

LOTHAR HASELBERGER

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Short Curriculum Vitae

Lothar Haselberger is Morris Russell Williams and Josephine Chidsey Williams Professor Emeritus in Roman Architecture at the University of Pennsylvania. Trained as architectural historian, architect, and city planner at the Technical University of Munich and at Harvard University, he primarily works on the theory and practice of Graeco-Roman architecture and urbanism, especially on the ancient construction plans he discovered at the Temple of Apollo at Didyma, Turkey, as well as on the Augustan city of Rome and the Pantheon. A volume he initiated on the debate of the controversial Horologium of Augustus appeared in 2014, and a book on Hermogenes is in preparation, with an advance chapter published (together with Samuel Holzman) in the *Journal of Roman Archaeology* 2015. Haselberger was a Fellow of the Institute for Advanced Study in Princeton and at the American Academy in Berlin, and he received the University of Pennsylvania's Ira Abrams Memorial Award for Distinguished Teaching. He is an elected Life Member of the German Archaeological Institute and serves in its external review boards of the *Jahrbuch* and *Römische Mitteilungen*.

EDUCATION

Technical University, Munich; PhD in Engineering (Dr.-Ing.) with distinction ("sehr gut"), 1985.
 Technical University, Munich; Graduate Engineer (Dipl.-Ing.) with best thesis of its category, 1976.
 Harvard University, Graduate School of Design, Fulbright Fellow, 1974–1975.
 Technical University, Munich; MA in Architecture (Vor-Diplom) with distinction ("sehr gut"), 1972.
 Humanistisches Gymnasium (Ettal and St.Stephan, Augsburg/ Germany), Abitur (best of class), 1967.

AWARDS, FELLOWSHIPS, HONORS

Onassis Fellow, University Seminars Program, at Columbia University, 2009.
 University of Pennsylvania, School of Arts and Sciences: Ira Abrams Memorial Award for Distinguished Teaching, 2004.
 American Academy in Berlin: Berlin Prize Fellowship (Siemens Fellow), 2004.
 American Academy in Rome: Rome Prize Fellowship, 2004 (declined).

University of Pennsylvania, College, School of Arts and Sciences: research grant for undergraduate project, 1999.

Institute for Advanced Study, Princeton: Fellow, 1997.

Gerda Henkel Stiftung, Düsseldorf (through Institute for Advanced Study): fellowship support, 1997.

1984 Foundation, Philadelphia:

- project funds (Hermogenes seminar), 2014
- on-site seminar funds (Spalato), 2012
- project funds (Mapping Alexandria in the Age of Augustus), 2006, 2008, 2010
- conference funds (3rd Williams Symposium), 2004
- research funds (Didyma), 2001
- project funds (Mapping Augustan Rome), 2000
- on-site seminar funds (Rome), 1999
- project funds (Mapping Augustan Rome), 1999
- fellowship support (Princeton), 1997
- publication grant (catalogue), 1996
- conference funds (2nd Williams Symposium), 1993
- exhibition funds (Parthenon exhibit), 1993.

German Archaeological Institute, Berlin: elected Life Member, since 1988.

Technical University, Vienna: 2nd on formal list of three (submitted to Ministry for Education) for Ordentlicher Universitätsprofessor für Baukunst und Bauaufnahmen, 1987.

Deutsche Forschungsgemeinschaft, Bonn (through German Archaeological Institute): 5-year research grant, 1984.

Koldewey-Gesellschaft (Germany): elected member, since 1984.

German Archaeological Institute: one-year Travel Grant (Reisestipendium), 1978–1979.

Technical University, Munich: dissertation grant for distinguished students, 1976–1978.

Fulbright Commission: Fulbright Fellow at Harvard University, 1974–1975.

PROFESSIONAL ACTIVITIES

Teaching and research positions

University of Pennsylvania, Department of the History of Art: Morris Russell Williams and Josephine Chidsey Williams Professor Emeritus in Roman Architecture, 2016–present.

University of Pennsylvania, Department of the History of Art: Morris Russell Williams and Josephine Chidsey Williams Professor in Roman Architecture, 2005–2015.

University of Pennsylvania, Department of the History of Art: Morris Russell Williams and Josephine Chidsey Williams Associate Professor in Roman Architecture, 1991–2005.

University of Karlsruhe, Research Associate, 1989–1991.

German Archaeological Institute and Deutsche Forschungsgemeinschaft: Research Associate, 1984–1989.

University of Munich: Teaching Fellow (Lehrbeauftragter), 1984–1986.

University of Augsburg: Teaching Fellow, 1983–1984.

University of Regensburg: Teaching Fellow, 1983.

German Archaeological Institute (Berlin/ Munich): Research Associate, 1980–1984.

cross-appointments at the University of Pennsylvania:

Graduate Group in the Art and Archaeology of the Mediterranean World, 1992–2015.

Graduate Group in Ancient History, 1992–2015.

Consulting Scholar at the Mediterranean Section of the University of Pennsylvania Museum, 1992–2015.

Research projects and field experience

Magnesia/ Turkey, Temple of Artemis, seminar project “Modeling Hermogenes,” 2014/15; collaborative 3D digital modeling.

Alexandria/ Egypt, seminar-based project "Mapping Alexandria in the Age of Augustus," 2005–2013; collaborative student research, with on-site seminars.

Rome, "Mapping Augustan Rome," project director, 1999–2008. Seminar-based research and publication, with website: www.arthistory.upenn.edu/mappingaugustanrome. For publication, see below.

Didyma/ Turkey, Temple of Apollo, principal investigator of its architecture and Greco-Roman construction drawings, 1980–2005.

Didyma, Temple of Apollo, academic director of restoration work, German Archaeological Institute, 1993–2004.

Rome, Mausoleum of Augustus and Pantheon, identification and documentation of Roman construction drawings for front of Pantheon, 1996.

Venice, Monastery of S.Francesco, documentation of Carlo Lodoli's architectural work (18th c.), 1987.

Cyclades/ Greece, dissertation field research (fortified Greek country estates) on islands Naxos, Kea, Andros, Amorgos, Siphnos, and Seriphos, 1976–1978.

Munich, architectural practice (design of community fire station and restoration of suburban villa), 1971–1972.

Cyclades/ Greece, member of the Technical University, Munich, and Fritz Thyssen Stiftung research project 'Archaic temple building on Paros and Naxos' (with annual 2-month campaigns, directed by G. Gruben), 1970–1979.

Museum and exhibition experience

Fisher Fine Arts Library, University of Pennsylvania, "Reviving Vitruvius—Six Centuries of *De architectura*," curated exhibition (with 6 students), 1995.

Arthur Ross Gallery, University of Pennsylvania, "The Parthenon—Glory on the Acropolis. Architectural drawings, historic depictions, ancient artifacts," curated exhibition, 1993.

Deutsches Architekturmuseum, Frankfurt: exhibition "Didyma und Milet im Modell" (Didyma and Miletos represented as models), with H.-P. Schwarz and W. Voigtländer, 1986.

Conferences organized

“Against Gravity,” international conference on *Bauforschung*, co-organized with R. Ousterhout and R. Holod, University of Pennsylvania Museum, Mar. 20-22, 2015.

“Modeling Hermogenes,” symposium at Kizlak Center, Van Pelt Library, University

- of Pennsylvania, organized in collaboration with the seminar participants of ArtH/AAMW 529, Dec. 10, 2014.
- “Pompeii and its Afterlife,” international conference, co-organized with C.B. Rose and A. Kuttner, University of Pennsylvania Museum, Feb. 22, 2014.
- “Masons at Work,” The Center for Ancient Studies Annual Symposium, co-organized with R. Ousterhout and R. Holod, University of Pennsylvania, Mar. 30-Apr. 1, 2012.
- "Imaging Ancient Rome. Documentation–Visualization–Imagination," Third Williams Symposium on Classical Architecture (in collaboration with J. Humphrey); international conference, organized and chaired. American Academy in Rome, British School at Rome, and Deutsches Archäologisches Institut Rom, May 20-23, 2004.
- "Poster Session," organized and chaired, Society of Architectural Historians (SAH), Annual Meeting, Philadelphia, April 28, 1994.
- "Refinements in Classical Architecture: Curvature," Second Williams Symposium on Classical Architecture; international conference, organized and chaired. University of Pennsylvania, April 2-4, 1993.

