

Authored Books:

Broadcasting Fidelity: German Radio and Early Electronic Music, Princeton University Press (September 2024)

The Genealogy of a Gene: Patents, HIV/AIDS and Race with MIT Press (March 2015), paperback, spring 2017

Harmonious Triads: Physicists, Musicians and Instrument Makers in Nineteenth-Century Germany (Cambridge, MA and London: MIT Press, 2006), paperback 9/2008

Spectrum of Belief: Joseph von Fraunhofer and the Craft of Precision Optics (Cambridge, MA and London: MIT Press, 2000). German translation: *Fraunhofers Spektren: Die Präzisionsoptik als Handwerkskunst* (Göttingen: Wallstein Verlag, 2009)

Edited Books:

Perspectives on Science: Gene Patenting (Guest Editor) vol. 23:1, MIT Press, 2015.

Music, Sound, and the Laboratory from 1750 to 1980 (co-edited with Alexandra Hui and Julia Kursell), *Osiris* 28 (Chicago: The University of Chicago Press, 2013).

Papers in Refereed Journals, Refereed Chapters in Books:

“Ownability, Ownership, Knowledge, and Genetic Information in the United States,” in *Ownership of Knowledge: Beyond Intellectual Property*, edited by Dagmar Schäfer, Marius Buning, and Annapurna Mamidipudi (The MIT Press, 2023), 293-316.

“No Longer the Focal Point: Goethe and Newtonianism,” in *The Reception of Isaac Newton in Europe*, edited by Helmut Pulte and Scott Mandelbrote, vol. II (NY: Bloomsbury Academic, 2019), pp. 909-918.

“Automata, Physiology, and Opera in the Nineteenth Century,” in *Nineteenth-century Opera and the Scientific Imagination*, edited by David Trippett and Benjamin Walton (Cambridge University Press, 2019), pp. 269-286.

“Johannes Brahms in the Age of Science,” in *Johannes Brahms in Context*, edited by Natasha Loges (Cambridge University Press, 2019), pp. 296-304.

“Charles Wheatstone: Musical Instrument Making, Natural Philosophy, and Acoustics in Early-Nineteenth-Century London,” in *Sound Knowledge: Music and Science in London, 1789-1851*, edited by James Q. Davies and Ellen Lockhardt (Chicago: University of Chicago, 2016), chapter 4.

“Eine Genealogie eines Gens: Patent, HIV/AIDS und Rasse.” In *Acta Historica Leopoldina* Nr. 65 Vorträge und Abhandlungen zur Wissenschaftsgeschichte 2013/2014 (2016): 65-82.

“Patenting of Biological Substances,” in *International Encyclopedia of the Social and Behavioral Sciences, Second Edition*, vol. 17, edited by James D. Wright (London: Elsevier, 2015): 584-591.

“Introduction” to *Perspectives on Science: Gene Patenting in the Age of Biocapitalism* (vol. 23:1; Spring 2015): 1-12.

“How Gene Patents are Challenging Intellectual Property Law: The History of the CCR5 Gene Patent” in *Perspectives on Science: Gene Patenting in the Age of Biocapitalism* (vol. 23:1; Spring 2015): 80-105.

“Fraunhofer and His Spectral Lines,” in *Annalen der Physik* (August 2014): 526, issue 7-8: A65-A69.

“Introduction” to Erwin Hiebert, *The Helmholtz Legacy in Physiological Acoustics* (Springer Verlag, 2014), pp. xix-xxiii.

“The Biology of Race: Searching for No Overlap,” in *Perspectives in Biology and Medicine* vol. 57, No. 1 (winter 2014): 85-102.

“Introduction” to *Music, Sound, and the Laboratory from 1750 to 1980* co-authored with Julia Kursell and Alix Hui, *Osiris* vol. 28 (2013), The University of Chicago Press, pp. 1-11.

“Vorläufer von Forschungstechnologien im 19. Jahrhundert,” in Klaus Hentschel, ed., *Zur Geschichte von Forschungstechnologien* (Berlin, Germany: GNT Verlag, 2012) pp. 41-59.

“Measuring Musical Virtuosity: Physicists, Physiologists, and the Pianist's Touch in the Nineteenth Century,” in the *Journal of the American Liszt Society* 61-62 (2010-11): 13-40.

“From Physical Instruments of Measurement to Musical Instruments of Aesthetics,” in *Sound Studies Handbook*, edited by Trevor Pinch and Karin Bijsterveld (Oxford University Press, 2011), pp. 201-223.

“Hermann von Helmholtz and Perception,” in *Halbschlafbilder in der Literatur, den Künsten und den Wissenschaften*, edited by Roger Paulin and Hemult Pfothner (Würzburg: Königshausen und Neumann Verlag, 2011), pp. 111-122.

