

CURRICULUM VITAE

GEORGE WHEELER

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Education

- 1987 Ph.D. Chemistry, New York University
- 1982 M.S. Chemistry, NYU
- 1981 M.S. Art Conservation, Conservation Center, IFA, NYU
- 1980 M.A. Art History, Hunter College, CUNY
- 1975 B.A. Art History & Minors in Physics & Mathematics, Muhlenberg College

Professional Experience

- 2004-2017 Director of Conservation
Historic Preservation Program
Graduate School of Architecture Planning & Preservation
Columbia University
- 1989-2006 Research Scientist
Departments of Scientific Research & Objects Conservation
Metropolitan Museum of Art
- 1985-1988 Associate Chemist
Department of Objects Conservation
Metropolitan Museum of Art
- 1984-1985 Associate Conservator
Department of Objects Conservation
Metropolitan Museum of Art
- 1982-1983 Assistant Conservator
Department of Objects Conservation
Metropolitan Museum of Art
- 1981-1982 Conservation Assistant
Department of Objects Conservation
Metropolitan Museum of Art

Additional Professional Experience

- 2014- Research Scholar, Metropolitan Museum of Art
- 2014- Senior Scientist, Highbridge Materials Consulting
- 2012- Consulting Scientist, Jeff Koons, LLC
- 2006-2014 Consulting Scientist, Metropolitan Museum of Art
- 1999-2002 Consultant, E. I. Dupont Research & Development
- 1997- Consulting Conservator, Villa La Pietra, NYU, Florence, Italy
- 1997- Consulting Scientist, Building Conservation Associates, NYC
- 1989- Consulting Conservator, Isamu Noguchi Foundation, NYC
- 1983- Lecturer, Conservation Center, IFA, NYU
- 1981-1986 Teaching Assistant, Department of Chemistry, NYU

Awards

- 2017 Alumni Achievement Award, Muhlenberg College
- 2016 Association for Preservation Technology, Harley J. McKee Award
- 1997 Rome Prize

Language Skills

Italian – reading and speaking; German and French – reading

Professional Affiliations

American Academy in Rome, Fellow
American Institute for Conservation, Fellow
Association for Preservation Technology, Member
International Institute for Conservation, Fellow

Professional Service

2017- Getty Conservation Institute, Advisory Group, Built Heritage Research Initiative
2016, 2007 American Academy in Rome, Rome Prize Juror
2009-2015 American Institute for Conservation, Education and Training Committee
2007 Columbia University, Historic Preservation Program, Chair, Curriculum Review Committee
2007 New York University, Institute of Fine Arts, Conservation Center, Curriculum Review Committee
2005-2015 World Monuments Fund, Conservation Advisory Committee, St. Trophime Cloister, Arles, France
2000-2012 International Congress on Deterioration and Conservation of Stone, Permanent Scientific Committee
1995-1997 Shaker Museum and Library, Old Chatham, NY, Board of Directors
1993-2000 International Auschwitz Council, Conservation Subcommittee
1991-1994 National Institute for Conservation, Save Our Sculpture Advisory Committee
1991-1994 Metropolitan Museum of Art, Buildings Committee
1991-1994 Metropolitan Museum of Art, Grants Committee
1989-1990 Metropolitan Museum of Art, Chair, Curatorial Forum
1988-1992 St. Ann's Center for Restoration and the Arts, Sandstone Conservation Committee
1982-2002 New York City, Art Commission, Conservation Advisory Committee

Grants and Contracts

2015 American Institute for Conservation, Publication Grant
2014 Historic Preservation Education Foundation, Publication Grant
2013 Samuel H. Kress Foundation, On-Line Publication Grant
2008 Samuel H. Kress Foundation, Research & Travel Grant
2007 Getty Foundation, Curriculum Review Grant
2001 American Institute for Conservation, Publication Grant
1998 Samuel H. Kress Foundation, Research Grant
National Center for Preservation Technology & Training, Research Grant
1996 National Science Foundation, Research & Travel Grant
1995 Getty Conservation Institute, Publication Contract
Metropolitan Museum of Art, Travel Grant
National Endowment for the Arts, Research Grant
Institute for Museum Services, Research Grant
1993 Institute for Museum Services, Research Grant
1991 Metropolitan Museum of Art, Travel Grant
1990 National Endowment for the Arts, Research Grant
1988 Metropolitan Museum of Art, Travel Grant
Institute for Museum Services, Research Grant
1988-94 Getty Conservation Institute, Research Contracts
1983 National Museum Act, Research Grant

