation, (1976-78)).
Task Force on Hazardous Waste Management Public Authorities, sponsored by the New England Council, Chairman, 1984-87.
Chairman, Ground Water Protection Conference, sponsored by New England Governor's Conference, December 1986.
Environmental Intern Program, Boston Local Support Committee, 1985-88.
Board of Directors, New England Rivers Center, 1981-86; President, 1984-86.
Massachusetts Coastal Resources Advisory Board, 1978-80.
Advisory Committee, Hydropower project, Franklin Pierce Law Institute, 1979-80.
Environmental Task Force, Boston Chamber of Commerce, 1971-78.
Governor's Task Force on Fuel Switching and Sulfur Regulations, 1972-74.
Organizer and Director, Seminar on Pollution Control, Medellin, Colombia, 1972.
Town Boards and Committees, Acton, Lincoln, Lexington.

Honors and Societies

Society Prize, International Society for Industrial Ecology, 2009.
Electronics Goes Green 2004+ Award for Distinguished Service. 2004.
Chair's Award for Distinguished Service, Organizations and the Natural Environment Division of the Academy of Management, 2000.
Lifetime Achievement Award, World Resources Institute, 1999.
Fulbright Distinguished Scholar, 1999.
Gary Leach Recognition Award (AIChE) for work on the Superfund Task Force, 1995.
AT&T Industrial Ecology Fellow, 1993-4; 1999.
The MIT Irwin Sizer Award for the Most Significant Contribution to MIT Education, 1991.
Best Technology and Policy Program Thesis (Advisor), 1991, 1992, 1994.
Best Sloan School of Management Doctoral Dissertation Award (Advisor), 1994.

Honors and Societies (continued)

Listed in American Men & Women of Science; Who's Who in the East; Who's Who in American Education.

National Science Foundation Fellow, 1953-55.

Tau Beta Pi, Sigma Xi, Phi Lambda Upsilon.

Air and Waste Management Association (formerly Air Pollution Control Association), 1965-95.

American Chemical Society, 1956-

Industrial and Engineering Chemistry Division

Chairman, 1977, Treasurer, 1972-74, Councilor, 1978-80.

Alternate Councilor 1974-76, 1981-85.

Society for Risk Analysis, 1986-1995.

American Institute of Chemical Engineers, 1958-78, 1987-2000.

American Institute of Chemists, Fellow.

American Association for the Advancement of Science, 1957-2003.

International Society for Industrial Ecology, 2000-

Society for Organizational Learning 2000-9.

Council 2005-9.

Publications and Patents

Over 200 papers, reports, and presentations.

Electrochemical Structure, U.S. Patent 3,206,333; Catalytic and Electrolytic Cell Structures, U.S.

Patent 3,206,334.

Selected Papers, Books and Presentations

The Right Way to Flourish: Reconnecting with the Real World, Routledge, 2019.

“Sustainability Beyond Growth: Toward an Ethics of Flourishing” in *The Routledge Handbook of the History of Sustainability*, J. Caradonna, ed. Routledge, 2017.

Laszlo, C., J. Brown et al., *Flourishing Enterprise*, Palo Alto, CA: Stanford Business Press, 2015.

Ehrenfeld, J. R., and A. Hoffman, *Flourishing: A Frank Conversation about Sustainability*. Palo Alto, CA: Stanford Business Press, 2013.

“The Roots of Unsustainability” in *The Handbook of Design for Sustainability*, S. Walker and J. Giard, eds. Bloomfield Publishers, 2013.

Chertow, M. and J. R. Ehrenfeld, “Organizing Self-organizing Systems,” *Journal of Industrial Ecology*, 16(1): 13-27, 2012.

“Beyond the Brave New World: Business for Sustainability” in the *Oxford Handbook of Business and the Natural Environment*, P. Bansal and A. J. Hoffman, eds. Oxford: Oxford University Press, 2011.

“Reductionism and Its Cultural Fallout.” In *The coming transformation: Values to sustain human and natural communities*. S. R. Kellert and J. G. Speth, eds. New Haven, Yale School Of Forestry & Environmental Studies, 2009.

“A Critical View on the Social Science Contribution to Industrial Ecology” in *The Social Embeddedness of Industrial Ecology*, F. Boons and J. Howard-Grenville, eds. Cheltenham, UK: Edward Elgar, 2009.

Sustainability by Design: A Subversive Strategy for Transforming Our Consumer Culture. New Haven: Yale Press, 2008.

“The Roots of Sustainability”, *MIT Sloan Management Review*, 46(2): 23-25, 2005.

“Searching for Sustainability: No Quick Fix”, *Reflections*, 5(8):1-13, 2004.

“Industrial ecology: a new field or only a metaphor?”, *Journal of Cleaner Production*, 12 (8-10):825-831, 2004.

“Can Industrial Ecology be the ‘Science of Sustainability?’” Editorial, *Journal of Industrial Ecology*. 8(1):1-3. 2004.

“Industrial Ecology: Paradigm or Normal Science?” *American Behavioral Scientist*, 44(2): 229-244, 2000.