

VIRGINIA P. DAWSON

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Email: Virginia.Dawson@Case.edu; ginniedawson@gmail.com

Employment:

President and Cofounder, *History Enterprises, Inc.* 1996-current
Adjunct Associate Professor, Case Western Reserve University, 1992-94;1998-2020;
2022-23
Consultant, The Winthrop Group, Inc., 1991-1996
Adjunct Associate Professor, Case Western Reserve University, 1992-1994
Visiting Associate Professor, Oberlin College, 1989-90
Adjunct Assistant Professor, Cleveland State University, 1988-1990

Education:

Ph.D. Case Western Reserve University, History of Science and Technology, May 1983
M.A. Case Western Reserve University, History of Science and Technology, May 1977
B.A. Smith College, Northampton, MA, History Honors, May, 1965

Books:

Iron Will: A History of Cleveland-Cliffs Iron Company, 1847-2006 (co-authored with Terry Reynolds). Detroit: Wayne State University Press, 2011.

Tradition and Transformation: A History of Educating Girls at Hathaway Brown School, 1876-2006 (coauthored with Mark D. Bowles). Shaker Heights: Hathaway Brown School, 2006.

Taming Liquid Hydrogen: The Centaur Upper Stage Rocket, 1958-2002 (coauthored with Mark D. Bowles). SP2004-4320, 2004. This book won the 2004 best manuscript prize from the American Institute for Aeronautics and Astronautics (AIAA).

www.history.nasa.gov/SP-4230.pdf

Realizing the Dream of Flight: Biographical Essays in Honor of the Centennial of Flight, 1903-2003 (edited with Mark Bowles), NASA SP-2005-4112, 2005.

www.history.nasa.gov/sp4112.pdf

With One Voice: The Association of American Medical Colleges, 1876-2002 (coauthored with Mark D. Bowles) Washington, D.C., AAMC, 2003.

Surgery, Subspecialization, and Science: A History of the Cleveland Clinic Department of Urology, 1923-2000 (coauthored with Mark Bowles). Cleveland: Cleveland Clinic, 2000, second ed. 2008.

Lincoln Electric, A History. Cleveland: The Lincoln Electric Company, 1999.

Engines and Innovation: Lewis Laboratory and American Propulsion Technology. NASA SP 4306, 1991. www.history.nasa.gov/SP-4306.pdf

Nature's Enigma: The Problem of the Polyp in the Letters of Bonnet, Trembley, and Réaumur. Philadelphia: American Philosophical Society, 1987.

Video:

Frances Payne Bolton: *Reaching Out for Liberty and Light*
<https://www.youtube.com/watch?v=3I3EfHHIPYw>

Articles and Book Chapters:

“Saving the Shaker Lakes: How an Alliance between Two Wealthy Suburbs and Cleveland’s Black Mayor Stopped the Clark Freeway,” *Journal of Planning History*, scheduled for publication in 2022.

“Protection from Undesirable Neighbors: The Use of Deed Restrictions in Shaker Heights, Ohio,” *Journal of Planning History* 18 (2), May 2019.
<https://journals.sagepub.com/doi/10.1177/1538513218791466>

“Taming Liquid Hydrogen: The Centaur Saga,” in *To Reach the High Frontier: A History of U.S. Launch Vehicles*, University Press of Kentucky, 2002.

“The Romance of Aircraft Manufacturing: Glenn L. Martin’s Cleveland Years,” in *Proceedings of the National Aerospace Conference*, Wright State University Press, 1999.

“Gabriel Cramer and the Foundations of Natural Science in Eighteenth-Century Geneva,” in *The Swiss Connection: Reconceptualizing Nature, Science and Aesthetics*. Geneva: Slatkine, 1998.

“The Advanced Turboprop Project: Radical Innovation in a Conservative Environment,” (with Mark Bowles) in *From Engineering Science to Space Science*. NASA SP-4219. Washington, DC: Government Printing Office, 1998.

