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*Curriculum Vitae*

**PAMELA H. SMITH**

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**EDUCATION**

THE JOHNS HOPKINS UNIVERSITY, Baltimore, Maryland (1983-1990)

Ph.D., May 1991. Department of the History of Science.

Dissertation: "Alchemy, Credit, and the Commerce of Words and Things: Johann Joachim Becher at the Courts of the Holy Roman Empire, 1635-82" (Adviser: Owen Hannaway. Second reader: Mack Walker).

UNIVERSITY OF WOLLONGONG, Wollongong, New South Wales, Australia (1976-79)

B.A. First Class Honors, November 1979. Major: History and Philosophy of Science.

**EMPLOYMENT**

2005-present: Seth Low Professor of History, Columbia University, New York. Courses in early modern European history and history of science.

2014-present: Chair, Presidential Scholars in Society and Neuroscience

The aim of this crosscutting initiative is to bring together scholars from all fields around questions of brain and mind. A community of postdoctoral scholars will form the heart of a rich program of interdisciplinary events and research.

<http://presidentialscholars.columbia.edu/>

2013- present: Founding Director, Center for Science and Society, Columbia University

<http://scienceandsociety.columbia.edu/>

2000-2005: Margaret and Edwin F. Hahn Professor in the Social Sciences, and Professor of History, Pomona College (1990-2005: Assistant and Associate Professor of History)

1996-2003: Director of European Studies, Claremont Graduate University

1992-2003 (excluding leaves): Chair, Science, Technology and Society Program of the Claremont Colleges

### **FELLOWSHIPS AND GRANTS**

**October 2016-September 2019:** NEH Scholarly Editions and Translations Grant for the Making and Knowing Project

**June 2016-July 2017:** Provost's Hybrid Course Grant for Digital Humanities Course: What is a Book in the 21<sup>st</sup> Century?

**January 2016-June 2017:** Alliance Program Innovative Co-Teaching and Research Initiative grant, co-PI with Frédéric Brechenmacher, Director of LinX at École polytechnique, Paris.

**January 2016-August 2017:** Gladys Kriebel Delmas Research Grant for the Making and Knowing Project Summer 2016 Paleography Workshop.

**October 2014-May 2015:** Dissertation Research Seminar co-instructor, Folger Shakespeare Library, Washington, D.C.

**October 1-September 30, 2017:** Andrew Mellon Foundation Grant awarded to Columbia University for the founding of the Center for Science and Society at Columbia University.

**September 1, 2014-August 30, 2017:** National Science Foundation Research Grant #1430843 "The Role of Tacit Knowledge in Experimentation."

**August 2014:** Co-convenor, International Institute for Asian Studies, Leiden, Summer School for current PhD students, Chiang Mai, Thailand: "Reading Craft: Itineraries of Culture, Knowledge and Power in the Global Ecumene," August 15-25, 2014.

**March & July 2014:** Visiting Scholar, Max Planck Institute for the History of Science, Berlin. Convenor of the Working Group "Itineraries of Materials, Recipes, Techniques, and Knowledge in the Early Modern World."

[http://www.mpiwg-berlin.mpg.de/en/research/projects/DeptII\\_Smith\\_Itineraries](http://www.mpiwg-berlin.mpg.de/en/research/projects/DeptII_Smith_Itineraries)

**September 2014-2017:** History in Action: Historical Thinking in Public Life, co-organizer, Department of History AHA-Mellon grant for Broadening the Career Horizons of History PhDs

**September 2013-2016:** Co-PI, President's Global Innovation Fund Project: Enhancing the Research Component of the History Major, Columbia University.

**May 2012:** Folger Research Institute, Faculty Weekend Seminar Leader, "Writing Down Experience."

**May 2012:** Scholar in Residence, Robert H. Smith Renaissance Sculpture in Context Workshop, Victoria & Albert Museum, London, May 3-22.

**July 2011:** Visiting Scholar, Max Planck Institute for the History of Science, Berlin

**2009-10:** Fellow, Davis Center for Historical Studies, Princeton University

**2009 and 2010:** Alliance Program, seed grant for project on "Circulating and Connecting Knowledge in Early Modern Europe, 1450-1850," with Bruno Belhoste, Université Paris 1 Panthéon Sorbonne

**2009-11:** Andrew Mellon Foundation New Directions Grant, supplement for further research.

**2007-08:** Samuel H. Kress Paired Fellow, Center for Advanced Study in the Visual Arts, National Gallery of Art, Washington, D.C., co-grantee Tonny Beentjes, Program Leader, Metalwork Conservation, University of Amsterdam.

- 2005:** NSF Grant #SES-0444302 for Conference on "Ways of Making and Knowing: The Material Culture of Empirical Knowledge," London 11-15 July 2005.
- 2004-05:** Co-organizer, Andrew Mellon Faculty Seminar on "Science and the Islamic World," Pomona College, Andrew Mellon Foundation grant
- 2003-04:** Andrew Mellon Foundation New Directions Fellowship for research at the Victoria and Albert Museum, London
- 2003:** Andrew Mellon Foundation Summer Research Grant, Mellon 8 Grant, Pomona College
- 2002:** NEH Research Assistance Grant, Pomona College
- Summer 2001:** Co-Director, NEH Summer Institute for College and University Teachers, "Experience and Experiment in Early Modern Europe," Folger Shakespeare Library, Washington, D.C.
- 2000-01:** Getty Research Institute Scholar
- Summer 2000:** Visiting Fellow, Downing College, Cambridge
- 1999:** NEH Research Assistance Grant, Pomona College
- 1997-98:** John S. Guggenheim Fellow  
National Endowment for the Humanities Research Fellowship  
Sidney M. Edelstein International Fellowship for research in the history of chemistry
- 1997:** NEH Research Assistance Grant, Pomona College
- 1996:** Irvine Grant for Curriculum Development, Pomona College  
NEH Research Assistance Grant, Pomona College
- 1994-95:** Fellow, Wissenschaftskolleg - Institute of Advanced Study, Berlin
- 1993-94:** Steele Fellowship Research Leave, Pomona College
- 1992:** Pew Liberal Arts Enrichment Program Grant, Pomona College  
NEH Research Assistance Grant, Pomona College

## **HONORS AND AWARDS**

- 2016:** Distinguished Lecturer, Center for Renaissance and Reformation Studies, University of Toronto
- 2014:** Dean's Distinguished Lecturer in the Humanities, Columbia University Medical School
- 2013:** Provost's University Lecture, Columbia University
- 2012:** Scholar in Residence, Robert H. Smith Renaissance Sculpture in Context Workshop, Victoria & Albert Museum, London.
- 2009-10:** Fellow, Davis Center for Historical Studies, Princeton University
- 2005:** Leo Gershoy Prize for *The Body of the Artisan* awarded in early modern European History by the American Historical Association
- 2003-04:** Andrew Mellon Foundation New Directions Fellowship
- 2000-01:** Getty Research Institute Scholar
- 1997-98:** John S. Guggenheim Fellow
- 1995:** Pfizer Prize for *The Business of Alchemy* awarded for best book of the year in the history of science by the History of Science Society.
- 1994-95:** Fellow, Wissenschaftskolleg - Institute of Advanced Study, Berlin.

## **PUBLICATIONS: BOOKS**

*The Matter of Art: Materials, Practices, Cultural Logics, c. 1250-1750*, co-edited with Christy Anderson and Anne Dunlop, Manchester University Press, 2015. Paperback January 2016.

A volume that explores attitudes to matter and materials in the early modern world, as well as the meaning, use, and production of materials for building, mining, and various types of artistic production.

*Ways of Making and Knowing: The Material Culture of Empirical Knowledge*, co-edited with Amy R. W. Meyers and Harold J. Cook, Bard Graduate Center/University of Michigan Press, 2014.

This volume explores the circumstances under which making constituted knowing, and, more specifically, it examines the relationship between making objects (crafts) and knowing nature (the natural sciences) in Europe and its colonies from about 1450 to 1850. It includes both museum and academic scholars in an attempt to draw the study of objects more centrally into history and the history of science.

*Making Knowledge in Early Modern Europe: Practices, Objects, and Texts, 1400-1800*, co-edited with Benjamin Schmidt, Chicago: University of Chicago Press, 2008.

Fifteen essays that examine groups of people marginalized in the history of science and technology; new methodological approaches to the practices of reading and writing; and new ways of understanding calls for reform in the early modern period. The common theme among these essays is that they all represent new approaches to material and intellectual culture.

*The Body of the Artisan: Art and Experience in the Scientific Revolution*, Chicago: University of Chicago Press, 2004. Paperback edition, 2005. Winner of the 2005 Leo Gershoy Prize for early modern European History awarded by the American Historical Association.

