

## David Cahan: Curriculum Vitae

July 2018

### TITLE

Charles Bessey Professor of History

### ACADEMIC ADDRESS

University of Nebraska-Lincoln  
Department of History  
610 Oldfather Hall  
Lincoln, NE 68588-0327  
Fax: 402-472-8839  
e-mail: dcahan2@unl.edu

### HOME ADDRESS

2501 Calvert Street  
Lincoln, NE 68502  
Telephone (landline): 402-423-9462  
Cell: 402-770-3402

### EDUCATION

The Johns Hopkins University (Ph.D., history of science, 1980)  
The Johns Hopkins University (M.A., history of science, 1977)  
University of California, Berkeley (A.B., philosophy, 1969)  
Evanston Township High School (1965)

### Ph.D. DISSERTATION

“The Physikalisch-Technische Reichsanstalt: A Study in the Relations of Science, Technology, and Industry in Imperial Germany.” (1980)

### FELLOWSHIPS, GRANTS, AWARDS, AND HONORS

Faculty Development Award, University of Nebraska (2017)  
Creative Activities Enhancement Program For Faculty in the Humanities and Social Sciences, UNL 2015 (\$3,500 for book indexing)  
James A. Rawley Faculty Research Grant (UNL, Department of History, 2017) \$2,500  
Charles Henry Oldfather Award (UNL, Department of History, 2016) \$1,500  
Research Council Grant-in-Aid, UNL 2015 (\$6,500 subvention award for book publication)  
Creative Activities Enhancement Program For Faculty in the Humanities and Social Sciences, UNL 2015 (\$5,000 subvention award for book publication)  
(with Will Thomas) UNL Research Council (Dec. 2012) \$2,330  
(with David Loope) UNL Research Council (Nov. 2010) \$800  
Albin T. and Pauline Anderson Award (UNL, Department of History 2011) \$2,000  
Faculty Development Award, University of Nebraska (2011)  
National Science Foundation (2005-7) \$105,000  
Arts & Humanities Research Enhancement Fund (UNL, 2004) \$10,000  
Senior Fellow, Dibner Institute for the History of Science and Technology, Massachusetts Institute of Technology (2004-5) \$35,000  
Charles Bessey Professor (2003-)  
Faculty Development Award, University of Nebraska (2003)  
Faculty Grant-in-Aid, University of Nebraska Research Council (2002)

Chargé de recherche associé (Invited Fellow), Centre de la Recherche en Histoire des Sciences et des Techniques, Cité des Sciences, Paris (1997)  
 Faculty Summer Research Fellowship, University of Nebraska (1997)  
 Faculty Development Award, University of Nebraska (1997)  
 National Endowment for the Humanities, Research Division, Program in Science, Technology, and the Humanities (1994-96)  
 German Academic Exchange Service (DAAD) Award (1994, declined)  
 National Endowment for the Humanities Travel to Collections Award (1990)  
 Fling Fellowship, University of Nebraska (1990)  
 Alternate delegate for the National Academy of Sciences and National Research Council to the XVIIIth International Congress of the History of Science in Hamburg and Munich, Federal Republic of Germany (August, 1989)  
 National Research Council Travel Award to the XVIIIth International Congress of the History of Science (as above)  
 Faculty Development Award, University of Nebraska (1989)  
 German Academic Exchange Service (DAAD) Award (1988)  
 Layman Fund Award, University of Nebraska (1987-88)  
 German Academic Exchange Service (DAAD) Award (1987, declined)  
 National Science Foundation Award (1985)  
 Grant-in-Aid, University of Nebraska (1993; 1990; 1985-86; 1984)  
 Fling Fellowship, University of Nebraska (1984)  
 Fulbright Research Fellowship Recipient to the Federal Republic of Germany (1975-76)  
 Department of the History of Science Teaching Fellowships, The Johns Hopkins University (1976-77, 1974-75, 1973-74)

## **TEACHING SUBJECTS**

### **A. History of Science (and Technology)**

History of Science (ancient to present)  
 History of Modern Science (1500 to present)  
 The Culture of Science and Technology  
 Science, Technology, and Culture  
 Science and Technology in the Making of the Modern World Economy  
 Edison to Facebook: Technological Innovation in Modern America

### **B. Modern European Intellectual History**

Modern European Intellectual History (1500 to present)  
 The Enlightenment  
 Nineteenth-Century European Intellectual History  
 Twentieth-Century European Intellectual History

### **C. Service Courses**

History of Western Civilization, 1715 to the Present  
 The Historian's Craft

## **PROFESSIONAL TEACHING APPOINTMENTS AND EXPERIENCE**

Charles Bessey Professor and Professor of History, University of Nebraska-Lincoln, 2003-

Professor, Department of History, University of Nebraska-Lincoln, 1994-  
 Visiting Professor and Co-Director of the Institut für Wissenschaftsgeschichte, Universität  
 Göttingen, Germany, Sommersemester 1994  
 Associate Professor (with tenure), Department of History, University of Nebraska-Lincoln,  
 1988-94  
 Assistant Professor, Department of History, University of Nebraska-Lincoln, 1982-88  
 William Rainey Harper Instructor; Visiting Member, Morris Fishbein Center for the History  
 of Science and Medicine; Associate Member, Department of History; The University of  
 Chicago, 1980-82  
 Teaching Assistant at The Johns Hopkins University  
 1976-77: History of Medicine  
 1974-75: Survey of the History of Science *and* History of Medicine  
 1973-74: History of Modern Physics *and* History of Medicine

## OTHER PROFESSIONAL EXPERIENCE

Research Assistant to the Director of the Institute for Advanced Study, Princeton, New Jersey  
 (1978-79)  
 Visiting Fellow, Office for History of Science and Technology, University of California,  
 Berkeley (Fall, 1985)

## PUBLICATIONS

### Books

8. *Helmholtz: A Life in Science*. Chicago and London: University of Chicago Press,  
 September 2018. ISBN: 9780226481142. 944 pages; 40 halftones; 7 x 10.
7. *From Natural Philosophy to the Sciences: Writing the History of Nineteenth-Century  
 Science*. Edited, introduced, and with an essay by myself. Chicago and London: University  
 of Chicago Press, 2003.
6. *Science at the American Frontier: A Biography of DeWitt Bristol Brace*. Lincoln and  
 London: University of Nebraska Press, 2000. (Co-authored with M. Eugene Rudd.)
5. Hermann von Helmholtz. *Science and Culture: Popular and Philosophical Essays*.  
 Chicago and London: University of Chicago Press, 1995. Edited, introduced, and in part  
 translated by myself.
4. *Hermann von Helmholtz and the Foundations of Nineteenth-Century Science*. Berkeley,  
 Los Angeles, and Oxford: University of California Press, 1994. Edited, introduced, and  
 with an essay by myself.
3. *Letters of Hermann von Helmholtz to His Parents: The Medical Education of a German  
 Scientist, 1837-1846*. Stuttgart: Franz Steiner Verlag, 1993. Edited, introduced, and  
 annotated by myself.
2. *Meister der Messung: Die Physikalisch-Technische Reichsanstalt und der Aufstieg der  
 physikalischen Institute in Deutschland, 1871-1918*. German edition of the item below (7).