“Knowledge is Power: E.G. Bailey and the Invention and Marketing of the Bailey Boiler Meter,” *Technology and Culture* 37 (1996): 493-526.

“Bailey and His Boiler Meter,” *Mechanical Engineering* 117 (Dec. 1995): 86-89.

“La Théologie des Insectes dans la Pensée de Charles Bonnet,” in *Charles Bonnet: Savant et Philosophe (1720-1793)* (Genève: Editions Passé Présent, 1995), pp. 79-90.

“The American Turbojet Industry and British Competition: the Mediating Role of Government Research,” in *From Airships to Airbus: The History of Civil and Commercial Aviation*, ed. William M. Leary (Washington, DC: Smithsonian Institution Press, 1995), pp. 127-150.

“Building Space Hardware: Industry, National Security, and NASA,” in *Space*, ed. Sylvia Fries and Martin Collins, Hugh Lauter Levin Associates/Smithsonian Institution, 1993, pp. 177-219.

“The Push from Within: Lewis Research Center’s Transition to Space,” in *A Spacefaring Nation*, edited by Sylvia Fries and Martin Collins, Smithsonian Institution Press, 1991. Won 1988 Robert H. Goddard Historical Essay Prize awarded by National Space Club.

“Trembley, Regeneration, and the Immutable Order of Nature,” *Archives of Natural History* (Great Britain 1991): 18 (3): 309-321.

“The Limits of Observation and the Hypotheses of Bonnet and Buffon,” in *Beyond History of Science*, ed. Elizabeth Garber (Lehigh, PA: Lehigh University Press: 1990), pp. 107-125.

“From Braunschweig to Ohio: Ernst Eckert and Government Heat Transfer Research,” in *History of Heat Transfer*, ed. Edwin T. Layton and John H. Lienhard, (NY: American Society of Mechanical Engineers, 1988), pp. 125-137.

“The Scientist in Shirt-Sleeves: Charles Bonnet’s Letters on Parthenogenesis,” in *Man, God, and Nature in the Enlightenment*, ed. Donald C. Mell, Jr., Theodore E. D. Braun, and Lucia M. Palmer, (East Lansing, MI, Colleagues Press, 1987), pp. 193-203.

“Trembley’s Experiment of Turning the Polyp Inside Out and the Influence of Dutch Science,” *Archives des Sciences* (Genève) 38 (1985): 321-334.

“The Problem of Soul in the Little Machines of Réaumur and Charles Bonnet,” *Eighteenth-Century Studies* 18 (1985): 503-22.

“Trembley, Bonnet, and Réaumur and the Issue of Biological Continuity,” *Studies in Eighteenth Century Culture* 13 (1984): 43-63.

History of Technology Book Reviews:

Clayton J. Ruminski, *Iron Valley: The Transformation of the Iron Industry in Ohio's Mahoning Valley, 1802-1913* in *The Journal of Industrial Archeology* 42 (Nov. 2016): 69-70.

Andrew Scott Johnston, *Mercury and the Making of California: Mining, Landscape, and Race, 1840-1890* in *The Journal of Industrial Archeology* 38 (2): 77-78.

Erik M. Conway, *High-Speed Dreams: NASA and the Technopolitics of Supersonic Transportation, 1945-1999* in *Technology and Culture* 47 (Oct. 2006):866-67.

W.D. Kay, *Defining NASA: The Historical Debate Over the Agency's Mission*, *Isis* 97 (Sept. 2006):589-90.

Howard E. McCurdy, *Space and the American Imagination*, *Isis* 90 (1999): 635-37

Mansel G. Blackford, *BFGoodrich: Tradition and Transformation, 1870-1995* in *Technology and Culture* 40 (1999): 436-37.

Donald M. Patillo, *Pushing the Envelope* in www.EH.NET March 1999

Steve Love and David Giffels, *Wheels of Fortune: The Story of Rubber in Akron* in *Public Historian* [1998]: 118-119.