Conferences Organized or Co-Organized

- 2017 *Association of North American Graduate Programs in Conservation Annual Conference*, Columbia University & New York University
- 2013 *Preservation East and West: engagements, exchanges, entanglements*, The Fitch Colloquium, Columbia University
- 2012 *Twelfth International Congress on Deterioration and Conservation of Stone*, Columbia University
- 1995 *Materials Issues in Art and Archaeology IV*, 1995
Materials Research Society, Cancun, Mexico
- 1993 *Materials Issues in Art and Archaeology III*, 1993
Materials Research Society, San Francisco, CA
- 1991 *Materials Issues in Art and Archaeology II*, 1991
Materials Research Society, San Francisco, CA

Peer Reviewer or Editor for Journals

Art and Archaeology Technical Abstracts (Editor)
APT Bulletin
Environmental Earth Sciences
Journal of the American Institute for Conservation
Journal of Architectural Conservation
Journal of Cultural Heritage
Journal of Science and Technology for Cultural Heritage
Studies in Conservation

Books and Co-Edited Volumes

Monograph: *Alkoxysilanes and the consolidation of stone*, J. Paul Getty Trust, 2005, 210 p.

Joint Authorship: George Wheeler, C. Riccardelli, J. Soutanian and M. Morris, *Lessons from Eden: what Tullio Lombardo's Adam teaches us about sculpture conservation*, J. Paul Getty Trust, in preparation.

Co-Edited: *Materials issues in art and archaeology IV*, P. Van Diver, J. Druzik, I. Freestone, G. Wheeler, eds., Pittsburgh, PA: Materials Research Society, 1995, 918 p.

Co-Edited: *Materials issues in art and archaeology III*, P. Van Diver, J. Druzik, G. Wheeler, I. Freestone, eds., Pittsburgh, PA: Materials Research Society, 1993, 1101 p.

Co-Edited: *Materials issues in art and archaeology II*, P. Van Diver, J. Druzik, G. Wheeler, eds., Pittsburgh, PA: Materials Research Society, 1991, 844 p.

Courses Taught

Aesthetics & Material Science of Stone Conservation
Basic Conservation Science
Conservation of Brick, Terra Cotta & Stone
Building Systems & Materials
Conservation Workshop
Inorganic Chemistry: Laboratory
Physical Chemistry: Laboratory
Material Science of Works of Art II: Inorganic Materials
Stone Conservation: Theory and Practice
Preservation Studio
Technology & Structure of Works of Art II: Inorganic Materials