PUBLICATIONS

Books

- forthcoming, fall 2018: *Der Große Altar von Pergamon und der Architekt Hermogenes – Schatten, Raum und Wahrnehmung* (The Grand Altar of Pergamon and the architect Hermogenes – shadow, space, and perception). Reimer-Verlag, Berlin (with English translation to follow).
- The Horologium of Augustus: Debate and Context*; editor and main contributor. *Journal of Roman Archaeology*, suppl. 99 (2014).
 Review:
Bryn Mawr Classical Review 2016.06.04 (V. Jolivet), with comment by J.H. Humphrey (6/20/16).
- Mapping Augustan Rome*, principal investigator and author. Portsmouth: *Journal of Roman Archaeology*, suppl. 50 (revised edition, 2008).
- Urbem adornare – Die Stadt Rom und ihre Gestaltumwandlung unter Augustus. Rome's Urban Metamorphosis under Augustus* (German, with English translation of main text by A. Thein), Portsmouth: *Journal of Roman Archaeology*, suppl. 66 (2007).
 Reviews:
American Journal of Archaeology 115 (2011) online (B. Lott).
Rosetta. Papers of the Institute of Archaeology and Antiquity (Birmingham) 4 (2008) online (D.J. Newsome).
Bryn Mawr Classical Review 2009.04.75 (E. Macaulay-Lewis).
- Imaging Ancient Rome: Documentation – Visualization – Imagination*. Third Williams Symposium on Classical Architecture; editor, together with John Humphrey. Portsmouth: *Journal of Roman Archaeology*, suppl. 61 (2006).
 Reviews:
American Journal of Archaeology Online Book Review, Jan. 2008 (P. Stinson).
Bryn Mawr Classical Review 2007.09.33 (V. Jolivet).
The Classical Review 59 (2009) 255-57 (G.P. Earl).
- Mapping Augustan Rome*, principal investigator and author. Portsmouth: *Journal of Roman Archaeology*, suppl. 50 (2002).
 Reviews:
Times Literary Supplement, June 6th, 2003, 31-32 (G. Wolf).

- American Journal of Archaeology* 108 (2004) 130-32 (D. Favro).
Journal of Roman Studies 94 (2004) 183-90 (K. Brodersen).
Göttinger Forum für Altertumswissenschaft 7 (2004) 1051-62 (A. Grüner).
- Appearance and Essence—Refinements of Classical Architecture: Curvature*, Second Williams Symposium on Classical Architecture; editor and principal author. Philadelphia: University of Pennsylvania Museum (1999).
 Reviews:
Journal of the Society of Architectural Historians 60 (2001) 84-86 (M.M. Miles).
American Journal of Archaeology 106 (2002) 492-94 (L.F. Ball).
Revue Archéologique 2002, 298-99.
- Befestigte Turmgehöfte des Hellenismus* (Fortified Country Estates of the Hellenistic Period), Ph.D. Dissertation (xerox publication), Technical University, Munich, 1985.
- in preparation:
- Der Pseudodipteros des Hermogenes in Magnesia. Bau- und Kunsttheorie im Hellenismus und der Kaiserzeit* (Hermogenes' Pseudodipteros in Magnesia. Hellenistic and Roman Imperial Theory of Art and Architecture). Reichert-Verlag, Wiesbaden.
- Designing Graeco-Roman Architecture. From Didyma to the Pantheon, 1980–2010*; German version: *Bauzeichnungen der Klassischen Antike – Neue Funde und Fragen, 1980–2010*.
- The Best Way to Build a City – A Theory of Ancient City Planning according to Vitruvius*;
 German version: *Die beste Form der Stadt – Eine antike Theorie des Städtebaus nach Vitruv.*
- Catalogue, dictionary, and book contributions**
- "Bending the Truth: Curvature and Other Refinements at the Parthenon," in J. Neils (ed.), *The Parthenon: From Antiquity to the Present*. New York: Cambridge University Press (2005) 101-57.
 Reviews:
Bryn Mawr Classical Review 2005 (J. Shear).
Revue archéologique 2008, 128-30 (P. Holtzmann).
- "Reinste Quellen – Der Apollontempel von Didyma und seine Bauzeichnungen" (*Purest Sources – The Temple of Apollo at Didyma and its Construction Drawings*), in Deutsches Archäologisches Institut (ed.), *Archäologische Entdeckungen. Die Forschungen des Deutschen Archäologischen Instituts im 20. Jahrhundert*. Mainz: von Zabern (2000) 235-42 (invited co-author to represent one century of German archaeological research).
- The Roman Villa—Villa Suburbana*. First Williams Symposium on Classical Architecture, editor, unnamed, for A. Frazer † (Philadelphia: University of Pennsylvania Museum, 1997).
- "The Construction Plans for the Temple of Apollo at Didyma," *Scientific American* (ed.), *The Origins of Technology*. New York (1997) 72-80 (reprint).
- Reviving Vitruvius—A Catalogue of Editions at the University of Pennsylvania*, catalogue, editor (Philadelphia: Eastern Shore Arts, Rock Hall, 1996).
- "Antike Planzeichnungen am Apollontempel von Didyma" (Ancient Construction Drawings at the Temple of Apollo at Didyma, 1985) and "Entzifferung eines antiken Werkplans" (Deciphering an Ancient Blueprint Drawing, 1995), in *Spektrum der Wissenschaft* (ed.), *Frühe Stadtkulturen*. Heidelberg (1997) 160-73, 174-82 (reprint).

- "Measurement"; "Module"; "Proportion" s.v. Greece, Ancient, in J. Turner (ed.), *The Dictionary of Art*, vol.13. London: Macmillan / New York: Grove (1996) 410-13.
- "A Building Site Once Again: Phoenix' Rise or Swan's Last Song?" in R. Economakis (ed.), *The Restoration of the Athenian Acropolis*. London: Academy Editions (1995) 214-17.
- "Das 'Archilochoskapitell' von Paros" (The 'Capital of Archilochos' on Paros) and "Werkzeichnungen am Jüngerem Apollontempel von Didyma" (Construction Plans for the Temple of Apollo at Didyma), in H. Bankel (ed.), *Haller von Hallerstein in Griechenland*, exhibition catalogue. Berlin: Reimers (1986) 213-14.
- "Pläne von Plänen" (Drawing Plans of Plans), in W. Voigtländer (ed.), *Didyma und Milet im Modell*, exhibition catalogue. Frankfurt: Deutsches Architekturmuseum (1986) 38-47.

Articles (* refereed; European journals often function with an internal review or jury system; + invited conference contribution)

- 2017 + "Vom 'Greek Revival' zum 'Mail-order Classicism.' Antikenrezeption im Bauen der USA, 1800–1900" (From Greek Revival to 'Mail-order Classicism'. Antiquity and Building in the USA, 1800–1990), in U. Hassler (ed.), *Langfristperspektiven archäologischer Stätten / Archaeological Sites in Long-term Perspectives*. Conference proceedings, Technical University Zurich (2017) 67-85.
- 2015 * "Visualizing *asperitas*. Vitruvius (3.3.9) and the 'Asperity' of Hermogenes' Pseudodipteral Temple," *JRA* 28 (2015) 371-91; co-authored with graduate student Samuel Holzman.
- 2015 + "The Human Eye and 3D Laser Scanning: the Pantheon's Façade and its Capitals," in D. Favro, et al. (eds.), *Paradigm and Progeny: Roman Imperial Architecture and its Legacy*. Conference proceedings, *Journal of Roman Archaeology*, suppl. 101 (2015) 37-61.
- 2015 + "*Omnes disciplinae rationes* – Was kann man von Vitruv lernen?" (What can we learn from Vitruvius?), in U. Hassler (ed.), *Der Lehrbuchdiskurs über das Bauen*. Conference proceedings, Technical University Zurich (2015) 44-53.
- 2012 + "Zur *ratio* des hermogenischen Pseudo-Dipteros: Die Säulenhöhe des Artemistempels in Magnesia" (The *ratio* of Hermogenes' Pseudo-Dipteros: The column Height of the Temple of Artemis at Magnesia), in Th. Schulz (ed.), *Dipteros und Pseudodipteros. Bauhistorische und archäologische Forschungen*. Conference proceedings. *Byzas* 12 (2012) 123-35.
- 2011 * "A Debate on the Horologium of Augustus: Controversy and Clarifications, with responses by J.P. Heslin and M. Schütz, and additional remarks by G. Alföldy and R. Hannah," *Journal of Roman Archaeology* 24 (2011) 47-98.
- 2009 + "*Exactly Corresponding*: Virtuelle Spolien aus Athen in Philadelphia. Eine Fallstudie zur Architektur des Klassizismus" (Virtual *spolia* from Athens in Philadelphia. A Case Study in Neoclassical Architecture) in Th. Schattner et al. (eds.), *Spolien im Umkreis der Macht – Spolia en el entorno del poder*. Akten der Tagung in Toledo. *Iberia Archaeologica* 12 (Mainz 2009) 399-451.
- + "The Pantheon: Nagging Questions to No End," in G. Grasshoff et al. (eds.), *The Pantheon in Rome*. Contributions to the Conference (Bern 2009) 171-86.
- 2008 * "Rediscovering the Architecture of Alexandria," *Journal of Roman Archaeology* 21 (2008) 703-12 (long review of J. McKenzie, *The Architecture of Alexandria and Egypt*, 2007).
- 2003 * "*Debent habere gravitatem* – Pyknostyle Säulenstellung und augusteische Tempelbaukunst" (Pycnostyle Colonnades and Augustan Architecture), *Mitteilungen des Deutschen*

