

CURRENT AND RECENT PROFESSIONAL EXPERIENCE

The Cooper Union, New York, NY	
Adjunct Associate Professor, Faculty of the Humanities and Social Sciences	2011 to present
Adjunct Assistant Professor, Faculty of the Humanities and Social Sciences	2006-2011
Stevens Institute of Technology, Hoboken, NJ	
Affiliate Instructor, History and History of Science	2004 to 2008
University of Connecticut, Stamford CT	
Parsons School of Design (New School University) New York, NY	2002-2004
Adjunct Assistant Professor	
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Owner, Research and Writing	2009 to present
Research and Writing offers management consulting and editorial services to artists, artisans, academics and professional practitioners	
Curriculum Designer, Course Development Specialist, and Facilitator	2004 to present
On-line Business Education program, Foundation of the American Institute for Conservation Historic and Artistic Works	
Independent Writer, Researcher, Consultant	
Specializations include STEM education for girls and women, art and materials science of art materials. Contracted projects include grant and proposal writing, grant management and curriculum development for arts, science and business initiatives	2002 to present 1985-90
Program Consultant, Girl Scouts of the USA	
Responsible for national science technology mathematics and engineering initiatives including fundraising, program design, curriculum design , teaching and program management	2000-2002
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Art Conservator, specializing in textiles, conservation standards, and education	1979 to present

EDUCATION

Ph.D., State University of New York, Stony Brook, NY	1999
History of technology and science; early modern European social history	
Advisor: Elizabeth A. Garber	
Dissertation title: <i>Color Practices, Color Theories and the Creation of Color in Objects in Britain and France in the Eighteenth Century</i>	
M.A., State University of New York, Stony Brook, NY	1992
History of early modern Europe, emphasis on the history of science and technology	
A.B., Washington University	1975
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Art conservation apprenticeship training	1976-1988
Apprenticeship program based at the American Museum of Natural History (New York, NY), plus additional coursework in chemistry, physics and textile engineering. Specialized training or certification in dry cleaning, historic dye analysis, and pest management.	

AWARDS AND FELLOWSHIPS

Visiting Scholar, Max-Planck-Institut für Wissenschaftsgeschichte Research Department III: Artefacts, Action, and Knowledge; The Body of Animals Working Group, Dagmar Schäfer, Tamar Novick and Lisa Onaga, leaders. Project title: <i>Animal-Vegetable-Transformation</i> .	2018
National Endowment for the Humanities, Summer School, "Transcending Boundaries" Georgetown University, Washington, DC	2016
Dibner Research Fellow, Huntington Library, Pasadena, CA	2008
Gutenberg-e Prize, American Historical Association, Washington, DC www.theaha.org/prizes/gutenberg ; www.gutenberg-e.org	2001
Post-Doctoral Fellow, Max-Planck-Institut für Wissenschaftsgeschichte Research Group in the History and Philosophy of Chemistry and Biochemistry, Ursula Klein, group leader. Project title: <i>Color in the workshop, color in the lab:</i> <i>The creation of color in eighteenth-century practice and theory.</i>	1999-2000
Dibner Library Scholar, Smithsonian Institution, Washington, DC	1998
NSF Doctoral Dissertation Improvement Grant (SBER95-20395)	1996-1997

PUBLICATIONS

Peer Reviewed

The Creation of Color in Eighteenth-Century Europe. (Gutenberg-e series) New York: Columbia University Press, 2006. <http://www.gutenberg-e.org/lowengard>.

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"Western Travelers Describe Foreign Textile Practices." *Technology's Stories* (Society for the History of Technology June 23, 2019. <http://www.technologystories.org/western-travelers-describe-foreign-textile-practices/>).

"Les mots de la couleur au XVIII^e siècle en Europe/Words for color in the eighteenth century." In *Under the Rainbow*. Edited by Titania Rihs. Lausanne: É C A L, 2018.

"Definitions and perceptions of color in the mid-1960s: Josef Albers, the Inter-Society Color Council and the two cultures debate." In *Intersecting Colors: Josef Albers and his Contemporaries*. Edited by Vanja Molloy. Amherst, MA: Amherst College Press, 2015

"Prussian blue: Transfers and trials." In *The Materiality of Color: The Production, Circulation, and Application of Dyes and Pigments in the Early Modern World*. Edited by Andrea Feeser, Maureen Daly Goggin, and Beth Fowkes Tobin. Farnham, Surrey, UK: Ashgate, 2012.