Theses Supervised and Advised

- 2017 *Jessica Betz* "The Influence of Glass Transition Temperature on the Performance of Acrylic Thermoplastic Adhesives,"
Tania Alam "The Evolution of American "Historic Color Palettes""
- 2016 *Raudhah Borhanuddin* "Shrinkage in Lime Stucco: Does 'banking' Mitigate Shrinkage"
Sarah Sojung Yoon "Cladding the Mid-Century Modern: Thin Stone Veneer-Faced Precast Concrete"
- 2015 *Manqing Cao* "A Comparative Study of Traditional Jointing Techniques of Vernacular Timber Framings in New England, America and Jiangnan, China and Some Applications Conservation Practice"
Lindsay Dobrovolny "Current Trends in Spectral Reflectance Imaging Techniques: a Qualitative Approach to the Investigation and Documentation of Building Materials"
Kathryn Gardner "A Bitter Truth: Astringent Persimmons as a Bio-Alternative to Standard Wood Preservative Treatments"
Corey Manchenton "Pigment Identification of Early Commercial Architectural Paint in Trade Catalogues"
Sloane Taliaferro "Documentation and Testing 19th Century Limewash Recipes in the United States"
Marena Wisniewski "Supporting Players: External Support Repairs for Cemetery Markers"
Dona Yu "Sound Advice: The Development and Use of Early 20th Century Acoustical Wall and Ceiling Materials"
- 2014 *Emily Barr* "In-Kind Terra Cotta Replacement in the 21st Century"
Alyssa Grieco "What's On the Surface Does Matter: The Conservation of Applied Surface Decoration of Historic Stained Glass Windows"
Jennifer Pont "The Comparative Analysis of Biological Growth and Common Cleaners Based on Organism Identification and Biological Mechanisms"
Beata Sasińska "Fire-Damaged Stone: The Effects of Heat, Flame and Quenching"
Karen Stone "Sheet Scaling in Mohegan Granite"
Melissa Swanson "The Performance of Two Alkoxysilane Consolidants on Three Berea Sandstones Through Controlled Environmental Stress Cycling"
- 2013 *Alafia Akhtar* "One Man's Trash is Another Man's Treasure: The Transition of Clinker Bricks From Disposable to Decorative"
Chad Shores "Threatened on Earth: Preserving America's Historic Launch Vehicles on Outdoor Display"

- Mayank Patel* "Impact of Mineralogy, Texture and Fabric of the Maritime Canadian Sandstones on Deterioration of Ornamental Bridges in Central Park, NYC"
- Emily Sinitski* "Polychlorinated Biphenyls: A New Hazard for Historic Buildings"
- Charles Thompson* "Deformation of North American Marbles in Response to Thermal Cycling"
- Brooke Young* "Does Size Matter: Comparing the Alpha-P and the Hyperion for FTIR Paint Analysis"
- 2012 *Laurel Albrecht* "Preserving Meadmore: The Conservation of Clement Meadmore's Monumental Weathering Steel Sculpture"
- Anthony Baragona* "Neo-Traditional, Volcanic Pozzolan-Lime Mortars for the Repair of Historic Structures"
- Alison Chiu* "The Evolution of the Weep-Hole"
- Jorgen Cleeman* "The Kiln in the Garden: Damariscotta River Brick Making and the Traces of Maine's Agro-Industrial Past"
- Heather Hartshorn* "Dolomitic Lime Mortars: Carbonation Complications and Susceptibility to Acidic Sulfates"
- Kayla Loveman* "In Situ Deacidification of Vernacular Wallpaper"
- Emma Marconi* "American Decorative Stenciling: 1840 to 1940"
- Sarah Rosenblatt* "The History of Terra-Cotta Glaze-Fit Testing and Artificial Weathering Methodologies and a Comparative Testing Program of their Impact on Glaze Failure"
- Myun Song* "Wireless Corrosion Monitoring for Reinforced Concrete Structures and Concrete Repair"
- 2011 *Reba Ashby* "Roadside Architecture as Innovation in Concrete Technology"
- Angela Curmi* "Non-Destructive Investigation of Concealed Gilding in Architecture"
- Brandi Hayes* "Determining the Suitability of a Replacement Savannah Grey Brick"
- Sarah Modiano* "Magical Mosaics: Preserving Isaiah Zagar's Philadelphia Art Environment"
- Sarah Ripple* "The Evolution of Modern Thin Stone Veneer Systems: 1950-1980"
- Sarah Sher* "Marcel Breuer's "Patina:" the Aging-Value of Anticipated Soiling on Brutalist Concrete"
- Christina Varvi* "What Lies Beneath? Non-Destructive Investigation of Hidden Finishes Using Infrared Technologies"
- S. Caitlin vonHedemann* "Cleaning Botanical Growth on Stone: A Study of Current Cleaners"
- 2010 *Laura Michela* "Fatigue Behavior of Adhesives for the Repair of Marble"
- Catherine L. Smith* "Lasers and Conservation in the United States: An Exploration of the Limited Use of Laser Technology for Cleaning Stone"
- 2009 *Catherine M. Albert* "Original Double-Hung Sash Windows on Historic New York City Residential Buildings"
- Andrea Buono* "Adhesives for Marble and their Creep Behavior"
- Xsusha Flandro* "Glazed and Confused: Exposing the Mysteries of Glazed Architectural Terra Cotta"
- William Reynolds* "Finding a Needle in a Very Large Park: Reconsidering the Significance of the New York Obelisk"
- Benjamin Sabatini* "Temple "B" at Selinus: render characterization and archaeological interpretation"
- Jennifer Schork* "Evaluation of the Physical and Chemical Properties of Dolomitic Lime Mortar"
- 2008 *Christina Muir* "Evaluation of Pinning Materials for Marble Repair"
- Erica Morasset* "Cleaning Historic Building Interiors: The Question of Residue Using Arte Mundit Cleaning Paste"