- Archäologischen Instituts, Römische Abteilung* 110 (2003), 285-331.
- 2000 * "Imaging Augustan Rome," *Journal of Roman Archaeology* 13 (2000) 515-28 (long review of D. Favro, *The Urban Image of Augustan Rome*, 1996).
- 1999 + "Geometrie der Winde, windige Geometrie: Städtebau nach Vitruv und Aristophanes" (Geometry of the Winds–Windy Geometry: Urban Planning in Vitruvius and Aristophanes), in Deutsches Archäologisches Institut (ed.), *Stadt und Umland–Diskussionen zur Archäologischen Bauforschung* 7. Mainz: von Zabern (1999) 90-100.
- 1997 * "Architectural Likenesses – Models and Plans of Architecture in Classical Antiquity," *Journal of Roman Archaeology* 10 (1997) 77-94; – translated as: "Semejanzas arquitectónicas – Maquetas y planos en la antigüedad clásica," in Centre de Cultura Contemporània de Barcelona (ed.), *Las casas del alma–Maquetas arquitectónicas de la antigüedad*, exhibition catalogue. Barcelona: Àmbit Serveis (1997) 95-104.
- 1996 * "Eine 'Krepis von 200 Fuß gestreckter Länge' – Bauarbeiten am Jüngeren Apollontempel von Didyma nach der Urkunde Nr. 42" (A 'krepis of 200 foot in straight length'–Construction Work for the Temple of Apollo at Didyma according to the Building Inscription no.42), *Istanbul Mitteilungen* 46 (1996) 153-78.
+ "Die Fronthalle des Pantheon – Ein Werkriß des Dachstuhls?" (The Pronaos of the Pantheon – An Ancient Plan for the Roof Construction?), in E.L.Schwandner (ed.), *Säule und Gebälk–Diskussionen zur Archäologischen Bauforschung* 6, Mainz: von Zabern (1996) 182-89.
- 1995 * "Entzifferung eines antiken Werkplans," *Spektrum der Wissenschaft* (August 1995) 74-82; – translated as * "Deciphering a Roman Blueprint," *Scientific American* (June 1995) 56-61.
- 1994 * "Ein Giebelriß der Vorhalle des Pantheon – Die Werkrisse vor dem Augustusmausoleum" (A Construction Plan for the Pantheon Pediment–The Drawings at the Mausoleum of Augustus), *Mitteilungen des Deutschen Archäologischen Instituts, Römische Abteilung* 101 (1994) 279-307.
* "Antike Bauzeichnung des Pantheon entdeckt" (An Ancient Construction Plan for the Pantheon Discovered), *Antike Welt* (1994) 323-39.
- 1991 * "Seilkurve oder Ellipse? Zur Herstellung antiker Kurvaturen nach dem Zeugnis der didymeischen Kurvenkonstruktion" (Catenary or Elliptic Curve? Creating Ancient Curvature as Attested by the Didymean Curve Construction) with H.Seybold contributing, *Archäologischer Anzeiger* (1991) 165-88.
* "Zur Herstellung antiker Kurvaturen–Konstruktion mit Seilkurve oder Kreisbogen?" (Creating Ancient Curvature: Catenary or Circular Construction?), *Spektrum der Wissenschaft* (August 1991) 22-26.
+ "Aspekte der Bauzeichnungen von Didyma" (Aspects of the Ancient Plan Drawings at Didyma), *Revue Archéologique* (1991) 99-113.
- 1990 + "Der Eustylos des Hermogenes. Zusammenfassung" (The *Eustylos* of Hermogenes. Summary), in W. Hoepfner and E.L. Schwandner (edd.), *Hermogenes und die hochhellenistische Architektur*. Mainz: von Zabern (1990) 81-83.
- 1989 + "Die Zeichnungen in Vitruvs *De architectura*–Zur Illustration antiker Schriften über das Konstruktionswesen" (The Drawings in Vitruvius' *De architectura*–Illuminations in Ancient Treatises on Construction), *Bulletin Antieke Beschaving* Suppl.2. Leiden: Brill (1989) 69-70.

- 1985 * "Antike Planzeichnungen am Apollontempel von Didyma," *Spektrum der Wissenschaft* (April 1985) 70-83;
– translated as * "The Construction Plans for the Temple of Apollo at Didyma," *Scientific American* (Dec. 1985) 126-32.
- 1984 + "Die Werkzeichnung des Naiskos im Apollontempel von Didyma" (The Construction Plan for the Naiskos in the Temple of Apollo at Didyma) Deutsches Archäologisches Institut (ed.), *Bauplanung und Bautheorie–Diskussionen zur Archäologischen Bauforschung* 4. Berlin: Wasmuth (1984) 111-19.
- 1983 * "Bericht über die Arbeit am Jüngeren Apollontempel von Didyma–Zwischenbericht" (Work on the Temple of Didyma. Intermediate Report) *Istanbuler Mitteilungen* 33 (1983) 90-123.
* "Die Bauzeichnungen des Jüngeren Apollontempels von Didyma" (The Construction Plans for the Temple of Apollo at Didyma), *architectura–Zeitschrift für Geschichte der Baukunst* (1983) 13-26.
- 1980 * "Werkzeichnungen am Jüngeren Didymeion–Vorbericht" (Ancient Construction Plans at Didyma. Preliminary Report), *Istanbuler Mitteilungen* 30 (1980) 191-215.
- 1979 + "Befestigte Turmgehöfte im Hellenismus" (Fortified Country Estates of the Hellenistic Period) in: Deutsches Archäologisches Institut (ed.), *Wohnungsbau im Altertum–Diskussionen zur Archäologischen Bauforschung* 3. Berlin: Wasmuth (1979) 147-51.
* "Dächer griechischer Wehrtürme" (Roofs of Greek Fortification Towers), *Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung* 94 (1979) 93-115.
- 1978 * "Der Paläopyrgos von Naussa auf Paros" (The *Paleopyrgos* of Naussa on Paros), *Archäologischer Anzeiger* (1978) 345-75.
- 1972 * "Der Pyrgos Chimarru auf Naxos" (The *Pirgos Chimarrou* on Naxos), *Archäologischer Anzeiger* (1972) 431-37.

Book reviews

- J. McKenzie, *The Architecture of Alexandria and Egypt* (2007), *Journal of Roman Archaeology* 21 (2008), see above.
- D. Favro, *The Urban Image of Augustan Rome* (1996), *Journal of Roman Archaeology* 13 (2000), see above.
- W. Müller, *Architekten in der Welt der Antike* (1989), in *Spektrum der Wissenschaft* (Jan. 1992) 143-59.
- H. Dollhopf and K. Dornisch, *Türkei–Griechische und Römische Ruinenlandschaften* (1988), in *Spektrum der Wissenschaft* (May 1989) 135-37.

EXHIBITIONS, TV PRODUCTIONS

- PBS (New York) series "History and Memory": filmed interview, Nov. 2008.
- NOVA series, PBS (Circus Productions Ltd., London): TV contribution to "Secrets of the Parthenon", premiering Jan. 29, 2008.
- History Channel, New York: TV contribution to "Engineering an Empire: Ancient Greece," 2006.
- Greystone Communications, CA: TV report on the Pantheon and its identified construction plans, 1996.