Weinheim, New York, Basel, and Cambridge: VCH Verlagsgesellschaft, 1992. Reprinted 2011.

1. *An Institute for an Empire: The Physikalisch-Technische Reichsanstalt, 1871-1918*. Cambridge, New Rochelle, and New York: Cambridge University Press, 1989; paperback reprint edition, 2004.

## **Book in Press**

### **Articles and Book Chapters**

26. "The Awarding of the Copley Medal and the 'Discovery' of the Law of Conservation of Energy: Joule, Mayer, and Helmholtz Revisited." *Notes and Records of the Royal Society of London*. Vol. 66. 2012. Pp. 125-39.

25. "Helmholtz and the British Scientific Elite: From Force Conservation to Energy Conservation." *Notes and Records of the Royal Society of London*. Vol. 66. 2012. Pp. 55-68.

24. "Helmholtz in Gilded-Age America: The International Electrical Congress of 1893 and the Relations of Science and Technology." *Annals of Science*. Vol. 67:1. 2010. Pp. 1-38.

23. "The 'Imperial Chancellor of the Sciences': Helmholtz between Science and Politics." *Social Research*. Vol. 73:4. Winter 2006. Pp. 1093-1128.

22. "Helmholtz and the Ideals of Science and Culture in Gilded Age America." *Revista da Sociedade Brasileira de História da Ciência*. Vol. 4:1. 2006. Pp. 6-16.

21. "Hermann von Helmholtz und die Ausgestaltung der amerikanischen Physik im Gilded Age." In *Universität der Gelehrten—Universität der Experten: Adaptionen deutscher Wissenschaft in den USA des neunzehnten Jahrhunderts*. Eds., Philipp Löser and Christoph Strupp. Transatlantische Historische Studien Band 24. Stuttgart: Franz Steiner Verlag, 2005. Pp. 71-87.

20. "Helmholtz and the Shaping of the American Physics Elite in the Gilded Age," *Historical Studies in the Physical and Biological Sciences*. Vol. 35:1. 2004. Pp. 1-34.

19. "Institutions and Communities." In *From Natural Philosophy to the Sciences*, Pp. 291-328 (see above).

18. "Looking at Nineteenth-Century Science: An Introduction." In *From Natural Philosophy to the Sciences*. Pp. 3-15 (see above).

17. "The Young Einstein's Physics Education: H.F. Weber, Hermann von Helmholtz, and the Zurich Polytechnic Physics Institute." In *Einstein: The Formative Years, 1879-1909*. Eds., Don Howard and John Stachel. Boston: Birkhäuser Boston, 2000. Pp. 43-82.

16. "Helmholtz als führender Wissenschaftler an der Preußischen Akademie der Wissenschaften." In *Die Königlich Preußische Akademie der Wissenschaften zu Berlin im Kaiserreich*. Ed. Jürgen Kocka, with Rainer Hohlfeld and Peter Th. Walther. Berlin: Akademie-Verlag, 1999. Pp. 277-314.
15. "Un institut pour un Empire." *Les Cahiers de science et vie*. No. 51. June 1999. Pp. 42-9.
14. "On Helmholtz and 'Bürgerliche Intelligenz': A Response to Robert Brain." *Studies in History and Philosophy of Science*. Vol. 28:3. 1997. Pp. 521-32.
13. "The Zeiss Werke and the Ultramicroscope: The Creation of a Scientific Instrument in Context." In *Scientific Credibility and Technical Standards in 19th and Early 20th Century Germany and Britain* (= *Archimedes 1996: New Studies in the History and Philosophy of Science and Technology*). Ed., Jed Buchwald. Dordrecht, Boston, London: Kluwer Academic, 1996. Pp. 67-115.
12. "Helmholtz als Kulturträger." *PTB-Mitteilungen* 105:4 (1995):249-54. Reprinted in *Hermann von Helmholtz (1821 bis 1894). Berliner Kolloquium zum 100. Todestag*. Eds. Dieter Hoffmann and Heinz Lübbig. PTB-Texte Band 5. Braunschweig: Impressum, 1996. Pp. 95-113.
11. "Werner von Siemens, Hermann von Helmholtz, et la création du Physikalisch-Technische Reichsanstalt." *Les Cahiers de Science & Vie*, No. 30 (15 December 1995). Pp. 38-43.
10. "Introduction" to my edition of Helmholtz's *Science and Culture*. Pp. vii-xvi.
9. "Anti-Helmholtz, Anti-Dürring, Anti-Zöllner: The Politics and Values of Science in Germany during the 1870s." In Lorenz Krüger, ed., *Universalgenie Helmholtz: Rückblick nach 100 Jahren*. Berlin: Akademie-Verlag, 1994. Pp. 330-44.
8. "Helmholtz and the Civilizing Power of Science." In Cahan, ed., *Hermann von Helmholtz and the Foundations of Nineteenth-Century Science*. Pp. 559-601.
7. "Introduction: Helmholtz at the Borders of Science." In Cahan, ed., *Hermann von Helmholtz and the Foundations of Nineteenth-Century Science*. Pp. 1-13.
6. "From Dust Figures to the Kinetic Theory of Gases: August Kundt and the Changing Nature of Experimental Physics in the 1860s and 1870s." *Annals of Science*. Vol. 47. 1990. Pp. 151-72.
5. "The Geopolitics and Architectural Design of a Metrological Laboratory: The Physikalisch-Technische Reichsanstalt in Imperial Germany." In Frank A.J.L. James, ed. *Places of Experience in Industrial Civilisation: Essays on the History of Laboratories, Past and Present*. London: Macmillans, 1989. Pp. 137-54.

4. "Kohlrausch and Electrolytic Conductivity: Instruments, Institutes, and Scientific Innovation," In *Science in Germany: The Intersection of Institutional and Intellectual Issues, Osiris*, 2nd series. Vol. 5. (1989). Pp. 166-85.

3. "Die Physikalisch-Technische Reichsanstalt, 1871-1918," In J. Bortfeldt, W. Hauser, and H. Rechenberg, eds. *Forschen-Messen-Prüfen: 100 Jahre Physikalisch-Technische Reichsanstalt/Bundesanstalt 1887-1987*. Weinheim: Physik-Verlag, 1987. Pp. 26-67.

2. "The Institutional Revolution in German Physics, 1865-1914." *Historical Studies in the Physical Sciences*. Vol. 15:2. 1985. Pp. 1-65.

1. "Werner Siemens and the Origin of the Physikalisch-Technische Reichsanstalt, 1872-1887." *Historical Studies in the Physical Sciences*. Vol. 12:2. 1982. Pp. 253-83.