- 2007 *Laura Elizabeth Brown* “What does History Sound Like? Noise Mitigation of Historic Properties”
Lauren Ashley Cato “Biological Growth on Stone Sculpture in Historic Gardens: the Case of Villa La Pietra”
Mersedeh Jorjani “An Evaluation of Adhesives used for Marble Repair”
Lurita McIntosh “Ethyl Silicates as an Alternative Binder for Grout and Mortar for Use with American Sandstones”
- 2006 *Sarah Adams* “Physical and Intangible Palimpsest: Making a Case for Graffiti Preservation”
Craig Oleszewski “Calcium Bicarbonate as a Consolidation Material for Calcareous Stone”
- 2005 *Debora Machado de Barros* “The Electrical Resistance Moisture Meter and Infrared Thermography: Assessing the Effectiveness of Two Non-Destructive Techniques for Moisture Diagnosis in Structures Contaminated by Hygroscopic Salts”
Laura N. Buchner “Casein as a Modifier for Lime-Based Grouts”
Joselito Corpus “Proprietary Alkoxysilane Systems and their Efficacy on Fine-Grained Marble”
Susannah Jackson “Natural Extractives as Wood Preservatives: the Potential of Phytochemicals in Preservation”

Publications

1. Chapter in book: *Handbook of Sol-Gel Science and Technology*, "Sol-gel science and cultural heritage," L. Klein et al. (eds.), New York: Springer, 2017.
2. Jessica Rosewitz, Christina Muir, Carolyn Riccardelli, Nima Rahbar, and George Wheeler, "A multimodal study of pinning selection for restoration of a historic statue," *Materials and Design*, 98 (2016) 294–30.
3. Chapter in book: "Stone" in *Adhesives Compendium in Conservation*, J. Down, editor, Ottawa: CCI, 2016.
4. C. Riccardelli, J. Soutanian, M. Morris, L. Becker, G. Wheeler and R. Street, "The treatment of Tullio Lombardo's *Adam*: a new approach to the conservation of monumental sculpture," *Metropolitan Museum Journal*, Volume 49 (2014), pp. 49-116.
5. V. Steponaitis, S. Swanson, G. Wheeler "The provenance and use of Etowah palettes," *American Antiquity* 76(1), 2011, pp. 81–106.
6. T. Tan, N. Rahbar, A. Buono, G. Wheeler and W. Soboyejo, "Sub-critical crack growth in adhesive/marble interfaces," *Materials Science and Engineering: A*, Volume 528, Issues 10–11, 25 April 2011, pp. 3697-3704.
7. R. Zarraga, J. Cervantes, C. Salazar-Hernandez, G. Wheeler, "Effect of addition of hydroxyl-terminated polydimethylsiloxane to TEOS-based stone consolidants," *Journal of Cultural Heritage*, Volume 11 (2010), 138-144.
8. N. Rahbar, M. Jorjani, C. Riccardelli, G. Wheeler, I. Yakub, Ting Tan, W.O. Soboyejo, "Mixed mode fracture of marble/adhesive interfaces," *Materials Science and Engineering A*, Volume 527, Issues 18-19, (15 July 2010) 4939-4946.
9. Mersedeh Jorjani, George Wheeler, Carolyn Riccardelli, Winston Soboyejo, Nima Rahbar, "An evaluation of potential adhesives for marble repair," in *Holding it all together*, J. Ambers, C. Higgitt, L. Harrison, and D. Saunders, editors, London: Archetype, 2009, 143-149.
10. G. Scherer and G. Wheeler, "Silicate consolidants for stone," *Key Engineering Materials*, v. 391, 2009, 1-25.
11. G. Wheeler, "Alkoxysilanes and stone consolidation: where we are now," Lisbon: LNEC, 2008.
12. Claudia Kavenagh and George Wheeler, "Evaluation of cleaning methods for the Brooklyn Historical Society," *Journal of the American Institute for Conservation*, v. 42, n. 1, Spring 2003, 97-112.
13. G. Scherer, R. Flatt, and G. Wheeler, "Materials science research for conservation of sculpture and monuments," *MRS Bulletin*, January 2001, 44-50.
14. J. Bamberger, E Howe, and G. Wheeler, "A variant Oddy test procedure for evaluating materials used in storage and display cases," *Studies in Conservation*, v. 44, n.2, 1999, 86-90.
15. M. Yang, G. Scherer, and G. Wheeler, "Compatible consolidants," in *Compatible materials for the protection of European cultural heritage*, G. Biscontin, A. Moropoulou, M. Erdik, and J. Delgado Rodrigues, eds., PACT 56, Athens: Technical Chamber of Greece, 1998, 201-208.
16. G. Scherer and G. Wheeler, "Stress development during drying of *Conservare OH*," in *Fourth international symposium for the conservation of monuments in the Mediterranean basin*, A. Moropoulou, F. Zezza, E. Kollias, and E. Papachristodoulou, eds., Athens: Technical Chamber of Greece, 1997, 355-363.
17. Chapter on stone deterioration and preservation in *Historic building facades*, William Foulks, ed., New York: Wiley, 1997.
18. E.S. Goins, G. Wheeler and M. Wypyski, "Alkoxysilane film formation on quartz and calcite surfaces," in *Eighth international congress on deterioration and conservation of stone*, J. Riederer, ed., Berlin: Moller Druck und Verlag, 1996, 1255-1264.
19. E.S. Goins, G. Wheeler. D. Griffiths and

