

Updated 6/21/2016

## ACADEMIC APPOINTMENTS

- 2012 - Max Planck Institute for the History of Science  
Senior Research Scholar, Department II
- 2006 - 2012 University of North Carolina Wilmington  
Associate Professor of History, 2010 - 2012  
Assistant Professor of History, 2006 - 2010
- 2002 - 2006 Oberlin College  
Visiting Assistant Professor of History, 2002 - 2006  
Mellon Postdoctoral Fellow in History, 2002 - 2004

## EDUCATION

- 2002 University of Minnesota. Ph.D., Program in History of Science and Technology
- 1996 University of Chicago. A.M., Social Sciences
- 1994 Carleton College. B.A., History

## PUBLICATIONS

## Books

- In contract *Catastrophic Thinking: Extinction and the Value of Diversity*  
Under contract with University of Chicago Press.
- 2012 *Re-reading the Fossil Record: The Growth of Paleobiology as an Evolutionary Discipline*  
Chicago: University of Chicago Press. (Paperback ed., 2015)
- 2007 *Nominalism and Constructivism in Seventeenth-Century Mathematical Philosophy*  
New York and London: Routledge.

## Edited Volumes

- In press *Histories of Data*  
Editor, with Christine von Oertzen and Elena Aronova. *Osiris* 32, forthcoming, 2017
- 2009 *The Paleobiological Revolution: Essays on the Growth of Modern Paleontology*  
Editor, with Michael Ruse. Chicago: University of Chicago Press. (Paperback ed., 2015)

## Journal Articles and Book Chapters

- In review "‘An Image of Science’: Cameralism, Natural History, and the Visual Language of Statistics in the Nineteenth Century." With Marco Tamborini. Under review with *Historical Studies in the Natural Sciences*.

- “The Unfinished Synthesis?: Paleontology and Evolutionary Biology in the 20<sup>th</sup> Century.” In special issue on “Historical and Conceptual Perspectives on the Modern Synthesis,” *Journal of the History of Biology*, under review.
- In press “The Database before the Computer?” In D. Sepkoski, C. von Oertzen, and E. Aronova, eds., *Histories of Data (Osiris 32)*, forthcoming.
- “Extinction and Biodiversity: A Historical Perspective.” In Justin Garson, Anya Plutynski, and Sahotra Sarkar, eds., *The Routledge Handbook for the Philosophy of Biodiversity*, forthcoming.
- “The Earth as Archive.” In Lorraine Daston, ed., *Archiving Sciences: Pasts, Presents, Futures*. Chicago: University of Chicago Press, forthcoming.
- “Simulations, Metaphors, and Historicity in Stephen Jay Gould’s ‘View of Life.’” *Studies in History and Philosophy of Biological and Biomedical Sciences*, special issue on “Evolution and Historical Explanation,” forthcoming.
- 2016 “The ‘Species Concept’ and the Beginnings of Paleobiology.” In Warren Allmon and Margaret Yacobucci, eds., *Species and Speciation in the Fossil Record*. Chicago: University of Chicago Press.
- 2015 “Extinction, Diversity, and Endangerment.” In Fernando Vidal and Nelia Dias, eds., *Endangerment and its Consequences*. London and New York: Routledge.
- 2014 “Paleontology at the ‘High Table’? Popularization and Disciplinary Status in Recent Paleontology.” *Studies in History and Philosophy of Biological and Biomedical Sciences*, 45, 133–138.
- 2013 “Punctuated Equilibria.” In *Oxford Bibliographies in Evolutionary Biology*. Ed. Jonathan Losos. New York: Oxford University Press.
- “Towards ‘A Natural History of Data’: The Fossil Record, the Database, and the Archive, 1800–2000.” *Journal of the History of Biology* 46, no. 3, 401–444.
- “Paleontology and Evolutionary Interpretations of the Fossil Record.” In *The Cambridge Encyclopedia of Darwin and Evolutionary Thought*. Edited by Michael Ruse. Cambridge: Cambridge University Press.
- 2009 “The ‘Delayed Synthesis’: Paleobiology in the 1970s.” In *Descended from Darwin: Insights into American Evolutionary Studies, 1925–1950*, Joe Cain and Michael Ruse, eds. Philadelphia: American Philosophical Society Press.
- “The Emergence of Paleobiology.” In *The Paleobiological Revolution: Essays on the History of Recent Paleontology*, David Sepkoski and Michael Ruse, eds. Chicago: University of Chicago Press.
- “The Origin and Early Reception of Punctuated Equilibrium.” In *The Paleobiological Revolution: Essays on the History of Recent Paleontology*, David Sepkoski and Michael Ruse, eds. Chicago: University of Chicago Press.
- 2008 “Evolutionary Paleontology and the Fossil Record: A Historical Introduction.” In *From Evolution to Geobiology: Research Questions Driving Paleontology at the Start of a New Century*. Paleontological Society of America.
- “Macroevolution.” In *The Oxford Handbook of the Philosophy of Biology*, Michael Ruse, ed. Oxford: Oxford University Press.
- “Stephen Jay Gould, Darwinian Iconoclast?” In *Rebels, Mavericks, and Heretics in Biology*, Oren Harman and Michael Dietrich, eds. New Haven: Yale University Press.

