

Osher Lifelong Learning Institute
Carnegie Mellon University

Guastavino in Pittsburgh

Summer Semester 2022

Cyert Hall, Room B

Instructor: Matthew Schluieb

Format:

Six week course, weekly ninety minute academic lectures, discussion and self-guided tour. Bibliography provided for recommended further reading with each lecture.

Objective:

Master level survey of the Pittsburgh architectural works by Rafael Guastavino and his son, drawn from their Catalan traditions in masonry structural tile vaulting, as interpreted by a practicing architect and author of architecture.

Description:

Architect Rafael Guastavino and his son Rafael Jr. emigrated to the United States in 1881, bringing the traditional construction method of structural tile vaulting from their Catalan homeland, thereby transforming the architectural landscape from Boston to San Francisco. This course will examine their works in Pittsburgh, illustrating the vaults and domes made with structural tiles, innovations in thin shell construction, fire-proofing, metal reinforcing, herringbone patterns, skylighting, acoustical and polychromatic tiles. Lectures supplemented with a self-guided tour of these local structures, provided logistics and health safety measures permit.

Outline:

Lecture 1: Valencia and Barcelona (Tuesday, May 3rd, 3:15-4:45pm)

Historical background and overview of Guastavino's work in Spain before arriving in the United States:

Convent of Santo Domingo cellar vaults (arches and vaults; Mudéjar style; Zaragoza, Spain; 1283)

Monastery of Santo Domingo Refectory (bóveda tabicadas / maó de pla; Juan Franch; Valencia, Spain; 1382)

Batló Textile Factory (vaulted arcade atop metal columns; Rafael Guastavino; Barcelona, Spain; 1868)

La Massa Theater (shallow dome vault; Rafael Guastavino; Vilassar de Dalt, Spain; 1880)

Lecture 2: Boston and New York (Tuesday, May 10th, 3:15-4:45pm)

Historical background and overview of Guastavino's work in Boston and New York before arriving in Pittsburgh:

Boston Public Library (structural tile vaults; Charles McKim; Boston, Massachusetts; 1889-1895)

La Ceramica Manufacturing Plant (vestibule; Rafael Guastavino Jr.; Woburn, Massachusetts; 1906-07)

St. Paul's Chapel (dome; Isaac Newton Phelps Stokes; Columbia University, New York; 1907)

Cathedral of St. John the Divine (dome; Rafael Guastavino Jr.; Morningside Heights, New York; 1909)

Lecture 3: Material Innovations in Building Science (Tuesday, May 17th, 3:15-4:45pm)

Analysis of Guastavino's material innovations in building science, with illustrations of local Pittsburgh examples:

Western Theological Seminary Admin. Bldg. of Presbyterian Church (vestibule; Thos. Hannah; Pittsburgh; 1915)

Bell Telephone Company (exterior loggia vaults; James T. Windrim; Pittsburgh; 1931)

Phipps Natatorium (pool vault; Grosvenor Atterbury; Pittsburgh; 1908)

Pittsburgh Athletic Association Swimming Pool (pool vault; Benno Janssen; Pittsburgh; 1910)

Mellon Residence (pool vault; E.P. Mellon; Pittsburgh; 1917)

Allegheny General Hospital (portico and vestibule vaults; Edward York & Philip Sawyer; Pittsburgh; 1929-31)

County Office Building (Akoustolith tile; Stanley L. Roush; Pittsburgh; 1930)

Cathedral of Learning (Akoustolith tile; Charles Z. Klauder; Pittsburgh; 1937)

Buhl Planetarium (thermal tile dome; Charles T. Ingham & William Boyd Jr.; Pittsburgh; 1938)

Lecture 4: Geometric Innovations in Architecture (Tuesday, May 24th, 3:15-4:45pm)

Analysis of Guastavino's geometric innovations in architecture, with illustrations of local Pittsburgh examples:

St. Boniface Roman Catholic Church (pendentive dome with arched wdws.; A.F. Link; Pittsburgh; 1926)

Calvary Episcopal Church (crypt vaults; Ralph Adams Cram; Pittsburgh; 1906)

First Baptist Church of Pittsburgh (nave, aisle, narthex vaults; Bertram Goodhue; Pittsburgh; 1911)

Holy Rosary Church (plastered nave, aisle, apse vaults; Ralph Adams Cram; Pittsburgh; 1929)

East Liberty Presbyterian Church (nave, apse, narthex, stair, crypt vaults; Ralph Adams Cram; Pgh.; 1931-33, 42)

Heinz Memorial Chapel (transept and aisle vaults; Charles Z. Klauder; Pittsburgh; 1934)

Rodef Shalom Synagogue (square dome; Henry Hornbostel; Pittsburgh; 1906)

Cathedral of Learning (vaulted arcade atop columns; Charles Z. Klauder; Pittsburgh; 1937)

Baker Hall (vestibule, serpentine stair vaults; Henry Hornbostel; Pittsburgh; 1914)

Lecture 5: Structural Innovations in Engineering (Tuesday, May 31st, 3:15-4:45pm)

Analysis of Guastavino's structural innovations in engineering, with illustrations of local Pittsburgh examples:

Doherty Hall (basement, bridge vaults; Henry Hornbostel; Pittsburgh; 1908-09)

William Penn Hotel (bridge vault; Benno Janssen; Pittsburgh; 1928)

University Club (shallow vault; Henry Hornbostel; Pittsburgh; 1922)

St. Boniface Roman Catholic Church (pendentive dome with arched wdws.; A.F. Link; Pittsburgh; 1926)