- Independent Television (ITV) London, series "Historic Puzzles" (discovery channel): TV report on the "plan archive" at Didyma, 1995.
- Austrian Broadcasting Corporation (ORF) Vienna, series "Wissen Spezial": TV interview on the discovered ancient plan drawings at Didyma, 1989.
- Hallerstein-Gesellschaft, Munich, exhibition "Haller von Hallerstein in Griechenland" (Munich, Nuremberg, Berlin): special section on my measured drawings from Paros/Greece and Didyma, 1986.
- Deutsches Architekturmuseum, Frankfurt, exhibition "Didyma und Milet im Modell": special section on my measured drawings from Didyma, 1986.
- Bertelsmann Fachzeitschriften, Berlin, for *Daidalos–Berlin Architectural Journal*: large-scale poster *Antike Werkzeichnungen* on Didyma drawings, 1984.

PUBLIC LECTURES (since 1987)

- “From Plato to Philly – Planning the Best City,” conference “Cities in the Ancient World,” Center for Ancient Studies, University of Pennsylvania, Apr. 20, 2018.
- “Structure, Refinement, and Appearance in Classical Architecture – discoveries and Recent Findings,” College of Charleston, Mar. 1, 2018.
- “Classical Architecture – Explore, Build, Teach,” round-table talk in honor of Thomas G. Smith, University of Notre Dame, Oct. 10, 2016.
- “Why should Art and Archaeology, Civil Engineering, and – hopefully – the School of Architecture join forces?” Princeton University, Sep. 27, 2016.
- “So, what is *Bauforschung*, and why are we doing it?” international conference “Against Gravity,” University of Pennsylvania Museum, Mar. 22, 2015.
- “Zeitlos oder Zeitbild? Vitruvs zehn Bücher *De architectura*,” guest speaker at Deutsches Technikmuseum Berlin, Feb. 19, 2015.
- “From Greek Revival to ‘Mail-order Classicism.’ Antikenrezeption in den USA, 1800-1900,” international conference “Archaeological Sites in Long-term Perspectives,” Swiss Federal Institute of Technology (ETH) Zurich, Feb. 12, 2015.
- “‘What’s in a name?’ The crux with the Parthenon (and other iconic works),” contribution to Kelly’s Writer House colloquium “Writing about Art,” University of Pennsylvania, Nov. 18, 2014.
- “A King’s Dream and the Battle of Greek vs. Roman: the ‘Pompeianum’ of Ludwig I in Aschaffenburg, 1843-50,” conference “Pompeii and its Afterlife,” University of Pennsylvania Museum, Feb. 22, 2014.
- “The City and the Armchair. The Role of *Bauforschung* in Perceiving Ancient Rome,” international conference “Archaeology and the City: Ancient Rome in New York,” Columbia University, Mar. 3, 2012.
- “Beispielsweise Vitruv,” round-table talk at conference “Der Lehrbuchdiskurs über das Bauen,” Technical University Zurich (ETH), Zürich, Feb. 17, 2012.
- “To Look and to See: Design Issues of the Pantheon Façade,” international conference “Paradigm and Progeny: Roman Imperial Architecture and its Legacy,” American Academy, Rome, Dec. 6, 2011.
- “Which Rome? Classics and Classical Architecture in the 21st Century,” keynote speaker at Illinois Classical Conference, University of Illinois at Urbana-Champaign, Oct. 8, 2011.
- “The Healthy City in Antiquity,” round-table talk at conference “Global Cities – The

- Sustainable City,” University of Pennsylvania, Apr. 15, 2011.
- “Victor Defeated. Greece vs. Rome in American Architecture,” seminar, Columbia University, Feb. 14, 2011.
- “Which Alexandria, precisely, did Cleopatra see? The Project ‘Mapping Augustan Alexandria’ at the University of Pennsylvania,” with M.M. Andrews, D.G. Romano, and S. Zink, conference “Cleopatra,” Penn Museum, Oct. 30, 2010.
- “Philadelphia’s Classical Architecture – Where Exactly is the Roman Part?” keynote speaker, Conference “America and the Legacy of Rome,” National Convention Center, Philadelphia, Apr. 28, 2010.
- “Doric, Ionic, Corinthian in Classical Athens,” seminar and critique, University of Notre Dame, Apr. 20, 2010.
- “Rome – Decoding the Augustan City,” Oxford University, Feb. 8, 2010.
- “*Mapping Augustan Alexandria* – an Interdisciplinary Project at Penn,” Gold Medal Colloquium at AIA Annual Meeting (Anaheim, CA), Jan 8, 2010.
- “Zur *ratio* des hermogenischen Pseudodipteros: Die Säulenhöhe des Artemistempels in Magnesia,” international conference on *Dipteros* and *Pseudo-Dipteros*, University of Regensburg, Germany, Nov. 14, 2009.
- “The Pantheon Revisited,” Center for Ancient Mediterranean Culture, Columbia University, Oct. 16, 2009.
- “Building Ionic – From the Acropolis to the British Museum,” seminar, Columbia University, Oct. 15, 2009.
- “The Parthenon and the ‘Decline’ of Greek Architecture” – from the Acropolis to Vitruvius,” Columbia University, Oct. 13, 2009.
- “Eleusis – a Case Study in Alexandrian Topography,” Department of Classics, University of Pennsylvania, Mar. 19, 2009.
- “Iconic Ionic – from the Acropolis to Vitruvius,” University of Notre Dame, Oct. 8, 2008.
- “*Not just beauty but necessity: Creating curves in Greco-Roman Architecture*,” Max-Planck-Institut für Wissenschaftsgeschichte; *Creating Shapes in Civil and Naval Architecture. A Cross-Disciplinary Workshop*, Berlin, Dec. 8, 2006.
- “The Pantheon – Naggig Questions,” International Conference on the Pantheon, University of Bern, Switzerland, Nov. 10, 2006.
- “*Exactly corresponding: Virtuelle Spolien aus Athen in Philadelphia*,” German Archaeological Institute (Madrid), International Conference on Ancient *spolia*, Toledo, Spain, Sep. 22, 2006.
- “The Pantheon – one of Rome’s best known buildings (or is it?),” America-Italy Society of Philadelphia, Apr. 5, 2006.
- “Refining the Primitive Hut – the Parthenon,” Parthenon Colloquium, Vanderbilt University, Nashville, Apr. 1, 2006.
- “Practices of Design at the Temple of Apollo in Didyma,” with seminar and round-table talk, University of Regensburg, May 31, 2005.
- “Drawing and Design in Classical Antiquity,” Max-Planck-Institut für Wissenschaftsgeschichte, Workshop “Der geometrische Entwurf der Hagia Sophia,” Berlin, May 27, 2005.
- “Designing Graeco-Roman Architecture: From Didyma to the Pantheon,” Institute of Archaeology, Kiev/ Ukraine, Oct. 26, 2004; and American Academy, Berlin, Nov. 16, 2004.
- “The Hippodamic City: From Athens to Philadelphia,” Conference *Metropolis: Ancient Athens and Philadelphia*, Hellenic University Club, Philadelphia, May 1, 2004.
- “Ornament and City: The *kosmos* of Ancient Design,” Politecnico di Bari, Italy, Feb. 26, 2004.
- “Mapping Augustan Rome – Towards the Digital Book” (with D.G. Romano and A.B.