### Encyclopedia Entries

12. "Helmholtz, Hermann Ludwig Ferdinand von (1821-94)." In *International Encyclopedia of the Social & Behavioral Sciences*. Editor-Chief James D. Wright. Second ed. Oxford: Elsevier, 2015. Vol. 10. Pp. 775-58. Revision of item 8 below.

11. Revision of "Helmholtz, Hermann von." In *Encyclopedia of Aesthetics*. Ed. Michael Kelly. 6 vols. + electronic edition. New York and Oxford: Oxford University Press, 2014. [See 5 below.]

10. "Luoghi della Ricerca e Costruttori di Strumenti." In *Storia della Scienza*. Vol. 8: *L'Ottocento* (Rome: Istituto della Enciclopedia Italiana, 2004). Pp. 339-41.

9. "Helmholtz, Hermann von," and "Hertz, Heinrich." In J.L. Heilbron, ed., *The Oxford Companion to the History of Modern Science*. Oxford: Oxford University Press, 2003. Pp. 360-61.

8. "Hermann Ludwig Ferdinand von Helmholtz (1821-94)." In *International Encyclopedia of the Social and Behavioral Sciences*. Eds., Neil J. Smelser and Paul B. Baltes. Elsevier Science, 2001. Pp. 6654-57.

7 and 6. "Brace, DeWitt Bristol," and "Burgess, George Kimball." In *American National Biography*. Eds., John A. Garraty and Mark C. Carnes. New York and Oxford: Oxford University Press, 1999. Vol. 3. Pp. 339-40, and 939-40, resp.

5. "Helmholtz, Hermann von." In *Encyclopedia of Aesthetics*. Ed. Michael Kelly. 4 vols. New York and Oxford: Oxford University Press, 1998. Vol. 2. Pp. 392-94. [See 11 above.]

4 and 3. "Helmholtz Resonator," and "Ophthalmoscope." In *Instruments of Science: A Historical Encyclopedia*. Eds., Robert Bud and Deborah Warner. New York and London: Garland Press, 1998. Pp. 308-10, and 424-27, resp.

2 and 1. "Abbe, Ernst," and "Siemens, Werner." In *Modern Germany: An Encyclopedia of History, People, and Culture, 1871-1990*. Eds. Dieter K. Buse and Jürgen C. Doerr. 2 vols. Garland Press, 1998. Vol. 1. Pp. 3-4, and Vol. 2. Pp. 917-18, resp.

### Essay Reviews

4. Essay Review of Jed Z. Buchwald, *The Creation of Scientific Effects: Heinrich Hertz and Electric Waves* (Chicago and London: University of Chicago Press, 1994), for *Metascience: An International Review Journal for the History, Philosophy, and Social Studies of Science*, N.S. Issue 7 (1995). Pp. 94-101.
3. "The Power and the Glory. Essay Review of Crosbie Smith and M. Norton Wise, *Energy and Empire: A Biographical Study of Lord Kelvin* (Cambridge, New York, Melbourne: Cambridge University Press, 1989)." *Annals of Science*. Vol. 48. 1991. Pp. 589-95.
2. Special journals review of *Berichte zur Wissenschaftsgeschichte* and *NTM. Isis*. Vol. 82:2. 1991. Pp. 306-9.
1. "Pride and Prejudice in the History of Physics: The German-Speaking World, 1740-1945." *Historical Studies in the Physical and Biological Sciences*. Vol. 19:2. 1988. Pp. 173-91.

### Translations

3. "The Facts in Perception." In Cahan, ed., Hermann von Helmholtz. *Science and Culture: Popular and Philosophical Essays*. Chicago and London: University of Chicago Press, 1995. Pp. 342-80.
2. "Goethe's Presentiments of Future Natural Scientific Ideas." In Cahan, ed., Hermann von Helmholtz. *Science and Culture: Popular and Philosophical Essays*. Chicago and London: University of Chicago Press, 1995. Pp. 393-412.
1. Translation of Günter Bierhalter, "The Mechanical Foundation of Helmholtz's Thermodynamics." In Cahan, ed., *Hermann von Helmholtz and the Foundations of Nineteenth-Century Science*. Pp. 432-58.

### Other

"Helmholtz-Handschrift: Die Gesetze der Natur aufdecken." June 2018.  
[https://www.helmholtz.de/wissenschaft\\_und\\_gesellschaft/die\\_gesetze\\_der\\_natur\\_aufdecken/](https://www.helmholtz.de/wissenschaft_und_gesellschaft/die_gesetze_der_natur_aufdecken/)

### Book Reviews

48. Hermann von Helmholtz. *Philosophische und populärwissenschaftliche Schriften*. Michael Heidelberger, Helmut Pulte, and Gregor Schiemann, eds. 3 vols. Hamburg: Felix Meiner Verlag. 2017. *Physik-Journal*. No. 3. 2018. P. 68.
47. Charles E. McClelland. *Berlin, the Mother of All Research Universities, 1860-1918*. Lanham, MD: Lexington Books. 2016. *Isis*. Vol. 108:4. 2017. Pp. 930-31.

46. Denise Phillips. *Acolytes of Nature: Defining Natural Science in Germany, 1770-1850*. Chicago and London: The University of Chicago Press, 2012. *German Studies Review*. Vol. 37:1. 2014. Pp. 165-67.
45. Alexandra Hui. *The Psychophysical Ear: Musical Experiments, Experimental Sounds, 1840-1910*. Cambridge, Mass.: The MIT Press. 2012. *Technology & Culture*. Vol. 55:1. 2014. Pp. 256-58.
44. Michel Meulders. *Helmholtz: From Enlightenment to Neuroscience*. Trans. Laurence Garey. xvii + 235 pp. illus., figs., biblio. Cambridge: MIT Press, 2010. *Isis*. Vol. 103:1. 2012. Pp. 197-99.
43. David Aubin, Charlotte Bigg, and H. Otto Sibum, eds. *The Heavens on Earth: Observatories and Astronomy in Nineteenth-Century Science and Culture*. (Science and Cultural Theory) xii + 384 pp., illus., bibl., index. Durham, NC and London, England: Duke University Press, 2010. *Isis*. Vol. 102. (2011). Pp. 173-74.
42. Gregor Schiemann. *Hermann von Helmholtz's Mechanism: The Loss of Certainty. A Study on the Transition from Classical to Modern Philosophy of Nature*. Translated by Cynthia Klohr. Archimedes. New Studies in the History and Philosophy of Science and Technology. Vol. 17. Pp. x + 282. ISBN 978-1-4020-5629-1. Milton Keynes: Springer Science + Business Media B.V. 2009. In *Centaurus* (2010), Vol. 52:4. Pp. 352-53.
41. Robert J. Richards. *The Tragic Sense of Life: Ernst Haeckel and the Struggle over Evolutionary Thought*. Chicago and London: The University of Chicago Press, 2008. In *Central European History* (March 2010), Vol. 43. Pp. 183-86.
40. Karl Grandin, Nina Wormbs, and Sven Widmalm, eds. *The Science-Industry Nexus. History, Policy, Implications*. Sagamore Beach: Science History Publications, 2004. In *Nuncius: Journal of the History of Science*. Vol. 23. 2008. Pp. 435-36.
39. Robert J. Richards. *The Romantic Conception of Life: Science and Philosophy in the Age of Goethe*. Chicago and London: The University of Chicago Press, 2002. In *Perspectives in Biology and Medicine*. Vol. 47. 2004. Pp. 464-68.
38. Dong-Won Kim. *Leadership and Creativity: A History of the Cavendish Laboratory, 1871-1919*. Vol. 5 of Archimedes: New Studies in the History and Philosophy of Science and Technology. Dordrecht, Boston, and London: Kluwer Academic, 2002. In *Historical Studies in the Physical and Biological Sciences*. Vol. 34:1. 2003. P.
37. Annette Vogt. *Wissenschaftlerinnen in Kaiser-Wilhelm-Instituten* (Veröffentlichungen aus dem Archiv zur Geschichte der Max-Planck-Gesellschaft, 12.) Berlin: Druckhaus am Treptower Park, 1999; Eckart Henning, *Beiträge zur Wissenschaftsgeschichte Dahlems* (Veröffentlichungen aus dem Archiv zur Geschichte der Max-Planck-Gesellschaft, 13) Berlin: Druckhaus am Treptower Park, 2000; Petra Hauke, comp. and ed., with the