- 2005 “Stephen Jay Gould, Jack Sepkoski, and the ‘Quantitative Revolution’ in American Paleobiology.” *Journal of the History of Biology* 38, no. 2, pp. 209-237.
- “Nominalism and Constructivism in Seventeenth-Century Mathematical Philosophy.” *Historia Mathematica* 32, no. 1, pp. 33-59.

### Other Publications

- 2015 Book Review. Review of Martin J.S. Rudwick, *Earth's Deep History: How It Was Discovered and Why It Matters* (Chicago: University of Chicago Press, 2014). *Journal of the History of Biology*, 48:487-490.
- 2014 Book Review. Review of Hallam Stevens, *Life out of Sequence: A Data-Driven History of Bioinformatics* (Chicago: University of Chicago Press, 2013). *Isis*, 105:4, 873-4.
- Lead Review. “Two Lives in Biology.” Essay review of Richard Dawkins, *An Appetite for Wonder: The Making of a Scientist* (New York: HarperCollins, 2013) and Edward O. Wilson, *Letters to a Young Scientist* (New York: Liveright Publishing Co., 2013). *Quarterly Review of Biology* 89:2, 151-56.
- 2013 Book Review. Review of Theodore W. Pietsch, *Trees of Life: A Visual History of Evolution* (Baltimore: Johns Hopkins University Press, 2012). *Centaurus* 55:4, 443-4.
- 2012 Book Review. Review of Robert J. Asher, *Evolution and Belief: Confessions of a Religious Paleontologist* (Cambridge: Cambridge University Press, 2012). *History and Philosophy of the Life Sciences* 34:4, 652-3.
- 2011 Book Review. Review of Richard York and Brett Clark, *The Science and Humanism of Stephen Jay Gould* (New York: Monthly Review Press, 2011). *Journal of the History of Biology*, 44:4, 797-799.
- Essay Review. “Philosophy among the Fossils.” Review of Derek Turner, *Paleontology: A Philosophical Introduction* (Cambridge: Cambridge University Press). *Metascience* 21:2, 363-366.
- Book Review. Review of Mark A. Borrello, *Evolutionary Restraints: The Contentious History of Group Selection* (Chicago: University of Chicago Press, 2010). *Quarterly Review of Biology*, 86:4, 346.
- 2010 Book Review. Review of David F. Prindle, *Stephen Jay Gould and the Politics of Evolution* (Amherst, NY: Prometheus Books, 2009). *Isis* 101: 2, 455-6.
- 2009 “Modern Paleobiology: Out of Darwin’s Shadow.” Co-author with Charles Marshall. National Science Foundation Special Report *The Evolution of Evolution*. [http://www.nsf.gov/news/special\\_reports/darwin/textonly/geo\\_essay4.jsp](http://www.nsf.gov/news/special_reports/darwin/textonly/geo_essay4.jsp)
- Book Review. Review of James A. Secord, *Charles Darwin: Evolutionary Writings* (Oxford and New York, Oxford University Press, 2008). *Quarterly Review of Biology* 84: 3, 282.
- 2008 Book Review. Review of Daniel Lord Smail, *On Deep History and the Brain* (Berkeley: University of California Press, 2007). *Isis* 99:4, 820-1.
- “Steven Stanley,” “David M. Raup,” “David Jablonski,” “J. John Sepkoski, Jr.” In *Evolution: The First Four Billion Years*, Michael Ruse and Joe Travis, eds. Cambridge, MA: Harvard University Press.
- “Stephen Jay Gould.” In *Research and Discovery: Landmarks and Pioneers in American Science*, Russell M. Lawson, ed. Armonk, NY: ME Sharpe.