*Merchants and Marvels: Commerce, Science and Art in Early Modern Europe*, co-edited with Paula Findlen, New York: Routledge, 2002.

This volume of eighteen essays examines representations of nature produced by artists and scientists in Europe from the fifteenth through the eighteenth centuries and their connections to the new commercial economy.

*The Business of Alchemy: Science and Culture in the Holy Roman Empire*, Princeton: Princeton University Press, 1994. Paperback edition, 1996. Winner of the 1995 Pfizer Prize for best book in the history of science awarded by the History of Science Society. New paperback edition with a new author's foreword, forthcoming 2016.

**Books in preparation:**

Edited volume: *Entangled Itineraries of Materials, Practices, and Knowing: Eurasian Nodes of convergence and transformation (from bronze to tea)*, in preparation.

Eleven contributors study the pathways of diverse materials, techniques, and systems of knowledge across the Eurasian continent.

*From Lived Experience to the Written Word: Recovering Art and Skill in Early Modern Europe*, in preparation.

This book examines the problem of embodied skill. Why did European craftspeople begin to write down their making practices around 1400? What were they attempting to convey and who was interested in their knowledge? This book considers the nature of craft knowledge and skill, as well as the means by which we can reconstruct this largely lost knowledge, especially in cases when textual evidence is scarce. It focuses in particular on metalworking in the early modern period (1400-1800) by studying present-day and historical practices, objects, recipes, and artisanal manuals in an attempt to reconstruct the historical experience of working with natural materials. The aim is not only to come to understand the material processes and experience of the past, but also to gain insight into the mental world of artisans and their understandings of matter.

*Knowledge in Motion: A History of Science in the Early Modern World*, under contract with Polity Press, in preparation. An upper level, introductory survey of early modern science which focuses on the ways in which natural knowledge moved around the world in the early modern period.

#### **Digital Edition:**

*Craft and Science: From the Workshop to the Laboratory*. An Open-Access Digital Critical Edition and Translation of a Sixteenth-Century French Practitioner's Manuscript, BnF Ms. Fr. 640 (in preparation). [www.makingandknowing.org](http://www.makingandknowing.org)

#### **PUBLICATIONS: ARTICLES**

"Making and Knowing," *VARIorum: The Journal of the V&A Research Institute*, forthcoming 2016.

New Foreword, to a new paperback edition of *The Business of Alchemy: Science and Culture in the Holy Roman Empire*, Princeton: Princeton University Press, 1994. Paperback edition, 1996. New paperback edition with a new author's foreword, forthcoming 2016.

Guest Editor, *New Directions in Making and Knowing*, a special issue of *West 86th: A Journal of Decorative Arts, Design History, and Material Culture* 23.1 (2016): 3-101, with 4 invited essays, and an introduction (3-5).

"The Making and Knowing Project - Reflections, Methods, and New Directions," co-authored with Donna Bilak, Jenny Boulboulé, and Joel Klein (Postdoctoral Scholars, the Making and Knowing Project), in *New Directions in Making and Knowing*, a special Issue of *West 86th: A Journal of Decorative Arts, Design History, and Material Culture*, 23.1 (2016): 35-55.

"The Codification of Vernacular Theories of Metallic Generation in sixteenth-century European Mining and Metalworking," *The Structures of Practical Knowledge: Toward*

*Early Modern Science*, Matteo Valeriani, ed. (forthcoming, Springer/Dordrecht, 2016).

“Historians in the Laboratory: Reconstruction of Renaissance Art and Technology in the Making and Knowing Project,” *Art History*, special issue on Art and Technology, 39.2 (2016): 210-233 (co-authored with the Making and Knowing Team; students from the 2014-15 Columbia University course, Hist G8906: Craft and Science: Making Objects in the Early Modern World; students in the University of Amsterdam M.A. in conservation and restoration of cultural heritage, metals specialization course; and students from the V&A/RCA PhD in History of Design).

“Itineraries of Materials and Knowledge in the Early Modern World,” *The Global Lives of Things*, Anne Gerritsen and Giorgio Riello, eds. (Routledge, 2015), pp. 31-61.

“Introduction,” with Christy Anderson and Anne Dunlop, pp. 1-20;

“The Matter of Ideas in the Working of Metals in Early Modern Europe,” pp. 42-67, in *The Matter of Art: Materials, Practices, Cultural Logics, c. 1250-1750*, Christy Anderson, Anne Dunlop, Pamela H. Smith, eds. (Manchester University Press, 2015).

“Introduction,” with Harold J. Cook and Amy R. W. Meyers, pp. 1-16;

“Making as Knowing: Craft as Natural Philosophy,” pp. 17-47, in *Ways of Making and Knowing: The Material Culture of Empirical Knowledge*, co-edited with Amy R. W. Meyers and Harold J. Cook (Bard Graduate Center/University of Michigan Press, 2014).

“Between Nature and Art: Casting from Life in Sixteenth-Century Europe,” *Making and Growing: Anthropological Studies of Organisms and Artefacts*, Elizabeth Hallam and Tim Ingold, eds. (Ashgate, 2014): 45-63.

“Knowledge in Motion: Following Itineraries of Matter in the Early Modern World,” in Daniel Rogers, Bhavani Raman, Helmut Reimitz, eds., *Cultures in Motion* (Princeton: Princeton University Press, 2014), 109-33.

“The History of Science as a Cultural History of the Material World,” *Cultural Histories of the Material World*, ed. by Peter Miller (University of Michigan Press, 2013), 210-225.

Tonny Beentjes and Pamela H. Smith, “Sixteenth-century life-casting techniques: experimental reconstructions based on a preserved manuscript,” *The Renaissance Workshop*, ed. by David Saunders, Marika Spring and Andrew Meek (London: Archetype Publications Ltd, 2013), 144-51.

“Making Things: Techniques and books in early modern Europe,” *Things*, Paula Findlen, ed. (London: Routledge, 2013), pp. 173-203.

- “Craft Techniques and How-To Books,” *Transmission of Artists’ Knowledge*, Mark Clarke, Bert De Munck and Sven Dupré, eds. (Koninklijke Vlaamse Academie van België voor Wetenschappen en Kunsten, 2012), pp. 75-84.
- “In the Workshop of History: Making, Writing, and Meaning,” *Shaping Objects: Art, Materials, Making, and Meanings in the Early Modern World*, an article series of *West 86th: A Journal of Decorative Arts, Design History, and Material Culture*, 19 (2012): 4-31.
- “What is a Secret? Secrets and Craft Knowledge in Early Modern Europe,” *Secrets and Knowledge in Medicine and Science, 1500-1800*, ed. by Elaine Leong and Alisha Rankin (Ashgate, 2011): 47-66.
- “Science,” *A Concise Companion to History*, ed. by Ulinka Rublack (Oxford University Press, 2011): 268-97.
- “Why Write a Book? From Lived Experience to the Written Word in Early Modern Europe,” *Bulletin of the German Historical Institute*, 47 (Fall 2010): 25-50. Online link: <http://ghi-dc.org/bulletin>
- “Nature and Art, Making and Knowing: Reconstructing Sixteenth-Century Life Casting Techniques” (with Tonny Beentjes), *Renaissance Quarterly*, 63 (2010): 128-179.
- “Vermilion, Mercury, Blood, and Lizards: Matter and Meaning in Metalworking,” in *Materials and Expertise in Early Modern Europe: Between Market and Laboratory*, ed. by Ursula Klein and Emma Spary (University of Chicago Press, 2010), pp. 29-49.
- “Moyen de faire le gect pour petite lezardes’: Een reconstructie aan de hand van een zestiende-eeuw manuscript” (with Tonny Beentjes), *De Stavelij. Jaarboek 2009*: 15-18.
- Contributor, *A Mysterious Masterpiece: The World of the Linder Gallery*, ed. by Michael John Gorman (Florence: Alias, 2009).
- “Science in Motion: Recent Trends in the History of Early Modern Science,” *Renaissance Quarterly*, 62 (2009): 345-375.
- “Alchemy as the Imitator of Nature,” *Glass of the Alchemists*, catalog for an exhibition at the Corning Museum of Glass, ed. by Dedo von Kerssenbrock-Krosigk (Corning Museum of Glass, 2008), 22-33.
- “Collecting Nature and Art: Artisans and Knowledge in the *Kunstkammer*,” in *Engaging With Nature: Essays on the Natural World in Medieval and Early Modern Europe*, ed. Barbara Hannawalt and Lisa Kiser (University of Notre Dame Press, 2008), 115-136.

