

# LISA RUTH RAND

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## CURRENT POSITION

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### University of Wisconsin-Madison

A. W. Mellon Postdoctoral Fellow, 2016-2018

## EDUCATION

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### University of Pennsylvania

Ph.D. History and Sociology of Science, 2016.

Dissertation: “Orbital Decay: Space Junk and the Environmental History of Earth’s Planetary Borderlands.”

Graduate Certificate in Gender, Sexuality, and Women's Studies, 2015.

M.A. History and Sociology of Science, 2011.

### Barnard College, Columbia University

B.A. *cum laude*, English Literature and Creative Writing, minor in Astronomy, 2005.

## PROFESSIONAL APPOINTMENTS

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- 2016-present    Community Associate  
                    Nelson Institute Center for Culture, History, and Environment
- 2014-present    Research Associate, Department of Space History  
                    Smithsonian National Air and Space
- 2013-present    Adjunct Research Associate  
                    RAND Corporation

## PUBLICATIONS

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### Scholarly and Refereed

“Beyond the Biosphere: Expanding the Limits of the Human World.” In *Living in the Anthropocene: Humanity in the Age of Humans*, W. John Kress and Jeffrey K. Stine, eds. Washington, DC: Smithsonian Institution, forthcoming Fall 2017.

With Dave Baiocchi. *Good Seeing: Best Practices for Sustainable Operations at the Air Force Maui Optical and Supercomputing Site*. Santa Monica, CA: RAND Corporation, 2016.

“The Case for Female Astronauts: Reproducing Americans in the Final Frontier.” *The Appendix* 2 no. 3 (July 2014).

“Under the ‘Copper Curtain’: Project West Ford and the Roots of Outer Space Environmentalism, 1958-1964.” Submitted to *Environmental History*.

“Towards an Environmental History of Near-Earth Space: Satellites, Space Junk, and American Perceptions of a Hazardous Orbital Landscape.” Submitted to *Quest: The History of Spaceflight Quarterly*.

### **Book Reviews**

Review of *Earth, Life, and System. Evolution and Ecology on a Gaian Planet*, Bruce Clarke ed. *Isis* 107 no. 4. (December 2016).

Review of *Rise of the Rocket Girls: The Women Who Propelled Us, From Missiles to the Moon to Mars*, Nathalia Holt. *Physics World* (July 2016).

Review of *The Surveillance Imperative: Geosciences During the Cold War and Beyond*, Simone Turchetti and Peder Roberts, eds. *Quest: The History of Spaceflight Quarterly* 23 no. 1 (2016).

### **General Interest**

“How Apollo Astronauts Took Out the Trash.” *Popular Mechanics*, July 21 2015.

“Gravity, the Sequel: Why the Real Story Would Be on the Ground.” *The Atlantic*, February 28, 2014.

### **Other**

“When the Sky Fell Over Wisconsin.” In *Edge Effects*. Forthcoming.

“Space Junk.” In *The Discard Studies Compendium*, Michele Acuto and Max Liboiron, eds. Forthcoming.

“Biosphere 2: Why an Eccentric Ecological Experiment Still Matters 25 Years Later.” Editor and contributor of roundtable, *Edge Effects*. December 2016.

*American National Biography*, s.v. “L. Gordon Cooper.” New York: Oxford University Press, 2014.

“Daryl Xavier: On Thick Ice,” *Scholar and Feminist*, Women on Ice, Issue 7.1, Fall 2008.

### **In preparation**

With Lawrence Kessler. “Sacred Space: Contested Land Use and Astronomical Observatories in Hawaii.” In preparation for submission to *Environmental History*.

“The Sky is Failing: Radioactive Space Junk as Cold War Boundary Object.” In preparation for submission to *Technology and Culture*.

