DAVID SEPKOSKI

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Updated 2/2019

ACADEMIC APPOINTMENTS

2018 -	Thomas M. Siebel Chair in History of Science and Professor of History Affiliate Professor, School of Information University of Illinois, Urbana-Champaign
2012 - 2018	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, 2004 - 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 press	Catastrophic Thinking: Extinction and the Value of Diversity Chicago: University of Chicago Press, forthcoming.
2012	Rereading 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. (Paperback ed., 2012)

Edited Volumes and Special Issues

2017 Histories of Data

Editor, with Christine von Oertzen and Elena Aronova. Osiris 32.

"Darwin and Paleontology." Editor, with Marco Tamborini. Special issue of Studies in History and Philosophy of Biological and Biomedical Sciences 66, 1-54.

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, Book Chapters, and Essay Reviews

In press "The Unfinished Synthesis?: Paleontology and Evolutionary Biology in the 20th Century." In special issue on "Historical and Conceptual Perspectives on the Modern Synthesis," *Journal of the History of Biology*, forthcoming.

2018 "Data in Time: Statistics, History, and the Visualization of Data." In special issue on "Histories of Data and the Database," ed. Soraya Chadarevian and Ted Porter, Historical Studies in the Natural Sciences, 48 (5), 581-593.

> "'An Image of Science': Cameralism, Natural History, and the Visual Language of Statistics in the Nineteenth Century." With Marco Tamborini. Historical Studies in the *Natural Sciences*, 48 (1), 56-109.

2017 "Towards a Global History of Paleontology: The Paleontological Reception of Darwin's Thought." With Marco Tamborini. Studies in History and Philosophy of Biological and Biomedical Science 66, 1-2.

> "Introduction: Historicizing Big Data," with Elena Arnova and Christine von Oertzen. In D. Sepkoski, C. von Oertzen, and E. Aronova, eds., Histories of Data (Osiris 32), 1-17.

"The Database before the Computer?" In D. Sepkoski, C. von Oertzen, and E. Aronova, eds., Histories of Data (Osiris 32), 175-201.

"Extinction and Biodiversity: A Historical Perspective." In Justin Garson, Anya Plutynski, and Sahotra Sarkar, eds., The Routledge Handbook for the Philosophy of Biodiversity. New York and London: Routledge.

"The Earth as Archive." In Lorraine Daston, ed., Archiving Sciences: Pasts, Presents, Futures. Chicago: University of Chicago Press.

2016 "Simulations, Metaphors, and Historicity in Stephen Jay Gould's 'View of Life." Studies in History and Philosophy of Biological and Biomedical Sciences 58 (2016) 73-81.

> "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.

Essay 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 "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.
- Essay Review. "Philosophy among the Fossils." Review of Derek Turner, 2011 Paleontology: A Philosophical Introduction (Cambridge: Cambridge University Press). Metascience 21:2, 363-366.
- 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.
- 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); Euginie 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.

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

- 2018 "What a fossil revolution reveals about the history of 'big data."" Aeon Magazine Feb 12, 2018 (https://aeon.co/ideas/what-a-fossil-revolution-reveals-about-the-history-ofbig-data); republished by The Atlantic and Discover.
- 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.
- 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.
 - 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 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 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

- 2018-23 President's Distinguished Faculty Hiring Program (\$500,000 over 5 years for graduate student fellowships, research support, public programming and outreach), University of Illinois, Urbana-Champaign
- 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

2019 "Catastrophic Thinking in Science and Culture." Presented at the HSS Workshop, University of Pennsylvania, March 2019

2018 "Sociobiology and Ideology." Presented at the William H. and Lucyle T. Werkmeister Conference on New Directions in History and Philosophy of Biology, Florida State University, September 2018

2017 "Agency and Extinction." Presented at the symposium "Nonhuman Agents in Art, Culture and Theory," Art Laboratory Berlin, Berlin, Germany, November 2017

> "Data in Time: Statistics, History, and the Visualization of Taxonomic Data." Presented in the A. Watson Armour III Seminar Series, Field Museum of Natural History, Chicago, November 2017

"The Well-Tempered Algorithm." Presented at the workshop "The Intelligence of Algorithms," Max Planck Institute for the History of Science, October 2017

"Extinction and the Value of Diversity." Presented as an EMBL Science and Society Lecture, European Molecular Biology Laboratory, Heidelberg, Germany, June 2017

"Narrating the Past with Data." Presented at the History and Philosophy of Science Colloquium Series, University of Chicago, April 2017

"Mass Extinction." Presented at the Uses of Anomaly Workshop, University of Chicago, April 2017

"Are We Experiencing the Sixth Mass Extinction, and Does It Matter?" Presented at the conference "Biodiversity and Its Histories," University of Cambridge, March 2017

"The Cultural History of Extinction." Presented at the Kolloquium zur Kulturgeschichte des Wissens, Leuphana University Lüneburg, January 2017

2016 "Narrating the Past with Data: Cameralism, Natural History, and the Visual Language of Statistics in the Nineteenth Century." Presented at the Huntington Library Workshop "Histories of Data and the Database," November 2016

> "Catastrophic Thinking: Extinction and the Value of Diversity." Presented at the CHSTM Seminar Series, University of Manchester, February 2016, and at the UC Santa Barbara Colloquium in History of Science, October 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 70th 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

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Conference Presentations

2016	"Visualization, Narrative, and Historical Data." Presented at the joint Philosophy of Science Association/History of Science Society annual meeting special symposium "Data in Time: The Epistemology of Historical Data." Atlanta, GA.
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 17th 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 17th 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 the University of Illinois

2019	Science in Western Civilization
2019	Revolution in Science
2018	The Biology of Human Difference

At the University of Chicago

2018	Data History: Information Overload from the Enlightenment to Google
2017	Catastrophic Thinking: Extinction in Culture and Science

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

SERVICE TO PROFESSION

2015 -	Book Review Editor, Historical Studies in the Natural Sciences
2015 -	Associate Editor, Historical Studies in the Natural Sciences
2017 -	Committee on Meetings and Programs, History of Science Society
2018	Program Co-Chair, 2018 History of Science Society Annual Meeting

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 many others

DEPARTMENTAL AND UNIVERSITY COMMITTEES

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