“Standardisierung und Subversion der musikalischen Ästhetik: musikalische und physikalische Instrumente in der Musik des 19. und 20. Jahrhunderts”, in Daniel Gethmann, Hrg., *Klangmaschinen zwischen Experiment und Medientechnik* (Vienna/Wien: [Transkript] Kultur- und Medientheorie, 2010), pp. 21-33.

“Science Studies at Technological Universities,” in *Newsletter of the American Sociology Association: Science, Knowledge, and Technology*, Spring 2008, pp. 8-9.

“Musik und Physik: Eine interdisziplinäre Kulturgeschichte,” in *Berichte zur Wissenschaftsgeschichte* 31 (2008): 94-112.

“Nature and Culture: Teaching ELSI in a History-of-Science Course,” in Ronald M. Green and Aine Donovan, eds., *The Human Genome Project in College Curriculum: Ethical Issues and Practical Strategies*, Dartmouth College and the University of New England Press, 2008), pp. 158-165.

“How Science is Redefining Ethical Categories: The Implications of the Human Genome Project,” in *The 4th R*, 21 (May-June 2008), pp. 3-8.

“Putting the Subject back into Color: Accessibility in Goethe’s *Zur Farbenlehre*,” in *Perspectives on Science: Reading up on the Opticks: Refashioning Newton’s Theories of Light and Colors in Eighteenth-Century Textbooks*, edited by Alan Shapiro and Jed Buchwald, 16 (2008): 378-391.

“Physics and Music in Nineteenth-Century Prussia: Wilhelm Eduard Weber and Precision Measurement” in *Interdisciplinary Science Reviews* 31 (December 2006), pp. 307-322.

“Elektrisierte’ Theologie: Johann Heinrich Winckler und die Elektrizität in Leipzig in der Mitte des 18. Jahrhunderts,” in *Musik, Kunst und Wissenschaft im Zeitalter Johann Sebastian Bachs*, ed. by Ulrich Leisinger and Christoph Wolff (New York: Georg Olms Verlag, 2005), pp. 51-66.

“Physics, Machines and Musical Pedagogy in Nineteenth-Century Germany,” *History of Science* 42, no. 4 (December 2004), pp. 371-418.

“Can Artisans be Scientific Authors?” in *Scientific Authorship*, edited by Peter Galison and Mario Biagioli (New York: Routledge, 2003), pp. 113-131.

“Harmonious Investigators of Nature: Music and the Persona of the German *Naturforscher* in the Nineteenth Century” *Science in Context* 16, no. 1-2 (March 2003), pp. 121-145.

“Lord Rayleigh and the History of Nineteenth-Century Acoustics,” in *Enciclopedia Italiana, Storia della scienza* 10 vols., (Rome: 2001-2004) 7 (2003), pp. 339-342.

“British and German Laboratories in the Nineteenth Century,” in *Enciclopedia Italiana, Storia della scienza* 10 vols., (Rome: 2001-2004) 7 (2003), pp. 305-314.

“Vision and Optics” and “The Imperial Bureau of Standards” for the *Oxford Companion to the History of Modern Science*, edited by John L. Heilbron (Oxford University Press, 2003), pp. 114-115 and 601-604.

“Optics in the Enlightenment” in *Oxford Companion to the Enlightenment*, edited by Alan Charles Kors (Oxford University Press, 2002) 3, pp. 212-215.

“From Theodolite to Spectral Apparatus,” in *Instrumentation: Between Science, State and Industry*, edited by Terry Shinn and Bernward Joerges (Holland: Kluwer, 2001), pp. 17-28.

"Joseph von Fraunhofer," in *The Reader's Guide to the History of Science*, edited by Arne Hessenbruch (London: Fitzroy Dearborn Publishers, 2000), pp. 267-8.

"Johann Wolfgang von Goethe," in *The Reader's Guide to the History of Science*, edited by Arne Hessenbruch (London: Fitzroy Dearborn Publishers, 2000), pp. 308-9.

"Illuminating the Opacity of Achromatic Lenses Production: Joseph von Fraunhofer and His Monastic Laboratory," *The Architecture of Science*, edited by Peter Galison and Emily Thompson (Cambridge, MA: MIT Press, 1999), pp. 141-164.

"The State and Nature of Freedom: German Romantic Biology and Ethics," in *Biology and the Foundations of Ethics*, edited by Michael Ruse and Jane Maienschein (Cambridge University Press, 1999), pp. 98-112.

"Buying the Dark Lines of the Solar Spectrum: Joseph von Fraunhofer and His Standard for Optical Glass Production," in *Archimedes*, edited by Jed Z. Buchwald, 1 (1996), pp. 1-22.