## **RESEARCH AND TEACHING INTERESTS**

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Environmental history, history of technology, history of science, Cold War, aerospace, discard studies, gender & sexuality, science fiction, futurism, ecological & technological utopianism, history of astronomy, science & technology policy, public history

## **FELLOWSHIPS, AWARDS, AND GRANTS**

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- 2016-2018 A. W. Mellon Postdoctoral Fellowship  
University of Wisconsin-Madison
- 2016-2018 Mellon Postdoctoral Fellowship in Environmental Studies (declined)  
Williams College
- 2016-2017 Postdoctoral Fellowship in the Social Sciences and Humanities (declined)  
University of South Florida
- 2015-2016 NASA Fellowship in the History of Space Technology  
Society for the History of Technology
- 2015-2016 Dissertation Writing Fellowship  
Consortium for History of Science, Technology and Medicine
- 2011-2016 National Science Foundation Travel Grant  
SHOT (2011, 2012, 2015), HSS (2012 and 2013), ASEH (2013 and 2016)
- 2014 Envirotech Travel Grant Award  
American Society for Environmental History
- 2013-2014 Daniel and Florence Guggenheim Fellowship  
National Air and Space Museum, Smithsonian Institution
- 2013-2014 NASA Fellowship in the History of Space Technology (declined)  
Society for the History of Technology
- 2013-2014 Teece Fellowship  
School of Arts and Sciences, University of Pennsylvania
- 2012-2013 Andrew W. Mellon Graduate Research Fellowship  
Penn Humanities Forum, University of Pennsylvania
- 2012 Dissertation Proposal Development Fellowship, Alternate  
Social Science Research Council
- 2010-2014 SASGov Travel Grant (2010, 2012, 2014)  
University of Pennsylvania
- 2009-2015 Benjamin Franklin Fellowship  
University of Pennsylvania

2001-2005 Centennial Scholar  
Barnard College

### **CONFERENCES ORGANIZED**

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Organizing committee, Biennial History of Astronomy Workshop XIII, University of Notre Dame, Notre Dame, IN, Summer 2017.

Organizing committee, "Global Science, Global Technology, Global Impacts: The Second Early-Career Conference for Historians of the Physical Sciences." American Institute of Physics, College Park, MD. March 30-April 1 2014.

"Workshop on the History of the Environment, Agriculture, Technology, and Science (WHEATS)." University of Pennsylvania, Philadelphia, PA. Sponsored by the University of Pennsylvania, the Chemical Heritage Foundation, and the Consortium for the History of Science, Technology, and Medicine. March 15-17 2013.

### **CONFERENCE PANELS ORGANIZED**

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"Ethereal Wastescapes: Rethinking the Meaning, Place, and Materiality of Pollution," American Society for Environmental History Annual Meeting, March-April 2016.

"From Deep Sea to Near Space: Cultural Encounters with Extreme Nature," American Society for Environmental History Annual Meeting, April 2013.

### **ACADEMIC TALKS AND CONFERENCE PRESENTATIONS**

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"What Would an Old Woman Like Me Do on Altair?": Reproductive Decay and Republican Motherhood Beyond Earth," Association for the Study of Literature and Environment, 2017.

"Fallen Skies: Near-Earth Space as Global Environment During the Long 1970s," American Society for Environmental History Annual Meeting, 2017.

"Critical Discard Studies and Environmental History: Revisited," roundtable, American Society for Environmental History Annual Meeting, 2017.

"Un/making the Boundaries of the Global: Negotiating Environmental Governance of Near-Earth Space, 1958-1972," Environment, Society, and the Making of the Modern World Workshop, 2016.

"Wasted Space: Production and Protest of Orbital Pollution, 1958-1988," American Society for Environmental History Annual Meeting, 2016.

"Up to Earth: Falling Space Junk and the Spatial Expansion of Environmental Politics During the Long 1970s," Society for the History of Technology Annual Meeting, 2015.

"Environmental History of Outer Space: An Overview," Introductory Symposium, Consortium for the History of Science, Technology, and Medicine, 2015.

“The Sky Is Falling: Nuclear Space Junk and Problems of Global Environmental Governance, 1964-1983,” European Society for Environmental History Meeting, 2015.

“‘Our Only Chance is to Fight’: Optical and Radio Astronomers and the Environmental Protection of Outer Space, 1957–1963,” Biennial History of Astronomy Workshop, 2015.

“Landscapes in Orbit: The Material and Political Topography of Near-Earth Space,” American Historical Association Annual Meeting, 2015.

“Orbital Decay: Space Junk and the Environmental Politics of the Final Frontier,” Works-in-Progress series, Smithsonian National Air and Space Museum, 2014.

