

SOPHIA ROOSTH

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ACADEMIC APPOINTMENTS

HARVARD UNIVERSITY (Cambridge, MA)

2015-present, Associate Professor of the History of Science

2011-2015, Assistant Professor of the History of Science

BROWN UNIVERSITY (Providence, RI)

2010-2011, Nancy L. Buc Postdoctoral Fellow

Pembroke Center for Teaching and Research on Women

MAX PLANCK INSTITUTE FOR THE HISTORY OF SCIENCE (Berlin, Germany)

2010, Predoctoral Fellow

EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY (Cambridge, MA)

2004-2010, Ph.D.

Program in History | Anthropology | Science, Technology & Society

RICE UNIVERSITY (Houston, TX)

2000-2003, B.A., Anthropology

FELLOWSHIPS AND AWARDS

Harvard Academy Junior Faculty Research Grant, Weatherhead Center for International Affairs, Harvard University (2017)

Anna-Maria Kellen Fellow, American Academy in Berlin (2016)

Joy Foundation Fellow, Radcliffe Institute for Advanced Study (2013-14)

NSF Doctoral Dissertation Research Improvement Grant, Award No. 0847853 (2009)

Wenner-Gren Foundation Dissertation Fieldwork Grant, Award No. 7928 (2009)

NSF Graduate Research Fellowship (2006-2009)

PUBLICATIONS

BOOKS

2017. *Synthetic: How Life Got Made*. Chicago: University of Chicago Press. [Reviews: *Nature* 543 (9 March 2017): 178; *Science* 355 (17 March 2017): 1136; *Studies in History and Philosophy of Biological and Biomedical Sciences* (In press, 2017).]

SPECIAL ISSUES

With Astrid Schrader. 2012. Special Issue on “Feminist Theory out of Science.” *Differences: A Journal of Feminist Cultural Studies* 23(3). Authors: Lina Dib, Eva Hayward, Carla Hustak, Natasha Myers, Sophia Roosth, Astrid Schrader. Commentators: Karen Barad, Vicki Kirby.

ARTICLES

2018. "Turning to Stone." Writing Prehistory. Special Issue of *Res: Anthropology and Aesthetics*. Stefanos Geroulanos and Maria Stavriniaki, eds. (forthcoming)
2017. "19 Hertz: An Infrasonic History of the Twentieth Century." Common Senses and Critical Sensibilities. Special Issue of *Resilience: A Journal of the Environmental Humanities*. Erica Fretwell, ed. (Winter Issue).
2017. "Analysis: Synthesis." Superhumanities Series. *e-flux Architecture* in conjunction with the Third International Istanbul Design Biennial. Beatriz Colomina, ed. <http://www.e-flux.com/architecture/superhumanity/68707>
2016. "Virus, Coal, and Seed: Subcutaneous Life in the Polar North." *The Los Angeles Review of Books*. 21 December. <https://lareviewofbooks.org/article/virus-coal-seed-subcutaneous-life-polar-north/>
2014. "Life, Not Itself: Inanimacy and the Limits of Biology." *Grey Room* 57(2): 56-81.
2013. "Of Foams and Formalisms: Scientific Expertise and Craft Practice in Molecular Gastronomy." *American Anthropologist* 115(1): 4-16.
2013. "BioBricks and Crocheted Coral: Dispatches From the Life Sciences in the Age of Fabrication." *Science in Context* 26(1): 153-171.
2012. "Evolutionary Yarns in Seahorse Valley: Living Tissues, Woolly Textiles, Theoretical Biologies." *Differences: A Journal of Feminist Cultural Studies* 23(3): 9-41.
2012. Roosth, Sophia, and Astrid Schrader. "Feminist Theory out of Science: Introduction." *Differences: A Journal of Feminist Cultural Studies* 23(3): 1-8.
2010. Helmreich, Stefan and Sophia Roosth. "Life Forms: A Keyword Entry." *Representations* 112(2): 27-53.
2009. "Screaming Yeast: Sonocytology, Cytoplasmic Milieus, and Cellular Subjectivities." *Critical Inquiry* 35(2): 332-350.