Exploring the Unknown, ed. John M. Logsdon in *Public Historian* (1997).

Brian Balogh, *Chain Reaction: Expert Debate and Public Participation in American Commercial Nuclear Power, 1945-1975* in *Journal of Interdisciplinary History* 24 (1993): 382-84.

Necah Stewart Furman, *Sandia National laboratories: The Postwar Decade* in *Pacific Review*, Feb. 1991: 128-29.

David H. Devorkin, *Race to the Stratosphere: Manned Scientific Ballooning in America* in *Technology and Culture* 32 (1991): 633-34.

John Golley, *Whittle: the True Story* in *Technology and Culture* 30 (1989): 1074.

Arthur M. Squires, *The Tender Ship* in *Isis* 80: 172-73.

Richard Hallion, *On the Frontier: Flight Research at Dryden, 1946-1981* in *Pacific Review*, May 1986: 336-37.

History of Science Book Reviews:

Johan A. M. Bleeker; Johannes Geiss; Martin C. E. Huber, editors. *The Century of Space Science* in *Isis* 95 (Dec. 2004): 743-44.

Mary Terrall, *The Man Who Flattened the Earth: Maupertuis and the Sciences in the Enlightenment* in *American Historical Review* (December 2003): 1530-1531.

Clara Pinto-Correia, *The Ovary of Eve: Egg and Sperm and Preformation* in *Bulletin of the History of Medicine* [2000]

James L. Larson, *Interpreting Nature: The Science of Living Form from Linnaeus to Kant* in *American Historical Review* (October 1996): 1179-80.

Otto Sonntag, ed., *The Correspondence between Albrecht von Haller and Horace-Bénédict de Saussure* in *Isis* 84 (1993): 154.

“Les savants genevois dans l’Europe intellectuelle du XVIII^e au milieu de XIX^e siècle,” in *Journal of the History of Biology* 23 (1990): 159-62.

“Review Essay on Bonnet’s Correspondence,” in *The East-Central Intelligencer* (American Society for Eighteenth-Century Studies), January 1989.

John Weinstock, ed., *Contemporary Perspectives on Linnaeus* in *The Eighteenth Century: A Current Bibliography* (1988)

Renato Mazzolini and Shirley Roe, *Science against the Unbelievers: the Correspondence of Bonnet and Needham* in *Bulletin of the History of Medicine* 62 (1988): 303-304.

Peter Koefel, *Felice Fontana: Life and Works* in *Bulletin of the History of Medicine* 58 (1984): 430-432.

Wilda C. Anderson, *Between the Library and the Laboratory: the Language of Chemistry in Eighteenth-Century France* in *The Eighteenth Century: A Current Bibliography* (1985).

Otto Sonntag, ed. *The Correspondence between Albrecht von Haller and Charles Bonnet* in *Bulletin of the History of Medicine* 58 (1984): 430-432.

Invited Papers:

“Tapping into Institutional Culture: Oral History as Investigative Tool,” *Oral History in the 21st Century*. Workshop sponsored by the Society of Ohio Archivists at the Rutherford B. Hayes Presidential Center in Fremont, Ohio, October 24, 2008.

“Oral History as Investigative Tool,” History of Science: Archives and Oral History Conference, sponsored by the Rockefeller Archive Center and Cold Spring Harbor Laboratory, April 2005.

“From Sticks and Wire to an All-Metal Airplane: Manufacturing Aircraft at the Glenn L. Martin Company, 1910-1930,” National Aerospace Conference, Wright State University, 1998

“What Happened to the Promise of Cleveland’s Aerospace Industry?” Presentation to the Board of the Great Lakes Industrial Technology Center’s Advisory Board (GLITech), The Crawford Auto and Aviation Museum, 17 July 1997.