cooperation of Maren Dißmann. *Literatur über Max Planck. Bestandsverzeichnis. Anlässlich des Jubiläums 100 Jahre Quantentheorie* (Veröffentlichungen aus dem Archiv zur Geschichte der Max-Planck-Gesellschaft, 14) Berlin: Ost West Verlag, 2001; and Eckart Henning, ed. *Dahlemer Archivgespräche* (Band 7) Berlin: Druckhaus am Treptower Park, 2001. In *Annals of Science*. Vol. 61. 2004. Pp. 251-52.

36. Susanne Uebele. *Institute im Bild. Teil II. Bauten der Max-Planck-Gesellschaft zur Förderung der Wissenschaften*. (Veröffentlichungen aus dem Archiv zur Geschichte der Max-Planck-Gesellschaft, 11.) Berlin: Archiv zur Geschichte der Max-Planck-Gesellschaft, 1998. In *Isis*. Vol. 93:2. 2002. P. 362.

35. Robert Fox and Anna Guagnini. *Laboratories, Workshops, and Sites. Concepts and Practices of Research in Industrial Europe, 1800-1914*. Berkeley: Office of the History of Science and Technology, University of California, Berkeley, 1999. In *Isis*. Vol. 93:1. 2002. Pp. 86-7.

34. Herbert Hörz. *Brückenschlag zwischen zwei Kulturen: Helmholtz in der Korrespondenz mit Geisteswissenschaftlern und Künstlern*. Marburg an der Lahn: Basiliken-Presse, 1997. In *Annals of Science*. Vol. 58. 2001. Pp. 423-24.

33. Andreas W. Daum. *Wissenschaftspopularisierung im 19. Jahrhundert: Bürgerliche Kultur, naturwissenschaftliche Bildung und die deutsche Öffentlichkeit, 1848-1914*. Munich: R. Oldenbourg, 1998. In *Central European History*. Vol. 34: 1. 2001. Pp. 106-8.

32. Franz Werner. *Hermann Helmholtz' Heidelberger Jahre (1858-1871)*. Berlin, Heidelberg, and New York: Springer, 1997. In *Annals of Science*. Vol. 57. 2000. Pp. 309-10.

31. Glenys Gill and Dagmar Klenke. *Institute im Bild. Teil I: Bauten der Kaiser-Wilhelm-Gesellschaft zur Förderung der Wissenschaften* (Veröffentlichungen aus dem Archiv zur Geschichte der Max-Planck-Gesellschaft, 5). Berlin: Selbstverlag des Archivs, 1993); Petra Hauke. *Bibliographie zur Geschichte der Kaiser-Wilhelm-/Max-Planck-Gesellschaft zur Förderung der Wissenschaften (1911-1994)* (Veröffentlichungen aus dem Archiv zur Geschichte der Max-Planck-Gesellschaft, 6). 3 vols. Berlin: Selbstverlag des Archivs, 1994; Heinrich Parthey. *Bibliometrische Profile von Instituten der Kaiser-Wilhelm-Gesellschaft zur Förderung der Wissenschaften (1923-1943). Institute der Chemisch-Physikalisch-Technischen und der Biologisch-Medizinischen Sektion* (Veröffentlichungen aus dem Archiv zur Geschichte der Max-Planck-Gesellschaft, 7). Berlin: Selbstverlag des Archivs, 1995; and Dirk Ullmann. *Quelleninventar Max Planck* (Veröffentlichungen aus dem Archiv zur Geschichte der Max-Planck-Gesellschaft, 8.). Berlin: Selbstverlag des Archivs, 1996). In *Isis*. Vol. 92:2. 1999. Pp. 387-88.

30. Hermann von Helmholtz. *Vorträge eines Heidelberger Symposiums anlässlich des einhundertsten Todestages*. Eds. Wolfgang U. Eckart and Klaus Volkert. Pfaffenweiler: Centaurus: 1996. In *Bulletin of the History of Medicine*. Vol. 72. 1998. Pp. 556-58.

29. Dieter Hoffmann, ed. *Gustav Magnus und sein Haus*. Stuttgart: Verlag für Geschichte der Naturwissenschaften und der Technik, 1995. In *Annals of Science*. Vol. 54:4. 1997. Pp. 427-28.
28. Gerald Holton. *Science and Anti-Science*. Cambridge, Mass. and London: Harvard University Press, 1993. In *The European Legacy: Toward New Paradigms*. Vol. 1:5. 1997. Pp. 812-13.
27. James R. Hofmann. *André-Marie Ampère: Enlightenment and Electrodynamics*. Cambridge, New York, Oakleigh: Cambridge University Press, 1996. In *Nature*. Vol. 385. 20 February 1997. Pp. :693-94.
26. Herbert Hörz. *Physiologie und Kultur in der zweiten Hälfte des 19. Jahrhunderts. Briefe an Hermann von Helmholtz*. Marburg/Lahn: Basiliken-Presse, 1994. In *Annals of Science*. Vol. 54:1. 1997. Pp. 93-4.
25. R. Steven Turner. *In the Eye's Mind. Vision and the Helmholtz-Hering Controversy*. Princeton: Princeton University Press, 1994. In *Centaurus*. Vol. 38. 1996. Pp. 86-8.
24. P.M. Harman, ed. *The Scientific Letters and Papers of James Clerk Maxwell*. Volume II: 1862-1873. Cambridge, New York, Melbourne: Cambridge University Press, 1995. In *Annals of Science*. Vol. 53:4. 1996. Pp. 414-15.
23. James T. Cushing. *Quantum Mechanics: Historical Contingency and the Copenhagen Hegemony*. Chicago and London: University of Chicago Press, 1994. In *Annals of Science*. Vol. 53:2. 1996. Pp. 198-99.
22. Dietrich Stoltzenberg. *Fritz Haber: Chemiker, Nobelpreisträger, Deutscher Jude*. Weinheim, New York, Basel: VCH, 1994. In *Nature*. Vol. 375. 1995. Pp. 199-200.
21. Kenneth L. Caneva. *Robert Mayer and the Conservation of Energy*. Princeton, N.J.: Princeton University Press, 1993. In *Nature*. Vol. 368. 1994. P. 23.
20. Daniel M. Siegel. *Innovation in Maxwell's Electromagnetic Theory. Molecular Vortices, Displacement Current, and Light*. Cambridge, New York, Port Chester: Cambridge University Press, 1991; and Bruce Hunt. *The Maxwellians*. Ithaca, N.Y. and London: Cornell University Press. In *American Historical Review*. Vol. 98:3. 1993. Pp. 861-63.
19. Kathryn M. Olesko. *Physics as a Calling: Discipline and Practice in the Königsberg Seminar for Physics*. Ithaca, N.Y. and London: Cornell University Press, 1991. In *Isis*. Vol. 84:1. 1993. Pp. 162-63.
18. Jeffrey Alan Johnson. *The Kaiser's Chemists: Science and Modernization in Imperial Germany*. Chapel Hill and London: University of North Carolina Press, 1990. In *The Journal of Modern History*. Vol. 64. 1992. Pp. 844-46.

