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EDUCATION

- 1998 University of Pennsylvania, Philadelphia
Ph.D., History and Sociology of Science (M.A. in 1992)
Dissertation: "Smoke and Tailings: An Environmental History of Copper
Smelting Technologies in Montana, 1880-1930."
- 1977 Columbia University, Graduate School of Architecture & Planning, New
York
M.S. Historic Preservation
- 1975 University of Minnesota, School of Architecture, Minneapolis
Bachelor of Environmental Design
- 1971 St. Olaf College, Northfield, Minnesota
B.A., Art

EMPLOYMENT

- Jan. 2010- Professor of History, Department of Social Sciences and Graduate Program in
Industrial Archaeology, Michigan Technological University (promoted from
Associate Professor and given tenure in May 2014).
- 1994- Consulting Historian of Technology, principal in the firm Quivik Consulting
Historian, Inc., working in litigation support as an expert witness, and in the
evaluation of historic industrial and engineering sites as a cultural resources
consultant (this was my full-time work until beginning work at Michigan
Tech in Jan. 2010; since then it has been part-time consulting).
- 2006-2009 Instructor, history of technology and environmental history, Dept. of History
and Sociology of Science, University of Pennsylvania, Philadelphia, spring
semester each year.
- 1999-2001 Lecturer, history of technology, Interdisciplinary Studies Program, College of
Engineering, University of California at Berkeley, January 1999 to May 2001;
history of American science and technology, Department of History,
University of California, Berkeley, January to May 2000.
- 1991-1992 Historian, Historic American Engineering Record, U.S. Dept. of the Interior,
Jeannette, PA, June to August 1991, June to September 1992.
- 1982-1990 Architectural Historian (& founder), Renewable Technologies, Inc., Butte, MT.

- 1983 Adjunct Assistant Professor, School of Architecture, Montana State University, Bozeman, MT, winter quarter.
- 1981 Instructor, Engineering graphics, Montana College of Mineral Science and Technology, Butte, MT, spring semester.
- 1977-1981 Building Recycling Specialist, National Center for Appropriate Technology (NCAT), Butte, MT.
- 1979-1981 Historian, Historic American Engineering Record (HAER), U.S. Dept. of Interior, Butte, half-time with HAER and half-time with NCAT for 18 months.
- 1979 Sr. Architect, Historic American Engineering Record, U.S. Dept. of Interior, Butte, full-time, June-August, while on leave from NCAT.

OTHER TEACHING

Instructor for “Richest Hills” workshops, two week-long workshops each summer on the history of Western mining for teachers sponsored by the Montana Historical Society and funded by the National Endowment for the Humanities; focus of instruction was on history of environmental impacts by industrial mining at Butte, and the cultural landscapes of the mining industry at Butte and Anaconda, including the landscapes of Superfund remediation, July 2013 and July 2011.

PUBLICATIONS

A. Refereed Journal Articles

“Cooling Mass Concrete: Owyhee, Hoover, and Building Large Dams,” *Engineering History and Heritage* 168 (November 2013): 1-13.

“Architects As Designers of Pre-World War II, Large-Scale Technological Systems: Edward W. Tanner and the Design of the Fort Peck Townsite,” *IA: The Journal of the Society for Industrial Archeology* vol. 37, nos. 1 & 2 (2011): 115-134.

“Overcoming Barriers: Milk River Irrigation Project, Montana,” *Engineering History and Heritage* 164 (November 2011): 245-254.

“Engineering Nature: the Souris River and the Production of Migratory Waterfowl,” *History and Technology*, 25 (December 2009): 307-323.

“The Historical Significance of Tailings and Slag: Industrial Waste as Cultural Resource,” *IA: The Journal of the Society for Industrial Archeology* vol. 33, no. 2 (2007): 35-54.

“The Tragic Montana Career of Dr. D.E. Salmon,” in *Montana: The Magazine of Western History* 57 (Spring 2007): 32-47, 92-94.

"Of Tailings, Superfund Litigation, and Historians As Experts: *U.S. v. Asarco, et al*, the Bunker Hill Superfund Case in Idaho," in *The Public Historian* 26 (Winter 2004): 81-104.

"Gold & Tailings: The Standard Mill at Bodie, California," in *IA: The Journal of the Society for Industrial Archeology* vol. 29, no. 2 (2003): 5-27.