- "Introduction: Knowledge and Its Making," *Making Knowledge in Early Modern Europe*, with Benjamin Schmidt, University of Chicago Press, 2008, 1-16.
- "'Art' is to 'Science' as 'Renaissance' is to 'Scientific Revolution'? The problematic algorithm of writing a history of the modern world," *New Directions in Renaissance Art History*, ed. James Elkins and Robert Williams (Routledge, 2008), 427-445.
- "Artisanal Knowledge and the Representation of Nature in Sixteenth-Century Germany," *The Art and History of Botanical and Natural History Treatises*, ed. Therese O'Malley and Amy Meyers (Washington D.C., The National Gallery Center for the Advanced Study of the Visual Arts, 2008), 14-31.
- "Making and Knowing in a Sixteenth-century Goldsmith's Workshop," in *The Mindful Hand: Inquiry and Invention between the Late Renaissance and Early Industrialization*, ed. Lissa Roberts, Simon Schaffer, Peter Dear (Amsterdam: KNAW Press, 2007), 20-37.
- "Words and Last Things: In Memory of Owen Hannaway," *Isis*, 98 (2007): 143-48.
- "Alchemy as *Kulturträger*," Essay Review, *Metascience*, 15 (2006): 474-82.
- "Laboratories," ch. 13, *The Cambridge History of Science, Vol. 3: Early Modern Europe*, ed. Lorraine Daston and Katharine Park (Cambridge University Press, 2006), 290-305.
- "Art, Science and Visual Culture in Early Modern Europe," *Isis*, 97 (2006): 83-100.
- "Introduction: Commerce and the Representation of Nature in Science and Art," in *Merchants and Marvels*, ed. Pamela H. Smith and Paula Findlen, 1-25.
- "Splendor in the Grass: The Powers of Nature and Art in the Age of Dürer," with Larry Silver, in *Merchants and Marvels*, 29-62.
- "Giving Voice to the Hands: The Articulation of Material Literacy in the Sixteenth Century," *Popular Literacy: Studies in Cultural Practices and Poetics*, ed. John Trimbur, University of Pittsburgh Press, 2001, 74-93.
- "Vital Spirits: Alchemy, Redemption, and Artisanship in Early Modern Europe," in *Rethinking the Scientific Revolution*, ed. Margaret J. Osler, Cambridge University Press, 2000, 119-135.
- "Artists as Scientists: Nature and Realism in Early Modern Europe," *Endeavour*, 24 (2000): 13-21.
- "Science and Taste: Painting, the Passions, and the New Philosophy in Seventeenth-century Leiden," *Isis*, 90 (1999): 420-461.
- "Alchemy as a Language of Mediation at the Habsburg Court," *Isis*, 85 (1994): 1-25.



"Paracelsus as Emblem," Essay Review, *Bulletin of the History of Medicine*, 68 (1994): 314-322.

"Chemistry and Commerce: Johann Joachim Becher at the Elector's Court in Munich," in *Johann Joachim Becher (1635-1682)*, ed. Gotthardt Frühsorge and Gerhard F. Strasser, Wiesbaden: Otto Harrassowitz, 1993, 143-158.

"Curing the Body Politic: Chemistry and Commerce at Court, 1664-1670," in *Patronage and Institutions: Science, Technology, and Medicine at the European Court, 1500-1750*, ed. Bruce Moran, Suffolk: Boydell, 1991, 195-209.

"Consumption and Credit: The Place of Alchemy in Johann Joachim Becher's Political Economy," *Alchemy Revisited*, ed. Z.R.W.M. von Martels, Leiden: E.J. Brill, 1990, 143-158.

Postscript entry on J.J. Becher, *New Dictionary of Scientific Biography*, ed. by Noretta Koertge (Thomson Gale, 2007).

Entry on "Georgius Agricola," *The World from Here: Treasures of the Great Libraries of Los Angeles*, Exhibit Catalogue, The Hammer Museum, Los Angeles, 2001.

Entries on "J.J. Becher" (pp. 77-78); "Laboratories" (pp. 351-353), *The Scientific Revolution: An Encyclopedia*, ed. Wilbur Applebaum, Garland Publishing, 2000.

Entries on "J.J. Becher" (pp. 75-77); "Fürstenalchemie" (140-143); "Hermetik" (176-177); "J. Kunckel" (202-205), *Encyclopedie der Alchemie*, ed. Claus Priesner and Karin Figala, Munich: C.H. Beck, 1998.

Entry "J.J. Becher," *Literatur Lexikon. Autoren und Werke deutscher Sprache*, vol. 1, ed. Walther Killy, Munich: Bertelsmann Lexikon Verlag, 1988, pp. 363-365.

## **REVIEWS**

Sarah Blake McHam, *Pliny and the Artistic Culture of the Italian Renaissance* (Yale University Press, 2013), *Isis* 105 (2014): 427-429.

Andrea Feeser, Maureen Daly Goggin and Beth Fowkes Tobin, eds., *The Materiality of Color: The Production, Circulation, and Application of Dyes and Pigments, 1400-1800* (Brill, 2012), *West 86th: A Journal of Decorative Arts, Design History, and Material Culture*, 20 (2013): 238-39.

Sven Dupré and Christoph Lüthy, eds., *Silent Messengers: The Circulation of Material Objects of Knowledge in the Early Modern Low Countries* (LIT Verlag, 2011), *Renaissance Quarterly*, 66 (2013): 634-5.

Warren A. Dym, *Divining Science: Treasure Hunting and Earth Science in Early Modern Germany* (Brill, 2010), *Journal of Modern History*, 84.3 (2012): 762-64.

Daniela Bleichmar, *Visible Empire: Botanical Expeditions and Visual Culture in the Hispanic Enlightenment* (Chicago, 2012), *Science* 338 (9 Nov 2012): 743-44.

Celina Fox, *The Arts of Industry in the Age of the Enlightenment* (Yale 2010), *Technology and Culture*, 52 (2011), 8-10.

Karl Appuhn, *A Forest on the Sea: Environmental Expertise in Renaissance Venice* (Johns Hopkins, 2009), *Isis*, 102 (2011): 158-59.

- Karel Davids, *The Rise and Decline of Dutch Technological Leadership: Technology, Economy, and Culture in the Netherlands, 1350-1800*, 2 vols. (Brill 2008), *Technology and Culture*, 54 (2010): 470-73.
- Didier Kahn, *Alchimie et Paracelsisme en France (1567-1625)* (Droz 2007), *Bulletin for the History of Medicine (BHM)*, 83.3 (2009): 605-607.
- Dominique Collet, *Die Welt in der Stube: Begegnungen mit Außereuropa in Kunstkammern der frühen Neuzeit*, 2008, *German Historical Institute Bulletin*, 31 (2009): 50-55.
- Lawrence M. Principe (ed.), *Chymists and Chymistry: Studies in the History of Alchemy and Early Modern Chemistry*, 2007, and Anna Marie Roos, *The Salt of the Earth. Natural Philosophy, Medicine, and Chymistry in England, 1650-1750*, 2007, *British Journal for the History of Science (BJHS)*, 42 (2009): 130-32.
- Thomas Hofmeier, *Michael Maiers Chymisches Cabinet. Atalanta fugiens deutsch nach der Ausgabe von 1708* (Thurneysser, 2007), *Medical History*, 53 (2009): 141-42.
- Philip Ball, *The Devil's Doctor: Paracelsus and the World of Renaissance Magic and Science* (2006), *BHM*, 82 (2008): 442-43.
- Adam Mosley, *Bearing the Heavens: Tycho Brahe and the Astronomical Community of the Late Sixteenth Century* (Cambridge UP 2007), *BJHS*, 41 (2008): 605-606.
- Bruce Moran, *Andreas Libavius and the Transformation of Alchemy: Separating Chemical Cultures with Polemical Fire* (Science History Publications, 2007), *Renaissance Quarterly*, 61 (2008): 637-38.
- Sachiko Kusukawa and Ian Maclean, eds., *Transmitting Knowledge: Words, Images, and Instruments in Early Modern Europe* (Oxford 2006), *BJHS*, 41 (2008): 137-38.
- William R. Newman, *Atoms and Alchemy: Chymistry and the Experimental Origins of the Scientific Revolution* (Chicago 2006), *Science*, 5 Jan. 2007 (315): 43-44.
- Gianna Pomata and Nancy Siraisi, eds., *Historia: Empiricism and Erudition in Early Modern Europe* (MIT 2005), *Aestimatio: Critical Reviews in the History of Science* 3 (2006): 48-51. [http://www.ircps.org/publications/aestimatio/pdf/Volume3/2006-05-01\\_Smith.pdf](http://www.ircps.org/publications/aestimatio/pdf/Volume3/2006-05-01_Smith.pdf)
- Volker Fritz Brüning, *Bibliographie der alchemistischen Literatur. Band 1: Die alchemistischen Druckwerke von der Erfindung der Buchdruckerkunst bis zum Jahr 1690* (Munich, 2004), *BJHS*, 39 (2006): 289-90.
- Londa Schiebinger and Claudia Swan, eds., *Colonial Botany: Science, Commerce, and Politics in the Early Modern World* (Philadelphia, 2005), *Renaissance Quarterly*, 58 (2005): 1414-1416.
- Stanton J. Linden (ed.), *The Alchemy Reader: From Hermes Trismegistus to Isaac Newton* (Cambridge UP, 2003), *BJHS*, 38 (2005): 363.
- Helen Watanabe-O'Kelly, *Court Culture in Dresden* (Palgrave, 2002), *Central European History (CEH)*, 37 (2004): 593-596.
- Lorraine Daston and Fernando Vidal (eds.), *The Moral Authority of Nature* (Chicago, 2004) *Isis*, 95 (2004): 675-76.
- David Freedberg, *The Eye of the Lynx: Galileo, His Friends, and the Beginnings of Modern Natural History* (Chicago, 2002), *Print Quarterly*, 21 (2004): 461-63.
- Rudolph Gamper and Thomas Hofmeier, *Das Alchemiehandbuch des Appenzeller Wundarztes Ulrich Ruosch* (Schwabe, 2002), *BJHS*, 37 (2004): 348-49.

