# Curriculum Vitae of M. Norton Wise

### Personal:

Born 2 April 1940; Tacoma, Washington Married Elaine M. Liu, 30 January 1965 Children: Licia Elaine Wise and Erin Liu Wise (twin daughters, born 11 October 1969)

### **Education:**

Princeton University, Princeton, NJ----Ph.D. in History (history of science), 1977 Washington State University, Pullman, WA----Ph.D. in Physics (nuclear), 1968 Pacific Lutheran University, Tacoma, WA----B.Sc. in Physics, 1962

# Fellowships, Honors, and Awards:

Pfizer Prize (outstanding book in History of Science in preceding three years), History of Science Society, 1990.

Elected Fellow of the American Physical Society, 1992.

Elected Member of the Académie Internationale d'Histoire des

Sciences, corresponding member 1993, effective member (full) 2011.

Elected Fellow of the American Academy of Arts and Sciences, 2001.

Elected Fellow of the American Association for the Advancement of Science, 2005.

Fulbright-Hays Senior Research Fellowship, Deutsches Museum, Munich, 1979-80.

Fellow, Center for Interdisciplinary Research (ZIF), University of Bielefeld, Germany, 1982-83.

NATO Senior Guest Fellowship, University of Pavia, Italy, March 1987.

Fellow, Edelstein Center for the History and Philosophy of Science, Technology, and Medicine; and Visiting Professor, The Hebrew University, Jerusalem, April-June 1987.

Fellow, Wissenschaftskolleg, Berlin, 1987-88.

Directeur de Recherche, Associé, La Villette and Ecole des Mines, Paris, March-June 1995.

Visiting Professor, Utrecht University, 2005.

Visiting Professor, Ecole des Hautes Etudes en Science Social, Paris, 2007 (declined).

Visiting Fellow, Bielefeld University, May-July, 2011.

Fellow, American Academy in Berlin, January-May, 2012.

Visiting Scholar, Max Planck Institute for History of Science, Berlin, Summers 1996-2018.

# **Employment:**

University of California, Los Angeles: Distinguished Research Professor (retired), 2016.

University of California, Los Angeles: Distinguished Professor of History, 2000-2016. Co-Director, Center for Society and Genetics, 2004-2011. Princeton University, Princeton, NJ: Professor of History, 1991-2000. Director of Graduate Studies, History of Science.

University of California, Los Angeles: Professor of History, 1987-91; Associate Professor, 1981-87; Assistant Professor, 1976-81; Lecturer, 1975-76.
Oregon State University, Corvallis, Oregon: Assistant Professor of Physics, 1969-71.
Auburn University, Auburn, Alabama: Assistant Professor of Physics, 1967-69.

#### **Published Books and Monographs:**

Crosbie Smith and M. Norton Wise, *Energy and Empire: William Thomson, Lord Kelvin, 1824-1907* (Cambridge, UK: Cambridge University Press, 1989).

M.N. Wise, with the collaboration of Crosbie Smith, "Work and Waste: Political Economy and Natural Philosophy in Nineteenth Century Britain," *History of Science*, <u>27</u> (1989), Pt. I, 263-301; Pt. II, 391-449; Pt. III, <u>28</u> (1990), 221-261. (Monograph Series)

M.N. Wise (ed.), *The Values of Precision* (Princeton, NJ: Princeton University Press; 1995), with "Introduction" and synthetic essay, "Precision: Agent of Unity, Product of Agreement," pp. 3-12, 92-100, 222-235, 352-361.

M.N. Wise (ed.), *Growing Explanations: Historical Perspectives on Recent Science*, (Durham, NC: Duke University Press, 2004).

Angela N.H. Creager, Elizabeth Lunbeck, and M.N. Wise (eds), *Science without Laws: Model Systems, Cases, and Exemplary Narratives* (Durham, NC: Duke University Press, 2007).

M.N. Wise, *Neo-Classical Aesthetics of Art and Science: Hermann Helmholtz and the Frog-Drawing Machine*, Hans Rausing Lecture 2007, Uppsala University (Uppsala: Tryck Wikströms, 2008).