"Integrating the Preservation of Cultural Resources with the Remediation of Hazardous Materials: Assessment of Superfund's Record," *The Public Historian* 23 (Spring 2001): 47-61.

"Landscapes as Industrial Artifacts: Lessons from Environmental History," in *IA: The Journal of the Society for Industrial Archeology*, vol. 26, no. 2 (2000): 55-64.

"Montana's Minneapolis Bridge Buildings," in *IA: The Journal of the Society for Industrial Archeology*, 10, no. 1 (1984): 35-54.

B. Book Chapters

"The Industrial Undergirding to the Vernacular Architecture of Butte and Anaconda," in *Coming Home*, Patty Dean, ed., special issue of *Drumlummon Views*, published as a book and devoted to the historic built environment and landscapes of Butte and Anaconda, Montana (Helena, MT: Drumlummon Institute, 2009).

"The Historic Industrial Landscape of Butte and Anaconda," in *Images of an American Land: Vernacular Architecture Studies in the Western United States*, Thomas Carter, ed. (Albuquerque: University of New Mexico Press, 1997).

C. Scholarly Reviews

Review of *Opportunity, Montana: Big Copper, Bad Water, and the Burial of an American Landscape*, by Brad Tyer (Boston: Beacon Press, 2013), in *Environmental History* 19 (April 2014): 398-399.

Review of *Meet Joe Copper: Masculinity and Race on Montana's World War II Home Front*, by Matthew L. Basso (Chicago: University of Chicago Press, 2013), in *IA: The Journal of the Society for Industrial Archeology* vol. 37, nos. 1 & 2 (2011): 176-177.

Review of *The Illusory Boundary: Environment and Technology in History*, edited by Martin Ruess and Stephen H. Cutcliffe, in *Environmental History* 16 (October 2011): 733-734.

Review of *Murder of a Landscape: The California Farmer-Smelter War, 1897-1916*, in *Agricultural History* 85 (Spring 2011): 262.

Review of *Tungsten in Peace and War, 1918-1946*, by Ronald H. Limbaugh, in *Marine Corps University Journal* 2 (Spring 2011): 138-140.

Review of *Idaho's Bunker Hill: The Rise and Fall of a Great Mining Company, 1885-1981*, by Katherine Aiken, in *Oregon Historical Quarterly* 107 (Fall 2006): 471-473.

Review of *A Room for the Summer*, by Fritz Wolff, in *Montana: The Magazine of Western History* 56 (Summer 2006): 92-93.

Review of *The Government Machine: A Revolutionary History of the Computer*, by Jon Agar, in *IA: the Journal of the Society for Industrial Archeology* 31 (no. 2, 2005): 69-70.

Review of *Coal: A Human History*, by Barbara Freese, in *Technology and Culture* 46 (October 2005): 846-847.

Review of *Fish versus Power: An Environmental History of the Fraser River*, by Matthew D. Evenden, in *Environmental History Review* 10 (July 2005): 558-559.

Review of *DuPont: From the Banks of the Brandywine to Miracles of Science*, by Adrian Kinnane, in *Chemical Heritage*, 22 (Spring 2004): 44-45.

Review of *Mining Frontiers of the Far West, 1848-1880*, by Rodman Wilson Paul (Holt, Reinhart, and Winston, 1963, rev. ed. with additional chapters by Elliott West, University of New Mexico Press, 2001) in *Western Historical Quarterly* (Summer 2003): 242-243.

Review of *The Chimney of the World: A History of Smoke Pollution in Victorian and Edwardian Manchester*, by Stephen Mosley, in *Technology and Culture* 44 (July 2003): 620-621.

Review of *The Subterranean Forest: Energy Systems and the Industrial Revolution*, by Rolf Peter Sieferle, in *Technology & Culture* 44 (January 2003): 216-218.

Review of *Virtual Rivers: Lessons from the Mountain Rivers of the Colorado Front Range*, by Ellen E. Wohl, in *Environmental History* 7 (July 2002): 517-518.

Review of *Wealth, Waste, and Alienation: Growth and Decline in the Connellsville Coke Industry*, by Kenneth Warren, in *Enterprise and Society* 3 (June 2002): 383-385.

Review of *Petrolia: The Landscape of America's First Oil Boom*, by Brian Black, in *Environmental History* 7 (January 2002): 139-140.