"Pigments in Western easel painting, including binding media," (co-author with Nicholas Eastaugh, Jilleen Nadolny, Eema Hermens and Joyce Townsend). In *Conservation of Easel Paintings: Principles and Practice*. Edited by Joyce Hill Stoner and Rebecca Rushfield. Oxford, UK: Butterworth-Heinemann, 2012.

Peer-Reviewed Publications (continued)

“Colour-printed illustrations in 18th century periodicals,” in *Book Illustration in the Long 18th Century: Reconfiguring the Visual Periphery of the Text*. Edited by Christina Ionescu. Cambridge: Cambridge Scholars Press, 2011; reprinted 2015.

“George Berg, musician and glassmaking student: scientific learning for technological applications in mid-18th century London,” in *The Applied Science Problem*. Edited by James E. McClellan, III. Jersey City, NJ: Jensen/Daniels Publishers, 2008.

“Chemistry in colour: Ceramics and glass in 18th century Britain,” *Endeavour* Vol. 26, no. 2 (2002).

“Colour quality and production: Testing colours in 18th century France,” *Journal of Design History* Vol. 14, no. 2 (2001).

“Colours and colour making in the 18th century,” in *Consumers and Luxury: Consumer Culture in Europe 1650-1850*. Ed. M. Berg and H. Clifford, Manchester University Press (1999).

“Two early stain removal techniques and their recurrence into later centuries,” *Ars Textrina* Vol. 8 (December 1992).

Other (including book reviews)

“A Perfect Ground: Preparatory Layers for Oil Paintings 1550–1900 [Review]” *Ambix*, 65, no. 4 (2018): 404-405

“John Vassos: Industrial Design for Modern Life by Danielle Shapiro [Review]” *Technology and Culture* 59, no. 2 (2018): 490-492

“Early Modern Things. Objects and their Histories, 1500-1800 ed. By Paula Findlen [Review]” *Ambix* 62, no. 1 (2015): 101-102.

“Analyzing Art and Aesthetics. Edited by Anne Collins Goodyear and Margaret Weitekamp [Review].” *Technology and Culture* 55, no. 3 (2014): 739-40.

“California Design, 1930-1965: Living in a Modern Way ed. by Wendy Kaplan [Review].” *Technology and Culture* 54, no. 2 (2013): 421-422.

“Business Management Education in the Conservation Community” *e-Conservation Magazine* Iss. 21 (2011) www.e-conservationline.com/content/view/1018

“The Late Age of Print: Everyday Book Culture from Consumerism to Control [Review].” *Technology and Culture* 51, no. 4 (2010):1046-1048.

“Divide and conquer?” [Essay Review: Mark Clarke, Joyce H. Townsend and Ad Stijnman, eds.; *Art of the Past: Sources and Reconstructions*. Proceedings of the first symposium of the Art Technological Source Research Study Group and Stefanos Kroustallis, Joyce H. Townsend, Elena Cenalmore Bruquetas, Ad Stijnman and Margarita San Andrés Moya, eds.; *Art Technology: Sources and Methods*. Proceedings of the second symposium of the Art Technological Source Research Study Group] *Journal of the American Institute for Conservation of Historic and Artistic Works* 48, no. 1 (Spring 2009): 177-180.

Other (continued)

"The digital remains" [Essay Review: Christine Borgman, *Scholarship in the Digital Age*]. *Technology and Culture* 49, no. 4 (2008): 1031-35.

"George Berg and the Society of Arts: Interest, improvement, and the nature of engagement" Interactive electronic paper, The William Shipley Group website, Royal Society of Arts, available since 15 June 2006. <http://williamshipleygroup.btck.co.uk/Links>.

"Supple as Voile, Sturdy as Canvas" [Essay Review: David Jenkins, ed. *The Cambridge History of Western Textiles*. *Technology and Culture* 46, no. 1(2005):192-197.

"From Energy to Information: Representation in Science and Technology, Art, and Literature [Review]." *Technology and Culture* 45, no. 1 (2004): 227-229.

"Discussing Chemistry and Steam: The Minutes of a Coffee House Philosophical Society, 1780-1787 [Review]." *Technology and Culture* 45, no. 3 (2004):647-648.