- 2007 Book Review. Review of Mark Isaak, *The Counter-Creationism Handbook* (Westport, CT: Greenwood Press, 2005). *Journal of the History of Biology* 40:4.
- Book Review. Review of Seth Shulman, *Undermining Science: Suppression and Distortion in the Bush Administration* (Berkeley, CA: University of California Press, 2006). *Isis*, 98:4, pp. 877–878.
- Book Review. Review of Martin J.S. Rudwick, *Bursting the Limits of Time: The Reconstruction of Geohistory in the Age of Revolution* (Chicago: University of Chicago Press, 2005). *Reports of the National Center for Science Education* 26, No. 6, pp. 35–6.
- 2006 Essay Review: “Worldviews in Collision: Recent Literature on the Creation-Evolution Divide.” Review of *Debating Design: From Darwin to DNA*, eds. William A. Dembski and Michael Ruse (Cambridge University Press, 2004); Eugenie C. Scott, *Evolution vs. Creationism: An Introduction* (University of California Press, 2004); Michael Ruse, *The Evolution-Creation Struggle* (Harvard University Press, 2005); *Why Intelligent Design Fails: A Scientific Critique of the New Creationism*, eds. Matt Young and Taner Edis (Rutgers University Press, 2005). *Journal of the History of Biology* 39, pp. 607–615.
- Book Review. Review of Chris Mooney, *The Republican War on Science* (New York: Basic Books, 2005). *Isis* 97:4, pp. 590–91.
- 2004 Book Review. Review of Anne E. Moyer, *The Philosopher’s Game: Rithmomachia in Medieval and Renaissance Europe* (Ann Arbor, MI: University of Michigan Press, 2001). *Isis*, 95: 4, pp. 697–699.
- Book Review. Review of Peter R. Anstey, *The Philosophy of Robert Boyle* (London: Routledge, 2000). In *Newsletter of HOPOS: The International Society for the History of Philosophy of Science*, 8, pp. 12–14.

#### FELLOWSHIPS AND AWARDS

- 2011 Visiting Fellow. Max Planck Institute for the History of Science, Department II, Berlin, Germany
- 2005–08 National Science Foundation STS Scholars Award. PI for grant funding “The Renaissance of Evolutionary Paleobiology, 1970–1985”
- 2007 Charles L. Cahill Award for Faculty Research and Development. UNC Wilmington
- 2006–07 FESR Investigator Fellow. UNC Wilmington
- 2005 Mead-Swing Fellow in the History of Science. Oberlin College
- 2004 Grant-in-Aid. Oberlin College, award for faculty research support
- 2000–01 Doctoral Dissertation Fellowship. University of Minnesota
- 1997–98 Graduate School Fellowship. University of Minnesota

#### SELECTED PRESENTATIONS

##### Invited Talks

- 2016 “Catastrophic Thinking: Extinction and the Value of Diversity.” Presented at the CHSTM Seminar Series, University of Manchester, February 2016
- “The Database Before the Computer?” Presented at the HPS Centre Seminar Series, University of Leeds, February 2016

- 2015 “Big Data and the Hidden History of Life: A Long-Term Perspective.” Presented at the Interdisciplinary Lecture Series, “Seeing the Invisible,” University of Wisconsin, Madison, October 2015
- “From Specimen Catalogues to Data Bases: How Palaeontology Became ‘Palaeoinformatics.’” Presented at Volkswagen-Stiftung symposium on “Labels, Catalogues, and Architectures,” Hannover, June 2015
- “Data Collections and Databases in Historical Context.” Presented at the History and Philosophy of Science Colloquium, Bar Illan University, June 2015
- “Rereading the Fossil Record: How Paleontology became ‘Paleobiology.’” Presented at the Science Studies Colloquium Series, University of Oslo, April 2015
- “The Database before the Computer?” Presented at workshop “Data History/History of Data,” Columbia University, April 2015
- 2014 “Catastrophic Thinking: Extinction and the Value of Diversity.” Presented at the Franke Program in Science and Humanities Symposium “Extinction: Biology, Culture, and our Futures,” Yale University, October 2014
- “‘Replaying the Tape of Life’: Simulations, Models, and Metaphors in Stephen Jay Gould’s View of Life.” Presented at Workshop on Contingency and History, Oxford University, July 2014
- “Databases in the History of Paleontology.” Presented at Evolutionary Biology Colloquium, Museum für Naturkunde, Berlin, June 2014
- “Hierarchy Theory in Paleobiology.” Presented at International Meeting of Hierarchy Group, Padua, May 2014
- “Extinction and the Value of Diversity.” Presented at Humboldt University (Lehrstuhl Anke te Heesen) colloquium, Berlin, May 2014
- 2013 “Simulations, Databases, and Historical Reconstructions.” Presented at Max Planck Institute for the History of Science symposium “Historicizing Big Data,” Berlin, November 2013
- “From Collections to Databases: Theory and Practice in Modern Paleontological Data Analysis.” Max Planck Institute for the History of Science Institute’s Colloquium, Berlin, February 2013
- 2012 “Rereading the Fossil Record.” Presented at the History and Philosophy of Science seminar series, Washington University in St. Louis, April 2012
- 2011 “Towards ‘A Natural History of Data’: The Fossil Record as Archive.” Presented as a Department II Colloquium at the Max Planck Institute for the History of Science, December 2011
- “The Origins and Development of Paleobiology.” Presented at the Fishbein Center Colloquium, University of Chicago, June, 2011
- 2010 “Progress and Paleobiology.” Presented at a workshop in Honor of Michael Ruse’s 70<sup>th</sup> Birthday, Florida State University, April 2010
- “Paleobiology as Radical Enterprise.” Presented at Lucyle T. Werkmeister Workshop in History and Philosophy of Biology, Florida State University, January, 2010
- 2009 “E.O. Wilson, Island Biogeography, and the Rise of Theoretical Paleobiology.” Presented at the William H. and Lucyle T. Werkmeister Conference in honor of E.O. Wilson, Florida State University June 2009