Review of *Metal Mining in Canada, 1840-1950*, by Jeremy Mouat, in *IA: the Journal of the Society for Industrial Archeology* 27 (no. 2, 2001).

Review of *Wounding the West: Montana, Mining, and the Environment*, by David Stiller, in *Environmental History* 6 (January 2001): 127-128.

Review of *Smelter Smoke in North America: The Politics of Transborder Pollution*, by John D. Wirth, in *Technology & Culture* 42 (January 2001): 151-152.

Review of *True Gardens of the Gods: Californian-Australian Environmental Reform, 1860-1930*, by Ian Tyrrell, in *Environmental History* 5 (April 2000): 254-255.

Review of *Common Fields: An Environmental History of St. Louis*, edited by Andrew Hurley, in *American Studies Journal* 40 (Fall 1999): 187-188.

Review of *Managing the Industrial Heritage*, edited by Marilyn Palmer and Peter Neaverson, in *IA: The Journal of the Society for Industrial Archeology* 24 (no. 2, 1998): 53-54.

Review of *The Search for the Ultimate Sink: Urban Pollution in Historical Perspective*, by Joel Tarr, in *Historical Geography* 26 (1998): 228-230.

Review of *Race and Labor in Western Copper*, by Philip J. Mellinger, in *Montana: The Magazine of Western History* 47 (Autumn 1997): 84-85.

Review of *Environmental History Review*, Spring 1994, special issue on "Technology, Pollution, and the Environment," Joel A. Tarr and Jeffrey K. Stine, eds., and *Journal of Urban History*, May 1994, special issue on "The City and the Environment," Joel A. Tarr and Christine M. Rosen, eds., in *Technology & Culture* 36 (October 1995): 1038-1041.

Review of *Water Towers and Gas Tanks*, by Bernd and Hilla Becher, in *Design Book Review* 35/36 (Winter/Spring 1995): 56-59.

Review of *The Texture of Industry: An Archaeological View of the Industrialization of North America* by Robert B. Gordon and Patrick M. Malone, in *Environmental History Review* 18 (Winter 1994): 102-104.

Review of *Bisbee: Urban Outpost on the Frontier*, Carlos A. Schwantes, ed., in *Technology and Culture* 35 (April 1994): 435-436.

Review of *In the Servitude of Power: Energy and Civilization through the Ages* by Jean-Claude Debeir, Jean-Paul Deleage, and Daniel Hemery, in *Environmental History Review* 17 (Summer 1993): 97-98.

Review of *The Colossus of 1812: An American Engineering Superlative* by Lee H. Nelson, in *IA: The Journal of the Society for Industrial Archeology*, 16 (1990), No. 1.

Review of *Song of the Hammer & Steel* by Duane Smith, in *IA: The Journal of the Society for Industrial Archeology*, 14 (1988), No. 1.

D. Other Publications

"Authenticity and the Preservation of Technological Systems," *CRM Journal* (Summer 2008): 26-36.

"New Deal Oasis on the High Plains," a "Montana Traveler" feature on the Town of Fort Peck in *Montana: The Magazine of Western History* 54 (Winter 2004): 69-74.

"Smelters" and "Tailings," two entries in the *Encyclopedia of World Environmental History* (New York & London: Routledge, 2004).

"Steel Transmission Towers & Energy for Montana's Copper Industry," Historic Landscapes feature in *Montana: The Magazine of Western History*, 38 (Fall 1988): 67-69.

"The Anaconda Company Smelters at Great Falls and Anaconda," in *The Speculator: The Journal of Butte and Southwest Montana History*, 1 (Summer 1984), expanded version of a paper given at the Annual Meeting of the Society for Industrial Archeology, St. Paul, MN, May 1983.

"A Comparison Between Passive Solar and Superinsulated Retrofits," published in the *Conference Proceedings, AS/ISES*, 1981.

"Retrofitting with Passive Solar," paper published in *New Energy From Old Buildings* (Washington, D.C.: The Preservation Press, 1981).

Professional and Expert Reports

n.b.: I have been writing professional reports for more than three decades. This c.v. includes only those written in the last two decades. Nearly all those written prior to 1993 were prepared in the context of my historic preservation work at Renewable Technologies, Inc.