BOOK CHAPTERS

2016. "Ruin." *Lexicon for an Anthropocene Yet Unseen*. Anand Pandian and Cymene Howe, eds. Punctum Books. (Also published in *Cultural Anthropology* online: <https://culanth.org/fieldsights/959-ruin>).
2016. "Evolutionary Yarns in Seahorse Valley: Living Tissues, Woolly Textiles, Theoretical Biologies." *BIOS: Biology in Art, Architecture, and Design*. Charissa Terranova and Meredith Tromble, eds. New York: Routledge, 387-410.
2015. Helmreich, Stefan and Sophia Roosth. "Life Forms: A Keyword Entry." *Sounding the Limits of Life: Essays in the Anthropology of Biology and Beyond*. Stefan Helmreich with contributions from Sophia Roosth and Michele Friedner. Princeton: Princeton University Press, 19-34.
2011. "Coral Reef." *Eine Naturgeschichte für das 21. Jahrhundert: Hommage à, zu Ehren von, in Honor of Hans-Jörg Rheinberger*. Pp. 20-21. Berlin: Max-Planck-Institut für Wissenschaftsgeschichte.
2008. Roosth, Sophia and Susan Silbey. "Science and Technology Studies: From Controversies to Post-Humanist Social Theory." *Blackwell Companion to Social Theory*, Third Edition. Bryan S. Turner, ed. Pp. 451-473. Oxford: Blackwell.

BOOK REVIEWS

2017. "The Little Things in Life" [Review of *Processes of Life* by John Dupré]. *Biosocieties* (forthcoming).
2013. "The Godfather, Part II" [Review of *Life at the Speed of Light* by Craig Venter]. *Science* 342(6156): 312-313.

OTHER MEDIA

- Chen, Angela. "How to Create a New Life Form: Historian Sophia Roosth on the Future of Synthetic Biology." *The Verge*. April 4, 2017.
<http://www.theverge.com/2017/4/4/15166840/synthetic-biology-sophia-roosth-history-science-engineering>
- Zimmer, Carl. "A New Form of Stem-Cell Engineering Raises Ethical Questions." *The New York Times*. March 21, 2017. https://www.nytimes.com/2017/03/21/science/embryonic-stem-cells-synthetic-embryos-sheefs.html?_r=0
- NASA Astrobiology Institute Feature Story. Betül Kacar. "Proto-Computation and Proto-Life Workshop." March 7, 2017. <https://nai.nasa.gov/articles/2017/3/6/proto-computation-and-proto-life-workshop/>
- Bant Mag* (Istanbul Independent Music, Film, and Arts Journal). April 2017.
- "NPR Specials: Berlin Journal Spring 2016." Public presentation aired on NPR Berlin. May 31, 2016. <http://www.nprberlin.de/post/npr-specials-berlin-journal-spring-2016#stream/0>
- Kyle Oefelein. "Harvard Professor Explores Limits, Definitions of Life." *Cornell Daily Sun*. November 8, 2015.
- "META-Life: Biotechnologies, Synthetic Biology, ALife and the Arts." Interview with Poe Johnson for the *Creative Disturbance* podcast. May 22, 2015.
<http://creativedisturbance.org/podcast/synthetic-biology-creating-and-constructing-life/>
- "Sound and Data." Interview with Scot Gresham-Lancaster for the *Creative Disturbance* podcast. April 6, 2015. <http://creativedisturbance.org/podcast/sophia-roosth-all-the-senses/>
- Interview with Michael Covell on *Trend Following* podcast, episode 322. February 26, 2015.
<https://www.trendfollowing.com/2015/02/26/ep-322-sophia-roosth-interview-with-michael-covell-on-trend-following-radio/>
- "'Father of Molecular Gastronomy' Explores Solution to World Hunger." Interview with Valerie Ryan. *The Boston Globe*. November 11, 2014.
- Katherine Xue. "Synthetic Biology's New Menagerie: Life, Reengineered." *Harvard Magazine*. September-October 2014.
- "Biological Time Travel." *Harvard Magazine*. March 5, 2014.

