

# Ryan Hearty

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

3400 North Charles Street, Baltimore, MD 21218 | (667) 200-9548 | [rhearty1@jhu.edu](mailto:rhearty1@jhu.edu)

## Education

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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

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2020-	Support staff, Iris Music Project, Columbia, MD
2018-	Graduate teaching assistant, Department of History of Science and Technology, Johns Hopkins University, Baltimore, MD
2019-2020	Oral history fellow, Center for History of Physics, American Institute of Physics, College Park, MD
2011-2017	Associate engineer, Johns Hopkins University Applied Physics Laboratory, Laurel, MD
2010-2011	Graduate teaching assistant, Department of Electrical Engineering, Johns Hopkins University, Baltimore, MD
2005-2007	Recording assistant, Peabody Conservatory of Music, Baltimore, MD
2003-2005	HVAC technician, Frost Heating and Air Conditioning, Hazlet, NJ

## Teaching experience

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### As instructor at Johns Hopkins University

Spring 2023    140.3XX The Engineer in the World

### As graduate teaching assistant at Johns Hopkins University

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)

Spring 2011    520.142 Digital Systems Fundamentals (with Dr. Gerard Meyer)

Fall 2010        520.213 Circuits (with Dr. Howard Weinert)

## Publications

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### 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.

### 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>.

Hearty, Ryan J., Avinash Sharma, Elena Adams, and Erik Hohlfeld. "UHF Telecommunications Design for an Asteroid Lander Mission Concept." In *2017 IEEE Aerospace Conference*. Big Sky, MT, 2017. <https://doi.org/10.1109/AERO.2017.7943636>.

## Conferences and Presentations

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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.

Co-convenor, Engineering Studies, a working group of the Consortium for History of Science, Technology, and Medicine, Philadelphia, 19 February 2021 (ongoing, meets monthly).

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).

Convenor 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).

## **Research languages beside English**

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German, Spanish

## **Memberships**

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

## Recent Fellowships and Grants

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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, USA