- C.A. Price, "The effect of sandstone, limestone, marble and sodium chloride on the polymerization of MTMOS solutions," in *Eighth international congress on deterioration and conservation of stone*, J. Riederer, ed., Berlin: Moller Druck und Verlag, 1996, 1243-1254.
20. S. Nunberg, A. Heywood, and G. Wheeler, "Relative humidity control as an alternative approach to preserving and Egyptian limestone relief," in *Le dessalement des materiaux poreux*, Seventh Journées d'Etudes de La SFIIC, Champs-sur-Marne: SFIIC, 1996, 127-135.
21. E.S. Goins, G. Wheeler and S. Fleming, "The influence of reaction parameters on the effectiveness of tetraethoxysilane-based stone consolidants: solvent effects," in *Methods of evaluating products for the conservation of porous building materials in monuments*, M.L. Tabasso, ed., Roma: ICCROM, 1995, 259-274.
22. G. Wheeler and R. Newman, "Treatment of a volcanic urn by Frank Lloyd Wright," in *Lavas and volcanic tuffs*, A.E. Charola, ed., Roma: ICCROM, 1994, 157-164.
23. G. Wheeler, S. Fleming and S. Ebersole, "Evaluation of some current treatments for marble consolidation," in *Second international symposium for the conservation of monuments in the Mediterranean basin*, D. Decrouez and F. Zezza, eds., Geneve: Musee d'art et d'histoire, 1993, 429-435.
24. G. Wheeler and M. Wypyski, "Some unusual efflorescences in Greek ceramics," in *Studies in Conservation*, v. 38, n. 1, 1993, 55-62.
25. G. Wheeler, E. Wolkow and H. Gaffney, "The microstructure of acrylic resin/silica gel composites," in *Materials issues in art and archaeology III*, P. Van Diver, J. Druzik, G. Wheeler, I. Freestone, eds., Pittsburgh, PA: Materials Research Society, 1993, 963-968.
26. G. Wheeler and S. Fleming, "Modulus of rupture for room temperature gels derived from methyltrimethoxysilane," in *Ultrastructure processing of advanced materials*, d. Uhlmann and D. Ulrich, eds., New York: Wiley, 1992, 327-332.
27. G. Wheeler, "Maintenance of stone outdoor sculpture," in Preprints to the Symposium: *Maintenance of outdoor sculpture: whose job is it?*, V. Naude and G. Wharton, eds., Washington, D.C.: AIC, 1992.
28. Chapter on the care of stone objects in *Caring for your collection*, New York: Abrams, 1992.
29. C. Danehey, G. Wheeler, and Shiu-Chin Su, "The influence of quartz and calcite on the polymerization of methyltrimethoxysilane," in *Seventh international congress on deterioration and conservation of stone*, J. Delgado Rodrigues, ed., Lisbon: LNEC, 1992, 1043-1052.
30. G. Wheeler, S. Fleming and S. Ebersole, "Comparative strengthening effect of several consolidants on Wallace sandstone and Indiana limestone," in *Seventh international congress on deterioration and conservation of stone*, J. Delgado Rodrigues, ed., Lisbon: LNEC, 1992, 1033-1042.
31. G. Wheeler, A. Schein, S. Blackwell, S.H. Su, and G. Shearer, "Preserving our heritage in stone," in *Analytical chemistry*, v. 64, n. 5, 1992, 347A-356A.