- William R. Newman and Lawrence M. Principe, *Alchemy Tried in the Fire: Starkey, Boyle, and the Fate of Helmontian Chemistry* (Chicago, 2002), *American Historical Review*, 109 (2004): 244-45.
- Lyndy Abraham, *A Dictionary of Alchemical Imagery* (Cambridge UP, 1998) and Hans-Werner Schütt, *Auf der Suche nach dem Stein der Weisen: Die Geschichte der Alchemie* (Munich, 2000), *BJHS*, 35 (2002): 354-56.
- Veerle Fraeters, *Gods gouden thesaurus. Het Middelnederlandse handschrift Wenen, ÖNB 2372 in de alchemistische traditie* (Peeters, 1999), *Speculum*, 77 (2002): 1286-88.
- Lorraine Daston, Katharine Park, *Wonders and the Order of Nature* (Zone, 1998), *Configurations*, 8 (2000): 419-23.
- John T. Young, *Faith, Medical Alchemy and Natural Philosophy* (Ashgate, 1998), *BHM*, 74 (2000): 359-60.
- Ole Peter Grell, ed., *Paracelsus* (Brill, 1998), *BHM*, 74 (2000): 157-58.
- Oswaldus Crollius, *Alchemomedizinische Briefe 1585 bis 1597*, ed. and trans. by W. Köhlmann and Joachim Telle (Stuttgart, 1998), *BHM*, 74 (2000): 155-56.
- Anthony Grafton, *The Footnote* (Harvard UP, 1997), *Journal of American History*, (1999): 1312-13.
- Wolfgang Behringer, *Shaman of Oberstdorf* (U. of Virginia Pr., 1998), *CEH*, 33 (2000).
- Lawrence M. Principe, *The Aspiring Adept* (Princeton UP, 1998), *Early Science and Medicine*, 4 (1999): 264-65.
- Edward Muir, *Ritual in Early Modern Europe* (Cambridge UP, 1997), *CEH*, 31 (1998): 430-32.
- Andrew Weeks, *Paracelsus* (SUNY Pr., 1997), *BHM*, 72 (1998): 323-24.
- Edward G. Ruestow, *The Microscope in the Dutch Republic* (Cambridge UP, 1996), *Technology and Culture*, 39 (1998): 762-64.
- Antoine Faivre, *The Golden Fleece and Alchemy* (SUNY Pr., 1993), *International Journal of the Classical Tradition*, 4 (1997): 7-9.
- Stanton J. Linden, *Darke Hieroglyphicks: Alchemy in English Literature from Chaucer to the Restoration* (U. Pr. of Kentucky, 1996), *Isis*, 88 (1997): 705-706.
- Gareth Roberts, *The Mirror of Alchemy* (British Library, 1995), *BHM*, 71 (1997): 339-340.
- William R. Newmann, *Gehennical Fire* (Harvard UP, 1994), *BHM*, 70 (1996): 709-710.
- Samuel J. Klingensmith, *The Utility of Splendor* (Chicago UP, 1993), *CEH*, 29 (1996): 239-40.
- Benno Parthier, *Die Leopoldina: Bestand und Wandel der ältesten deutschen Akademie* (Halle, 1994), *Annals of Science*, 53 (1996): 304-305.
- Anthony Pagden, *European Encounters with the New World* (Yale UP, 1993) and Louis De Vorsey, Jr., *Keys to the Encounter* (Library of Congress, 1992), *Isis*, 86 (1995): 638-640.
- William Chester Jordan, *Women and Credit in Pre-Industrial and Developing Societies* (U. Penn Press, 1993), *Women's Studies*, 24 (1995): 281-85.
- Thomas DaCosta Kaufmann, *The Mastery of Nature: Aspects of Art, Science, and Humanism in the Renaissance* (Princeton UP, 1993), *American Scientist*, 82 (1994): 275-76.
- Udo Benzenhöfer, ed., *Paracelsus* (Darmstadt, 1993), *BHM*, 68 (1994): 516-517.
- Jost Weyer, *Graf Wolfgang II. von Hohenlohe und die Alchemie: Alchemistische Studien in Schloss Weikersheim, 1587-1610*. (Sigmaringen, 1992), *Isis* 85 (1994): 509-510.
- Albert Kraye, *Mathematik im Studienplan der Jesuiten: Die Vorlesung von Otto Cattenius an der Universität Mainz (1610/11)*. (Stuttgart, 1991), *Isis*, 85 (1994): 327-28.

Bruce T. Moran, *Chemical Pharmacy Enters the University* (Madison, 1991) and *The Alchemical World of the German Court* (Sudhoffs Archiv, 1991), *BHM*, 66 (1992): 654-56.

Christoph Meinel, ed., *Die Alchemie in der europäischen Kultur- und Wissenschaftsgeschichte* (Wiesbaden, 1986), *BHM*, 64 (1990): 303-305.

## **PUBLIC OUTREACH**

British Society for the History of Science, *Viewpoint* no. 11, "[Experiments in the early modern European investigation of nature.](#)"

[Sciences et Avenir](#) covers the Making and Knowing Project, in "La science redécouvre les secrets de la Renaissance," by Bernadette Arnaud.

The Recipes Project, "[A Recipe for Recipe Research: The Making and Knowing Project](#)," February 2016. See also "[Making 'Powder for Hourglasses' in the Early Modern Household.](#)"

Columbia College Magazine, "[Ancient Workshop Discovers New Ideas](#)"

WHYY visits Smith's Making and Knowing Project in [The power of failure, and other lessons from a 400-year-old 'book of secrets'](#)

Smith was quoted in *Chemical & Engineering News* "[Science Historians Revive Ancient Recipes.](#)"

Smith was mentioned in the *Observer's* "[An April 'Renaissance' in Performance Art.](#)"

Interview, The History Channel, "The Next Nostradamus?" aired November 30, 2008.

Executive Advisory Committee, Exhibition of "Fortune and Folly: Images of Alchemy in Northern European Art, 1500-1700," Chemical Heritage Foundation and the Philadelphia Museum of Art.

Interview, Nova, "Isaac Newton as Alchemist," PBS, 2005.

Panelist, "Art and Science," Odyssey (an hour-long live discussion of culture and society), Chicago Public Radio, 3 April 2002.

Interview on Dr. F. Sylvius (1614-1672) in the documentary, "The Science and Art of Dr. Sylvius," Radio Netherlands, 2000.

Interview on A & E television special, "Alchemy," 1997.

## **WEBSITES**

[www.scienceandsociety.columbia.edu](http://www.scienceandsociety.columbia.edu)

[www.makingandknowing.org](http://www.makingandknowing.org)

[Presidential Scholars in Society and Neuroscience](#)

Advisory Editor and Contributor to Folger Institute website for Experience and Experiment in Early Modern Europe <http://www.folger.edu/institute/experience/index.htm>

Advisory Editor, HRE (Holy Roman Empire), H-NET

## **INVITED LECTURES**

**2016:** "Making Art and Knowing Nature in a Sixteenth-Century Workshop," Virginia Commonwealth University STS Program, 21 September.

"Making Art and Knowing Nature," Artisanal Knowledge, University of Lisbon, 4-7 May.

"Making Art and Knowing Nature," UC Berkeley, 7-8 April.