INVITED TALKS

- TBD. *De Natura* Series. *Naturbilder/Images of Nature* Research Group, Department of Cultural History and Cultural Studies. *Universität Hamburg* (October 2017). Lecture published in the "Gay Science" Book Series. Verlag Matthes und Seitz, Berlin.
- TBD. Paleobiology/Geobiology Seminar. Department of Organismic and Evolutionary Biology and Department of Earth and Planetary Sciences, Harvard University (May 2017).
- "The Fluent Sculpture of Time: Microbial Colonies and Post-Colonial Economies in the Caribbean." Intellectual History Workshop, NYU-Columbia (New York, NY, April 2017).
- "Life is Not a Natural Kind." Proto-Computation and Proto-Life Workshop. Harvard Origins of Life Initiative, Harvard University (Cambridge, MA, December 2016).
- "Stromatolite Safari: Fossil-Hunting and Coeval Estrangement in Montana." Department of Anthropology, The University of Chicago (Chicago, IL, October 2016).
- "The Quick and the Dead." Program in Media and Modernity, Princeton University (Princeton, NJ, October 2016).
- Non/Human Seminar, School of Architecture and Department of Spanish and Portuguese Languages and Literatures, Princeton University (Princeton, NJ, October 2016).
- "Stromatolite Safari: Fossil-Hunting and Coeval Estrangement in Montana." Franz Boas

- Lecture, Department of Anthropology, Columbia University (New York, NY, October 2016).
- “The Quick and the Dead: Seeking Latent Life in the Polar North.” Department of Anthropology, The New School (New York, NY, September 2016).
- “Zombie Anthrax and Arctic Ghost Towns.” Harvard Global Institute Environment Initiative (Cambridge, MA, September 2016).
- “Analysis: Synthesis.” The Library of Congress. Blumberg Symposium on the “Emergence of Life: On the Earth, In the Lab, and Elsewhere.” (Washington, DC, September 2016).
- “Undergrowth.” DeCordova Sculpture Park and Museum (Lincoln, MA, July 2016).
- Panelist, “Inventing the Anthropocene: Perspectives from the Humanities and the Sciences.” Harvard University Center for the Environment (Cambridge, MA, May 2016).
- “The Synthetic Kingdom: Transgenic Kinship in the Post-Genomic Era. Program on Science, Technology, and Society, Harvard University (Cambridge, MA, April 2016).
- “The Quick and the Dead.” The American Academy in Berlin (Berlin, Germany, April 2016).
- “Unlikely Lives: Interrogating the Limits of the Biological.” Department of History, Cornell University (Ithaca, NY, November 2015).
- “Latter-Day Lazarus: Biological Salvage and Resurrected Wastelands.” Graduate School of Design, Harvard University (Cambridge, MA, October 2015).
- “Lively Latency,” Workshop on Ecologies of Value, Evidence, Meaning, and Life. The University of California, San Diego (San Diego, CA, April 2015).
- “Sonic Envelope of Death.” The Lost Marbles Salon, Cloud Club (Boston, MA, April 2015).
- “Evolutionary Yarns in Seahorse Valley: Living Tissues, Woolly Textiles, Theoretical Biologies.” Departments of Oceanography, Art History, Anthropology, Women’s and Gender Studies, and English, Louisiana State University (Baton Rouge, LA, March 2015).
- “Mineral: Animal and Vegetable.” Keynote Lecture. Research, Arts, and Writing Conference (Co-organized by the Ad Astra Series of the Edith O’Donnell Institute of Art History), The University of Texas at Dallas (Dallas, TX, March 2015).
- “Gene Sweepers and the New Bio-Cyber-Terrorism.” IdeasLab: New Cyber World Order with Harvard University. World Economic Forum Annual Meeting (Davos, Switzerland, January 2015).
- Panelist, “Mastering the Machines.” World Economic Forum Annual Meeting (Davos, Switzerland, January 2015).
- “Life, Not Itself: Inanimacy and the Limits of Biology,” Workshop on Unusual Lives: Historicizing Life as a Problem of Knowledge. Berlin Center for the History of Knowledge (Berlin, Germany, November 2014).
- “The Synthetic Kingdom: Queer Kinship in the Post-Genomic Era,” Science Studies Research Workshop. University at Buffalo, SUNY (Buffalo, NY, November 2014).
- Panelist, “Authorship in a Digital World: How to Make It Thrive.” The Authors Alliance. Harvard University (Cambridge, MA, October 2014).
- “Latter Day Lazarus: Species Salvage in Synthetic Biology.” Private seminar, Universität Salzburg (Cambridge, MA, October 2014).
- “Life Makes Itself at Home: The Rise of Biohacking as Political Action,” Workshop on Garages, Kitchens, and Hackerspaces: Spaces and Narratives of the New Innovation. STS Center at the European University at St. Petersburg (St. Petersburg, Russia, September 2014).
- “Molecularizing Taste at the Intersection of Biochemistry and French Cuisine,” Gastronomy Program Lecture Series. Boston University (Boston, MA, April 2014).
- “Synthetic: How Life Got Made,” Radcliffe Institute for Advanced Study, Harvard University