- “A ‘True’ History of Punctuated Equilibria.” Presented at the History of Human Sciences - Fishbein Center Colloquium, University of Chicago, May 2009
- “Stephen Jay Gould, Niles Eldredge, and the ‘True’ History of Punctuated Equilibria.” Presented as a History of Science and Technology Colloquium, University of Minnesota, Minneapolis, MN, January 2009
- “The Paleobiological Revolution?” Presented as a History and Philosophy of Science Colloquium Series Talk, University of Toronto, September 2008
- 2008 “Evolutionary Paleontology and the Fossil Record: A Historical Introduction.” Presented at the 2008 Paleontological Society Short Course, Geological Society of America Annual Meeting, Houston, TX, October 2008
- “Paleobiology—What’s in a Word?” Presented as a joint Paleobiology/History & Philosophy of Science and Technology Colloquium, Stanford University, April 2008
- “The Growth of Paleobiology.” Presented at Lucyle T. Werkmeister Workshop in History and Philosophy of Biology, Florida State University, March 2008
- 2005 “Discarding Design?: Consequences for Modern Scientific Thought.” Presented as the Mead Swing Lecture in Science and Society, Oberlin College, March 2005
- “Macroevolutionary Alternatives to Neo-Darwinism in the 1970s.” Presented as a joint Geology/Philosophy Department Colloquium, University of Cincinnati, Cincinnati, OH, January 2005
- 2004 “The Delayed Synthesis: Paleobiology in the 1970s.” Presented at the American Philosophical Society symposium *Descended from Darwin: Insights into American Evolutionary Studies, 1925-1950*, Philadelphia, PA, October 2004
- “Catastrophe and Discontinuity in the Modern Natural Sciences.” Presented as a Case Western Reserve University History Colloquium, Cleveland, OH, February 2004
- 2003 “Theories of Mass Extinction and Global Catastrophe in the Natural Sciences, 1670-1990: Some Historical Considerations.” Presented as an Oberlin College Geology Departmental Talk, Oberlin, OH, April 2003

#### Conference Presentations

- 2015 “The Database Before the Computer?” Presented at the History of Science Society Annual Meeting, San Francisco, CA
- 2014 “Extinction and The Value of Diversity.” Presented at the History of Science Society Annual Meeting, Chicago, IL
- 2013 “Simulations, Databases, and Historical Reconstructions.” Presented at the History of Science Society Annual Meeting, Boston, MA
- “Extinction and the Value of Diversity.” Presented at the ISHSSPB Biannual Meeting, Montpellier, France
- “Stephen Jay Gould's Hierarchical Alternative to Neodarwinism.” Presented at the AAAS Annual Meeting, Boston, MA
- 2012 “Paleontology at the ‘High Table’? Popularization and Disciplinary Status in Paleobiology.” Presented at the History of Science Society Annual Meeting, San Diego, CA
- 2011 “Foundational Literature in STEM Curricula.” Presented at the History of Science Society Annual Meeting, Cleveland, OH