17. Richard L. Kremer, ed. *Letters of Hermann von Helmholtz to His Wife, 1847-1859*. Stuttgart: Franz Steiner Verlag, 1990.. In *Annals of Science*. Vol. 49. 1992. Pp. 279-80.
16. John Stachel, et al., eds. *The Collected Papers of Albert Einstein*. Vol. 2. *The Swiss Years: Writings, 1900-1909*. Princeton, N.J.: Princeton University Press, 1989. In *Science*. Vol. 248. 18 May 1990. Pp. 878-79.
15. Thomas F. Glick, ed. *The Comparative Reception of Relativity*. Dordrecht, Boston, Lancaster: Reidel, 1987. In *Isis*. Vol. 81:306. 1990. Pp. 131-32.
14. Rajkumari Williamson, ed. *The Making of Physicists*. Bristol: Adam Hilger, 1987. In *Metascience*. Vol. 7:1. 1989. P. 42.
13. Elisabeth Crawford, J. L. Heilbron, and Rebecca Ullrich, *The Nobel Population 1901-1937: A Census of the Nominators and Nominees for the Prizes in Physics and Chemistry*. Berkeley Papers in History of Science, 11; Uppsala Studies in History of Science, 4. Office for History of Science and Technology, University of California, Berkeley; Office for History of Science, Uppsala University, Uppsala, 1987. In *Annals of Science*. Vol. 45:6. 1988. Pp. 653-54.
12. Ernst Mach, *Principles of the Theory of Heat, Historically and Critically Elucidated*, with an Introduction by Martin J. Klein; ed. Brian McGuinness. Dordrecht, Boston, Lancaster, Tokyo: Reidel, 1986. In *Metascience*. Vol. 6:1. 1988. Pp. 42-3.
11. Donald E. Thomas, Jr. *Diesel: Technology and Society in Industrial Germany*. Tuscaloosa, Alabama: The University of Alabama Press, 1987. In *British Journal for the History of Science*. Vol. 21:2. 1988. Pp. 262-63.
10. Katharine R. Sopka, compiler. *Physics for a New Century: Papers Presented at the 1904 St. Louis Congress*. Introduction by Albert E. Moyer. New York: American Institute of Physics, 1986. In *Isis*. Vol. 78:2. 1987. Pp. 276-77.
9. Elisabeth Crawford. *The Beginnings of the Nobel Institution: The Science Prizes, 1901-1915*. Cambridge: Cambridge University Press & Editions de la Maison des Sciences de l'Homme, 1984. In *Annals of Science*. Vol. 43:5. 1986. Pp. 492-93.
8. Lewis Pyenson. *The Young Einstein. The Advent of Relativity*. Bristol: Adam Hilger, 1985. *Science*. Vol. 229. 23 August 1985. Pp. 751-52.
7. Jost Lemmerich, *Max Born, James Franck, Physiker in ihrer Zeit: Der Luxus des Gewissens*. Berlin: Lentz, 1982; and Max and Hedwig Born. *Der Luxus des Gewissens: Erlebnisse und Einsichten im Atomzeitalter*, ed. Armin Hermann. Munich: Nymphenberger Verlagshandlung, 1982. In *Annals of Science*. Vol. 42. 1985. Pp. 437-38.

6. Karl Hufbauer. *The Formation of the German Chemical Community (1720-1795)*. Berkeley and Los Angeles: University of California Press, 1982. In *Journal of Modern History*. Vol. 56:2. 1984. Pp. 375-77.
5. Edward Pyatt. *The National Physical Laboratory: A History*. Bristol: Adam Hilger, 1983. In *Annals of Science*. Vol. 41. 1984. Pp. 292-93.
4. Lewis Pyenson. *Neohumanism and the Persistence of Pure Mathematics in Wilhelmian Germany*. Philadelphia: American Philosophical Society, 1983. In *Science*. Vol. 222:4627. 2 December 1983. P. 1007.
3. Friedrich Kurylo and Charles Susskind. *Ferdinand Braun: A Life of the Nobel Prizewinner and Inventor of the Cathode-Ray Oscilloscope*. Cambridge, Mass., and London: The MIT Press, 1981. In *Annals of Science*. Vol. 40. 1983. Pp. 200-1.
2. Reinhard Rürup, ed. *Wissenschaft und Gesellschaft: Beiträge zur Geschichte der Technischen Universität Berlin 1879-1979*. Berlin, Heidelberg, New York: Springer-Verlag, 1979. 2 vols. In *Annals of Science*. Vol. 39:3. 1982. Pp. 318-19.
1. David Nachmansohn. *German-Jewish Pioneers of Science 1900-33: Highlights in Atomic Physics, Chemistry, and Biochemistry*. Berlin, Heidelberg, New York: Springer-Verlag, 1979. In *American Scientist*. Vol. 69. January 1981. Pp. 110-11.

## WORK IN PROGRESS

2. "Science in Europe: A Comparative Essay." For *Modern Science in National, Transnational, and Global Context*, vol. 8 of *The Cambridge History of Science*, edited by Hugh Richard Slotten, Ronald L. Numbers, and David N. Livingstone. To appear in 2019.
1. "Re-introducing Uncle Jakob: Einstein's Early Science Education."

## CONFERENCE PARTICIPATIONS, PRESENTATIONS, AND LECTURES

61. Delivered a paper entitled "Helmholtz as a Leader of Atmospheric Science: From Krakatoa to Count Zeppelin," at a session ("The Emergence of Atmospheric Science: From Helmholtz to Earth System Science") organized by me for the History of Science Society's Annual Meeting in Toronto, Canada, 9-12 November 2017.
60. Delivered a paper entitled "The Burdens of Building Physics in Berlin: Institutional Development of the Sciences in Nineteenth-Century Germany" at Columbia University, Center for Science and Society, Workshop on "Material and Institutional Aspects of Field and Discipline Building," 25-26 September 2017.
59. Chaired a panel ("Humanities and Medicine") at UNL as part of the "Future of the Humanities, 2017 Symposium," 9-11 March 2017.