(Cambridge, MA, February 2014).

- “Infrasound Underground: Listening to the Vibratory World,” Sonic Skills Expert Meeting: Sound and Listening in Science, Technology, and Medicine, 1920s-Now. Maastricht University (Maastricht, The Netherlands, January 2014).
- “Lively Database, Transgenic Archive,” Materiality: Objects and Idioms in Historical Studies of Science and Technology. Institute for Science and Technology Studies, York University (Toronto, Canada, May 2013).
- “Techniques of the Listener: Sonocytology and Cellular Sounds,” MIT List Visual Arts Center (Cambridge, MA, April 2013).
- “Life By Design: Evolution and Creation Tales in Synthetic Biology,” Harvard University, Social Anthropology Colloquium Series (Cambridge, MA, December 2012).
- “BioBricks and Crochet Coral: Dispatches from the Life Sciences in the Age of Fabrication,” Brown University, Science and Technology Studies Lecture Series (Providence, RI, April 2011).
- “Crafting the Biological: Open-Sourcing Life Science, from Synthetic Biology to Garage Biotech,” The Max Planck Institute for the History of Science, Department III: Experimental Systems and Spaces of Knowledge (Berlin, Germany, April 2010).
- “Crafting the Biological: Open-Sourcing Life Science, from Synthetic Biology to Garage Biotech,” STS Circle at Harvard, Program on Science, Technology, & Society, Kennedy School of Government (Cambridge, MA, November 2009).

PANELS

- “Technoscientific Sensation.” Co-organized with Alma Steingart. Society for Social Studies of Science (Buenos Aires, Argentina, August 2014).
- “Prototype.” Co-organized with Lina Dib. The American Anthropological Association (Montreal, Quebec, November 2011).
- “Making Things: Artisanship, Representation, and Formalisms at the Convergence of Science & Craft.” Co-organized with Alma Steingart. Society for Social Studies of Science (Washington, D.C., October 2009).