"The Role of BP Exploration & Production Inc. in the Larger BP Enterprise," expert report dated 15 August 2014, prepared for the U.S. Department of Justice in *U.S. v. BP Exploration & Production Inc., et al*, Penalty Phase, the litigation concerning the 2010 Deepwater Horizon disaster in the Gulf of Mexico.

"History of Federal Resources Corporation's Activities at the Conjecture Mine," expert report dated 18 April 2013, prepared for Lybeck Murphy on behalf of the defendant in *U.S. v. Federal Resources Corporation* in the Conjecture Mine Superfund litigation in Idaho. The report provides expert opinions concerning the history of operations at the Conjecture mine, including those of Federal Resources as well as those of previous owners of the property.

“History of Opportunity, Montana, and Its Environment,” expert report dated 12 April 2013, prepared for Lewis, Slovak, & Kovacich on behalf of the plaintiffs in *Gregory A. Christian, et al, v. BP Amoco Corporation, et al*, in Montana District Court for Silver Bow County. The report provides expert opinions concerning the history of the Anaconda Copper Mining Company’s practices of discharging pollutants into the Opportunity environment and of the company’s knowledge that it was doing so.

“Silver Bow Creek,” expert report dated 15 October 2012, prepared for Goetz, Baldwin, and Geddes on behalf of the plaintiffs in *Silver Bow Creek Headwaters Coalition v. State of Montana*, in Montana District Court for Silver Bow County. The report provides expert opinions concerning the history of the name of an upper reach of Silver Creek, located within a portion of Butte undergoing Superfund remediation.

“Tailings Contributions of Golconda Lead Mines, Inc.,” expert report dated September 2011, prepared for the Environmental Enforcement Section, U.S. Department of Justice, in *U.S. v. Marmon Holdings*, a subsidiary case in the Bunker Hill Superfund litigation in Idaho. The report details the discharge of tailings by the Golconda mill during its years of operation.

“Lava Cap Mine,” expert report dated January 2011, prepared for the Environmental Enforcement Section, U.S. Department of Justice, in *U.S. v. Sterling Centrecorp*, the Lava Cap Mine Superfund case in California. The report details the history of the management relationship between Sterling and its subsidiary, Keystone Copper, which operated the Lava Cap mine.

“History of Mining, Milling, and Smelting in NE Washington,” November 2010, prepared for Teck Metals Ltd in *Joseph A. Pakootas, et al v. Teck Cominco Metals, Ltd*. The report details the histories of several mining and milling operations in northeast Washington which discharged tailings and other contaminants to the environment of the Upper Columbia River in the U.S.

“Mining on State Lands in NE Washington,” September 2010, prepared for Teck Metals Ltd in *Joseph A. Pakootas, et al v. Teck Cominco Metals, Ltd*. The report details the histories of several mining and milling operations in northeast Washington which operated on State lands and discharged tailings to the environment of the Upper Columbia River in the U.S.

“History of Potential Sources of the LNAPL Contamination beneath the Former DSCP Site in South Philadelphia,” February 2010, prepared for the Environmental Enforcement Section, U.S. Department of Justice, and the Defense Logistics Agency in *U.S. v. Sunoco, et al*, sub-contract to Stratus Consulting, Boulder, CO. The report details the histories of the Defense Supply Center Philadelphia (DSCP), Sunoco’s Point Breeze Refinery, and several smaller industrial operations for the purpose of showing that the LNAPL contamination had its historic source at the refinery and could not historically have had its source at DSCP other than any of the smaller operations.

“Expert Report,” November 2006, prepared for the Environmental Enforcement Section, U.S. Department of Justice, in the Midnite Mine (WA) Superfund litigation (*U.S. v. Newmont*

USA Limited, et al). The report details the history of the management relationship between Newmont and its subsidiary, Dawn Mining Company, which operated the Midnite mine.

"Expert Report," October 2006, prepared for the Coeur d'Alene Tribe of Indians in support of a mediation hearing intended to resolve differences between the Tribe and Avista, (formerly Washington Water Power) concerning compensation Avista owes the Tribe for having inundated portions of the Coeur d'Alene Indian Reservation as a consequence of the construction of the Post Falls dam, which allows Avista to utilize the lake to provide annual storage for a system of hydroelectric generating stations along the Spokane River.