“Seeing is Believing: Natural Science in Eighteenth-Century Geneva,” Conference “The Swiss Connection: Reconceptualizing Nature, Science and Aesthetics,” 28 Feb. 1997, Los Angeles and the Clark Library, Sponsored by UCLA Center for Seventeenth and Eighteenth Century Studies; William Andrews Clark Memorial Library, Swiss-American Cultural Exchange Council; Swiss Society for the Study of the Eighteenth Century; Consulate General of Switzerland.

“Reflections on Engineering Science and the Practice of the History of Technology in America,” Conference on “Les Sciences pour l’ingénieur en France, en Europe et aux USA,” Sponsored by National Science Foundation, Programme d’histoire des sciences et des techniques de la MRASH et du département des sciences pour l’ingénieur du CNRS, Lyon, 11-12 March 1997.

“Catalyst for Change: Cleveland’s Propulsion Laboratory and Aircraft Engine R&D,” International Conference on Engineering Science, Sponsored by the Centre Nationale des Recherches Scientifiques and the National Science Foundation, Orléans, France, 16-17 Oct. 1995.

“Lewis Laboratory, Government Research, and the Aircraft Engine Industry,” International Conference on the History of Civil and Commercial Aviation, Swiss Transport Museum, Lucerne, Switzerland, 23-29 Aug. 1992.

“Rocket Propulsion Research at NASA-Lewis Research Center, American Institute of Aeronautics and Astronautics Conference, July 1992, Nashville, TN (AIAA-92-3123)

“NASA-Lewis: National Priorities, Cleveland Context,” Mellon Lecture, 16 March 1992, Case Western Reserve University

“Imaging the Microscopic Body: the Machine Analogy and Anomalous Polyps,” Symposium in Celebration of the University’s Centennial, 2-4 April 1992, University of Chicago, Chicago, IL.

“Natural History Confronts Materialism: Réaumur and Charles Bonnet against the *Philosophes*,” Smith College Symposium in honor of Nelly S. Hoyt: “The Eighteenth-Century Europe Revisited: Human History and Natural History in an Age of Civility,” April 20, 1990, Northampton, MA.

“Regeneration, Parthenogenesis, and the Immutable Order of Nature,” 5th International Conference on Coelenterate Biology, 1989, Southampton, England, 13 July 1989.

“Objections to Buffon’s New Theory of Generation,” Institute of Biology, 15 July 1989, London, England

“Trembley’s Experiments on Reversal, and the Influence of Dutch Science,” Symposium Honoring the 200th Anniversary of the Death of Abraham Trembley, Dec. 10, 1984, Geneva, Switzerland.

Conference Papers:

“Deed Restrictions and the Integration of Shaker Heights,” National Conference on Planning History (SACRPH), Cleveland, Oct. 28, 2017.

“The Van Sweringen Restrictions and Their Demise,” April 5, 2013, Ohio Academy of History Annual Meeting, Bowling Green, Ohio.

“Commercialization of Atlas-Centaur: The Confluence of Reaganomics and Chance,” Society for the History of Technology, October 18, 2002, Toronto, Canada.

“The Centaur Upper Stage and Civilian Rocketry,” (with Mark Bowles), NASA Conference on Developing U.S. Launch Capability: The Role of Civil-Military Cooperation, American Association for the Advancement of Science, November 5, 1999, Washington D.C.

“Presenting History Enterprises, Inc.” (with Mark Bowles) session on “Practicing History of Technology Outside Academia,” Society for the History of Technology, October 8, 1999, Detroit, MI.

“Project Managers as Brokers: NASA’s Advanced Turboprop Project,” (with Mark Bowles), Society for the History of Technology, August 3, 1996, London, England.

“Experimental Philosophy and Natural History in Geneva: Jean Jallabert and Charles Bonnet” for the American Society for Eighteenth-Century Studies, Annual Meeting, April 13, 1991, Pittsburgh, PA.