Tiago Saraiva and M.N. Wise (eds), *Autarky/Autarchy: Genetics, Food Production, and the Building of Fascism*, special issue of *Historical Studies in the Natural Sciences*, 40 (2010).

Mary Morgan and M.N. Wise (eds.), *Narrative and Science*, special issue, *Studies in History and Philosophy of Science—Part A* (2017).

M.N. Wise, *Aesthetics, Industry, and Science: Hermann von Helmholtz and the Berlin Physical Society* (Chicago: University of Chicago Press, 2018).

#### Published Articles—Selected:

M.N. Wise, "The Mutual Embrace of Electricity and Magnetism," *Science*, 203 (1979), 1310-1318; reprinted in *History of Physics; Selected Reprints*, ed. S.G. Brush (College

Park, MD: AAPT, 1988).

M.N. Wise, "German Concepts of Force, Energy, and the Electromagnetic Ether: 1845-1880," in *History of Ether Theories in Modern Science*, ed. G.N. Cantor and M.J.S. Hodge (Cambridge, UK: Cambridge U. Pr., 1981), pp. 269-307.

M.N. Wise, "The Flow Analogy to Electricity and Magnetism--Part I: William Thomson's Reformulation of Action at a Distance," *Archive for History of Exact Sciences*, 25 (1981), 19-70.

M.N. Wise, "On the Relation of Physical Science to History in Late Nineteenth Century Germany," in *Functions and Uses of Disciplinary Histories*, eds., L. Graham, W. Lepenies, & P. Weingart (Dordrecht: Reidel, 1983), Vol. VII of *Sociology of the Sciences: A Yearbook*, pp. 3-34.

M.N. Wise, "How do Sums Count? On the Cultural Origins of Statistical Causality," in *The Probabilistic Revolution, 1800-1930: Dynamics of Scientific Development*, vol. I, *Ideas in History*, ed. L. Daston, M. Heidelberger, and L. Krüger (Cambridge, Mass.; MIT Press, 1986), 395-425.

M.N. Wise, "Mediating Machines," Science in Context, 2 (1988), 81-117.

M.N. Wise, "Mediations: Enlightenment Balancing Acts, or the Technologies of Rationalism," in Paul Horwich, ed., *World Changes: Thomas Kuhn and the Nature of Science* (Cambridge, MA; MIT Press, 1992), pp. 207-256.

M.N. Wise, "Pascual Jordan: Quantum Mechanics, Psychology, National Socialism," in M. Walker and M. Renneberg, eds., *Science, Technology, and National Socialism* (Cambridge, UK: Cambridge University Press, 1994), 224-254; reprint in Peter Galison, ed., *History of Modern Physics*, 4 vols (New York: Routledge, 2002).

Robert M. Brain and M. Norton Wise, "Muscles and Engines: Indicator Diagrams in Helmholtz's Physiology," in *Universalgenie Helmholtz: Ruckblick nach 100 Jahren*, ed. Lorenz Krüger (Berlin: Akademie Verlag, 1994), 124-145; reprinted in Mario Biagioli, ed., *The Science Studies Reader* (New York: Routledge, 1999), pp. 51-66.

M.N. Wise and David Brock, "The Culture of Quantum Chaos," *Studies in the History and Philosophy of Modern Physics*, 29 (1998), 369-389.

M.N. Wise, "Architectures for Steam," in *The Architecture of Science*, Peter Galison and Emily Thompson, eds (Cambridge, MA: MIT Press, 1999), pp. 107-140.

M.N. Wise, "Kultur als Ressource: Die Rhetorik des Einflusses und die Kommunikationsprobleme zwischen Natur- und Humanwissenschaftlern", in Michael Scharping (ed.), *Wissenschaftsfeinde? "Science Wars" und die Provokation der Wissenschaftsforschung* (Münster: Westfälisches Dampfboot, 2001), 63-88.

M.N. Wise, "Time Discovered and Time Gendered in Victorian Science and Culture," in Bruce Clarke and Linda Henderson, eds, *Energy to Information: Representation in Science, Art, and Literature*, (Stanford: Stanford University Press, 2002), 39-58.

M.N. Wise & Elaine M. Wise, "Reform in the Garden," *Endeavour*, 26 (2002), 154-159 (condensation of next entry).