Testimony before a mediator on behalf of the U.S. Attorney's Office for the Eastern District of New York in the case *TDY Holdings, Inc., v. United States* concerning allocation of costs for the Superfund remediation of the Li Tungsten site at Glen Cove, New York. Testimony concerned history of operations at the Wah Chang tungsten refinery, corporate history associated with the operation, and the history of the federal government's involvement in the operations during the World War II years; January 2005.

"Synthesis Report," a report written under contract to the Historic American Engineering Record for the Rosie the Riveter/World War II Home Front National Historical Park (RORI), Richmond, CA, and synthesizing more than a dozen reports prepared for RORI on physical resources in Richmond dating from the WWII period, on historic sites in the San Francisco Bay Area relating America's WWII mobilization, and on historical themes reflecting Americans' experiences on the home front during the war, December 2004.

"The Kaiser Shipyards," HAER No. CA-326-M, business and technological history of Kaiser's Richmond shipyards, written under contract to the Historic American Engineering Record for the Rosie the Riveter/World War II Home Front National Historical Park, Richmond, CA, July 2004.

"The Ford Motor Company Assembly Plant," HAER No. CA-326-H, business and technological history of the Ford Assembly Plant in Richmond, CA, a.k.a. the Richmond Tank Depot, written under contract to the Historic American Engineering Record for the Rosie the Riveter/World War II Home Front National Historical Park, Richmond, CA, September 2003.

"Phase II Expert Rebuttal Report," January 2003, prepared for the firm Beshears Muchmore Wallwork, representing two of the plaintiffs (Phelps Dodge Miami, Inc., and Inspiration Consolidated Copper Company) in the Superfund litigation *Pinal Creek Group v. Newmont Mining Corporation, et al*. The report presents my expert opinions concerning the economic integration of mining companies operating in the Globe/Miami district of Arizona.

"Expert Report," July 2002, prepared for the Environmental Enforcement Section, U.S. Dept. of Justice, in *U.S. v. W.R. Grace*, the Libby, MT, Superfund case. The report describes the mining and mineral processing history of the W.R. Grace/Zonolite vermiculite operation at Libby.

"Second Supplemental Expert Report," July 2002, prepared for the firm Beshears Muchmore Wallwork, representing the plaintiffs in the Superfund litigation *Pinal Creek Group v. Newmont Mining Corporation, et al.* The report provides additional historical details concerning the corporate relationship between the Inspiration Consolidated Copper Company and the Anaconda Copper Mining Company.

"Supplemental Expert Report," January 2002, prepared for the firm Beshears Muchmore Wallwork, representing the plaintiffs in the Superfund litigation *Pinal Creek Group v. Newmont Mining Corporation, et al.* The report provides additional historical details concerning the corporate relationship between the Inspiration Consolidated Copper Company and the Anaconda Copper Mining Company.

"History and Heritage of Civil Engineering," historian of technology for developing an interactive web site (www.asce.org/history/) mounted in commemoration of the sesquicentennial of the American Society of Civil Engineers (ASCE); sub-contract to Convey, Inc., October 2001.

"Determination of Eligibility for the Contra Costa Power Plant," Antioch, CA, prepared under contract to URS-Dames & Moore for Southern Energy, Oct. 2000.

"The Standard Mill at Bodie, CA," HAER No. CA-299, narrative history written under contract to the Historic American Engineering Record for California State Parks, Sept. 2000.

"Expert Report," March 2000, prepared for the Environmental Defense Section, U.S. Dept. of Justice, in the Stibnite/Yellow Pine Superfund litigation (*Mobil Oil Corp. v. U.S.*) in Idaho. The report describes the tailings-disposal methods used by the Bradley Mining Company, 1932-1952.

"Expert Report," February 2000, prepared for the firm Muchmore & Wallwork, representing the plaintiffs in the Superfund litigation *Pinal Creek Group v. Newmont Mining Corporation, et al.* The report is a corporate and operational history of the Inspiration Consolidated Copper Company in the context of the corporate and operational history of the Anaconda Copper Mining Co., which owned a minority share of Inspiration stock but controlled the Inspiration operations.

"Expert Report," August 1999, prepared for the Environmental Enforcement Section, U.S. Department of Justice, in the Bunker Hill (ID) Superfund litigation (*U.S. v. ASARCO, et al.*). The report includes technological and business histories of the lead-silver concentrators operating in the Coeur d'Alene mining district and a history of the movement of tailings and other contaminants through the Coeur d'Alene River system.