“Innovation, Capitalism, and National Security: Lewis Laboratory’s Relationship with the Engine Industry, 1945-1952,” Society for the History of Technology, Annual Meeting, Oct. 21, 1990, Cleveland OH.

“Charles Bonnet and the Art of Observation,” History of Science Society Annual Meeting, Dec. 28, 1988, Cincinnati, OH.

“Buffon through the Prism of Geneva: the Response of Trembley and Bonnet to the New Theory of Generation,” Midwestern Society for Eighteenth-Century Studies, Oct. 7, 1988, Notre Dame University, South Bend, IN.

“From Braunschweig to Ohio: Ernst Eckert and Government Heat Transfer Research,” American Society of Mechanical Engineers Heat Transfer Division Annual Meeting, July 25, 1988, Houston, TX.

“Technology Behind the Image: On Writing a Critical History of NASA,” Smith College Dual Degree Programs in Liberal Arts and Engineering and the Five-College Seminar in the History of Science, Nov. 10, 1987, Northampton, MA.

“The Push from Within: Lewis Research Center’s Transition to Space,” NASA History Seminar, June 11, 1987, National Air and Space Museum, Washington, DC.

“Government Engine Research and Proprietary Rights: the Relationship of the Cleveland Laboratory to Industry,” Midwest Junto for the History of Science and Technology, March 7, 1986, John Carroll University, Cleveland, OH.

“Cleveland’s Engine Laboratory and Industry: An Aspect of the History of Lewis Research Center,” NASA History Seminar, Feb. 25, 1986, NASA-Goddard Space Flight Research Center, Greenbelt, MD.

“The Turbojet Revolution at Lewis Research Center,” Society for the History of Technology (SHOT), Nov. 4, 1985, MIT, Cambridge, MA.

“Trembley’s Experiments on Reversal, and the Influence of Dutch Science, International Congress for the History of Science, August 3, 1985, UCLA, Berkeley, CA.

“Charles Bonnet’s Letters on Parthenogenesis,” Eighteenth Century Seminar, Nov. 16, 1983, Cleveland State University, Cleveland, OH.

“The Scientist in Shirt-sleeves: Letters as Sources in the History of Science,” East Central/American Society for Eighteenth Century Studies, Sept. 30, 1983, University of Delaware, Newark, DE.

“Trembley’s *Hydra* and the Idea of Biological Continuity,” Seminar in the History of Science, August 13, 1982, Woods Hole Oceanographic Institute, Woods Hole, MA.

“Charles Bonnet and the Metaphysics of Trembley’s Polyp,” Midwest American Society for Eighteenth Century Studies, October 16, 1981, Illinois State University, Normal, IL.

“The Issues of Parthenogenesis and Asexual Budding in the Correspondence between Réaumur, Trembley and Bonnet,” Annual Meeting of the History of Science Society, December 30, 1979, New York City.

“The Early Research in Physiology by Alexander von Humboldt,” Midwest Junto for the History of Science and Technology, March 23, 1979, University of Missouri-St. Louis, MD.

“Two Swiss Challenges to Sexual Reproduction,” Midwest Junto for the History of Science and Technology, April 8, 1978, University of Kansas, Lawrence, KN.

“La Société d’histoire naturelle,” L’Ecole des Hautes Etudes, Rene Taton’s seminar, April 1967, Paris.

Grants and Honors:

Co-winner with Mark Bowles of 2004 AIAA History Manuscript Award for *Taming Liquid Hydrogen*

Telly Award for Outstanding Non-network Video Production, 2001 and Crystal Award for Excellent Communicator Awards Video Competition, 2000 for *Reaching Out for Liberty and Light*

Co-winner of 1988 Robert H. Goddard Historical Essay Competition, sponsored by the National Space Club

Visiting Scholar, Business History Archives, Hagley Library and Museum, Wilmington, DE, Summer 1997

National Endowment for the Humanities, Summer Seminar, Brown University, June-July 1991