58. Delivered a paper entitled “Historiographical Advantages of Biography: Helmholtz as Example,” at the University of Chicago, Workshop, Committee on Conceptual and Historical Studies of Science. 14 October 2016. (Extended version of item no. 56.)
57. Delivered panel remarks on “Science in Europe,” at the Three Societies Meeting at the University of Alberta, in Edmonton, Canada. 22-25 June 2016.
56. Delivered a paper entitled “Historiographical Advantages of Biography: Helmholtz as Example,” at the annual meeting of the History of Science Society, San Francisco, California, 19-22 November 2015.
55. Lecture Presentation: “The Reception of Helmholtz’s *On the Sensations of Tone*: Celebrity vs. Enlightenment,” at the Boston Colloquium for the Philosophy of Science, 22 March 2013, for a symposium devoted to the “150th Anniversary of Hermann von Helmholtz’s Landmark Work *On the Sensations of Tone as a Physiological Basis for the Theory of Music*.”
54. Co-organized a session on “The Heidelberger *Kreis* of Scientists at Mid-Century: Teaching, Research, and International Fame,” and delivered a paper entitled “Helmholtz and Heidelberg’s Fame,” at the annual meeting of the History of Science Society, Cleveland, Ohio, November 2011.
53. Participated in a session on “Science and Modernity Redux,” and gave a paper entitled “In ‘the Capital of all Geist’: Helmholtz and the Modernization of Science in Berlin,” at the Annual meeting of the History of Science Society, Montreal, Canada, 4-7 November 2010.
52. Commentator on a panel of three papers on “Everyday Life under Dictatorship,” The Fifth Annual James A. Rawley Conference in the Humanities. The Individual and Patterns of Change. UNL, 10 April 2010.
51. Organized and introduced a session on “Environment and Evolution on the Great Plains, 1809-2009,” for the *Celebrating Darwin’s Legacy* Symposium, 26-28 March 2009.
50. Presented a paper on “Johannes Müller as Mentor and Model for Helmholtz,” at a conference on “Johannes Müller’s Vision,” Berlin, Germany, 10-11 October 2008.
49. “Helmholtz as ‘Imperial Chancellor of the Sciences’: Between Science and Politics.” Invited lecture at Washington University in St. Louis, 28 March 2007.
48. “Helmholtz and the Ideals of Science and Culture in Gilded Age America.” Invited keynote address to the 10<sup>th</sup> National Seminar on the History of Science and Technology, Belo Horizonte, Brazil, 17-19 October 2005.
47. “Helmholtz and the Ideals of Science and Culture in Gilded Age America.” William Coleman Memorial Lecture, University of Wisconsin-Madison, 9 March 2005; and also

presented versions of the same address at the University of Chicago, 11 March 2005; and at Johns Hopkins University, 7 April 2005.

46. "A (Primitive) Economic Analysis of the History of Science Marketplace and a Suggestion for the Dibner Institute." January 2005.

45. "The Scientific Tourist: Helmholtz in Gilded Age America." Paper presented at the History of Science Society, Austin, Texas, 18-21 November 2004.

44. "Helmholtz and Abbe: The Origins and Practical Implications of Microscope Theory." Paper presented to the International Workshop on the History of Microscopy, Milan and Naples, Italy, 13-16 October 2004.

43. "The Role of Biography in the History of Science: The Case of Helmholtz." Colloquium talk to the Dibner Institute for the History of Science and Technology, MIT, 21 September 2004.

42. "Hero of Pure Science and Research: Helmholtz and the Shaping of the American Physics Elite in the Gilded Age." Talk at the University of Minnesota, 26 March 2004.

41. "Science above Politics?: Helmholtz on the French and the French on Helmholtz." Presentation delivered in a session, organized by myself, on "Science Across Divides: Helmholtz, Haeckel, Pearson, and James Confront the Modern Self and World" at the annual meeting of the History of Science Society in Cambridge, Mass., 20-23 November 2003.

40. Participated in a workshop on "The German Physical Society in the Third Reich," workshop held at the American Institute of Physics, College Park, Maryland, 25-27 September 2003.

39. "Helmholtz and the Shaping of American Science in the Gilded Age." Presentation for a conference on "Expert Cultures and Social Engineering in the Nineteenth Century: Scientists, Scholars, and Institutional Politics between Germany and the United States," at the German Historical Institute, Washington, D.C., 26-27 April 2002.

38. "How Berlin Became Germany's Electropolis: Regionalism and the Advantages of Agglomeration from Siemens to Rathenau." Conference presentation for the International Workshop: "Places of Innovation, Sites of Discovery," Hebrew University of Jerusalem, 18-19 November 2001.

37. "Habits of the Eye and Mind: Helmholtz as a Private Man." Paper presented at the annual meeting of the History of Science Society, Denver, 8-11 November 2001.

36. Invited participant at a Sloan workshop on "The History of the Spectrum: Historical and Scientific Knowability," Toronto, Canada, 26-29 March 1998.

35. "Helmholtz und die Preußische Akademie der Wissenschaften, 1847-94." Conference on "Die Königlich Preußische Akademie der Wissenschaften im Kaiserreich" at the Berlin-Brandenburgische Akademie der Wissenschaften, Berlin, 27-29 November 1997.
34. Presented a seminar on "Nineteenth-Century French Scientific Institutions and Communities: Some Historiographical Reflections" to the Centre de Recherche en Histoire des Sciences et des Techniques, La Villette, Paris, 20 May 1997.
33. Presented a seminar on "Helmholtz and the Civilizing Power of Science" to the Département de philosophie, Séminaire d'histoire et de philosophie de la chimie, Université Paris X, Nanterre, France, 25 April 1997.
32. Presented a paper entitled "Helmholtz and the Making of a Scientific Career in the Nineteenth-Century German Academic System" at the annual meeting of the History of Science Society, Atlanta, Georgia, 6-10 November 1996.
31. Presented a paper entitled "Hermann von Helmholtz's Popular Scientific Lectures: Origins and Audiences, 1853-1876" at the 3rd British-North American History of Science Conference, "Crossing Boundaries," University of Edinburgh, Scotland, 23-26 July 1996.
30. Presented a paper entitled "The Faith of Industry: Jena Optics and Glass, and the Support for Science," in a session, organized by myself, entitled "From Laboratories to Industry: Optical Theory and Practice in Germany, 1800-1914," at the annual meeting of the History of Science Society, New Orleans, 13-16 October 1994.
29. Presented an invited talk, "Helmholtz als Kulturträger," at a conference entitled "Hermann von Helmholtz. Wissenschaftliches Kolloquium und Festveranstaltung aus Anlaß des 100. Todestages," at the Humboldt-Universität zu Berlin, 8-10 September 1994.
28. Presented an invited talk entitled "Die physikalische Ausbildung des jungen Einsteins" to the Forschungsschwerpunkt Wissenschaftsgeschichte und -theorie, Berlin, June 1994.
27. Presented an invited paper entitled "Anti-Helmholtz, Anti-Dürring, Anti-Zöllner: The Politics and Values of Science in Germany during the 1870s," at the International Helmholtz Symposium, Schloss Ringberg, Tegernsee, Federal Republic of Germany, 3-8 January 1994.
26. Presented a paper entitled "Anti-Helmholtz, Anti-Dürring, Anti-Zöllner: The Politics and Values of Science in Bismarckian Germany," at the annual meeting of the History of Science Society, Santa Fe, NM, 11-14 November 1993.
25. Presented an invited comment on a paper entitled "Engineers, Mathematics, and Higher Learning in Germany, 1890-1910," at a conference on "Dreams of Reason, Worlds of Practice: Science, Skill and Higher Learning since 1550," sponsored by The Achievement Project at The Johns Hopkins University, Baltimore, 30 September - 3 October 1993.