“What Is a Disaster? A Roundtable on Risk and Disaster Research in Environmental History,” American Society for Environmental History Annual Meeting, 2014.

“Earth Under Glass: The Search for Cultural Credibility through Analogy at the Biosphere 2,” History of Science Society Annual Meeting, 2013.

“Good Seeing: Best Practices for Sustainable Operations at the Maui Space Surveillance Complex,” RAND Corporation, 2013.

“Expanding the Exosphere: Space Debris and The Environmental Politics of Astronomy, 1958-1964,” Joint Atlantic Seminar for the History of the Physical Sciences, 2013.

“Orbital Extreme: Earthbound American Encounters with the Planetary Borderlands,” American Society for Environmental History Annual Meeting, 2013.

“A Dangerous Precedent”: Astronomers, Environmental Politics, and Protest against Project West Ford, 1958-1963,” History of Science Society Annual Meeting, 2012.

“A Dangerous Precedent”: Project West Ford and the Roots of Space Environmentalism, 1958-1963,” Society for the History of Technology Annual Meeting, 2012.

“The Sky is Failing: Space Junk, Satellites, and the American Encounter with a Hazardous Orbital Landscape,” Society for the History of Technology Annual Meeting, 2011.

“The Sky is Crowding: Perceptions of Environmental Threat from Earth Orbit,” Workshop on the History of the Environment, Agriculture, Technology, and Science, Massachusetts Institute of Technology, 2011.

“No ‘Damned Housewife’: Gendered Advocacy and Self-Fashioning in the Aviation Career of Jacqueline Cochran,” Thinking Gender Conference, University of California, Los Angeles, 2011.

## **INVITED TALKS AND PUBLIC APPEARANCES**

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“Space Junk: Earth’s Mechanical Graveyard.” Madison Women in Technology, December 1 2016.

“Cleaning Up Outer Space.” What’s New in Aerospace Public Lecture, Smithsonian National Air and Space Museum, May 17 2016.

Televised discussion with Nathalia Holt on *Rise of the Rocket Girls: The Women Who Propelled Us, From Missiles to the Moon to Mars. After Words*, CSPAN. April 20 2016.

“Terror in the Skies”: Falling Space Junk, Space Weather, and International Environmental Liability During the Long 1970s.” Bristol University Environmental Reading Group, March 16 2016.

“Rubbish Round the Earth”: Needles, Nukes, and the Roots of Outer Space Environmentalism, 1958-1964.” Reed College, February 17 2016.

“Out of This World: Environmental History of Near-Earth Space.” Featured guest on *Exploring Environmental History* Podcast #67, August 10 2015.

“Rubble Trouble: How Space Junk Impacts Astronomy.” Smithsonian’s Stars Lecture, Smithsonian National Air and Space Museum, December 6 2014.

“Behind the ‘Copper Curtain’: Project West Ford and the Roots of Outer Space Environmentalism, 1958-1964,” New York Metro Seminar on Environmental History, October 20 2014.

“Space Junk: The Problem of Orbiting Trash.” On-air guest on *Radio Times*, WHYY Philadelphia Public Radio, May 28 2014.

“Project West Ford: Needles in Space,” Ask an Expert Program, Smithsonian National Air and Space Museum Udvar-Hazy Center, May 22 2014.

## **CAMPUS TALKS**

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“Seeing and Knowing Earth From Space.” University of Wisconsin-Madison, Geographies of the Global Environment, February 23 2017.

“Orbital Watchdogs: Astronomers Against the Pollution of Outer Space during the Cold War.” University of Madison-Wisconsin Department of Astronomy, March 13 2017.

“Space Junk: An Environmental History.” History of Science Department Brown Bag Series, University of Wisconsin-Madison, September 30 2016.

“The Case for Female Astronauts: Reproducing Americans in the Final Frontier.” Gender, Sexuality, and Women’s Studies Graduate Colloquium, University of Pennsylvania, February 3 2015.

“Propelling Woman, Grounding Women: Conflicting Advocacy in the Aviation Career of Jacqueline Cochran,” Gender, Sexuality, and Women’s Studies Graduate Colloquium, University of Pennsylvania, November 11 2010.

## **TEACHING EXPERIENCE**

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### **University of Wisconsin-Madison**

*Trashed: History of Waste in America*, Fall 2017  
*Global Environmental History*, Spring 2017.