- Distinguished Lectureship, Center for Renaissance and Reformation Studies,  
University of Toronto, 14-16 March (2 lectures and 2 graduate workshops).
- "Craft and Innovation," Society for the History of Technology special workshop, Chennai,  
India, 29 Jan-2 Feb.
- 2015:** "Making Art and Transforming Matter in a sixteenth-century Workshop," CRASSH,  
Cambridge, U.K., 16 December
- "Craft Knowledge," Around the Loom, Shillong, India, 4 November.
- "Historians in the Laboratory: The Making and Knowing Project," Harvard Art History, 24  
September.
- "Philosophizing Artworks in Early Modern Europe," Art and Science, Rijksmuseum,  
Amsterdam, 17 September.
- "Historians in the Laboratory," joint presentation with Jenny Boulboulé and Joel Klein, in  
The Senses and the Methodology of Reconstruction, Berlin, 10 July.
- "Fat and Lean," No End of Wonders, Harvard University, 5 June.
- "Ways of Making and Knowing," Centre d'Histoire des Techniques, Paris, 20 May.
- "Performing the Renaissance in the Lab: The Making and Knowing Collaboration," Paradiso:  
Performing the Renaissance, 24 April.
- "The Making and Knowing Project," Victoria and Albert Museum, London, 17 April.
- Speaker/Participant, International Institute of Asian Studies, Leiden, Roundtable on  
"Reconsidering Craft as Pedagogy from Below," Jaipur, India, 16-17 March.
- "Conservation Conversation," with Andrew Lacey, sculptor, Bard Graduate Center, 3 March.
- "The Making and Knowing Project: Historians in the Laboratory," UCSB, 28 February.
- "The Future of Making and Knowing," Bard Graduate Center, 10 February.
- 2014:** "The Codification of Vernacular Theories of Metallic Generation in sixteenth-century  
European Mining and Metalworking," MPIWG, Berlin, 4 December.
- "The History of Early Modern Science in Practice," University of Pennsylvania, 27 October.
- "Science, Art, and Medicine: A Historian in the Laboratory," Dean's Distinguished Lecturer in the  
Humanities, Columbia University Medical School, 13 October.
- "Sixteenth-Century Audiences for How-To: Who read How-To Books?" MPIWG, 20 September.
- "From Workshop to Laboratory: Experiment and Experience in a sixteenth-century  
Technical Manual," Humboldt University, Berlin, 8 July.
- "From Matter to Ideas: Making Natural Knowledge in early Modern Europe," University of  
North Carolina, Chapel Hill, 5 April.
- "Enroute along the Itineraries of Materials, Recipes, Techniques, and Knowledge in the  
Early Modern World," Max Planck Institute for the History of Science, Berlin, 13  
March.
- "Materials, Practices, and Ideas in Eurasia," Max Planck Institute for the History of Science,  
6 March.
- "The Matter of Ideas in the Working of Metals in Early Modern Europe," NYU History of  
Science, Technology, and Medicine lecture series, 10 February.
- 2013:** "Snakes, Lizards, and Manuscripts: Humanists in the Laboratory," University  
Lecture, Columbia University, 2 December. Available here:  
<http://www.youtube.com/watch?v=NhRXVKDIYjo&feature=youtu.be>
- "Crafting Things, Crafting Words," Plenary panel, History of Science Society Annual  
Meeting, Boston, 21 November.

- “Sharing Practices in Metallurgy: The Codification of Vernacular Theories of Metallic Generation in sixteenth-century European Mining and Metalworking,” Max Planck Institute for the History of Science, 6 November.
- “New Worlds of Stuff: Nature, Books, and Things in early Modern Germany,” John Carter Brown Library, 12 September.
- “In the Workshop of History: Reconstructing Technique and Natural Knowledge in Early Modern Europe,” Holmes Lecture, Yale University, 28 January.
- 2012:** “Itineraries of Matter and Knowledge in the Early Modern World,” Global Commodities, Warwick University, 12-14 December.
- “Material complexes in early modern European metalworking,” Beyond Representation, BGC and IFA, New York, 27-29 September.
- “Itineraries of Matter and Knowledge in the Early Modern World,” Cohn Institute, Tel Aviv, 3 July.
- “Casting Life: Matter, Making and Meaning in Bronze,” French Bronzes, Louvre, Paris, 9 June.
- “In the Workshop of History: Reconstructing Sculpture and Experience in Early Modern Europe,” Robert H. Smith Lecture, V&A, 15 May.
- “Why write a book? Artisanal experience and the written word in early modern Europe,” Histoire des sciences, Histoire du texte, CNRS, Paris, 19 January.
- 2011:** “Artisanal Experiments on Paper in Early Modern Europe,” Symposium on Prints and the Pursuit of Knowledge, Harvard University, 2 December.
- “Lived Experience and the Written Word: Craft and Science in Early Modern Europe,” Keynote lecture. At the Crossroads of Popular Knowledge and Science, Basel, 27 October.
- “The Movement of Knowledge in the Early Modern World,” Keynote lecture, Global Dimensions of European Knowledge, London, 25 June.
- “The Movement of Knowledge in the Early Modern World,” Keynote lecture, History of Science Association, Woudschoten, The Netherlands, 17 June.
- “Craft Techniques and How-To Books,” VLAC, Brussels, Belgium, 16 June.
- “In the Workshop of History: Reconstructing Lived Experience in Early Modern Europe,” Huygens Institute Annual Descartes Lecture, Amsterdam, 15 June.
- “Why write a book? Artisanal experience and the written word in early modern Europe,” University of Bern, Switzerland, 10 May.
- “Knowledge in Motion in the Early Modern World,” University of Zurich, Switzerland, 12 May.
- “Science in motion in the early modern world,” NYU Atlantic World Seminar, 8 March.
- 2010:** “Art, Science, and Technē: Practical Knowledge and the Written Word in Early Modern Europe,” Silberberg Lecture, New York Institute of Fine Art, 23 Nov.
- “Art put into writing: reconstructing knowledge in early modern Europe,” keynote lecture, “Knowledge in the Making, 1400-1700: Science, Art, and Epistemology,” SUNY Buffalo, 1 October.
- “Curious Modes of Production: Making objects in the Early Modern World,” keynote lecture, “Curious Specimens: Enlightenment Objects, Collections, Narratives,” London, 15-18 April.
- “Knowledge in Motion: A Tentative History of Science of the Early Modern World,” Davis Center, Princeton University, 12 March.

- "Science and Craft: An experiment in reconstructing early modern knowledge," History of Science Colloquium, Princeton University, 17 February.
- "Making Things: Techniques and books in early modern Europe," Stanford University, 29 January.
- 2009:** "What is History Now?" Comment, Heyman Center for the Humanities, Columbia University, 17 November
- "Butter and Gold, Lizards and Vermilion: Art and Science in Early Modern Europe," Oberlin College, 22 September.
- "Why Write a Book? From Lived Experience to the Written Word," Grolier Club, New York, 16 September.
- "Vermilion, Gold, Blood and Lizards: Art and Science in Early Modern Europe, University of Colorado, Boulder, 8 September.
- "Making Images of Nature," Showing Making, Amsterdam Filmmuseum, 18 June.
- "Local Crafts and Universal Science: Lived Experience and the Written Word in the Early Modern World," Rausing Annual Lectureship, University of Cambridge, 28 May.
- "Making and Knowing: Reconstructing Historical Experience," "Practical Knowledge," NYU, 17 April.
- "Making Objects, Knowing Nature: Techniques and the Knowledge of Nature in the Early Modern World," UCLA Center for 17<sup>th</sup>- and 18<sup>th</sup>-century Studies, 6 February.
- 2008:** "Making and Knowing: Reconstructing Knowledge in a Renaissance Goldsmith's Workshop," Renaissance Seminar, Columbia University, 14 October.
- "Alchemy, Metalworking, and Vernacular Science," El Escorial, Spain, 10 September.
- "Objects, Practices, Techniques, and Texts: The Movement of Knowledge in the Early Modern World," New Trends in the History of Early Modern Science, CUNY Graduate Center, May 16.
- Ena H. Thompson Lectureship, "Making and Knowing: Lived Experience and the Written Word in Early Modern Europe," Pomona College, Claremont, 7-11 April.
- "Tacit Knowledge and the Written Word: Reconstructing Knowledge in Early Modern Europe," University of Minnesota, Minneapolis, 14 February.
- 2007:** "Making and Knowing: Lived Experience and the Written Word in the Early Modern World," University of Texas, Austin, 18 October.
- "Butter and Mercury, Lizards and Vermilion: Art and Vernacular Science in the Early Modern World," Wesleyan University, 28 September.
- "Science and Craft: Reconstructing Knowledge in Early Modern Europe," History of Science Research Group, University of Ghent, 8 May.
- "Making and Knowing: Craft and Natural Philosophy in the Scientific Revolution," keynote lecture, International Workshop on "The Material Vehicles of the Circulation of Natural Knowledge in the Low Countries," Ghent, 10-11 May.
- "Global Science in the Renaissance," Introduction to the Plenary Session of the Renaissance Society of America, Annual Meeting, Miami, 23 March
- "Butter and Mercury, Lizards and Vermilion: Art and Vernacular Science in Early Modern Europe," Bard Graduate Center, 17 January.
- 2006:** "Making as Knowing: Artisanal Craft as Science, 1400-1700," New York Academy of Sciences, 25 October.
- "Blood and Mercury: Towards a Vernacular Science of Nature," Princeton University, 19 October.