"Expert Report," August 1997, prepared for the Environmental Enforcement Section, U.S. Department of Justice, in the Clark Fork (MT) Superfund litigation (*U.S. v. ARCO*). The report includes technological histories of the silver mills, copper smelters, zinc concentrators, and manganese plant at Butte and Anaconda, Montana, as well as histories

of the Anaconda Smelter Smoke Commission and a series of land exchanges affected by the Anaconda Copper Mining Company and the U.S. Forest Service.

"The Anaconda Smelter Smoke Commission: A Technological History," May 1997, Expert Report prepared for the Environmental Defense Section, U.S. Department of Justice, in the Clark Fork (MT) Superfund litigation (*U.S. v. ARCO*). In addition to a history of the Smoke Commission, the report includes a technological and pollution history of the Anaconda Copper Mining Company's smelters at Anaconda.

"Sheridan Electric Co-op: A History of Its Organizing," a history written to commemorate Sheridan Electric's 50th annual membership meeting, October 1997. The project was accompanied by the recording of about a dozen oral histories of early co-op members recalling the impacts of rural electrification on farm life in northeast Montana.

"Connellsville Coal and Coke Study," a business and technological history of the Connellsville Coke Region for the America's Industrial Heritage Project, Historic American Engineering Record (HAER), National Park Service, September 1992. Transmitted to the Library of Congress as "Connellsville Coal & Coke Region, HAER No. PA-283," the historical narrative accompanying HAER measured drawings of beehive coke ovens in the region, 1995.

Oral Histories

Organized and conducted an oral history project as part of the research for an Expert Report for the U.S. Dept. of Justice in *U.S. v. Asarco, et al*; recorded 12 oral histories in communities in the Coeur d'Alene mining district, ID, December 2005 and April 2006.

Organized and conducted, in cooperation with the oral historian at the Montana Historical Society, the Libby Oral History Project as part of the research for an Expert Report for the U.S. Dept. of Justice in *U.S. v. W.R. Grace*; recorded 32 oral histories, April-June 2002.

Oral histories with three former shipyard workers, conducted in conjunction with research for the history of the Kaiser shipyards in Richmond, CA, being prepared for the Historic American Engineering Record.

Oral history of Guy Harris, retired chemist at Dow who developed and patented Z200, an important reagent used in the flotation of copper ores; Regional Oral History Office, Bancroft Library, University of California at Berkeley, 2001.

Oral histories with Joe & Carol Gwerder, farmers in California's Delta Region who spent their lives engaged in irrigated agriculture; Regional Oral History Office, Bancroft Library, University of California at Berkeley, 2001.

The Morrissey Oral History Workshop, training by Charles Morrissey during a three-day workshop at Fort Mason Center, San Francisco, March 2000.

Oral histories of thirteen early members of a rural electric co-op recalling the impacts of rural electrification on farm life in northeast Montana; sponsored by Sheridan Electric Co-op, 1997.

Professional Affiliations

Society for Industrial Archeology: president 6/96 to 6/98; vice president 6/94-6/96; past-president 6/98 to 6/00; board of directors 6/90-6/93; journal editor 2011 to present.

Society for the History of Technology.

American Society for Environmental History

History of Science Society

Western History Association

Organization of American Historians

Klepetko (Montana) Chapter, Society for Industrial Archeology, president 9/87-8/90.

Society of Architectural Historians.

Norwegian-American Historical Association

Professional Service

A. Organizing

Panel organizer, "Creating and Responding to Energy Sacrifice Zones," panel of four papers and a comment for the annual meeting of the American Society for Environmental History, San Francisco, March 2014.

Organizer, tour of industrial operations in Rice and Goodhue counties, organized for the Annual Meeting of the Society for Industrial Archeology, St. Paul, MN, June 2013.

Organizer, tour of industrial sites in Richmond, CA, associated with the WWII Home Front, organized for the Annual Meeting of the Society for Industrial Archeology, Richmond, CA, June 2008.

Chair of the Program Committee for the annual meeting of the Society for Industrial Archeology, Philadelphia, PA, June 2007; and Duluth, MN, June 2000.

Panel organizer, "Defining Environmental Edges to Anaconda's Global Mining Enterprise," panel of three papers presented at the annual meeting of the American Society for Environmental History, Baton Rouge, March 2007.