### **University of Pennsylvania**

*Technology and Society*, teaching assistant. Spring 2012, Spring 2013.  
*The Emergence of Modern Science*, teaching assistant. Fall 2011.  
*Bioethics*, teaching assistant. Spring 2011.  
*The Information Age*, teaching assistant. Fall 2010.

## **PROFESSIONAL SERVICE**

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| 2014-present | Peer reviewer<br><i>Environment and Society: Advances in Research<br/>History and Technology</i>  |
| Fall 2012    | Program Committee, (un)SAFE: A Gender, Sexuality, and Women's<br>Studies Graduate Student Conference<br>University of Pennsylvania  |
| 2011-2012    | Graduate assistant for the Workshop Series in History and Sociology of<br>Science, Medicine, and Technology<br>Department of History & Sociology of Science, University of Pennsylvania |
| 2011-2012    | Faculty search committee graduate student liaison<br>Department of History & Sociology of Science, University of Pennsylvania   |
| Fall 2010    | Program Committee, Future No Future: An Interdisciplinary Graduate<br>Student Conference on the Future of Gender and Sexuality Studies<br>University of Pennsylvania                    |

## **MEDIA**

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Sarah Fecht, “Wanted: Uteruses to Populate Space Colony.” *Popular Science*, July 2014:  
<http://www.popsci.com/article/science/wanted-uteruses-populate-space-colony>

Blake Cole, “Space Junk: Lisa Ruth Rand Explores the Ecosystem of Deep Space.” *SAS  
Frontiers*, June 2013: <https://www.sas.upenn.edu/series/frontiers/space-junk>

## **EXPERIENCE**

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| 2016-present | Volunteer<br>LGBT Books to Prisoners |
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- 2015-present Volunteer Public Astronomy Educator  
#Popscope
- 2014 Research assistant to Etienne Benson  
University of Pennsylvania
- 2014 Volunteer Astronomy Educator  
Phoebe Waterman Haas Public Observatory  
Smithsonian National Air and Space Museum
- 2013 Graduate Summer Research Associate  
RAND Corporation
- 2011-2013 Bibliographic assistant to Ruth Schwartz Cowan  
University of Pennsylvania
- 2008-2009 Science Editor  
Chelsea House, Infobase Publishing
- 2007 Certificate in Copyediting  
School of Continuing and Professional Studies, New York University
- 2005-2008 Science Ancillaries Editor  
Editorial Assistant, Physical Sciences  
W. W. Norton and Company
- 2001-present Playwright  
3-time Heideman Award finalist, Actors Theatre of Louisville  
Plays published by Playscripts, Inc.

## **LANGUAGES**

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English (Native speaker), French (Intermediate), Hebrew (Reading), Spanish (Reading)

## **PROFESSIONAL MEMBERSHIPS**

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Society for the History of Technology (SHOT)

Exploring Diversity in Technology's History (EDITH) Special Interest Group

Women in Technological History (WITH) Special Interest Group

Envirotech Special Interest Group

History of Science Society (HSS)

American Historical Association (AHA)

American Society for Environmental History (ASEH)

Working Group on Commodification, Technologies, and Gender, Drexel University

Consortium for the History of Science, Technology, and Medicine (CHSTM) Working  
Groups in Earth & Environmental Sciences, Technology, and Physical Sciences



## **REFERENCES**

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John Tresch, jtresch@sas.upenn.edu, 215-898-8400  
Associate Professor of History and Sociology of Science, University of Pennsylvania

Ruth Schwartz Cowan, rcowan@sas.upenn.edu, 215-898-8400  
Professor Emerita of History and Sociology of Science, University of Pennsylvania

Adelheid Voskuhl, avoskuhl@sas.upenn.edu, 215-898-5893  
Associate Professor of History and Sociology of Science, University of Pennsylvania

Etienne Benson, ebenson@sas.upenn.edu, 215-898-8400  
Assistant Professor of History and Sociology of Science, University of Pennsylvania

Martin Collins, collinsm@si.edu, 202-633-2413  
Curator, Department of Space History, Smithsonian National Air and Space Museum

Dave Baiocchi, baiocchi@rand.org, 310-393-0411 x6658  
Professor, Pardee RAND Graduate School