32. G. Wheeler *et alia*, "Toward a better understanding of acrylic resin/MTMOS stone consolidants," in *Materials issues in art and archaeology II*, P. Van Diver, J. Druzik, G. Wheeler, eds., Pittsburgh, PA: Materials Research Society, 1991, 209-226.
33. G. Wheeler and S. Fleming, "Modulus of rupture for room temperature gels derived from methyltrimethoxysilane," in *Engineering geology of ancient works, monuments, and historical sites: preservation and protection*, P. Marinos and G. Koukis, eds., Rotterdam: Balkema, 1988, 2083-2085.
34. G. Wheeler, "The use of GC-MS in the study of hydrolysis and condensation of alkoxysilane stone consolidants," in *Sixth international congress on deterioration and conservation of stone*, Torun: Nicholas Copernicus University, 1988, 607-613.
35. G. Wheeler, "The use of GC-MS in the study of hydrolysis and condensation of tetramethoxysilane," in *Ultrastructure*

- processing of ceramics, glasses, and composites*, J.D. MacKenzie and D. Ulrich, eds., New York: Wiley, 1988, 819-825.
36. G. Wheeler, *The chemistry of four alkoxy silanes and their potential for use as stone consolidants*, Ann Arbor: UMI, 1987, 139 p.
 37. A.E. Charola, L. Lazzarini, G. Wheeler and R.J. Koestler, "The Spanish Chapel from San martin de Fuentiduena at The Cloisters," in *Case studies in the conservation of stone and wall paintings*, N.S. Brommelle and P. Smith, eds., London: IIC, 1986, 18-21.
 38. S.Z. Lewin and G. Wheeler, "Alkoxy silane chemistry and stone conservation," in *Fifth international congress on deterioration and conservation of stone*, G. Felix, ed., Lausanne: Presses Polytechniques Romandes, 1985, 831-844.
 39. R.J. Koestler, A.E. Charola and G. Wheeler, "Scanning electron microscopy in conservation: the Abydos reliefs," in *Applications of science in the examination of works of art*, P. England and L. Van Zelst, eds., Boston: Museum of Fine Arts, 1985, 225-229.
 40. A.E. Charola, G. Wheeler and G.G. Freund, "The influence of relative humidity in the curing of methyltrimethoxysilane," in *Adhesive and consolidants*, N.S. Brommelle, E.M. Pye. P. Smith and g. Thomson, eds., London: IIC, 1984, 177-183.
 41. R. Rossi-Manaresi, A.E. Charola, A. Tucci, R.J. Koestler and G. Wheeler, "Study of accelerated weathering of limestones treated with acrylic-silicone mixture," in *Seventh triennial meeting of the ICOM committee for conservation*, D. de Froment, ed., Paris: ICOM, 1984, 184-186.
 42. G. Wheeler *et alia*, "Treatment of the Abydos reliefs: consolidation and cleaning," in *Studies in conservation*, v. 29, n. 1, 1984, 42-48.
 43. A.E. Charola, G. Wheeler and R.J. Koestler, "Treatment of the Abydos reliefs: preliminary investigations," in *Fourth international congress on deterioration and conservation of stone*, K.L. Gauri and J.A. Gwynn, eds., Louisville: University of Louisville Press, 1983, 77-88.
 44. G. Wheeler, Laboratory investigation of a stone consolidation system similar to BRETHANE," *Building Research Paper*, Watford: HMSO, 1981, 4 p.
 45. G. Wheeler, "The treatment of a marble bust of Marcus Aurelius," in *Art conservation training programs conference*, Cambridge: Fogg Art Museum, 1979.

