

Curriculum vitae of Dana A. Freiburger

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Research Interests

Broad interests in history of science and history of technology.

Education

Ph.D., History of Science, Medicine, and Technology. University of Wisconsin-Madison.
Dissertation: *The Place of Science in Nineteenth-Century American Catholic Higher Education*. Advisors: Ronald L. Numbers and Susan E. Lederer (2022).

M.A., History of Science. University of Wisconsin-Madison. Thesis: “*We shall be able to beat those yattya hottya [pompous] people*” – *Building a Japanese Research Tradition in Physics: Hantarō Nagaoka and the Spectroscope*. Advisor: Richard Staley (2002).

M.Sc., History of Science: Instruments, Museums, Science, Technology. University of Oxford. Dissertation: *18th-Century Surveying Instruments of John Thompson*. Advisor: Stephen Johnston (1999).

M.E., Technical Japanese. University of Wisconsin-Madison (2005).

M.S., Engineering Management. Santa Clara University, California (1994).

B.S., Computer Science. California Polytechnic State University, San Luis Obispo (1979).

Selected Publications

“Cattell’s Catholics: Who were these American Men (and Woman) of Science?”, *American Catholic Studies* 134:4 (Winter 2023), 47-78.

“High-Performance Tabulating in the Late 19th Century”; “Taking a Special Interest in Supercomputers in the 1980s”; “Computer Benchmarks: 50 Years Ago and Now”; “Processing & Production of Scientific Data: An historical marriage, now in a permanent divorce?”; and “One hundred years ago...”; in *CONNECT* e-newsletter of SIGHPC, the ACM Special Interest Group on High Performance Computing, May/June 2025 13:1, September 2024 12:2; October 2023 11:2; May 2023 11:1, and December 2022 10:4.

“‘To Any Degree’: Jesuit Medical Schools in the Nineteenth-Century United States” in Kyle B. Roberts and Stephen R. Schloesser, eds., *Crossings and Dwellings: Restored Jesuits, Women Religious, American Experience, 1814-2014* (Leiden: Brill, 2017), 220-255.

“A History of Scientific Instruments at Stonyhurst College, Lancashire, England,” *Bulletin of the Scientific Instrument Society* 106 (September 2010), 20-30.

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長岡半太郎の新資料について [The New Addition to the Hantaro Nagaoka Papers], Okamoto Takuji, Osako Masahiro, Suzuki Kasuyoshi, and Dana A. Freiburger, *Bulletin of the National Science Museum, Tokyo, Series E* 29 (2006), 7-13.

“Report on some Scientific Instrument Collections in Japan,” *Bulletin of the Scientific Instrument Society* 83 (December 2004), 30-32.

“Scientific Instruments and Early Plant Ecology in the U.S.A.,” *Rittenhouse* 17:1 (2003), 9-25.

“Building a Japanese Research Tradition in Physics: Hantarō Nagaoka and the Spectroscope,” *Nuncius* 17:2 (2002), 673-689.

Web Sightings and Reviews, a feature that explored Internet web sites linked to themes of scientific instruments and the history of science. *Rittenhouse* issues 49, 50, 51, 52, 53, 54, and 55 (June 1999 to June 2002).

Book Reviews

Review of Wershler, Darren; Emerson, Lori; Parikka, Jussi, *The Lab Book: Situated Practices in Media Studies*. H-Sci-Med-Tech, H-Net Reviews. January 2023. URL: <https://www.h-net.org/reviews/showrev.php?id=58238>.

Review of Peter Heering; Roland Wittje: *Learning by Doing: Experiments and Instruments in the History of Science Teaching*, *Isis* 103:4 (2012), 767-769.

Review of Peter M. J. Hess; Paul L. Allen: *Catholicism and Science*, and Don O'Leary: *Roman Catholicism and Modern Science: A History*, Dana A. Freiburger and Ronald L. Numbers, *Isis* 100:3 (2009), 636-638.

Invited Talks

“Teaching Astronomy and Nineteenth-century American Catholic Higher Education,” an online talk presented to members of the Madison Astronomical Society (March 2021).

“Practicing what they Preach: The Bachelor of Science degree in Nineteenth-Century American Catholic Higher Education,” History Department colloquium (Sept. 2019).

Selected Papers Presented

“*Digital Stars as seen through their Software Artifacts*,” presented at the 16th Biennial History of Astronomy Workshop at Notre Dame University (June 2025).

“Exploring the Impact of Weight Scales Used to Appraise Children’s Health in Early Twentieth-Century America,” given at the XLIII SIC Symposium, Ottawa, Canada (September 2024).

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“*Work So Difficult that It Could Give the Computer a Headache*,” presented at the 15th Biennial History of Astronomy Workshop at Notre Dame University (June 2023).

“*Cattell’s Catholics: Who were these American Men (and Women) of Science?*” talk given virtually at the Midwest Junto (April 2021).

“Such an important and widespread influence on our society today’: Teaching Computer Science at the University of Wisconsin–Madison in the 1960s,” an online talk presented at the *Pedagogy, Popularization, and the Public Understanding of Science* conference organized by the Science History Institute in Philadelphia (October 2020).