24. Presented a paper entitled “Electrical Theory for Practical Electrotechnologists: A Study of the *Elektrotechnische Zeitschrift* and the German Electrotechnological Community, 1880-1900,” to a conference on “Practical Electricians, High Science and the Third Way: The Creation of Science-Based Electrotechnology in Late-Victorian Britain,” Dibner Institute for the History of Science and Technology, Massachusetts Institute of Technology, 16-18 April 1993.
  
23. Presented a paper entitled “The Making of a Science Functionary: George Kimball Burgess and the National Bureau of Standards” at the annual meeting of the History of Science Society, Washington, D.C., 27-30 December 1992.
  
22. Presented a paper entitled “The Origins and Early Use of the Ultramicroscope: Between Theoretical Science and Industry,” at the annual meeting of the History of Science Society and the Society for the History of Technology, University of Wisconsin, Madison, 30 October - 3 November 1991.
  
21. Presented a paper entitled “Ernst Abbe, Optical Theory, and the Ultramicroscope: Between Industry and Academic Science” at a conference on “Instruments and Institutions: Making History Today” at the Science Museum, London, 12-14 April 1991.
  
20. Presented a paper entitled “Helmholtz and the Formation of the International Scientific Community, 1850-1900,” at a conference on “Writing the History of Physics,” at St. John’s College, Cambridge University, 3-5 April 1991.
  
19. Presented a paper entitled “The Young Helmholtz” in a session organized by myself on “Helmholtz Studies Today: New Sources, Methods, and Interpretations,” at the annual meeting of the History of Science Society, Seattle, 25-28 October 1990.
  
18. Presented a paper entitled “Helmholtz and the Civilizing Power of Science” at a conference organized by myself on “Hermann von Helmholtz: Scientist and Philosopher,” sponsored by the Morris Fishbein Center for the History of Science and Medicine and the Committee on the Conceptual Foundations of Science at the University of Chicago, 11-14 October 1990.
  
17. Presented a paper entitled “Helmholtz, H.F. Weber, and the Zurich Polytechnic Physics Institute: Measuring Physics, Electrotechnology, and the Young Einstein’s Physics Education,” at a conference on “Einstein: The Early Years,” sponsored by the Boston University Center for Einstein Studies, 3-7 October 1990, North Andover, Massachusetts.
  
16. Attended the International Summer School in the History of Science at the University of Uppsala, Sweden, 10-17 June 1990. Summer School theme: “Science and Society, 1850-1914.”
  
15. Presented a paper entitled “Helmholtz and the Civilizing Power of Science” to the Science Museum, London, 22 November 1989.



14. Presented a paper entitled “The Physikalisch-Technische Reichsanstalt between the Academic and Industrial Worlds,” to a workshop on “Transmission and Innovation in the Age of Science-Based Industry,” Oxford University, Linacre College, 19-21 November 1989.
13. Organized a symposium on “International Science: Ideology and Practice, 1800-1989” for the XVIIIth International Congress of the History of Science, Hamburg and Munich, Federal Republic of Germany, 1-9 August 1989, and presented a paper on “Helmholtz and International Science” as part of this symposium. Also chaired three sessions at the Congress.
12. Presented a paper entitled “Helmholtz and the Civilizing Power of Science” to the Boston Colloquium for the Philosophy and History of Science, 4 April 1989.
11. Presented a paper entitled “Helmholtz, Science, and Politics in Germany, 1860-1890” at the annual meeting of the History of Science Society, Cincinnati, 27-30 December 1988.
10. Presented a paper and led a seminar on “Hermann von Helmholtz: A Life in German Science and Culture” at a meeting of American and German Democratic Republic historians of science, Jena, German Democratic Republic, June 1988.
9. Presented a paper entitled “Emil Warburg: A Life in German Science” at a conference on “Unconventional Photoactive Solids,” Elmau, Federal Republic of Germany, 11 October 1987.
8. Organized a session on “Scientific Innovation and Institutional Structure in Germany, 1840-1930,” and presented a paper entitled “Instruments, Institutes, and Scientific Innovation: Friedrich Kohlrausch’s Route to a Law of Electrolytic Conductivity,” at the annual meeting of the History of Science Society, Pittsburgh, 23-26 October 1986.
7. Presented a paper entitled “The Magician from Schwerin: August Kundt’s Art of Experimental Physics,” at an International Workshop on Quantification at Tel Aviv University and the Van Leer Jerusalem Foundation, Israel, 5-8 May 1986.
6. Presented a paper entitled “The Magician from Schwerin: August Kundt’s Art of Experimental Physics,” to the History of Science Colloquium at the University of California, Berkeley, December 1985.
5. Presented a paper entitled “Between Academic Science and Industry: The Evolution of the Physikalisch-Technische Reichsanstalt, 1887-1918” as part of a symposium on “Government, Industry, and the Growth of Cooperative Research in Imperial Germany” to the XVIIth International Congress of the History of Science, Berkeley, 31 July - 8 August 1985.

4. Presented a paper on “Pure Science and Industrial Demand in Imperial Germany: The Case of the Physikalisch-Technische Reichsanstalt” to the annual meeting of the History of Science Society, Chicago, December 1984.
3. Presented a paper on “The Rise of Academic Physics Institutes in Imperial Germany” as part of a conference on “New Perspectives on Nineteenth-Century Science” sponsored by the British Society for the History of Science at the University of Kent at Canterbury, 12-14 April 1984.
2. Organized a session on “The Institutional Development of the Physical Sciences in Imperial Germany,” and presented a paper in the same session at the annual meeting of the History of Science Society in Norwalk, Connecticut, October 1983.
1. Chaired a Works-in-Progress session on “Nineteenth-Century Physics” at the History of Science Society meeting in Philadelphia, October 1982.