Woodrow Wilson Fellowship, 1966-67

Fulbright Fellowship, 1966-67

Professional Memberships:

Society for American City and Regional Planning History (SACRPH) 2017-current

Society for the History of Technology (SHOT) 1977-2018

Finance Committee, 2005 to 2008

Executive Council, 1991-1994

Program Committee, 1992-1995, Chair, 1993

Nominating Committee, 1984-1988, Chair 1987, 1988

Levinson Prize Committee, 1991-1994, Chair, 1993
Robinson Prize Committee, 1987-1989

History of Science Society. 1977-2000
Committee on Independent Scholars, 1991-3
Book Exhibit coordinator, Cincinnati, 1988

Midwest Junto for the History of Science and Technology, 1977 to 2000

American Society for Eighteenth-Century Studies (ASECS) 1983-1998
Clifford Prize Committee, 1995
Editorial Board for essay collection published by AMS Press under ASECS
sponsorship, 1993-4
Search Committee for Executive Director, 1992

Women Historians of Greater Cleveland, 1977-2006
President, 2004-2006
Secretary-treasurer, 1991-1993

Public Lectures:

“From the Shakers to Shaker Heights Park: The Curious History of why A Part of Cleveland Heights Once Called Itself ‘The Real Shaker Heights,’” Cleveland Heights Library, May 9, 2019

“The Moral Imperative: Jewish Leadership in the Integration of Shaker Heights, Maltz Museum, Feb. 17, 2015

“Deed Restrictions in Shaker Heights, Ohio, and Their Demise, Ohio Academy of History, April 5, 2013, Bowling Green University

“The Puritan Ethic in Cleveland’s Gilded Age: Lessons from the Mather Family Letters,” Talk for History Associates of Case Western Reserve University, Jan. 30, 2013

“The Bankruptcy of the Van Sweringens and How it Shaped the History of Shaker Heights,” Shaker Historical Society, March 25, 2012

“The Ludlow Association, Bellwether for Integration,” Plymouth Church, Sept 14, 2012

“Shaping a Culture of Diversity: The Integration of Shaker Heights,” Sponsored by the Fund for the Future of Shaker heights and the Fair Housing Review Board of Shaker Heights, May 6, 2011; Heights Christian Church

“Shaker Square: Gateway to Shaker Heights,” Shaker Historical Society, March 27, 2011

“Designing Homes for the Middle Class: The Tribulations of Planning the South Side of Shaker Heights,” Shaker Heights Public Library, April 5, 2010

“Women in Space,” Shaker Heights Public Library, March 2007

“Hathaway Brown School on 19th-century Euclid Avenue,” Western Reserve Historical Society, October 2005.

Public Lecture: “Cleveland’s Aviation Heritage and the Space Frontier,” National History Day, Ohio District 4, April 16, 1988, Cuyahoga Community College (also serves regularly as judge)

Four Public Lectures at NASA-Lewis Research Center, 1986-1992

Volunteer Activities:

History Associates of CWRU, board member, 1999-present
President, 2023-

African American Archives Auxiliary of the Cleveland History Center
Board, 2021-2024

League of Women Voters, member, 1980-present
Authored the League’s *Here’s Cuyahoga County*

Smith College Club of Cleveland, 1972 to present, past president

Service on National Endowment for the Humanities Panel, August 2011

Referee for manuscripts for National Science Foundation, National Endowment for the Humanities, NASA History Series, American Philosophical Society.

Referee for articles submitted to *Isis*, *Journal of the History of Biology, Technology and Culture*, *Journal of Policy History*, *Journal of Agricultural History*.

Smith College Club of Cleveland, 1972 to present, past president

Association for Continuing Education (ACE), 2005-present
At-large board member, co-vice-president ACE, 2007-2010
Co-chair, Lecture Day, 2007-10

Publications Committee, Western Reserve Historical Society, 1994-5, Chair Journals Committee