"Instruments and Experimentation in the History of Chemistry [Review]." *Technology and Culture* 43, no. 3 (2002):600-602.

"Die Tuchlebarone: Zur Geschichte der Textildruck- und Textilfarbeindustrie in Hard vom späten 18. bis zum [sic] frühen 20. Jahrhundert [Review]." *Technology and Culture* 41, no. 4 (2000): 801-802.

"About Mundic," *RSA Journal* Vol. 145, no. 5476 (January-February 1997): 64.

"European Women and Preindustrial Craft by Daryl M. Hafter [Review]." *The Business History Review* 70, no. 2 (1996): 288-290.

Guide to Textile Conservation [Editor-in-Chief]. New York: The Textile Conservation Group, 1988.

"Drycleaning: Annotated bibliography" in "Dry Cleaning Concerns that Affect Practicing Textile Conservators" *Textile Conservation Group Newsletter* 9, no. 4 (January 1987): 2-3; supplement.

"Care of textile heirlooms." *CHAN* (Center for the History of American Needlework) *Quarterly* 9, no. 2 (Spring 1985) and 9, no. 3 (Summer 1985).

LECTURES AND PRESENTATIONS

Invited Lectures and Presentations

"A Beginning Not an End (Some final remarks)." Ordering Colours in the Eighteenth and Early Nineteenth Centuries workshop organized by Tanja Kleinwächter & Friedrich Steinle. Technische Universität Berlin (online) 5-19 June 2020.

"Waste Not: Soap and animal fats amid changing industrial practices 1760-1860." Animal Materialities workshop organized by Lisa Onaga & Laurence Douny. Max-Planck-Institut für Wissenschaftsgeschichte, Berlin. 5-6 December 2019.

Invited Lectures and Presentations (continued)

“Color (Materials, Ideas, Practice).” Seminar presented with Daniel Rosenberg, Harvard Department of Chemistry. The Summer Institute for Technical Studies in Art (SITSA), Harvard Art Museums, 11 June 2019.

“Vegetable · Animal · Transformation: Exploring the plant-animal interface through eighteenth-century color production” Department III Colloquium, Max-Planck-Institut für Wissenschaftsgeschichte, Berlin (November 2018)

“The Vagaries of Technology Transfer: Jacob Christof Le Blon’s Endeavour into Tapestry Making and its Connections to his Colour Printing Ventures,” Printing Colour 1700-1830 conference at the Institute of English Studies, University of London (April 2018).

Organizer, with Daryl M. Hafter, “Work and Use in the pre-Industrial Textile Industry,” on-site session at the Philadelphia Museum of Art. Society for the History of Technology annual meeting Philadelphia, PA (October 2017).

“Seraglio of the Sciences,” International Symposium on Civilization, Cities, and Architecture, Istanbul, Turkey (April 2016).

“Why color? On the uses (misuses) and meanings of color in printing.” Keynote lecture for the American Printing History Association annual meeting, New York City (October 2013).

“Textile printing as threat and promise,” *Emerging Technologies, Past and Present* workshop at University of California-Santa Barbara Center for Nanotechnology in Society, Santa Barbara, California (June 2013).

“Newton’s and other eighteenth-century color theories,” New York University Institute of Fine Arts (September 2012).

“Analogies, adaptations and disorientations in the mechanization of color printing processes ca. 1640-1795.” Keynote lecture for the *Colour in the 17th and 18th Centuries: Connexions Between Science, Arts and Technologie* conference, Technische Universität Berlin, Germany (June 2012).

“The chemistry of color and varnish for oil painting in the 18th century treatises of J-F Watin and Mauclerc,” *La chimie des couleurs et des teintures au XVIII^e siècle*, journée d’études organized by the Centre de Recherche d’Histoire des Sciences et d’Histoire des Techniques (EA 127 Modernités & Révolutions), Université Paris I Panthéon Sorbonne and the Bibliothèque du Centre de recherche du château de Versailles (May 2009).

“The (*perennially*) emerging field of technical art history” *Humanities Forum*, Stevens Institute of Technology (October, 2007).

“Prussian Blue, Saxon Green, Turkey Red: Fashion and colors on the 18th century palette,” Lecture sponsored by the Department of Consumer Affairs, the College of Liberal Arts, the History Department and the Art Department, Auburn University, Auburn AL (April 2006).