*Mini-Courses, Seminars, Lectures,
Workshops*

1. Masonry Workshop, APT Annual Conference 2016, San Antonio, TX, *Organizer and Lecturer*.
2. Conservation of the Portal of Glory at Santiago de Compostela, *Workshop Session Chair*, 2016.
3. Summer Institute in Technical Art History: Material Movement – Global Artistic Interdependencies and Exchanges, Conservation Center, IFA, NYU, 2015, *Lecturer*.
4. Summer Teachers Institute in Technical Art History: the Structures of Art, Conservation Center, IFA, NYU, 2014, *Lecturer*.
5. Stone Course, International Conservation Center, Rome (ICCROM), 2009, 2011, 2013, 2015, *Lecturer*.
6. Masonry Workshop, APT in Association with Highbridge Materials Consulting, 2013, *Organizer and Lecturer*.
7. Alkoxysilanes and the Stone Conservation, 27 February 2008, Chemistry Department Lecture Series, Brooklyn College, *Lecturer*
8. Architectural Paint Research Conference, Columbia University, 17-19 January 2008, *Organizer and Moderator*.
9. Alkoxysilanes and the Stone Conservation, 28 November 2007, Materials Institute Lecture Series, Clemson University, *Invited Speaker*.
10. Impact of Building Conservation Activities on the Environment, Fitch Symposium, *Invited Speaker*, Columbia University, 2006.
11. Review of Stone Consolidation, 2 May 2006, RESTORE Course in Building Conservation, *Lecturer*.
12. The Preservation of Stone, 13 June 2005, Seminar, American Institute for Conservation, Minneapolis, Minnesota, *Organizer and Lecturer*.
13. Diverse topics in stone conservation, 5-7 July 2005, Universidad de Guanajuato, *Principal Lecturer*.
14. Silicon-based products in the sphere of Cultural Heritage April 29-30, 2004, ICCROM, *Invited Speaker*.
15. A Short History of the Use of Alkoxysilanes for the Consolidation of Stone, August 2002, 13th International Congress on Organosilicon Chemistry, Guanajuato, Mexico, *Keynote Speaker*.
16. Alkoxysilanes for the Consolidation of Stone, Silicati della Conservazione, February 2000, Torino, *Invited Speaker*.
17. The Consolidation of Stone, 17 November 1999, American Chemical Society, Lehigh Valley Chapter, Muhlenberg College, Allentown, Pennsylvania, *Keynote Speaker*.
18. Stone Conservation for Conservators, 21 January – 18 February 1999, American Research Center in Egypt, Cairo and Luxor, Advanced Seminar and Practicum, *Organizer and Lecturer*.
19. Chemical Contributions to Stone Conservation, 2 May 1998, American Chemical Society, Undergraduate Research Symposium at New York University, *Keynote Speaker*.
20. The Preservation of Ancient Monuments, 27 August – 1 September 1995, Cancun, Mexico, *Organizer and Speaker*.
21. Identification of Stone in Monuments, Architecture, and Sculpture, 1-3 August 1995, Mini-Course, Conservation Center, New York University, *Organizer and Lecturer*.
22. The Preservation of Stone, 11 June 1995, Seminar, American Institute for Conservation, St. Paul, Minnesota, *Organizer and Lecturer*.
23. Science in Your Life: stone sculpture and monuments, 8 February 1995, Lecture Series, Vassar Brothers Institute, Poughkeepsie, New York, *Keynote Speaker*.
24. Masonry Preservation, 11-12 November 1994, Association for Preservation Technology Conference, New York, New York, *Organizer and Speaker*.
25. Materials Issues in Art and Archaeology IV, 16 -21 May 1994, San Francisco, California, *Organizer, Editor, Speaker*.
26. The Relics at Auschwitz: should they be preserved?, 21-24 August 1993, Oswiecim, Poland, *Speaker*.
27. The Influence of Minerals on the Polymerization of Alkoxysilanes Used to Preserve Stone, 27-31 July 1993,

