Ryan Hearty

PhD candidate in history of science and technology at Johns Hopkins University
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Education

2023	Ph.D. (expected), history of science and technology, Johns Hopkins University
2019	M.A., history of science and technology, Johns Hopkins University
2011	M.S., electrical engineering, Johns Hopkins University
2010	B.S., philosophy and electrical engineering, Johns Hopkins University

Employment History

2018-	Graduate teaching assistant, Department of History of Science and Technology, Johns Hopkins University, Baltimore. See below for teaching experience.
2011-2017	Associate engineer, Johns Hopkins University Applied Physics Laboratory (APL), Laurel, MD. I delivered flight hardware (radio communications) for the Parker Solar Probe mission between 2013 and 2017. From 2011 to 2013, I supported four projects for the FAA, Department of Defense, and APL's internal R&D.
2010-2011	Teaching assistant, Department of Electrical Engineering, Johns Hopkins University, Baltimore.

Areas of Specialization

History of engineering, engineering studies, American environmental history and policy

Recent Fellowships and Grants

2022	Water Scholar Award, Morgan Libary, Colorado State University, Fort Collins, CO
2022-2023	Deans Teaching Fellowship, Johns Hopkins University, Baltimore
2021-2022	Research Fellow, Consortium for History of Science, Technology, and Medicine, Philadelphia
2019-2020	Oral History Fellow, American Institute of Physics, College Park, MD

Teaching experience

As instructor

Department of History of Science and Technology at Johns Hopkins University

Spring 2023	140.340 The Engineer in the World

As graduate teaching assistant, History of Science and Technology, John Hopkins University

Fall 2022	140.301 History of Science: Antiquity to Renaissance (with Dr. Lawrence Principe)
Spring 2021	140.374 Force and Matter from Galileo to Maxwell's Field Theory (with Dr. Robert Kargon)
Fall 2020	140.321 Scientific Revolution (with Dr. María M. Portuondo)
Spring 2020	140.302 Rise of Modern Science (with Dr. Joris Mercelis)
Fall 2019	140.117 Techno-ethics (with Dr. Yulia Frumer)
Spring 2019	140.302 Rise of Modern Science (with Dr. Sharon Kingsland)
Fall 2018	140.311 Ecology, Health, and Environment (with Dr. Sharon Kingsland)

As graduate teaching assistant, Electrical Engineering, John Hopkins University

Spring 2011	520.142 Digital Systems Fundamentals (with Dr. Gerard Meyer)
Fall 2010	520.213 Circuits (with Dr. Howard Weinert)

Publications

Journal articles

Hearty, Ryan. "Redefining Boundaries: Ruth Myrtle Patrick's Ecological Program at the Academy of Natural Sciences of Philadelphia, 1947–1975." *Journal of the History of Biology*, November 18, 2020. https://doi.org/10.1007/s10739-020-09622-5. (Awarded the 2022 Everett Mendelsohn Prize, given to the best article published in *JHB* in the preceding 3 years.)

Hearty, Ryan. "Visualizing Pollution: Representations of Biological Data in Water Pollution Control in the US, 1948 to 1962" (under review). Special Issue: Images in the Life Sciences, *Berichte zur Wissenschaftsgeschichte* 46, no. 2 (June 2023).

Magazine articles

Pell, Hannah, Ryan Hearty, and David Allard. "Why Did the Three Mile Island Unit 1 Reactor Close?" *Physics Today* 75, no. 6 (June 2022): 46–52. https://doi.org/10.1063/PT.3.5020.

Engineering reports

Angert, Matthew P., Brian M. Bubnash, Ryan J. Hearty, Michael B. O'Neill, Sharon X. Ling, Daniel E. Matlin, and Sheng Cheng. "Advancements in Hardware Design for the Frontier Radio Used for the Solar Probe Plus Mission." In *2017 IEEE Aerospace Conference*. Big Sky, MT, 2017. https://doi.org/10.1109/AERO.2017.7943790.

Conferences and Presentations

Presenter, "From Surveys to Surveillance: Edward Cleary, Ruth Patrick, and the Continuous Monitoring of River Pollution in the United States, 1948 to 1971," 10:30am ET, Friday, December 21, 2021. A paper presentation for the Engineering Studies working group at the Consortium for History of Science, Technology & Medicine, Philadelphia (held virtually).

Presenter, “Ruth Patrick, DuPont, and the biological monitoring of pollution in the US, 1949-1977,” 12pm ET, Saturday, November 20, 2021. Part of “The Multifarious Legacies of *Silent Spring*,” a virtual session for the History of Science Society (HSS) annual meeting, held virtually.

Presenter, “The moral field of sanitary engineers in the United States, 1950s and 60s,” 10am ET, Saturday, November 20, 2021. A presentation at the annual meeting of the Society for History of Technology, held virtually.

Presenter, “The moral field of environmental engineers in late-twentieth-century United States,” 4pm ET, October 27, 2021. A presentation at the Lory Student Center for the School of Global Environmental Sustainability, Colorado State University, Fort Collins.

Presenter, “Visualizing Pollution: Representations of Biological Data in Water Pollution Control in the US from 1948 to 1966,” 10am ET, Saturday, 23 October 2021. A contribution to the workshop, The Circulation of Images in the Life Sciences, held online by the Consortium of the History of Science, Technology, and Medicine.

Presenter, “Monitoring water quality and pollution in the US, 1948-1977,” Monday, July 28, 2021. A presentation at the annual meeting of the International Network for Engineering Studies (INES), held virtually.

Presenter, “Visualizing pollution: The production of graphical methods to convey pollution’s effect on biological diversity, 1948-1960,” April 10, 2021. A presentation to the Joint Atlantic Seminar for History of Biology (JAS-Bio 2021), held virtually.

Discussant, “Oral histories of science and the AIP/NASA Heliophysics Oral History Project,” 1:30pm, October 20, 2020. A roundtable discussion at the Oral History Association (OHA) annual meeting, Baltimore, October 19-24, 2020 (delivered virtually due to pandemic).

Presenter, “Ruth Patrick, DuPont, and the biological monitoring of pollution in the US, 1949-1972,” 12:30pm, October 8, 2020. Part of “The Multifarious Legacies of ‘Silent Spring,’” a virtual session for the History of Science Society (HSS) annual meeting, New Orleans, October 8-10, 2020 (delivered virtually due to pandemic).

Convener and presenter, “Historicizing engineering ethics,” an open session at the Society for the History of Technology (SHOT) annual meeting, New Orleans, October 7-11, 2020 (cancelled due to pandemic).

Discussant, “Material and cultural environments of knowledge production,” a roundtable discussion at The Berkshire Conference on the History of Women, Genders, and Sexualities, Johns Hopkins University, Baltimore, May 28-31, 2020 (cancelled due to pandemic).

Memberships

Society for History of Technology
International Network for Engineering Studies
History of Science Society
American Historical Association

Academic service

Convener, Engineering Studies, a working group of the Consortium for History of Science, Technology, and Medicine, Philadelphia, February 2021 to present (meets once per month).

Convener, Dissertation Writing Support Group, Program of History of Medicine, Science, and Technology at Johns Hopkins University, April 2022 to present (meets twice per month).

Department representative, Graduate Representative Organization, Johns Hopkins University, 2019-2020.