CONFERENCE PRESENTATIONS

- “The Quick and the Dead: Cold, Latency, and the Limits of the Biological.” The American Anthropological Association (Minneapolis, MN, November 2016). Panel: Signs of Life: Energy, Connection, Immortality.
- “Taken with a Grain of NaCl: Molecular Gastronomy and the Biochemistry of Cuisine.” The History of Science Society (San Francisco, CA, November 2015). Panel: The Sciences of Taste.
- “Latent Life: Seeking Vitality in Rock, Dust, and Powder,” The Society for Literature, Science, and the Arts (Dallas, TX, October 2014). Panel: The Aquatic Anthropocene.
- “19 Hertz and Below: An Infrasonic History of the Twentieth Century,” Society for Social Studies of Science (Buenos Aires, August 2014). Panel: Technoscientific Sensation.
- “Open Source, Outsourced: Synthetic Biology in the Age of Biological Taylorism,” International Society for the History, Philosophy, and Social Studies of Biology (Montpellier, July 2013). Panel: Outsourcing Biomedicine.
- “Synthetic Kin and Kingdoms: Thinking Laterally about Transgenic Exchanges,” Society for Social Studies of Science (Copenhagen, October 2012). Panel: Lateral Moves in STS: Tampering with the Conceptual/Empirical Divide.
- “Evolutionary Yarns in Seahorse Valley: Biological Change as Craftwork,” The American

- Anthropological Association (Montreal, Quebec, November 2011). Panel: Prototype.
- “Of Foams and Formalisms: Molecular Gastronomy, Scientific Expertise, and Craft Practice,” The American Anthropological Association (New Orleans, LA, November 2010). Panel: Crafting Senses: Circulating the Knowledge and Experience of Taste.
- “On Soufflés and Centrifuges: Molecular Gastronomy, Scientific Consumption, and Craft Practice,” The Society for Cultural Anthropology (Santa Fe, NM, May 2010). Panel: Eating NatureCulture.
- “Of Foams and Formalisms: Molecular Gastronomy, Scientific Expertise, and Craft Practice,” Society for Social Studies of Science (Washington, D.C., October 2009). Panel: Making Things: Artisanship, Representation, and Formalisms at the Convergence of Science & Craft.
- “Screaming Yeast: Sonocytology, Cytoplasmic Milieu, and Cellular Subjectivities,” International Conference Mutamorphosis (Prague, Czech Republic, November 2007). Panel: The Limits of Organic Life.
- “Refactoring the Olfactory in Synthetic Biology,” Society for Social Studies of Science (Montreal, Quebec, October 2007). Panel: Ways of Sensing Biology.
- “A Heterogenealogy of Synthetic Biology,” Annual Synthetic Biology Meeting (Zurich, Switzerland, June 2007).
- “Sonic Eukaryotes: Sonocytology, Cytoplasmic Milieu, and Cellular Subjectivities,” Society for Social Studies of Science (Vancouver, British Columbia, November 2006). Panel: Sounds, Technology, and Voices.
- “Original Synthesis: Mechanizing Life and Naturalizing Machines in Synthetic Biology,” The Society for Literature, Science, and the Arts (Amsterdam, Netherlands, June 2006). Panel: Parsing and Propagating Biological Ideas and Biological Objects.

TEACHING ACTIVITIES

HARVARD UNIVERSITY

Courses

Sense and Scientific Sensibility (Cross-listed with the Department of Anthropology); Science Facts and Science Fictions; History of Biotechnology (Cross-listed with the Department of Anthropology); From Darwin to Dolly: A History of the Modern Life Sciences; The Empire Strikes Back: Science Fiction, Religion, and Society (Cross-listed with the Department of Anthropology, Harvard Divinity School, and Studies of Women, Gender, and Sexuality); Ethnography of Science and Technology (Graduate Seminar); Current Topics in the Social Study of the Life Sciences (Graduate Seminar)

Graduate Advising, Primary Advisor

Wythe Marschall (Harvard, History of Science)
 Alexis Turner (Harvard, History of Science)
 Bradley Bolman (Harvard, History of Science)