- Mercury, Blood, and Lizards: Matter and Meaning in Metalworking," Max Planck Institut für Wissenschaftsgeschichte, Berlin, 2-5 August.
- Comment, International Conference on the History of Alchemy, Chemical Heritage Foundation, 19-22 July.
- Comment, "Everyday Technology, Materiality and Gender in China, 1890 to 1960," Columbia University, 19-21 May.
- "Nobles and Insects: Collecting Nature at Court," UCLA Center for 17<sup>th</sup>- and 18<sup>th</sup>-century Studies, 12 May.
- "The Authority of Nature in the Late Seventeenth Century," in "Transformations in the Atlantic World," Harvard University, 30 March – 1 April.
- Panelist, "The Persistence of Techne: Nature, Design, and Early Modern Practice of the Arts," The Getty Research Institute, 15-18 March.
- 2005:** "Transforming Lived Experience into the Written Word," Michael of Rhodes (ca. 1380-1455) and His Manuscript, MIT, 2 December.
- "Vernacular Science: The Powers of Nature and Art in Renaissance Europe," Henry Moore Institute, Leeds, 26 October.
- "Making as Knowing: Craft as Natural Philosophy," in "Ways of Making and Knowing: The Material Culture of Empirical Knowledge," Victoria and Albert Museum, London, 14 July.
- 2004:** "Making as Knowing: Craft as Natural Philosophy," at "The Making of Materials: Science and Technology in the 17<sup>th</sup> and 18<sup>th</sup> centuries," Max Planck Institut für Wissenschaftsgeschichte, Berlin, 10-11 December.
- "The 'Philosophy of Laborers': Scenes from the Early Modern Workshop," Academy of Sciences of The Netherlands, Amsterdam 22-24 September.
- "Butter and Mercury: Towards a history of artisanal knowledge in early modern Europe," Institute for Historical Research, London, 25 May.
- "Vision, Representation, and Artisanal Practice in Early Modern Europe," Centre for Research in the Arts, Social Sciences, and Humanities, University of Cambridge, 14 May.
- "Butter and Mercury: Towards a history of tacit knowledge," Manchester University, 27 April.
- "Matter and Mind: Early Modern Artisans, Material Culture and the Production of Knowledge," University of Cambridge, 26 February.
- 2003:** "Natural Knowledge and the Experience of Dreams in Early Modern Europe," Program in the Study of the Imagination, Northwestern University, 7 December.
- "Collecting Nature: Knowledge and Naturalism in the early modern *Kunstammer*," Center for Medieval and Renaissance Studies, Ohio State University, 3 December 2003.
- "Early Modern Artisans, Material Culture, and the Production of Knowledge," Victoria and Albert Museum, 4 November.
- "Toward a History of Vernacular Science: Early Modern Artisans, Material Culture, and the Production of Knowledge," UCLA History of Science Colloquium, 21 April.
- "Towards a History of Vernacular Science: Early Modern Artisans, Material Culture, and the Production of Knowledge," Early Modern Studies Program, University of Michigan, Ann Arbor, 25 January.



- 2002:** "Artisanal Knowledge and the Representation of Nature in Sixteenth-Century Germany," Center for the Advanced Study of the Visual Arts, The National Gallery, Washington, DC, 3 May.
- "The Philosophy of Laborers: Artisanal Knowledge of Nature," *Historians of Netherlandish Art*, Antwerp, 14 March.
- 2001:** Keynote Speaker, Claremont Early Modern Studies Symposium, CGU, 17 March. "The Body of the Artisan: Vernacular Epistemology and the Scientific Revolution."
- "Material Experience: The Role of Artisans in the Rise of Experimental Science," University of Maastricht, The Netherlands, January 26.
- "The Artisanal Body: Narrating Bodily Knowledge in Early Modern Europe," American Historical Association, Boston, January 7.
- 2000:** "The Body of the Artisan: Vernacular Epistemology and the Scientific Revolution," Harvard University History of Science, March 7.
- "Vernacular Epistemology and the Scientific Revolution," Southern California Colloquium in the History of Science, Medicine and Technology, UCLA, January 22.
- 1999:** "Artisans, Alchemists, and the Scientific Revolution," Symposium on Chemists and Texts, Chemical Heritage Foundation, Philadelphia, April 24.
- "The Body of the Artisan: Science, Art, and the Senses in Early Modern Europe," Johns Hopkins University History of Science, Medicine and Technology, April 22.
- "Science and Taste: The New Philosophy and Painting in Leiden," *The Culture of Exchange*, University of Pennsylvania, March.
- "Science, Art, and the Senses," Annual Historical Studies Lecturer, Richard Stockton College, New Jersey, March.
- "Science and Art in Early Modern Europe," California Institute of Technology, February.
- "The Body of the Artisan: Material Experience in the Scientific Revolution," UCSD, February.
- 1998:** "The Body of the Artisan: Art, Science, and Nature in Early Modern Europe," The Getty Research Institute, December.
- "Science and Taste: The Passions and the Senses in Seventeenth-Century Europe," Hebrew University, Jerusalem, June.
- "Bodily Encounters: Science and Material Experience in Early Modern Europe," Rutgers University, Newark, April.
- "Nature and the Senses: Hermeticism and Empiricism in the Scientific Revolution," Einstein Forum, Berlin, March 10.
- "Science, Art, and the Senses," Cohen Institute, Tel Aviv University, January 26.
- 1997:** "Carnal Knowledge: Science, Art, and the Senses in Early Modern Europe," University of Pennsylvania, March 22.
- 1996:** "Depicting Nature: Realism in Art and Science," *New Directions in Early Modern Culture and Society*, Clark Library, Los Angeles, December 7.
- "Scholars, Scientists, Merchants, and Kings: *Kunstkammer* in the Making of Social Status in Early Modern Europe," Internationales Forschungszentrum Kulturwissenschaften, Vienna, November 29.
- 1995:** "Painting, Science, and Modernity in Seventeenth-Century Leiden," Art History Dept., Technische Universität, Berlin, June 20.
- "Art, Artisanship, and Alchemy in Northern Europe," Max-Planck-Institut für Wissenschaftsgeschichte, Berlin, June 14.

- "Representing Nature: Artistic Realism and Artisanal Self-Consciousness in Seventeenth-Century Europe," Historisches Institut, Ruhr-Universität Bochum, June 12.
- "Art, Alchemy, and Redemption in Northern Renaissance Europe," Natural Philosophy and the Disciplines in the Renaissance, Dibner Institute, MIT, May 4-7.
- "The Authority of Natural Philosophy at the Early Modern Noble Court," Doing is Believing: Credibility and Practice in Science, Cornell University, April 21-24.
- "The House that Sylvius Built: Painting, the New Philosophy, and Modernity in Seventeenth-Century Leiden, or, The Ivory Lathe in the Attic," Wissenschaftskolleg zu Berlin, March 21.
- 1991-94:** "Giving Voice to the Hands: An Artisanal Worldview in the Scientific Revolution?" Institute for the History and Philosophy of Science, Göttingen, December 6.
- "The Authority of Scholars and the Practice of Artisans: Natural Philosophy and Technology at the Early Modern Noble Court," Conference on Technological Change, Oxford, 1993.
- "Between Words and Things: Natural Knowledge and Noble Society in Early Modern Europe," Univ. of California, Davis.
- "Theory, Practice, and Experimental Etiquette: The German Courts in the Seventeenth Century," Workshop on Civility, Court Society and Scientific Discourse: Reframing the Scientific Revolution, Clark Library, November 1991.
- "Natural Philosophy in 1669: Alchemy and Sugar; Curiosities and Colonies," Univ. of California, San Diego, 1991.