- 2009 “Computers and the Visual Language of Paleobiology.” Poster presented at the History of Science Society Annual Meeting, Phoenix, AZ
- 2008 “The ‘Species Concept’ and the Growth of Paleobiology.” Presented at the History of Science Society Annual Meeting, Pittsburgh, PA
- 2007 “Darwin's Dilemma: Evolution, the Fossil Record, and Paleontology, 1859-1945.” Presented at the History of Science Society Annual Meeting, Washington, D.C.
- 2006 “Why Not ‘Palaeobiology’?: The Comparative Success of Evolutionary Palaeontology in the U.S. and Britain.” Presented at the British Society for the History of Science Annual Meeting, Kent, UK
- “Countering Creationist Claims about Macroevolution.” Presented at the Geological Society of America Meeting, North-Central Section, Akron, OH
- 2005 “Building the Discipline of Paleobiology: Tom Schopf as Community Architect.” Presented at History of Science Society Annual Meeting, Minneapolis, MN
- 2004 “Paleobiology in the 1970s: Punctuation, Mass Extinction, and Quantification.” Presented at History of Science Society Annual Meeting, Austin, TX
- 2003 “Walter Charleton, Physico-Theology, and 17<sup>th</sup> Century English Natural Philosophy.” Presented at History of Science Society Annual Meeting, Cambridge, MA
- “Catastrophe and the ‘Order of Nature’ in the Natural Sciences.” Presented at the Columbia History of Science Group Annual Meeting, Friday Harbor, WA
- 2002 “Catastrophism in Natural History, 1650-1800.” Presented at the Mellon Foundation Meeting for Postdoctoral Fellows and Mentors, Carleton College, Northfield, MN
- 2001 “Mathematization and the ‘Language of Nature’ in the 17<sup>th</sup> Century.” Presented at the History of Science Society Annual Meeting, Denver, CO
- 1998 “Sympathy and Identity: Walter Charleton and the Epistemological Roots of the Mechanical Philosophy.” Presented at the Midwest Junto for the History of Science Annual Meeting, Minneapolis, MN

## TEACHING EXPERIENCE

### At UNC Wilmington:

- 2006-12 Introduction to the History of Science I: Antiquity to the Scientific Revolution
- 2006-12 Introduction to the History of Science II: Modern Science (both online and in-person)
- 2006-12 The Darwinian Revolution (taught both online and in-person)
- 2007-11 Religion, Race, and Politics in Modern Science
- 2007 Theology and the Rise of Modern Science
- 2009 Human Beings and the Natural World, 1700-1900
- 2011 Problems in History: The History of Science

### At Oberlin College:

- 2004-5 Medieval and Early Modern Europe
- 2004 Theology, Science and the Secularization of Europe, 1200-1800
- 2005 Scientific Renaissance
- 2002 Scientific Revolution and Enlightenment
- 2004 The Darwinian Revolution
- 2004-05 History of Modern Science
- 2005 The Two Cultures? Science, Religion, and Humanism in Modern Society

2004 Wonders and Marvels in Medieval and Renaissance Europe  
 2005 Enlightenment Intellectual History

#### SERVICE TO PROFESSION

2015 - Book Review Editor, *Historical Studies in the Natural Sciences*  
 2015 - Associate Editor, *Historical Studies in the Natural Sciences*

Manuscript and proposal reviews for University of Chicago Press, Harvard University Press, Cambridge University Press, Oxford University Press, Broadview Press, Houghton Mifflin, *Isis*, *Journal of the History of Biology*, *Evolution and Outreach*, *Studies in History of Philosophy of the Life Sciences*, *Social Studies of Science*, National Science Foundation, and others

#### DEPARTMENTAL AND UNIVERSITY SERVICE

At UNC Wilmington:

2009-12 Faculty Research Committee  
 2009-11 Campus Conduct Board  
 2009 Jewish History Search Committee  
 2009-10 Graduate Curriculum/Admissions Committee  
 2008-10 Undergraduate Curriculum/Awards Committee  
 2008-11 Sherman Emerging Scholars Annual Lecture Committee  
 2007-9 Darwin Centennial Learning Community Steering Committee  
 2006-10 Library Committee

At Oberlin College:

2005-6 Mead-Swing Lecture Series in STS Committee  
 2005-6 Undergraduate Awards Committee

#### PROFESSIONAL AFFILIATIONS

History of Science Society  
 International Society for the History, Philosophy, and Social Studies of Biology  
 International Commission on the History of the Geological Sciences (elected member)  
 Field Museum of Natural History, Research Associate, Integrative Research Center