"Genius and the Stages of Life in Eighteenth-Century Britain and Germany," in *Les Ages de la Vie en Grande-Bretagne au XVIIIe Siècle*, edited by Serge Soupel (Paris: Presses de la Sorbonne Nouvelle: 1995), pp. 35-46.

"Towards an Unnatural History of Immunology," co-authored with Warwick Anderson (primary author) and Barbara Rosenkrantz, *Journal of the History of Biology*, vol. 27, no. 3 (September 1994), pp. 575-594.

"Artisanal Knowledge and Experimental Natural Philosophers: Focusing on the British Response to Joseph von Fraunhofer's Optical Institute," in *Studies in History and Philosophy of Science* 25, no. 4 (August 1994), pp. 549-575.

"Natural and Artificial Budgets: Accounting for Goethe's Economy of Nature," in *Science in Context* 7 (1994), pp. 409-431, reprinted in Michael Power, ed., *Accounting and Science* (Cambridge University Press, 1996), pp. 57-80

"A Spectrum of Belief: Goethe's 'Republic' Versus Newtonian 'Despotism'", in *Social Studies of Science* 24, no. 4 (November 1994), pp. 673-701.

"The Politics of Goethe's Views on Nature," in *Enlightenment* 2 (1992) (edited by Marie-Cecile Revauger), Societe d'Etudes Ecosais et Dix-huitiemistes, Grenoble, pp. 143-155.

"Die britische Antwort auf Fraunhofer und die bayerische Hegemonie der Optik" in *Deutsches Museum Jahrbuch 1992* (Munich: C.H. Beck, 1993), pp. 117-138.

"Goethe's Economy of Nature and the Nature of His Economy," in *Accounting, Organizations and Society* 17, no. 5 (1992), pp. 459-469.

"Reductionism in Molecular Biology," in *Nature* 36, No. 6167, November 24, 1988, p. 302.

Essay Reviews in Reviewed Journals:

"Molecular Genetics: Redefining the Relationship between Science and Society," *Historical Studies of the Natural Sciences* **39** (2009): 367-376.

"A cultural history of Victorian physical science and technology," in *Historical Journal* **50** (March 2007), pp. 1-12.

"Music and Science During the Scientific Revolution" in *Perspectives on Science*, vol. **9**, no. 1 (2001), pp. 106-115.

"Labor, Skills, and Practices in the Scientific Enterprise: Recent Works in the Cultural History of Science," in *The Journal of Modern History* **74** (December 1999), pp. 902-913.

Book Reviews in Reviewed Journals:

"The Rise of Physics: A Review of Iwan R. Morus' *When Physics Became King*," in *American Scientist* **93** (November-December 2005),
<http://www.americanscientist.org/template/BookReviewTypeDetail/assetid/47325>

Guilano Pancaldi, *Volta: Science and Culture in the Age of the Enlightenment*, in *American Journal of Physics* **72** (2004), pp. 718-9.

Michel Chaouli, *The Laboratory of Poetry. Chemistry and Poetics in the Work of Friedrich Schlegel*, in *Metascience* **12** (2003), pp. 336-7.

Thomas Broman, *The Transformation of the German Medical Profession, 1750-1825*, in *The Journal of Modern History* **71** (1999), 237-9.

R.H. Stephenson, *Goethe's Conception of Knowledge and Science*, *Isis* **87** (1996), pp. 558-9.

R. Steven Turner, *In the Eye's Mind* in *Metascience*, New Series, Issue **7** (1995), pp. 232-4

Steven Shapin, *A Social History of Truth* in *Metascience* New Series, Issue **6** (1994), pp. 10-14.

World Views and Scientific Discipline Formation, edited by William R. Woodward and Robert S. Cohen, *Boston Studies in the Philosophy of Science* **134** in *Annals of Science* **51** (1994), pp. 655-6.

Review of *Goethe und Soemmering Briefwechsel*, edited by Manfred Wetzel, *Isis* **81**, #309 (1991).

Jeremy Adler's, *Eine fast magische Anziehungskraft. Goethes 'Wahlverwandtschaften' und die Chemie seiner Zeit* in *Historical Studies in the Physical and Biological Sciences*, **20**, Part 2, 1990.

Dennis Sepper, *Goethe Contra Newton: Polemics and the Project for a New Science of Color in The British Journal for the History of Science*, 22, Part I, No. 72, March 1989, pp. 121-3.

Essay Review of *Science and Medicine*, vol. 6, edited by D. Heyward Brock and *Medicine in Film: A Checklist, Survey and Research Resource in the Publication of the Society for Literature and Science* 5, no. 1, November 1989.