Panel organizer, "Emergency Shipyards during World War II in the San Francisco Bay Area," panel of three papers presented at the annual meeting of the Society for Industrial Archeology, Providence, June 2004.

Co-organizer with Brian Shovers, Fall Tour of industrial and engineering sites in NE Montana, organized by the Klepetko (Montana) Chapter for the Society for Industrial Archeology, September 2003.

Panel organizer, "A Roundtable on the Environmental History of Mining," panel of three papers presented at the annual meeting of the Mining History Association, Wallace, ID, June 2002.

Panel organizer, "Tailings As Cultural Artifact," panel of three papers presented at the annual meeting of the Society for Industrial Archeology, Brooklyn, June 2002.

Initiator and chair of the Program Committee, "Whither Industrial Archeology," a three-day symposium at Lowell, MA, featuring twenty-four speakers and co-sponsored by the Society for Industrial Archeology, Historic American Engineering Record, and Lowell National Historic Park, November 1998.

Panel organizer, "Topics at the Intersection of Architectural History and the History of Technology," a two-session panel featuring seven papers and a comment, presented at the Annual Meeting of the Society of Architectural Historians, Seattle, WA, April 1995.

Organizer, Coal and Coke Tour, organized for the Annual Meeting of the Society for Industrial Archeology, Pittsburgh, PA, June 1993.

Co-organizer with Brian Shovers, Fall Tour of Butte and Anaconda, Montana, organized by the Klepetko (Montana) Chapter for the Society for Industrial Archeology, October 1989.

Co-organizer with Brian Shovers, "Butte: The Urban Frontier," three-day history conference featuring twenty-six speakers and sponsored by the Butte Historical Society with major funding by the Montana Committee for the Humanities, Butte, MT, September 1982.

Project Director, Historic and Architectural Survey of over 3,000 structures in the Butte National Historic Landmark District, sponsored by the Butte Historical Society with major funding from the Montana State Historic Preservation Office and the Butte-Silver Bow Community Development Office, 1981-1985.

B. Scholarly Review Activities

Served as peer reviewer for articles submitted to the following scholarly journals: *BC Studies*; *Environmental History*; *IA: the Journal of the Society for Industrial Archeology*; *Montana: the Magazine of Western History*; *Technology & Culture*; *The Annals of Science*; *Health & History*.

Served as peer reviewer for book manuscripts for the University of Washington Press, the University of Tennessee Press, and the Montana Historical Society Press.

Served as a reviewer for grant proposals submitted to the National Science Foundation.

C. Committees and Boards

Capitol Advisory Council (Montana), appointed by Gov. Racicot 1/96 to 8/98.

Committee on Historic and Archeological Preservation in Transportation, Transportation Research Board of the Nat'l Research Council, 1/91 to 6/93.

Board of Directors, Butte-Anaconda Historical Park and Railroad Corporation, 1986-1990.

Montana Historic Preservation Review Board, 1981-1990: appointed by Governor Schwinden, 10/81; reappointed 10/85; elected chairperson, 12/87.

Montana State Capitol Restoration Advisory Panel, appointed by House Speaker John Vincent, 5/85-4/89.

Board of Directors, Butte-Silver Bow Public Archives, 1979-1986.

UNIVERSITY SERVICE

Member of Search Committee, academic year 2013-2014, to fill a position in history for the department.

Ad hoc committee of historians in the Dept. of Social Sciences to up-date the history major, to convert it from B.A. in Liberal Studies – History, to B.A. in History, 2011-2012.

Chair of Search Committee, Dept. of Social Sciences, academic year 2011-2012, organized successful searches to fill two positions in history for the department.

Social Sciences Curriculum Committee, academic years 2020-2011 and 2011-2012.

Member of the graduate faculty in the Industrial Heritage & Archaeology Program, 2010-present. Helped to initiate reconfiguration of courses in the curriculum for the M.S. program, so that grad students take three three-credit courses per semester rather than two four-credit courses plus a one-credit elective, and so that some graduate level courses are taught in alternating years rather than yearly, to make it possible for M.S. cohorts to be in classes with each other and to relieve teaching load for faculty.

Editor for *IA: The Journal of the Society for Industrial Archeology*. Serving as editor is service to the department, because the department houses the Society's headquarters and has made a commitment to editing the journal since the 1990s, because of the benefits the journal and the Society provide for our graduate program in Industrial Archeology.