- Gallia), Center for Italian Studies Colloquium, University of Pennsylvania, Oct. 22, 2003.
- "Mapping Augustan Rome – An Ongoing Process" (with E.A. Dumser and A.G.Thein), chaired Round Table, German Archaeological Institute, Rome, May 26, 2003.
- "*Urbem adornare* – Rome's Urban Metamorphosis under Augustus" (in German), 8th International Colloquium on Klassische Bauforschung, Berlin, Nov.1, 2002.
- "Patterns of Giving – Patronage and Presence in Greek Sanctuaries," CLASSICAL AMERICA at National Academy of Design, New York, Apr.12, 2000.
- "Latest Architecture in Berlin" (in German), seminar-workshop, Joseph H.Lauder Institute, University of Pennsylvania, Feb. 26, 1999.
- "Research and Restoration at Didyma," Institute of Fine Arts, New York, Sep.17, 1998.
- "Planning the Best City: Alexandria–Pergamon–Rome," Princeton University, Dept. of Ancient History, Oct.15, 1998.
- "Looking Back – Looking Beyond," keynote speaker at conference "American Archaeology in Classical Lands: The Next 100 Years," University of Pennsylvania Museum, Philadelphia, March 1st, 1997.
- "The Architectural Image in Greece," Centre de Cultura Contemporania, Barcelona, Apr. 16, 1997.
- "Geometry of the Winds – Windy Geometry" (in German), 7th International Colloquium on Klassische Bauforschung, Berlin, May 8, 1997.
- "Berlin – a City Rebuilt" (in German), Joseph H.Lauder Institute, University of Pennsylvania, Feb. 24, 1997.
- "Germany – Tradition and Transformation," Department of Germanic Languages and Literatures, University of Pennsylvania, March 24, 1997.
- "Regressive Progress: Designing Columns at Didyma and at Pergamon," AIA Annual Meeting, New York, Dec. 29, 1996.
- "Issues of Restoration: the Temple of Apollo at Didyma" (in German), Round-Table on Didyma, German Archaeological Institute, Berlin, Feb. 24, 1995
- "The Pantheon's Entablature and Pediment" (in German), 6th International Colloquium on Klassische Bauforschung, Berlin, June 17, 1994.
- "Limits of Looking: the Columnar Front of the Pantheon," Institute of Fine Arts, New York, Oct. 4, 1994.
- "The Eustylos of Hermogenes or The Right Way to Build a Temple," Princeton University, Oct. 6, 1994.
- "Working Drawings at the Mausoleum of Augustus: the Pediment of the Pantheon," AIA Annual Meeting, Washington, Dec. 30, 1993.
- "Designing Marble Joints: the Frieze of the Temple of Apollo at Didyma," lecture and workshop, University of Notre Dame, Feb. 23-24, 1993.
- "Curvature – the Evidence of Didyma," 2nd Williams Symposium on Classical Architecture, Philadelphia, April 3, 1993.
- "Classical Greek Columns: Design and Construction," CLASSICAL AMERICA and The Carpenter's Company of Philadelphia, Philadelphia, Sep.14, 1992.
- "German Art History – an Overview," series of 8 lectures, Joseph H. Lauder Institute, University of Pennsylvania, spring 1992.
- "The Recurrent Search for a Magical Key," SAH Annual Meeting, Albuquerque, April 1992.
- "Philosophy–Geometry: Plato's *Meno* (82b-85b) as an Educational Approach," in conference "Traditions in Paradigmatic Architectural Education," University of Notre Dame, Oct. 4, 1991.
- "Designing an Arcuated Frieze at Didyma: a New Ancient Blueprint" (in German), University of Karlsruhe, May 29, 1991.
- "Catenary or Elliptic Curve? Creating Ancient Curvature" (in German), 5th International Colloquium on Klassische Bauforschung, Berlin, Feb. 1990.

- "Greek Proportions: in Search of a Magic Key," conference "Harmony in Proportion. Vitruvius Colloquium," University of Notre Dame, Nov.3, 1990.
- "The Quest for Classical Proportions: Doorways at the Temple of Didyma," lecture and workshop, University of Pennsylvania, Nov. 5-6, 1990.
- "Proportion and Curvature in Greek Architecture" (in German), University of Karlsruhe, Dec. 1989.
- "Planning a Greek Temple: Didyma," Peter H. Brieger lecture (with workshop), University of Toronto, March 13, 1989.
- "Vitruvius and the Ionic Temple," lecture and workshop at conference "Rule and Invention in Vitruvius," University of Notre Dame, March 8 and 11, 1989.
- "The Eustylos of Hermogenes" (in German), XIIIth International Congress for Classical Archaeology, Berlin, July 28, 1988.
- "Aspects of the Didyma Blue-prints" (in German), conference "Espace et architecture sacres," Ecole Normale Superieure, Paris, June 2, 1988.
- "Ancient Blueprint Drawings at Didyma" (in German), Wissenschaftszentrum Bonn, March 8, 1988.
- "The Illustrations in Vitruvius' *De architectura*" (in German), International Symposium on Vitruvius' *De architectura*," University of Leiden, Leiden, Jan. 1987.
- "Colossal Building in Antiquity: Didyma" (in German), Theodor Wiegand Gesellschaft, Berlin, July 21, 1987.
- "Discoveries at Didyma," conference "Applied Archaeology," University of Illinois at Chicago, Nov. 18, 1987.

UNIVERSITY ACTIVITY AND SERVICE

Administration

- Undergraduate Chair, Department of the History of Art, 2001–2004, 2005–2009.
- Chair of Graduate Group in Art and Archaeology (AAMW), Department of the History of Art, 1992–1995.

Committees

- Department of the History of Art:
- chair, Undergraduate Education Committee, 2008–2009.
 - Undergraduate Curriculum Review Committee, 2007.
 - chair, Image Archive Committee, 1999–2001.
 - Pilot Curriculum group, 1999–2000.
 - Freshmen Advisor, 1994–1995, 1998–2000
 - Executive Committee, Graduate Group in Art and Archaeology, 1996–1998.
 - Search Committee, Classical Art, 1992.

School of Arts and Sciences

- Search Committee, Historic Preservation, 2001–2003.
- Review Committee, Graduate Group in Historic Preservation, 2000–2001.
- Committee on Individualized Study, 1999–2001.
- Mellon Fellowship Committee: 1992.

University

- Arthur Ross Gallery, Advisory Committee, Chair, 2003–2016; member 2016–present.
- Mellon Urbanism-Architecture-Humanities Initiative, Steering Committee, 2012–2013.

- University House Committee, 2005–2011.
- Arthur Ross Gallery, Resource and Oversight Committee, 1994–2003.
- College of General Studies (CGS), Program Committee, 1996–1997.
- Search Committee for Director of University Museum, 1993–1994.

SERVICE OUTSIDE THE UNIVERSITY

- Urban Spaces*, monographic series edited by U. Wulf-Rheidt et al. (De Gruyter, Berlin): appointed member of editorial board, 2013–present.
- Bullettino della Commissione Archeologica Comunale di Roma*: appointed member of external review board, 2012–present.
- German Archaeological Institute, Rome: *Mitteilungen des Deutschen Archäologischen Instituts, Römische Abteilung*, appointed member of external review board, 2009–present.
- German Archaeological Institute, Berlin: *Jahrbuch des Deutschen Archäologischen Instituts*, appointed member of external review board, 2006–present.
- German Archaeological Institute, Rome: *Mitteilungen des Deutschen Archäologischen Instituts, Römische Abteilung*: external referee, 2005–present.
- Journal of Roman Archaeology*: external referee, 1995–present.
- American Journal of Archaeology*: external referee, 1995–2015.
- Greek Ministry of Culture, Athens, Acropolis Restoration: consultant, 1994–2015; attended meetings:
- 5th International Meeting on the Restoration of the Acropolis Monuments, Athens, Oct. 4-6, 2002.
 - 4th International Meeting on the Restoration of the Acropolis Monuments, Athens, May 28-30, 1994.
- American Academy in Rome: Archaeology Advisory Committee, appointed member 2008–2011.
- Society of Architectural Historians (SAH), Philadelphia chapter: vice-president, 1993–1996.

DISSERTATIONS SUPERVISED AND STUDENT TRAINING

Dissertations completed

- M. Andrews, *Matron, Meretrix, Madonna: An Archaeology and Urban History of the Subura Valley and Cispan Hill from the Republic through the Early Middle Ages*; Ph.D. Art and Archaeology, 2015.
- A. Jones, *Leptis Magna and Dougga before the Time of Augustus*. Ph.D. Ancient History, 2012. Co-advisor.
- S. Bernard, *Men at Work: Public Construction, Labor, and Society in Middle Republican Rome*; Ph.D. Ancient History, 2012. Co-advisor.
- S. Zink, *The Temple of Apollo on the Palatine. A Case Study in Augustan Temple Design*; Ph.D. Art and Archaeology, 2011.
- D. Borbonus, *Hic situs est: Roman Columbaria in Central Italy*; Ph.D. Art and Archaeology, 2006.