- Seventh International Workshop on Glasses and Ceramics from Gels, Paris, Universite de Paris, *Speaker*.
28. Sol-Gel Consolidants for Stone, May 1993, The Getty Conservation Institute Research Conference, Marina del Rey, California, *Speaker*.
 29. Sandstone Conservation, November 1992, Association for Preservation Technology, New York Chapter, *Panelist*.
 30. Alkoxysilanes and Stone Conservation, June 1992, AKZO Chemical, Dobbs Ferry, New York, *Speaker*.
 31. Maintenance of Outdoor Stone Sculpture, June 1992, American Institute for Conservation, Pre-Session, Buffalo, New York, *Speaker and Panelist*.
 32. Materials Issues in Art and Archaeology III, 27 April - 1 May 1992, San Francisco, California, *Organizer, Editor, Speaker*.
 33. Fourth International Polyimides Conference, October 1991, Andes, New York, *Keynote Speaker*.
 34. Professional Arrangements in Conservation, May 1991, New York Conservation Association, New York, *Panelist*.
 35. Problems of Presentation with the Abydos Reliefs, April 1991, Art Conservation Training Programs Conference, New York University, *Speaker*.
 36. Sol-Gel Processes in the Preservation of Stone Buildings, Monuments, and Sculpture, April 1991, Rutgers University, New Brunswick, New Jersey, *Speaker*.
 37. The Polymer Chemistry of Alkoxysilanes for Stone Consolidation, December 1990, City University of New York, *Speaker*.
 38. Research into Practice: issues in stone preservation for conservation, December 1990, New York Conservation Association, New York, *Speaker*.
 39. The Preservation of Art Objects – the Need for Technology Transfer, August 1990, Sol-Gel Technology Conference, Sandia National Laboratories, Albuquerque, New Mexico, *Keynote Speaker*.
 40. Stone Technology and Conservation, June 1990, Mini-Course, Conservation Center, New York University, *Director and Lecturer*.
 41. Preservation Issues for Sculptures, June 1990, International Sculpture 90, Washington, D.C., *Speaker*.
 42. Materials Issues in Art and Archaeology II, 17 - 21 April 1990, San Francisco, California, *Organizer, Editor, Speaker*.
 43. The Use of Alkoxysilanes for the Preservation of Stone Objects, November 1988, Materials Science Colloquia – Outstanding Scientists Lecture Series, University of Virginia, Charlottesville, Virginia, *Speaker*.
 44. The Conservation of Stone, June 1988, Mini-Course, Winterthur Museum, Wilmington, Delaware, *Organizer and Lecturer*.
 45. Sol-Gel Chemistry and its Application to the Development of Stone Consolidants, April 1988, Materials Issues in Art and Archaeology, San Francisco, California, *Speaker*.
 46. Bridging the Gap: theory into practice in the preservation of stone, terracotta, and paint, 12-14 February 1988, Association for Preservation Technology Conference, Columbia University, New York, *Organizer and Speaker*.
 47. The Science of Stone Preservation, Spring 1987, American Chemical Society, New York Chapter, *Speaker*.