Graduate Advising, Dissertation Committee Member

Leah Aronowsky (Harvard, History of Science); Richard Fadok (MIT, HASTS); Abbas Jaffer (Harvard, Anthropology); Kathryn Heintzman (Harvard, History of Science); Dani Inkpen (Harvard, History of Science); Colleen Lanier-Christensen (Harvard, History of Science); Evgeny Morozov (Harvard, History of Science); Elias Nelson (Harvard, History of Science); Ana Maria Ulloa (The New School, Anthropology); Katia Zolotovskiy (MIT, Architecture)

Graduate Advising, Exam Committee Member

Alyssa Botelho (Harvard, History of Science); Jennifer van der Grinten (Harvard, History of Science); Lisa Haushofer (Harvard, History of Science)

Undergraduate Advising

Liv Novick (History and Science). Senior Thesis: TBD. 2016-2017.

Wesley Friedman (History and Science). Senior Thesis: “Reproductive Real Estate: Exploring the Controversy Surrounding Transnational Commercial Surrogacy in India” (2015-2016).

Brad Bolman (Social Studies). Senior Thesis: “The Pigs That Therefore We Are: 20th Century Porcine Biomedical Experimentations” (Alexis de Tocqueville Prize for Best Thesis, 2014-2015; Hoopes Prize, 2014-2015).

Alyssa Botelho (History and Science). Senior Thesis: “Hearing Life’s Engineers: The 1976 Cambridge Recombinant DNA Controversy” (Rothschild Prize for Best Thesis, 2013-2014).

BROWN UNIVERSITY

Sense and Scientific Sensibility (Spring 2011)

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Art, Craft, Science (Fall 2009)

CURATORSHIPS

“Go Ask A.L.I.C.E.: Turing Tests, Parlor Games, and Chatterbots.” Exhibition of the Harvard Collection of Historical Scientific Instruments. Fall 2012.

PEER REVIEW

Journals: American Ethnologist; Biosocieties; Critical Studies in Peer Production; Differences; Environmental Humanities; Food and Foodways; Gastronomica; Polar Research; Sensate (review board); Science as Culture; Science, Technology, and Human Values; The Senses and Society; Social Studies of Science; Theory, Culture, and Society Annual Review

Presses: Pluto Press

UNIVERSITY SERVICE

Faculty Associate, Weatherhead Center for International Affairs

Faculty Associate, Berkman-Klein Center for Internet and Society, Harvard Law School

Faculty Affiliate, Program on Science, Religion, and Culture, Harvard Divinity School

Faculty Affiliate, Program on Science, Technology and Society, Harvard Kennedy School

Standing Committee on Degrees in Studies of Women, Gender, and Sexuality

Graduate Program Review Committee, Department of the History of Science (2015-16)

Departmental Seminar Committee, Department of the History of Science (2015-16; 2016-17)

Chair, GSAS Research Workshop on Gender and Sexuality (2015-16; 2016-17)

Hoopes Prize Selection Committee for the Social Sciences (2014-15; 2015-2016)

Alex G. Booth Fund Fellowship Selection Committee (2014-15)

Search Committee, Department of the History of Science (2014-15; 2015-16; 2016-17)

Captain Jonathan Fay Prize Selection Committee (2012-13)

Visiting Scholars Program Committee, Department of the History of Science (2012-13; 2014-

15)

Graduate Admissions Committee Member, Department of the History of Science (2011-12)

PUBLIC OUTREACH

Boston-Cambridge Public Engagement Working Group, Public Face of Science Initiative,
American Academy of Arts and Sciences (2017)

PROFESSIONAL AFFILIATIONS

American Anthropological Association (AAA)

Association for Queer Anthropology (AQA)

Affiliate of the Center for Philosophy and History of Science, Boston University

The History of Science Society (HSS)

International Society for the History, Philosophy, and Social Studies of Biology (ISHPSSB)

Society for Cultural Anthropology (SCA)

Society for Literature, Science, and the Arts (SLSA)

Society for Social Studies of Science (4S)