Invited Lectures and Presentations (continued)

“Historians and the visual,” roundtable panelist, Western Society for French History annual meeting, Colorado Springs, CO (October 2005).

“Indigo in ‘The Blue Century’,” Lecture presented as part of The Colors of Invention: An Exploration of Color, Technology, and Culture, Jerome Lemelson Center, Smithsonian Institution, Washington DC (November 1997).

Contributed Lectures and Presentations

“Dye Technologies, Technology Transfer, and New Markets in Eighteenth-Century Europe,” Society for the History of Technology annual meeting, Philadelphia, PA (October 2017).

“Turkey Red, *“Transcending Boundaries: The Ottoman Empire, Europe and the Mediterranean World, 1500-1800* National Endowment for the Humanities summer seminar, Washington DC, 2016
<https://bit.ly/TurkeyRed>.

“Technological and social changes in color-printing workshops to 1700” *Impressions of Colour* conference, Centre for Research in the Arts, Social Sciences and Humanities, Cambridge, England (December 2011).

“Center from the periphery: Conceptual and practical motivations in the mechanization of color printing 1740-1795,” Society for the History of Technology annual meeting, Pittsburgh, PA (October 2009).

“The technologies of color reproduction for prints and textiles” American Society for Eighteenth-Century Studies annual meeting, Richmond, VA (March 2009).

“Digital Scholarship and the History of Science” roundtable co-organizer (with Maria Rentetzi) and moderator, History of Science Society annual meeting, Pittsburgh, PA (November 2008).

“Scientific analysis and works of art connect to create a profession? Notes on the perennially emerging field of technical art history” (co-presenter with Dr. Nicholas Eastaugh) *Three Societies Conference* (a quadrennial history of science conference), Keble College, Oxford (July 2008).

“Chemistry of glassmaking and glassmaking for chemistry in the experiment books of George Berg, London musician,” British Society for Eighteenth-Century Studies annual meeting, St. Hugh’s College, Oxford, England (January 2006).

CURRENT RESEARCH PROJECTS

Animal Transformations and Animal Bodies

Turkey Red: Idea, Ideal, Object (series of presentations, articles, and book)

Technologies of color printing (paper and textiles) 1640-1795 (book)

Early modern encounters between “East” and “West” through color technologies (series of articles)

Resistance to new or emerging technology in the early modern era (two case studies)

PROFESSIONAL ACTIVITIES

Treasurer, Cooper Union Organization of Part-Time Faculty	2019 to present
Member, Printing Colour Project, London and Leiden	2018 to present
Affiliate, Colour Order Project Technische Universität, Berlin	2015 to present
Graduate Student Mentor, History of Science Society	2015 to present
Member, Editorial Committee, Society for the History of Technology	2013-2017
Member, Task Force on Report on Data Management and Data management Plans for the History of Science Society Committee on Research and the Profession	2013
Member, Advisory Board, eTC, Society for the History of Technology open- access web pages (www.techculture.org)	2006-2013
Member, The Pigmentum Project, London and Oxford, (www.pigmentum.org)	2001 to present
Peer Reviewer, U.S. Department of Education	2001 to 2012
Contributor-Reviewer, American Society for Testing Materials (ASTM) D.13 Textile Committee on Textile Conservation Standards	1987-1989
Board Member, Membership Secretary, Incorporator, Editor The Textile Conservation Group	1986-88; 2000-02
Steering Committee Member, The New York Conservation Association	1984-85; 1990-94
Art Conservation Mentor	1984 to present

COURSES DESIGNED AND PRESENTED

Post-Secondary Academic Courses

Big Science
Color: History Materials, Practices
Darwin and His Times
Design History
History of the Scientific Method
History of Textiles
Leonardo, Scientist and Engineer
Science and Technology in the Islamic Worlds
Science and Technology in the Long 18th C.
Science and Technology in the Modern World

Courses for Art Conservators

Basics of Textiles Conservation
Research Methods

Online Business Education for Artists, Artisans, Academics

Business Models in the Independent Practice
Describing Yourself and What You Do
Effective Abstracts
Establishing a Conservation Practice
Estimating Conservation Projects
Marketing for Conservation
Mitigating Risk in Conservation
Professional Responsibility
Managing Your Professional Life
Six Tips to Improve Your Proposal-Writing
Writing to Ask/Writing to Tell
Your Life as an Independent [*Whatever*]

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