- E. A. Dumser, *Building Power: The Architectural Patronage of Maxentius (A.D. 306-312)*; Ph.D. History of Art, 2005.
- M. Ytterberg, *Hadrian's Villa and the Representation of Empire*; Ph.D. Architecture, 2005.
- A. DiRoma, *The Serial Production of the Architectural Ornament* (in Italian), dissertation committee, Politecnico di Bari, 2004.
- T.J. Morton, *Peripheral Center: The Roman Basilica at Meninx and the Impact of Luxury*; Ph.D. History of Art, 2003.
- A.G. Thein, *Sulla's Public Image and the Politics of Civic Renewal*; Ph.D. Ancient History, 2002. Co-advisor.
- B.A. Robinson, *Fountains and the Culture of Water at Roman Corinth*; Ph.D. History of Art, 2000.
- P.D. Scotton, *The Julian Basilica at Corinth. An Archaeological Investigation*; Ph.D. Art and Archaeology, 1997.

Dissertations in progress

- S. Holzman, *Greek Architecture and the "Ionian Renaissance,"* Ph.D. Art and Archaeology (since 2015).
- D. Nocera, *Domitian and the City of Rome. An Analysis of Domitian's Building Program and its Impact on the Urban Topography of Rome*; Ph.D. Art and Archaeology (since 2012). Co-advisor.

Honors and Masters theses

- Ethan Skaggs, *Revisualizing Philadelphia's Lost Neoclassical Architecture*; thesis, Penn Design, 2014/15.
- Martina Merlo, *The Four Dimensions of Architecture in Human Experience*; thesis in Visual Studies, History of Art, 2014/15.
- K. Ennis, *Synagogues in the Diaspora (2nd c. BC to 6th c. AD). A New Architectural Analysis and Historical Implications*; honors thesis, Classical Studies, 2014.
- B. Rano, *Baroque Ceiling Frescoes: Illusions of Reality and the Reality of Illusions*; thesis in Visual Studies, History of Art, 2014.
- B. Loughin, *Art Installations in Hospitals, 19th-21st Century*; honors thesis, History of Art, 2013.
- M. Pantano, *Reading Gaudi's Great Book of Nature: Peripheral Reception of Proto-Environmental Architecture*, Penn Humanities Thesis, 2013.
- L. Rubin, *Inhabiting Peripheries: Palladio and the Ecology of the Ideal Villa*, Penn Humanities Thesis, 2013. Co-advisor.
- R. Julis, *Establishing Legitimacy: Augustus' Building Program*; thesis paper, Department of Classics, 2004. Co-advisor.
- L. Milkova, *Representations of the Sacred Marriage Ceremony: The Thracian Tombs at Sveshtari and Kazanluk*; M.A. History of Art, 2002.
- R. Laux, *Documentation and Representation of an Ancient Column at Didyma, Turkey* (in German); Diplomarbeit, Fachhochschule Karlsruhe/Germany, 2002, coadvisor.
- G. Petruccioli, *Rome. The Urban Archaeology of the Via Triumphalis*; honors thesis, Department of Classics, 1999.
- D. Andrianou, *The Temple of Nike on the Athenian Acropolis*; M.A. Art and Archaeology, 1996.
- J.-P. Beugoms, *Military Castra in the Roman East*; M.A. Art and Archaeology, 1995.
- S. Bartusis, *Focus on the Framework: Architectural Representations on Greek Vases, 580-480 B.C.*; M.A. History of Art, 1994.

Special student training

Mentoring publications of graduate students as sole authors:

- A.S. Reiterman, "Clamp-holes and Marble Veneers: the Pantheon's Lost Original Facing," *JRA* 23 (2010) 395-412.
- S. Bernard, "Pentelic Marble in Roman Architecture and Republican Marble Trade," *JRA* 23 (2010) 35-54.
- S. Zink, "Reconstructing the Palatine Temple of Apollo – a Case Study in Early Augustan Temple Design," *JRA* 21 (2008) 47-63.

Site seminars abroad:

- Split/ Croatia and Rome: archaeological site seminar (4 students), Mar. 1-9, 2013.
- Alexandria/ Egypt: archaeological site seminar (2 students), Mar. 5-14, 2010.
- Alexandria/ Egypt: supervised site seminar (1 faculty, 2 students), Mar. 8-15, 2008.
- Alexandria/ Egypt: archaeological site seminar, with 9 students of graduate seminar, Mar. 3–11, 2006.
- Rome: archaeological site seminar, with 10 students of graduate seminar, Mar. 4–14, 1999.

Student summer research:

- research stipends for Alexandria project, organized with support of 1984 Foundation, 2008: S. Bernard (2 months); S. Zink (1.5 months); M. Tokumitsu (1 month).

Summer fieldwork abroad:

- Rome, Pantheon and Palatine Temple of Apollo: S. Zink (AAMW), 2006, 2010.
- Didyma/ Turkey, Temple of Apollo: R. Laux (Fachhochschule Karlsruhe/Germany), 2001; D. Borbonus (AAMW), 2000; D. Andrianou (AAMW), 1996.
- Rome, Mausoleum of Augustus: B.A. Robinson (ArtH), 1996.

Undergraduate Summer Field Research supervised:

- M. Pantano, "Reading Gaudi's Great Book of Nature: Peripheral Reception of Proto-Environmental Architecture," Penn Humanities Fellowship, 2012.
- L. Rubin, "Peripheral Monuments: Palladio's Veneto," Thune Travel Fellowship, 2012.
- R. MacNeill, "The 'Primitive Hut' in the Modern City – Protest Architecture in Philadelphia," Benjamin Franklin Scholars Program and College Research Grant Program. Philadelphia, 2004.
- G. Petruccioli, "Rome. The Urban Archaeology of the Via Triumphalis," College Research Grant Program. Rome, 1998.

Teaching assistants supervised:

- A. Garcia, J. Sigmier, A.-C. Stinebring, 2017; C. Castillo, E. French, R. Goodman, N. Rogers, 2016; A. Chiles, J. Sadarananda, R. Wise, 2015; J. Barton, M. Boomer, J. Shackelford, S. Holzman, 2014; J. Grant, Q. Heathman, B. Langendorfer, B. Rich, 2013; A. Amrhein, L. Grollemond, A. Kauffman, K. Tanaka, D. Nocera, 2012; S. Hagan, J. Sanecki, A. Sitz, E. Warner, 2011; E. Neumeier, S. Beckman, G. Kenmotsu, W. Schwemmer, 2010; N. Chanchani, C. Kron, R. Ngo, K. Nickel, 2009; M. Andrews, E. Avery, S. Bernard, P. Clericuzio, M. Routh, 2008; J. Leidwanger, S. Martino, J. Perratore, E. Pinar, 2007; A. Greist, J. Perratore, G. Shamos, S. Zink, 2006; P. Sohoni, M. Mehta, S. Martino, V. Follo, 2005; M. Clendenin, J.H. Rice, R. Steffens, K. Sonik, 2003; L. Meiberg, G. Varinlioglu, T.J. Morton, 2002; A.H. Crystal, 2001; L. Milkova, 1999.

Independent studies (one term each):

Graduates: S. Railkar (Wharton) 2017; D. Nocera (AAMW) 2011; M. Andrews (AAMW) 2009; M. Andrews, A. Reiterman (AAMW), E. Pinar (ArH), 2008; S. Zink (AAMW) 2007; J. Leidwanger (AAMW), C. Teuchler (Classics), S. Zink (AAMW), 2006; S. Zink (AAMW) 2005; L. Milkova; J. Mercurio; D. Borbonus; K. Tracy (Classics); G. Varinlioglu; M. Ytterberg (School of Design); T.J. Morton; E. Dumser; L. Taylor; B.A. Robinson; C. Pastore; H. Steinmetz-Lovette; D. Andrianou; S. Leigh; R. Lewis (School of Design); B. Mitrovic (School of Design); S. Tegtmeier.
Undergraduates: E. Skaggs (Penn Design) 2014; S. Zwemmer (Wharton) 2011; N. Feigenbaum (2009); R. Julis (Classics) 2004; G. Petruccioli (Classics); A. Zanoni.

Courses taught (1992–2017)

ArH 106 (formerly ArH 001 / Coll 004, pilot curriculum) "Architect and History" (ArH gateway course) – taught last in fall 2017.