M.N. Wise & Elaine M. Wise, "Staging an Empire," in Lorraine Daston (ed.), *Things that Talk* (Zone Books, 2003), 101-145, 391-399.

M.N. Wise, "Making Visible," *Isis*, 97 (2006), 75-82, introduction to a special issue on visualization in science.

M. N. Wise, "The Gender of Automata in Victorian Britain," in Jessica Riskin (ed.), *Genesis Redux* (Chicago: University of Chicago Press, 2007), 163-195.

M.N. Wise, "What's in a Line?" (originally presented as the Rothschild Distinguished Lecture, Harvard University, 2001), in Moritz Epple and Claus Zittel (eds.), *Science as Cultural Practice. Vol. 1: Cultures and Politics of Research from the Early Modern Period to the Age of Extremes* (Berlin: Akademie Verlag, 2010), 61-102.

M.N. Wise, "Thoughts on Politicization of Science Through Commercialization," in Martin Carrier & Alfred Nordmann (eds.), *Science in the Context of Application: Methodological Change, Conceptual Transformation, Cultural Reorientation* (Dordrecht: Springer, 2010), 283-299.

Tiago Saraiva and M.N. Wise, introduction to special issue, "Autarky/Autarchy: Genetics, Food Production, and the Building of Fascism," *Historical Studies in the Natural Sciences*, *40* (2010), 419-428

M.N. Wise, "Forman Reformed, Again," in Cathryn Carson and Alexei Kojevnikov, *Quantum Mechanics and Weimar Culture* (London: World Scientific & Imperial College Press, 2011), 415-431.

M.N. Wise, "Science as Historical Narrative," in Uljana Feest and Thomas Sturm (eds.), *Historical Epistemology*, special issue of *Erkenntnis*, 75 (2011), 349-376.

M.N. Wise, "Wasser als Kunst in den Parks – Mithilfe von Dampfmaschinen," in Michael Rohde (ed.), *Historische Gärten im Klimawandel. Empfehlungen zur Bewahrung* (Potsdam: Generaldirektion der Stiftung Preussische Schlösser und Gärten, 2014), 174-179.

M.N. Wise, "How does the World Work," in Kapil Raj and H. Otto Sibum, *Histoire des sciences et des saviors: 2. modernité et globalization* (Paris: Edition du Seuil, 2015), 182-201.

M.N. Wise, "A Smoker's Paradigm," in Robert J. Richards and Lorraine Daston (eds.), *Kuhn's* Structure of Scientific Revolutions *at Fifty: Reflections on a Science Classic* (Chicago: University of Chicago Press, 2016), 31-41.

M.N. Wise, "Wasser auf dem dürren Hügel – Mit Dampfkraft und Ingenieurkunst zum blühenden Landschaftsgarten," in *Parkomanie: Die Gartenlandschaften des Fürsten Pückler in Muskau, Babelsberg und Branitz*, ed. Kunst- und Aussstellungshalle der Bundesrepublik Deutschland (München: Prestel, 2016), 200-205, 301-302.

M.N. Wise, "Agency," Viewpoint Section, Isis, 107, no. 4 (2016), 781-784.

Mary Morgan and M.N. Wise (eds.), introduction to *Narrative and Science*, special issue, *Studies in History and Philosophy of Science—Part A* (2017).

M.N. Wise, "On the Narrative Form of Simulations," in M. Morgan and M.N. Wise (eds.), *Narrative and Science*, special issue, *SHPS-A* (2017).

#### In Progress:

M.N. Wise, "On the Stories Told by Indicator Diagrams and Carnot Diagrams," in Paula Findlen, Greg Priest, and Silvia De Toffoli, *Tools of Reason: The Practice of Scientific Diagramming from Antiquity to the Present*, special issue of *Endeavour* (2018).

M.N. Wise, "Afterward: Humboldt was Right," in Lino Camprubi and Philipp Lehmann (eds.), *Experiencing the Global Environment*, special issue of *SHPS* (2018).

M.N. Wise and Elaine M. Wise, *Gardens of Steam: Projecting Industrial Culture into the Berlin Landscape* (book manuscript).