

## Curriculum vitae of Dana A. Freiburger

History of Science Program / History Department  
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### Research Interests

Broad interests in history of science, history of technology, and science education in the United States and Japan during the last two centuries.

### Education

Ph.D., History of Science, Medicine and Technology. University of Wisconsin-Madison (in progress). My dissertation examines the place of science in 19th-Century American Catholic higher education. Advisor: Susan E. Lederer

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

M.A., History of Science. University of Wisconsin-Madison (2002). 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

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

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

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

### Publications

“‘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

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

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

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

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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

Commentary page to accompany broadsheet No. 11 titled *A Map of Time* published by the *History of Cartography Project*, University of Wisconsin-Madison (2003)

“Scientific Instruments and Early Plant Ecology in the USA,” *Rittenhouse* 57 (2003), 9-25

“Building a Japanese Research Tradition in Physics: Hantarō Nagaoka and the Spectroscope,” *Nuncius* 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)

### 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)

### Papers Presented

“*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)

“James Curley, S.J., a Jesuit ‘comet’ in Nineteenth-Century American Astronomy,” poster presented at the 14th Biennial History of Astronomy Workshop, Notre Dame (June 2019)

“What Hath God Taught – Teaching Telegraphy at Notre Dame in the 1870s,” a flash talk presented at the 2018 SHOT conference held in St. Louis, Missouri (October 2018)

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“The ‘personal’ equations of American astronomer Joel Stebbins” given at the Scientific Instrument Commission meeting held at the 25th International Congress of History of Science, Technology, and Medicine, Rio de Janeiro, Brazil (July 2017)

“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)

“A ‘New Aspect’ to Charles Coppens, S.J., and his teaching Medical Ethics” poster presented at the AAHM conference in Minneapolis, Minnesota (April 2016)

“Branching over History in the Teaching of Computer Science at the University of Wisconsin” talk given at the Midwest Junto, University of Oklahoma (March 2016)

“‘If well conducted’ – Teaching science to survive in early nineteenth-century American Catholic Colleges” given at HSS meeting, San Francisco, California (November 2015)

“‘To Any Degree’ – Jesuit Medical Schools in Nineteenth-century American” presented at the “Crossings and Dwellings” conference, Loyola University, Chicago (October 2014)

“Cattell’s Catholics: Who were these American Men of Science?” given at the American Catholic Historical Association Annual Meeting in Washington, D.C. (January 2014)

“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)

“Darwin Comes to Campus” presented at the Midwest Junto, Rolla, MO (March 2012)

“Teaching and Research: Shifting Trajectories of Science at Georgetown University in the Nineteenth Century” presented at the Scientific Instrument Commission / IUHPS meeting in Budapest, Hungary (July 2009)

“Astronomy in Nineteenth-Century American Catholic Higher Education” presented at the Eighth Biennial History of Astronomy Workshop, Notre Dame, Indiana (July 2007)

“Traces of Gold: Science and Scientific Instruments at Santa Clara College, California, 1851-1878” given at the HSS meeting, Minneapolis, Minnesota (November 2005)

“The Influence of Hilger Spectroscopes in Japan” presented at the Scientific Instrument Commission / IUHPS meeting in Beijing, China (July 2005)

“Traces of Gold: Science and Scientific Instruments at Santa Clara College, California, 1851-1878” delivered at the “Scientific Instrument Collections in the University” symposium, Dartmouth College, Hanover, New Hampshire (June 2004)

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“Building a Japanese Research Tradition in Physics: Hantarō Nagaoka and the Spectroscope” paper presented at "The Making of the Spectroscope" workshop held in Munich, Germany (September 2001)

“Early Ecology and Scientific Instruments” talk given at the XXI International Congress of History of Science, Mexico City. Additionally, I represented the Scientific Instrument Commission as their voting member to this Congress (July 2001)

"18th Century Surveying Instruments of John Thompson" poster presented at the XVII Scientific Instrument Commission Symposium held at Sorø, Denmark (July 1998)

### Outreach

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.

“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.

### 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, 1875-1900. (May 2020)

University of Wisconsin Graduate School Conference Presentation Grants in support of presentations at the following gatherings: the History of Science Society Conference in Utrecht, Netherlands (July 2019); Society for the History of Technology conference in St. Louis, Missouri (October 2018); 25th International Congress of History of Science and Technology in Rio de Janeiro, Brazil (July 2017); Tenth Triennial Conference on the History of Women Religious (June 2016); the Crossings and Dwellings: Restored Jesuits, Women Religious, American Experience 1814-2014 conference held at Loyola University, Chicago (October 2014);, and American Catholic Historical Association Annual Meeting in Washington, D.C. (January 2014).

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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University of Wisconsin Graduate School Vilas Travel Grants for dissertation research at the Filson Historical Society, Louisville, KY, Saint Mary-of-the-Woods College, Indiana (April 2011), Creighton University (March 2009), and Georgetown University (June 2008).

Travel grant from the *Scientific Instrument Society* for study of the scientific instruments at Stonyhurst College, Lancashire, U.K. (August 2009).

Research grant awarded by the Cushwa Center for the Study of American Catholicism at the University of Notre Dame, Indiana, that supported two weeks of dissertation research in the Notre Dame archives (July 2007).

Travel grants enabling me to participate in the “Scientific Instrument Collections in the University” symposiums I & II at Dartmouth University (June 2004) and University of Mississippi (June 2007).

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).

Lemelson Center Travel to Collections Award, Smithsonian Institution. I examined the George H. Clark “Radioana” Collection to explore initial work done in radio locating in support of my study into early radio tracking devices used for wildlife research and their related technologies (Summer 2000).

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

History of Science Society, Society for the History of Technology, Scientific Instrument Commission, and Scientific Instrument Society.

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### Work Experience

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

August – November 2018: Graduate Student Research Assistant on the 30th Anniversary Committee in support of the annual Supercomputer Conference held in Dallas, Texas. As the Artifact Display Lead, I installed historical materials in multiple display cases to help mark the conference's 30th Anniversary in an area open to the 13,000 people attending the event. Additionally, I manned the reception desk at the exhibit and took video interviews with designated attendees.

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.