Human experience is shaped by the built environment. This course introduces students to the interrelated fields of architecture, art history, and engineering and explores great architectural monuments from the modern to the ancient period, from the US across the Mediterranean and Europe to India. The focus will be on understanding these works in their structure and function, both as products of individual ingenuity and reflections of *Zeitgeist*. Questioning these monuments from a present-day perspective across the cultures will be an important ingredient, as will be podium discussions, guest lectures, excursions, and all kinds of visualizations, from digital walk-throughs to practical design exercises. – No prerequisites.

ArH 100 "The Architecture and Culture of Roman Bathing: Temples of the Flesh" (freshmen seminar) – see below, ArH 301 "Roman Bathing Culture."

ArH 100 "Classical Architecture – Introduction" (freshmen seminar)

Comparing and contrasting outstanding examples of Greek and Roman architecture – single buildings as well as larger architectural compositions and city plans – forms the focus of this freshmen seminar. Special emphasis will be laid on the guiding principles of these structures and the diverse, or common, Greek and Roman approaches to comparable building tasks (such as temples, theaters, market places, fortifications, city plans). Methodological 'tools' for these analyses will be discussed and a broader historical context developed. Field trips to the Second Bank Building and the Art Museum in Philadelphia.

ArH 220/620 "Greek Art and Architecture" (Greek standard course, regularly taught, undergraduate and graduate level)

An intensive introduction to the art and architecture of the Greek world from its formative phase to the universal acceptance (Geometric to Hellenistic period). Emphasis on topics ranging from concepts of order, tectonic structure, decoration, and proportion to issues of space, urbanism, and the theories of Vitruvius.

ArH 221/621 "Roman Art and Architecture" (Roman standard course, regularly taught, undergraduate and graduate level)

An intensive introduction to the art and architecture of Rome and her empire from Republican and later Hellenistic times to the Imperial peak. Emphasis on topics ranging from portraiture, wall painting, architecture to the specific Etrusco-Roman notion of space and the Greek paradigm in artistic theory and practice.

ArH 225/625 "Greek Architecture and Urbanism" (lecture class, undergraduate and graduate level)

Introduction to the art of building and city planning in the ancient Greek world, 7th–1st c. BC. Emphasis on concepts of organizing space, on issues of structure, materials, decoration, proportion, and the Mycenaean and eastern heritage as well as on theory and practice of urbanism as reflected in ancient cities (Athens, Pergamon, Alexandria) and writings (Plato, Aristotle, and others). Excursions to the Penn Museum and Philadelphia. No prerequisites.

ArH 226/626 "Roman Architecture and Urbanism" (lecture class, undergraduate and graduate level)

Introduction to the art of building and city planning in the Roman world, 6th c. BC to 2nd c. AD. Emphasis on concepts of organizing space, on issues of structure, materials, decoration, proportion, and the

Etruscan and Greek heritage as well as on theory and practice of urbanism as reflected in ancient cities (Rome, Ostia, Roman Alexandria, Timgad) and writings (Vitruvius, and others). Excursions to the Penn Museum and Philadelphia. No prerequisites.

ArtH 227/627 "Neo-Classical Architecture" (lecture class, undergraduate and graduate level)

An intensive introduction to the architecture of the Neoclassical century (ca.1750 – 1850), as it made its appearance all over Europe and parts of North America. Following an exploration of the roots and intellectual preconditions of this "true style," a selection of major monuments in France, Germany, Britain, and the USA will be analyzed as well as some forms of Neoclassical revival in the early decades of the 20th century. Field trips to the Second Bank Building and the Art Museum in Philadelphia. No prerequisites.

ArtH 301 "Roman Bathing – Culture and Technology" (undergraduate seminar)

The culture and technology of Roman bathing as reflected in the archaeology of buildings and in ancient texts will be the focus of this undergraduate seminar. We will explore the technicalities of refined heating and water distribution systems, including the building of aqueducts, as much as concepts of architectural design, decoration, and the role of bath buildings for entertainment and the demonstration of public luxury on an imperial scale.

ArtH 301 "Ancient Theaters" (undergraduate seminar)

Exploring and analyzing both, built monuments of Greek and Roman theater architecture and the theoretical accounts of Vitruvius, is the focus of this Undergraduate Seminar. Issues ranging from the details of architectural design to the religious-Dionysian roots of theatrical performance will then set the wider "stage" for understanding the physical, intellectual and religious environment of ancient tragedy, satyr-play, and comedy.

ArtH 301 "Classical Architecture – Introduction" (undergraduate seminar) – see above under

ArtH 100.

ArtH/AAMW/CIS 528 "Rome and Spalato: Trajan's Forum, Diocletian's Baths and Palace." Williams On-Site Seminar in Roman Architecture (graduate proseminar)

Three gigantic Roman-Imperial building complexes in Rome and in Spalato – the Forum of Trajan (110s AD) and the baths of Diocletian and his palace (ca. 300 AD) – will provide the material basis of this proseminar. Its overarching goal consists in developing the skills and methods to analyze and document Roman architecture and its elements, drawing on published 18th-21st c. evidence as well as on practical studies in formal analysis and documentation techniques. This course will be held in collaboration with Prof. John Hinchman, Penn Design, Graduate Program in Historic Preservation. It is geared toward students of architectural history, archaeology, art history, and the Classics. – An on-site visit of the three architectural complexes in Rome and in Spalato/Split (Croatia) during spring break 2013 will be part of this proseminar, which is open to graduates and undergraduates. Permission required. Enrollement in HSPV 601 (*Recording and Site Analysis*) will be mandatory for all participants.

ArtH/AAMW/CIS 528 "Neoclassical Philadelphia" (graduate proseminar)

The focus of this proseminar will be on the Neoclassical architecture of Philadelphia (c.1800-1850) as well as the preconditions for the arrival of this first 'international style' in the US. We will investigate architectural key monuments in town (from B. Latrobe's lost Bank of Pennsylvania to T.U. Walter's Girard College), explore the printed documentation and plan archives, and also pay attention to Philadelphia's outstanding Neoclassical 'late-bloomers' of the early 20th c. (most importantly, the PMA). – Guest lectures, field trips, and practical instructions of architectural documentation. No prerequisites.

ArtH 528 "Apollodorus of Damascus: a Roman Imperial Master Architect and Engineer" (graduate proseminar)

This proseminar explores the œuvre of Apollodorus of Damascus, the most celebrated architect and engineer of Roman imperial times, within the broader context of Roman architecture. The building type of the imperial forum was cast into its final, unsurpassed form with Apollodorus' main creation, the forum of Trajan. Almost as much admired was his audacious bridge construction over the Danube (preserved in an ancient description and in the depiction on the column of Traian). The baths of Trajan in Rome are convincingly attributed to Apollodorus. Out of his voluminous written work, only the treatise on the construction of war machines, dedicated to Trajan, has survived. – These monumental and textual sources with our questions on them will form the core of the course.

ArtH 528 "The Athenian Acropolis. Architecture and Scholarship" (graduate proseminar)

For more than 20 years now, the Akropolis of Athens has been the most important and innovative 'ancient' (re)building site ever since the end of Antiquity. Exploring the major architectural monuments – Parthenon, Erechtheion, Propylaia, and Temple of Nike – in light of recent scholarship and discoveries, especially of Manolis Korres, will be the focus of this proseminar. It will be of interest for students of art, architecture, archaeology, and classics. Knowledge of architectural drawing (incl. CAD) or Latin and Greek is most welcome but no prerequisite.

ArtH/AAMW 529 "Vitruvian Studies" (graduate proseminar)

Research on Vitruvius' Ten Books on architecture, art, and construction: structure, sources, intended readers; formation of art theory and its relation to practice; statics and esthetics; Greek model vs. Italic tradition; discrepancy with the ideals of the "Augustan Revolution"; role and reception during the Renaissance and later Classical revivals (using Penn's rich collection of 16th to 20th c. Vitruvius editions); latest wave of Vitruvian scholarship. – Working knowledge of Latin, French, German helpful, but not necessary.