### **OTHER SELECTED LECTURES**

- Chair, *Textiles and the Origins of Industrial Revolution: Linking Markets and Technique*, University of Reading, April 2015.
- "Visualizing the Subterranean World: Miners and Scholars in the Sixteenth Century," Renaissance Society of America Annual Meetings, 28 March 2014.
- Panelist, New Trends in the History of Science and Medicine, Renaissance Society of America, CUNY, 19 October, 2012.
- "Matter and Meaning in Metalworking," co-organizer and speaker in "Materials and Meaning," Renaissance Society of America Annual Meeting, Venice, 8-10 April, 2010.
- "Objects, Practices, Techniques, and Texts: The Movement of Knowledge in the Early Modern World," American Historical Association annual meeting, 2009, in "Recent Trends in Renaissance Science," read in absentia by Sheila Rabin.
- Comment, "Collecting Particulars: List-making and the Organization of Natural Knowledge, Material Goods, and Communities in Early Modern Science," History of Science Society, November 2008.
- Comment, "The Practice of Drawing and the Construction of Artistic Identity," College Art Association Annual Meeting, 15 January 2007.
- "Butter and Mercury, Lizards and Vermilion: Artisanal Views of Nature in Early Modern Europe," History of Science Society Meetings (HSS), November 2006.
- Organizer and speaker, "From Objects to Ideas: Material Culture in Art and Science," Historians of Netherlandish Art, 9 November 2006.
- Chair and Commentator, "Science and Material Culture," Renaissance Society of America annual meeting, 25 March, 2006.

- "Making and Knowing: Reconstruction as an Historical Source," organizer and speaker, panel on "Reconstructing Historical Experience: Material Culture and the Making of Knowledge," held at Bartram's Garden, Philadelphia, American Historical Association annual meeting, 5 January 2006.
- Comment, "Envisioning New Science, Turning Back in Time: The Role of Near-Eastern Sources in Early Modern Practices of Science," HSS, 9 November 2005.
- "Knowledge of Nature in sixteenth-century Craft Treatises," in "Craft Treatises and Handbooks: The Dissemination of Technical Knowledge in the Middle Ages," Cordoba, Spain, 6 October 2005.
- Comment, "Plants and Insects in Early Modern Europe," Huntington Library, 2005.
- Comment, "Seeing Science: Image, Text, and Nature, 1500-1800," Princeton University, 2005.
- Comment, "Trading Knowledge: Art and Science in the Renaissance," Renaissance Society of America meeting, Toronto, 2003.
- "The Five Senses," organizer and speaker, panel discussion, Frühe Neuzeit Interdisziplinär, Pittsburgh, 2001.
- "Nature, Naturalism, Natural Philosophy: Artisans and Realism in Early Modern Europe," HSS, Kansas City, 1998.
- Comment, "Capitalism and Science in Early Modern Europe," HSS, San Diego, 1997.
- Comment, "Gender and Science," Clark Library, March 1994.
- "The Erasure of the Artisan in Seventeenth-Century Natural Philosophy," HSS, Washington D.C., 1992.
- "The Promise of Ars: The Seventeenth-Century Search for a Theory of Practice," Society for the History of Technology, Uppsala, Sweden, 1992.
- "Science and Symbols: Alchemical Transmutation at the Habsburg Court in Vienna," Renaissance Society of America, Stanford University, 1992.
- "Coining Reputations: The Financing of Social Credit at the Court of Emperor Leopold I," American Historical Association, Chicago, 1991.
- "Curing the Body Politic: Johann Joachim Becher and Commerce at the Bavarian Electoral Court," International Congress for the History of Science, Hamburg and Munich, August 1989.
- "Consumption and Credit: The Place of Alchemy in Johann Joachim Becher's Political Economy," Conference on the History of Alchemy, University of Groningen, The Netherlands, April 1989.
- "Chemie und Politik bei Johann Joachim Becher," Deutsches Museum, Munich, February 1987.

### **CONFERENCES ORGANIZED**

- "Colormaking in BnF Ms. Fr. 640," Working Group Meeting of the Making and Knowing Project, 26-28 May 2016.
- Embodied Cognition Workshop: Neuroscience and Music," Heyman Center, 11 February, 2016.
- "Historical Reconstruction in Early Modern Europe," co-organizer, Chemical Heritage Foundation, Philadelphia, 9-10 October 2015.
- "Moldmaking and Metalworking in BnF Ms Fr. 640," Working Group Meeting of the Making and Knowing Project, 27-30 May 2015.

- "Itineraries of Materials, Recipes, Techniques, and Knowledge in the Early Modern World,"  
Max Planck Institute for the History of Science, Berlin, March & July 2014, July 2015.
- "The Circulation of Knowledge—Europe," co-organized with Bruno Belhoste, Paris, 27-28  
June, 2011.
- International Conference on the History of Alchemy and Chymistry (Advisory Committee),  
19–22 July 2006, Chemical Heritage Foundation, Philadelphia.
- "Ways of Making and Knowing: The Material Culture of Empirical Knowledge," co-  
organizer with Amy Meyers (Yale Center for British Art) and Hal Cook (Wellcome  
Institute), held at the Chelsea Physic Garden, the British Museum, Kew Gardens, The  
Natural History Museum, London, The Victoria and Albert Museum, and Painshill  
Park, London, 10-15 July 2005.
- "Early Modern Metalworking and Alchemy," V&A Research Department Study Day, Victoria  
and Albert Museum, London, 23 June 2004.
- "Knowledge and its Making in Northern Europe 1500-1800," Westergaard Workshop,  
Pomona College, April 11-12, 2003
- "The Hermetic Imagination in the 17<sup>th</sup> and 18<sup>th</sup> Centuries," Clark Library, Los Angeles,  
October 4-5, 2001.
- "Biotechnology and Beyond," co-organizer with the STS senior seminar, Claremont  
Colleges, February 18-19, 2000.
- "Commerce and the Representation of Nature in Early Modern Europe," Clark Library, Los  
Angeles, October 2-3, 1999.
- "Chemists and Texts: A Symposium in the History of Chemistry in Honor of Owen  
Hannaway," Chemical Heritage Foundation, Philadelphia, April 24, 1999.  
Organizer, 1998 Ena H. Thompson Lectureship, Pomona College (Prof. Lynn Hunt, "The  
French Revolution and Human Rights")
- "Mastery of Nature, Mastery of the World: Science and Power," West Coast History of  
Science Society Annual Meeting, The Claremont Colleges, April 12-13, 1997.
- "Nature and Natural Philosophers," New Directions in the Study of Early Modern Culture  
and Society, Clark Library, Los Angeles, December 6-7, 1996, co-organizer.

## **PROFESSIONAL ORGANIZATIONS**

American Historical Association  
American Association for Netherlandic Studies  
History of Science Society  
Historians of Netherlandish Art  
Frühe Neuzeit Interdisziplinär  
British Society for the History of Science  
Renaissance Society of America  
Society for the History of Technology  
Historical Metallurgy Society

## **PROFESSIONAL SERVICE**

### Renaissance Society of America

President 2016-18 (Vice President 2014-16; Past President 2018-20)  
Associate Editor, *Renaissance Quarterly* and Council Member, 2006-12  
Gordan Prize Committee member, 2008-09.

Scientific Advisory Committee, Max Planck Institute for the History of Science, 2013-2019.

Board of Editors, *History of the Humanities*, 2014-present

Editorial Board, *Journal of Modern History*, 2014-present

Steering Committee, V&A Research Institute, 2014-2016

Advisory Board member, *Genius Before Romanticism: Ingenuity in Early Modern Art and Science*,  
ERC grant project, Cambridge University, 2014-

Expert Advisory Committee, Library of the New York Academy of Medicine, 2014-

Editorial Board, *Early Modern Cultural Studies*, Centre for Renaissance and Reformation Studies,  
University of Toronto, 2016-

Advisory Board, The Stevanovich Institute on the Formation of Knowledge, the University of  
Chicago, 2014-

### American Historical Association

Board of Editors, *American Historical Review*, 2008-11

Executive Council, 2004-06 (elected position)

Research Division Committee member, 2005-06

Gershoy Prize Committee, 1996-98

### History of Science Society

Nominating Committee member (elected position), 2000-01 and 2008-09

Executive Committee member, History of Science Society, New York Section,  
2008-present

*Osiris* Editorial Board, 2000-04

Executive Council (elected position), 2000-02

Committee on Education, 2000-02, Chair 2001-02

*Isis* Editorial Board, 1997-2000

President, West Coast History of Science Society, 1997

Society for Austrian and Habsburg History, Executive Council, 2003-08

*Nederlands Kunsthistorisch Jaarboek*, Advisory Board, 2008-present

Bard Graduate Center and University of Michigan Press series, "Cultural Histories of the  
Material World," External Editorial Board Member, 2009-present

*Interpretatio: Sources and Studies in the History and Philosophy of Classical Science*, Editorial  
Advisory Board member, 2007-present