#### **OTHER PROFESSIONAL LECTURING ACTIVITIES**

Various papers presented at the University of Utrecht, University of Connecticut, University of Minnesota, Technische Universität Aachen (Federal Republic of Germany), Nebraska Academy of Science, University of Nebraska, Northwestern University, Smithsonian Institution, Rochester Institute of Technology, State University of New York at Old Westbury, University of Toronto, Rensselaer Polytechnic Institute, and the Université de Montréal.

#### **OTHER PROFESSIONAL ACTIVITIES**

42. Reviewed eight manuscripts for the annual *Annals of Science* best-essay contest (2017).
41. Reviewed a manuscript for *History of Science* (2017).
40. Reviewed nine manuscripts for the annual best-essay contest for *Annals of Science* for 2016.
39. Reviewed seven manuscripts for the annual best-essay contest for *Annals of Science* for 2015.
38. Member, Editorial Board, *Notes and Records of the Royal Society of London*, 2009 – 2015.
37. Member, Editorial Board, *Annals of Science*, 1994-present.
36. Member, Council, Midwest Junto of the History of Science, 2007-present. President, 2012-13.
35. Organized and hosted the 54<sup>th</sup> annual meeting of the Midwest Junto for the History of Science, held at UNL, 1-3 April 2011.
34. Member, Committee on Meetings and Programs, History of Science Society (2000-3; chair, 2002-2003).
33. Member, Ad hoc committee to review the Executive Secretary of the History of Science Society (1990).
- 32a. Reviewed a candidate to become a Senior Fellow at the Dibner Institute for the History of Science and Technology (2005).
32. Reviewed a manuscript for *Historical Studies in the Natural Sciences* (2008).
31. Reviewed manuscripts for *Isis*, one each for 1986, 2004, 2010, and 2016.

30. Reviewed a manuscript for *Ambix* (1994).
29. Reviewed a manuscript for *Physis* (1997).
28. Reviewed manuscripts for *Annals of Science*, one for 1997; two for 1998; one for 1999; one for 2001; two for 2002; one for 2003; four for 2005; two for 2006; two for 2009; six for 2010; two for 2011; three for 2014.
27. Reviewed manuscripts for *Studies in History and Philosophy of Science*, one each for 1999, 2000, 2002, 2012, 2015, and 2017.
26. Reviewed manuscripts for *Science in Context*, one in 2000; one in 2006; one in 2013.
25. Reviewed a manuscript for *Osiris* (2001).
24. Reviewed manuscripts for *Notes and Records of the Royal Society of London*, one for 2010; two for 2012; and one for 2014.
23. Reviewed a manuscript for *British Journal for the History of Science* for 2010.
22. Reviewed a manuscript for *Leonardo* (2012).
21. Reviewed a book manuscript for Princeton University Press (1997).
20. Reviewed book manuscripts for the University of Chicago Press, one in 1990, one in 2004, and two in 2005.
19. Reviewed a proposed series in the history of science for the University of California Press (1989).
18. Reviewed a book manuscript for Cambridge University Press (1989).
17. Served on the review panel of the National Endowment for the Humanities, Research Division, Program in Science, Technology, and the Humanities (1988).
16. Served on the review panel of the National Endowment for the Humanities, Division of Research Programs, Studies of Science and Medicine (2002).
15. Reviewed grant proposals for the National Endowment for the Humanities, one each for 1984, 1988, 1990, 2001, and 2006.
14. Reviewed grant proposals for the National Science Foundation, two for 1985; two for 1989; one for 1990; three for 1991; one for 1995; one for 2003; and one for 2005.
13. Reviewed applications for the John Simon Guggenheim Foundation, one each for 1989, 2005, and 2008.
12. Reviewed an application for a Killam Research Fellowship for The Canada Council (1989).
11. Evaluated a nominee for a MacArthur Foundation Fellowship (2008).
10. Reviewed a grant proposal for the Dutch (NOW) Council for the Humanities (2008).
09. Reviewed a grant proposal for the National Humanities Centers (2008).
08. Served on the Fulbright U.S. National Selection Committee for Germany, 2010.

Reviewed 76 applicants and met in committee in Denver, Colorado, 2 December 2010.

07. Filmed appearance on “Roger Welsch & Co....,” Nebraska Educational TV (March 2001; repeated September 2001).
06. Worked with biologists/geologists (Evolution/Creationism) at UNL. Circa 2000.
05. Presentation (15 February 2007) to the Nebraska Citizens for Science Forum on Science and Religion. Topic: “The Enlightenment.”
04. Member, Organizing Committee, “Celebrating Darwin’s Legacy,” UNL, 2008-9.
03. Reviewed promotion and tenure files for candidates at the University of Oklahoma (date?), the California Institute of Technology (date?), the University of Colorado-Denver (2005), and the University of Texas at Austin (2014).

- 02. Reviewed a manuscript for *The Journal of Modern History* (2014); re-reviewed it in 2015.
- 01. Reviewed a manuscript for *Configurations: The Journal for the Society of Literature, Science, and the Arts* (2015).

## **DEPARTMENTAL, COLLEGE, AND UNIVERSITY-WIDE SERVICE ACTIVITIES**

(University of Nebraska)

- 22. Chair, Search Committee for the Charles and Linda Wilson Professor of Humanities in Medicine (2015-16); and again in 2016-17 (search re-opened); and still in 2017-18 (search currently “frozen”).
- 21. Member, Department Undergraduate Committee (1997-99).
- 20. Member, Department Graduate Committee (1988-93; 2011-13).
- 19. Member, Department Advisory Committee (1988-90; 1987-88; 1983-85, 2007-9).
- 18. Secretary, Departmental meetings (1982-86).
- 17. Chair, Department Resources Committee (1999-2004; 2005-6).
- 16. Chair, Department Outreach Committee (2006-7).
- 15. Member, Department Space Committee (1995-97).
- 14. Chair, Department ad hoc Committee on Research and Productivity (Evaluation of National Research Council Report, 1996).
- 13. Member, Department Pauley Symposium Committee 2000 (1997- 2000).
- 12. Chair, Department Search Committee for Modern European History (1984).
- 11. Member, Department Search Committee for Medieval History (1989).
- 10. Member, Department Search Committee for Modern European Jewish History (1992).
- 09. Chair, Department Search Committee for European Military History (1999).
- 08. Chair, Department Search Committee for Modern European History (2000-1).
- 07. Chair, Department Search Committee for Digital History (2004).
- 06. Chair, Dean’s Committee to Develop a Proposal for a DAAD Center for German and European Studies (1997-98).
- 05. Member, College Committee on Honors and Distinctions (2005-8).
- 04. Member, College Committee on European Studies at UNL (1991-?).
- 03. Member, Harris Center for Judaic Studies (1991-present); serve on Executive Committee (2002-present).
- 02. Member, University of Nebraska Committee on Honorary Degrees (2003-4)
- 01. Member, Organizing Committee, “Celebrating Darwin’s Legacy: A Symposium,” UNL Darwin Symposium, 2007-9