ArtH/AAMW 529 "Modeling Hermogenes" (graduate proseminar)

This seminar will explore the principles of ancient Greek architecture through in-depth study of the masterpiece of one architect: Hermogenes' Temple of Artemis Leukophryene at Magnesia (in modern-day Turkey). Hermogenes stands out in history as the first architect whose theory and practice are known in detail and thus may be compared. His novel system of planning (the *pseudodipteros*) and aesthetic of proportions (the *eustylos*) were renowned for ingenious use of space and a refined visual harmony. Based on newly discovered measurements, students will work together to build a 3D digital model with geo-located shadow rendering to test hypotheses about the form, function, and experience of the Temple of Artemis. We will also consider the significance of Hermogenes' innovations as the culmination of the 'Ionic Renaissance,' as a source for the Hermogenean revival in the Roman-Imperial period (in Aphrodisias, Ephesos, Aizanoi, and eventually in Rome itself), and as a major inspiration for Classical architecture ever since the rebirth of Antiquity in the Renaissance. – Guest speakers; supervised digital training; public presentation of results.

ArtH 530 "Polis and Civitas: Theory and Practice of Graeco-Roman Urbanism" (graduate proseminar)

An intensive 'orientation' on theoretical and practical aspects of Greek and Roman city planning and urban design, from Hippodamos, 5th c. BC, to the early centuries of the Roman Empire. Our material will encompass the evidence of both built cities and textual sources (such as Hippocrates, Aristophanes, Plato, Aristotle, Polybios, Cicero, Vitruvius), to be analyzed separately as well as compared to, and contrasted with, each other. 'City', defined as community of its citizens, with the goal of their well-being: how does this find its expression in Classical theories and practices?

ArtH 580 "Neo-Classical Architecture" (graduate proseminar)

This proseminar will explore the architecture of the Neoclassical century (ca. 1750 – 1850), the "true style", as it made its appearance all over Europe and parts of North America, with a new revival from the 1890s to the 1940s. We will do research on the intellectual preconditions and key treatises (e.g., Laugier, Stuart and Revett) as well as on selected monuments, some of them right in Philadelphia (e.g., Second Bank; Water Works; PMA). Field trips and practical instructions of analysis. No prerequisites.

ArtH 721 "The Parthenon and the Acropolis" (graduate seminar)

A thorough study of the Athenian Acropolis with emphasis on the architecture of the Parthenon, the Propylaea, the Erechtheum, the Temple of Nike, and their predecessor buildings and on the scholarly debates provoked by these monuments. Contributing instructor: Dr. Manolis Korres, director of the Parthenon Restoration Project. Intensive use will be made of the exhibition guest-curated by LH at the Arthur Ross Gallery of the University "The Parthenon - Recent archaeological drawings and research by Manolis Korres, Athens", January 22 - April 6, 1993.

ArtH 728 "The Pantheon. Architecture, Structure, Meaning" (graduate seminar)

This seminar will explore one single building, the Pantheon, to the fullest possible extent – beginning with the archaeological remains of the Augustan predecessor building, Hellenistic prototypes, Republican domed structures, ancient textual evidence, Roman brick stamps, stressing in particular statics, geometry, and the architectural language of the existing building, and ending with the later, antique and post-antique, reception of "the most celebrated edifice of the world (Urban VIII, 1632). – A visit of the dome of Philadelphia's Mellon Bank building at Broad Street will be included.

ArtH 728 "Hellenism, Romanitas, and Genius Loci: Baalbek, Palmyra" (graduate seminar)

The seminar treats the architecture of two paradigmatic sanctuaries in the Hellenistic-Roman East in the wider context of Greek tradition and architectural theory, the Roman contribution, and local heritage and development. Contributing instructor: Prof. Ehud Netzer, Hebrew University of Jerusalem, with lecture and workshop on "The Architecture of Herod the Great"

ArtH 728 "Models of Architecture, Models of Thought" (graduate seminar)

Range and role of Greek, Etruscan and Roman models of architecture will be explored within the spectrum of reality and imagination, of religious dedication, funerary offering, political display, and planning and construction – as a prelude to the exhibition "Architectural Models of Antiquity" at Barcelona, January to May 1997, a spectacular first of its kind.

ArtH 728 "Canon, Stones, and Reconstruction" (graduate seminar)

Well-preserved and well-published Greek and Roman buildings will be "deconstructed and reconstructed" block for block, with special regard of building materials, structural forces and behavior as well as questions of ancient planning procedures and art theory. The focus will be on exploring sound approaches of documenting, analyzing, and reconstructing ancient buildings. Knowledge of architectural drawing techniques (incl. CAD) or Latin and Greek is most welcome but no prerequisite.

This proseminar is meant to lay the foundations for professional fieldwork on Classical architecture. It includes field excursions to various buildings in the Philadelphia, with practical analyses and measurement exercises.

ArtH/AAMW/CIS 728 "Mapping Augustan Rome" (graduate seminar, co-instructor: D.G. Romano, Penn Museum)

Remarkably, no period plan exists of the ancient city of Rome. The purpose of this seminar is to create a visual synopsis of what is known about Augustan Rome: a large-scale map, accompanied by an explanatory text with critical commentary and references. The computer lab of Dr. David Romano will provide the base for creating the map by examining Rome's Augustan archaeology area for area and building for building, according to published information and guided by the Berlin model of 1988. By the end of the seminar, the drafted maps and texts should be ready for a team-authored publication, which is planned to appear in the supplement series of the "Journal of Roman Archaeology".

Careful preparation in the months preceding the seminar and thorough commitment to bring the project to full conclusion after the end of the seminar are expected by each participant. Communications will be circulating from early fall 1998 onwards; a first formal meeting of all participants will take place in December 1998. Permission required.

ArtH/AAMW 728 "Chapters in Roman Topography" (graduate seminar)

An intensive exploration of Rome's urban topography during the Late Republican and Imperial periods. Using primarily monumental and archaeological sources, and also including ancient texts, the goal will be to visually reconstruct a limited area of one's choice. The nearly completed *Lexicon Topographicum Urbis Romae* (4 volumes, so far) serves as the basic reference work. We will also receive first-hand information on methods and progress of the current publication project *Mapping Augustan Rome*, as it develops in collaboration with the Corinth Computer Lab under Dr. David Romano, University Museum. – Of interest for students of art history, architecture, archaeology, and Classics. Knowledge of Latin and some familiarity with Rome will be a plus, but are not required.

ArtH/AAMW/CIS 728 "Mapping Alexandria in the Age of Augustus" (graduate seminar, co-instructor: D.G. Romano, Penn Museum)

Greco-Roman Alexandria, the "crown of all cities," is at the core of this seminar. Its purpose is to create a commented visual synopsis of what is known about Alexandria at precisely that point of its history when it set the model for the Augustan renewal of the *Urbs Roma*. A large-scale map will be created in collaboration with the computer lab of Dr. David Romano, University Museum, and a critical commentary will be composed, examining each single structure according to published information. By the end of the seminar, drafted maps and texts should be ready for a team-authored publication, an enterprise guided by the volume *Mapping Augustan Rome* (2002). – Thorough commitment to bring the project to a full conclusion after the end of the seminar is expected by each participant. A first formal meeting of all participants will take place in mid-December 2005. Permission required.

ArtH /AAMW 728 "Vitruvian Studies" (graduate seminar) – see above under ArtH 529.

ArtH/AAMW/CISt 729 “The Pantheon – Nagging Questions”

Upon scrutiny, ancient Rome’s seemingly best-known monument turns into a maze of nagging questions. Agreement does not even exist on the precise building date, the commissioning emperor, or the function of this puzzling structure – not to mention the profound uncertainties about its Augustan predecessor. A recent international conference in Switzerland, where brand-new digital documentation of the Pantheon’s architecture was presented, only underscored the deeply uncomfortable situation. We will explore the Pantheon in as many aspects as possible. Starting with analyses of its technical structure (including marble quarrying and brick production) and the relevant ancient text sources, this investigation will also cover the complex history of modern research on the Pantheon (along with latest scholarly contentions) as well as its paradigmatic impact on later, ancient and post-antique domed architecture, most famously Michelangelo’s cupola of St. Peter’s.

ArtH/AAMW/CISt 729 “Trajan’s Forum – Controversy and Rediscovery”

The most grandiose among Rome’s imperial fora, the Forum of Trajan (AD 105-12) is currently under-going a spectacular scholarly controversy and rediscovery, with two teams of scholars defending opposing positions on the basis of recent excavations (1991-2007). At issue are not only the disposition of the entire complex and its powerful political message, but whether a monumental temple precinct of Trajan even existed. We will explore facts and debate concerning the forum in as many aspects as possible and put this into the context of similar structures in Rome itself, in the Greco-Roman East and – most importantly – in Trajan’s other huge forum in Roman Spain (Tarragona).

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