“The B.S. degree: A New Objective in Nineteenth-Century American Catholic Higher Education,” a paper given at the HSS meeting, Utrecht, The Netherlands (July 2019).

“The many universes of Seddie Bingham / Sister Aloysia (1873-1899),” a ‘picture-in-1000-words’ presentation at the Tenth Triennial Conference on the History of Women Religious at Santa Clara University, California (June 2016).

“Sweater Girl Chickens – The rise and fall of the Chicken Breast Meter” given at the Scientific Instrument Commission meeting held at the 24th International Congress of History of Science, Technology, and Medicine, Manchester, England (July 2013).

Outreach

“Science in Catholic Colleges in the 19th Century” - 30-minute radio interview on WLCR 1040 AM (Louisville, KY) for their *Science and Catholicism* local talk show. Interviewed by Christopher Graney, Professor of Physics, Jefferson Community & Technical College, Louisville, KY. Aired July 17, 2013, with an encore airing October 22, 2014.

Organized a public showing of the documentary *Living through March 11: Words that remember the Great East Japan Earthquake* by Kenji Aoike (2012), followed by panel discussion with Toshihiro Higuchi, History of Science dept. ACLS/Mellon scholar, and Sharyl Kato, The Rainbow Project, Madison. This event took place on 10 March 2014, on the University of Wisconsin-Madison campus and we were fortunate to have a group of visiting Fukushima University students in the audience.

Research and Travel Grants Received

Summer Award for Upper Division and Graduate Students from the Charles Redd Center for Western Studies at Brigham Young University, Utah, for dissertation-related research into St. Mary’s Academy in Salt Lake City, ca. 1875-1900 (May 2020).

Lemelson Center Travel to Collections Award, Smithsonian Institution. To learn how and why American chicken producers turned to science in the mid-twentieth century, I studied collection materials held in the Division of Work & Industry related to John E. Weidlich, an accomplished West Virginia chicken breeder, and specifically his trio of scientific instruments developed in pursuit of a better bird (April 2013).

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National Science Foundation “Summer in Japan” program. Research into the history of Japanese spectroscopy during Meiji and Taishō periods, hosted by Prof. Okamoto Takuji at the University of Tokyo (Summer 2005, Award 0513081).

Travel Grant enabling me to participate in "The Making of the Spectroscope" workshop at the Deutsches Museum in Munich, Germany. Workshop support from the Scientific Instrument Commission and the Hans R. Jenemann Foundation (September 2001).

National Science Foundation “Summer in Japan” program. I spent six weeks working at the Information Systems Center of Japan Information Center of Science and Technology (JICST), Tokyo, where my assigned project was the evaluation of two computer systems used for document scanning and handling, culminating in a report and presentation titled "Evaluating Two Japanese Language Full Text Retrieval Systems" (Summer 1994, NSF Award INT-9406111).

Exhibits

“Lines of Faith,” a student exhibit at the Museum of the History of Science in Oxford on Instruments and Religious Practice in Islam, open from March – June 1998. A collective effort on the part of the seven students following the M.Sc. course based at this museum. (URL: <http://www.mhs.ox.ac.uk/students/97to98/exhibits/index.htm>)

Professional Societies

Association for Computing Machinery (ACM), Society for the History of Technology (SHOT), History of Science Society (HSS), Scientific Instrument Commission (SIC).

Work Experience

January 2024 – July 2025: Member of the Local Organizing Committee and assistant to the Program Committee co-chairs for the 27th ICHST Congress held in Dunedin, New Zealand.

July – November 2022: Provided historical research and artifact display support at SC35 in Denver, Colorado as a member of the 35th Anniversary Committee.

January 2000 – June 2022: Program Assistant for the History of Cartography Project, University of Wisconsin-Madison, holding the position of Illustrations Editor. It was my responsibility to order and process images from libraries and archives world-wide as needed for essays submitted for the *History of Cartography* series of volumes.

August – November 2018: Research Assistant serving as the Artifact Display lead for the 30th Anniversary Committee in support of the annual Supercomputer Conference held in Dallas, Texas.

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2017 – 2019: Assisted with image ordering for the following books: for John L. Rudolph, *How We Teach Science: What's Changed, and Why It Matters* (Cambridge, Massachusetts: Harvard University Press, 2019), and for Charles L. Cohen, *The Abrahamic Religions: A Very Short Introduction* (New York, NY: Oxford University Press, 2020).

May 2015 – July 2017: Secretary for International Programme Committee Program Chair Ronald L. Numbers at the 25th International Congress of History of Science, Technology, and Medicine held in Rio de Janeiro, Brazil. Duties included handling of correspondence via emails, evaluation of submitted stand-alone paper proposals, organizing sessions of the selected stand-alone papers, chairing of sessions during the Congress, and other assigned tasks.

January 2008 – May 2008: Graduate Teaching Assistant for “History of Science 202: The Making of Modern Science” where I led four discussion sections for this 3-unit course.

1976 – January 2000: Computer professional working in operating system development, software design and test, and software configuration management. Most recent position was with Amdahl Corporation, Sunnyvale, California, as a Principal Software Engineer.