Chemical Heritage Foundation, Fellowship Committee, 2011  
Huntington-Dibner Fellowship Committee, 2008  
Review of UCLA Center for 17<sup>th</sup>- and 18<sup>th</sup>-century Studies, 2006.  
Section Member, History and Philosophy of Science, New York Academy of Sciences  
Committee Member, Nachwuchsgruppe Komitee, Max-Planck-Institut für  
Wissenschaftsgeschichte, Berlin, December 2004.  
Reviewer of mss. for Cambridge University Press, University of Pennsylvania Press, Johns  
Hopkins University Press, University of Chicago Press, Harvard University Press, Yale  
University Press, MIT Press, Oxford University, Princeton University Press.  
Grant reviewer, NSF, 1994-present  
NSF Grant Panelist for SES/STS grants, 2003  
Fellowship application reviewer, ACLS, 2000, 2002  
Associated Faculty, Clark Library, Los Angeles, 1994-2005

## **UNIVERSITY SERVICE**

### **Columbia University**

#### **Department of History**

Chair, History Development Committee, 2015-16; 2017.  
Co-Coordinator, History in Action Initiative, 2014-15  
Acting Chair, 2012-13  
Vice Chair, 2011-12  
Personnel Committee, 2011-13  
Director of Graduate Studies, History Department, 2006-2009.  
Development Committee, co-chair 2007-09, chair 2010-12.  
Board of Visitors steering committee, 2007-13  
Spending Priorities Committee, 2010-13  
Mellon Distinguished Professorship Search committee member 2010-11  
Graduate Education Committee, 2005-06  
Queen Wilhelmina/Taalunie Dutch program, member 2007-present; co-chair 2010-13;  
chair 2011-12

### **University**

Chair, Presidential Scholars in Society and Neuroscience, 2014-present.  
Center for Science and Society, Founding Director, 2013-present.  
Interim Academic Director, Italian Academy, Spring 2012  
Committee on Instruction, Columbia College, 2011-12  
Art History, search committee member, 2011-12  
University Seminar for the History and Philosophy of Science, co-chair 2007-present  
Classroom Technology Committee, 2011-13.  
Space Planning subcommittee on classroom use and scheduling, 2010-11  
Space Planning Committee for Manhattanville, 2009-11.  
Trilling Seminars Selection Committee member, 2008-present  
Arts Initiative Faculty Advisory Committee, 2008-10  
Executive Committee of the Faculty of Arts and Sciences (ECFAS), 2006-09 (elected  
position)  
ECFAS Department/UDAR Working Group, 2007-09

Founding member, Science, Technology and Society Colloquium, Columbia University  
Faculty Fellow, ISERP, 2005-06.

Classics ARC Review, Internal Review Committee, 2005-06.

Ad Hoc committees, Columbia University

### **Claremont Colleges**

Mellon Faculty Seminar co-leader (with Shahriar Shahriari) on "Science in the Islamic  
World," Pomona College, 2004-05

Coordinator, Science, Technology, and Society Program: 1992-93, 1996-97, 1999-2000,  
2001-03

Research Committee, 1995-1997, 1999-2000, 2002-03 (Chair), 2004-05

Working Group on Seminar scheduling, 2004

Watson Fellowship Committee, 1991-92

Curriculum Committee, 1991-92; 2001-02

Faculty Executive Committee, 1992-93

Buildings and Grounds Committee, 1992-93

Size of the College Committee, 1992-93

History Department search committee member: 1991/92, 1992/93, 1995/96, 1996/97,  
1997/98

Steering Committee, Science, Technology, and Society Program: 1991-2005

Women's Studies Faculty: 1992-2005

Westergaard Foundation Fund supervisor: 1992-2000, 2002-3

German across the Curriculum Program, member, 1994-2005

European Union Center Intercollegiate Council member for Pomona, 1998-99

EU Center Curriculum Development committee, 1998-99

Women's Commission, 1998-99

Mellon Fellowship Advisor, 1998-99

Faculty mentor, Office of Black Students Association, 1992-93

### **GRADUATE ADVISING**

#### **Ph.D. - Columbia University**

Wenrui Zhao (2015- ), History, Art and Science, sponsor

Jordan Katz (2014- ), History, early modern Jewish, committee member.

Yuan Yi (2014- ), EALAC-History, History of Technology, committee member.

Yijun Wang (2013- ), History, China, committee member.

Shehab Ismail (2012- ), History of Science, 18<sup>th</sup> - early 20th-century Egypt, committee  
member.

Abram Kaplan (2011-), History of Science, early modern Europe, committee member.

Sean O'Neil (2011-), History of Science, early modern Europe, sponsor.

Joshua Schlachet, History, early modern Japan, committee member.

Etienne Stockland (2010-), History, "Insects, Anthropogenic Change, and Rural  
Environments in the Global French Enlightenment," sponsor.

Melissa Morris, History, Atlantic World, committee member.

Debra Glasberg Gail (2010-2016), "Innovative Tradition: Encyclopedias, Medicine, and  
Jewish Culture in Eighteenth-Century Italy," committee member, defense June 2016.

- Kyoungjin Bae (2009-2016), International and Global History, "Joints of Utility, Crafts of Knowledge: The Material Culture of Sino-British Furniture Trade, 1730-1830," sponsor, defense May 2016.
- Jay Gundacker (2009- ), History, committee member.
- Katherine Johnston, Early Modern Europe, "Atlantic Bodies: Health, Race, and the Environment in the British Greater Caribbean," defense chair, February 2015.
- Divya Cherian, South Asian History, "Ordering Subjects: Caste, Vaishnav Devotionalism, and the Administration of Society in Early Modern Marwar, 1650-1818," defense chair, August 2015.
- Sixiang Wang, History, "Contesting Empire in Early Chosŏn Korea: Knowledge Production and the Culture of Diplomacy (1392–1592)," defense March 2015.
- Lan Wu, East Asian Languages and Cultures, "Refuge from Empire: Religion and the Cosmopolitan Qing China in the 1700s," defense April 2015.
- Saskia Cornes, English Literature, committee member, "Literature of Landscape: The Enclosure Movement in the Seventeenth Century English Imagination," defense, October 2014.
- Kaijun Chen, EALAC, committee member, "The Rise of Technocratic Culture in High-Qing China: A Case Study of Bonservant (Booi) Tang Ying (1682-1756)," defense August 2014.
- Elizabeth Han Lawrence, EALAC, committee member, "The Chinese Seal in the Making, 1904-1937," defense June 2014.
- Abhishek Kaicker (2007-14), South Asian History, "Unquiet City: Making and Unmaking Politics in Mughal Delhi, 1707-39," defense chair, January 2014.
- Meha Priyadarshini (2006-2013), International and Global History, "Mexican Chocolate in Chinese Cups: Trade, Artisanal Knowledge and the Education of Tastes in the Early Modern World," defense chair and second reader, September 2013.
- Jun Hee Cho, (2005-2013), "Court in the Market: The 'Business' of a Princely Court in the Burgundian Netherlands, 1467-1503," defense chair, September 2013.
- Michael Neuss (2006-13), "Balancing Blood, Balancing Books: Medicine, Commerce, and the Royal Court in Seventeenth-Century England," defense chair and second reader, May 2013.
- Kira von Ostenfeld, History, Early Modern Spain, member, March 2013.
- Abigail Schade (2004-2011), International and Global History, "Hidden Waters: Groundwater Histories of Iran and the Mediterranean" (second reader and dissertation defense chair), July 2011.
- Kim-Ly Thi Moynihan, Art History, external examiner, 2012.
- Lianne Habinek, English and Comp Lit, external examiner, 2009.
- Laurel Brown, Middle Eastern Languages and Cultures, committee member, 2009.
- Renzo Baldasso, Art History, external examiner, 2007.
- Dana Tulodziecki, Philosophy, external examiner, 2007.
- Federico Marcon, EALAC, external examiner, 2007.
- Jessica Maier, Art History, external examiner, 2005.

#### **Ph.D. – Other institutions**

- Garth Reese, Claremont Graduate University, Religious Studies, PhD, committee member, 2009.



Stephanie Seery, Claremont Graduate University, Religious Studies, PhD, committee member, 2008.

Ayesha Mukherjee, Cambridge University, Comparative Literature, PhD, external examiner, 2007.

Greg Dodds, Claremont Graduate University, History, PhD advisor, 2004.

Antonio Barrera, University of California, Davis, History of Science, PhD, committee member, 1999.

**M.A.**

Jeffrey Palframan, Columbia University, Medieval and Renaissance Studies, MA Thesis advisor, 2014.

Ariel Duncan, Columbia University, History, MA Thesis advisor, 2010.

Jenny Tromski, Columbia University, History, MA thesis advisor, 2010.

Jocelyn Friend, Claremont Graduate University, History, M.A. thesis advisor, 2001.

Dawn Setzer, Claremont Graduate University, History, M.A. thesis advisor, 2001.

Tillman Nechtman, Claremont Graduate University, History, M.A. thesis advisor, 1999.