- Lecture 5 continued –

Buhl Planetarium (long span, thin shell dome; Charles T. Ingham & William Boyd Jr.; Pittsburgh; 1938)
Porter Hall (series of arched vaults; Henry Hornbostel; Pittsburgh; 1905-07, 1915)
Baker Hall (serpentine stair vaults; Henry Hornbostel; Pittsburgh; 1914)
Calvary Episcopal Church (crypt vaults; Ralph Adams Cram; Pittsburgh; 1906)
Stephan Foster Memorial (steel frame; Charles Z. Klauder; Pittsburgh; 1937)
Cathedral of Learning (vaulted arcade atop columns; Charles Z. Klauder; Pittsburgh; 1937)
Rodef Shalom Synagogue (square dome; Henry Hornbostel; Pittsburgh; 1906)
East Liberty Presbyterian Church (nave, apse, narthex, stair, crypt vaults; Ralph Adams Cram; Pgh.; 1931-33, 1942)

Lecture 6: Decorative Innovations in Ornament (Tuesday, June 7th, 3:15-4:45pm)

Analysis of Guastavino's decorative innovations in ornament, with illustrations of local Pittsburgh examples:

Porter Hall (relief cornice; Henry Hornbostel; Pittsburgh; 1905-07, 1931)
Baker Hall (relief cornice; Henry Hornbostel; Pittsburgh; 1914)
Shadyside Presbyterian Church (mosaic tile; Wilson Eyre & McIlvaine; Pittsburgh; 1938)
B'Nai Israel Synagogue (portico vaults with decorative metal, mosaics; Hornbostel, Sharove & Friedman; Pgh; 1924)
Pittsburgh Athletic Association Swimming Pool (pool vault; Benno Janssen; Pittsburgh; 1910)
Margaret Morrison Carnegie College (pavilion vault; Henry Hornbostel; Pittsburgh; 1914)
U.S. Bureau of Mines / Hamburg Hall (vestibule vaults; Henry Hornbostel; Pittsburgh; 1916)
Mellon Residence (pool vault; E.P. Mellon; Pittsburgh; 1917)
Pittsburgh City-County Building (loggia vaults with stone ribs; Henry Hornbostel; Pittsburgh; 1916)
Doherty Hall (basement, bridge vaults; Henry Hornbostel; Pittsburgh; 1908-09)
Machinery Hall / Hamerschlag Hall (vestibule vaults; Henry Hornbostel; Pittsburgh; 1914)
Allegheny General Hospital (portico and vestibule vaults; Edward York & Philip Sawyer; Pittsburgh; 1929-31)
St. Boniface Roman Catholic Church (pendentive dome with arched wdws.; A.F. Link; Pittsburgh; 1926)
County Office Building (Akoustolith tile; Stanley L. Roush; Pittsburgh; 1930)
Allegheny County Courthouse (basement vaults; Stanley L. Roush; Pittsburgh; 1911-13?, 1924-28)
Bell Telephone Company (exterior loggia vaults; James T. Windrim; Pittsburgh; 1931)
U.S. Post Office and Courthouse (vestibule thru glass; Trowbridge & Livingston; Pittsburgh; 1931-34)

Biography:

Matthew Schlueb is a licensed architect practicing architecture for over two decades. He owns and operates a sole-proprietorship private practice, where he specializes in residential architecture and is dedicated to mastering the art of exceptionally tailored homes crafted by hand. He has authored ten books on architecture and lectures from the kindergarten to post-graduate level. His designs have been awarded locally and nationally by juried competitions, receiving praise internationally in both print publications and television media. His own home, Villa Vuoto, is a manifesto on creativity, questioning the conventions of the building industry, while expanding the minds and sensitivities of his two sons raised within circular space, where rooms are rounded and walls sloped. The house is an ongoing experiment exploring human sensibilities to subtleties revealed only by a careful handling of soft, curvilinear, textural form. Matthew was awarded Master of Architecture from Pratt Institute, where his thesis studied the visual perception of architectural space, exploring proxemic relationships between inhabitant and inhabitable form, isolating perceptual thresholds and their influences on human behavior. He continues this experimentation through his collaborations with local artists, folding their knowledge of materials and technique into his search for a meaningful architecture.

Abridged CV:

2021 - Experimentations in material sciences, exploring physical and metaphysical properties of architectural space.
2020 - Began construction of one-room, plant-based, addition to Villa Vuoto
2019 - Instructor, Carnegie Mellon University, Osher Lifelong Learning Institute, [The Architecture of Antoni Gaudí](#)
2018 - Invited Entry, Laka Foundation, [The End of Architecture](#)
2017 - Invited Speaker, PechaKucha Night Pittsburgh 26, [Are We the Last Architects?](#)
2016 - Instructor, University of Pittsburgh, Osher Lifelong Learning Institute, [Architecture in the Modern Era](#)
2015 - Featured writer/monthly contributor to the North Hills Magazine
2014 - Launched 'Architectural Storytelling' initiative, [Cherry Blossoms](#)
2013 - Featured guest on the Discovery Channel Network, [Epic Bathrooms](#)
2012 - Profiled in Pittsburgh Business Times, Executive Living, [A Well-Rounded Experience](#)
2011 - Villa Vuoto featured in Wesley Spectrum Tour of Homes, charitable fundraiser
2010 - Inaugural SCHLUEBarchitecture Student Design Competition, [Dream Home](#)
2009 - Published [An Architect's Manifesto on the Origins of Creativity](#)
2008 - Villa Vuoto published in Pittsburgh Magazine, winner of Superior Interiors, [Far Out](#)
2007 - Launched 'the schlueb suite: Rifugio Collection', SPLASH Luxury Home Collection
2006 - Villa Vuoto published in Moodne Kodu, Estonia, [Crusade Against Rectangle](#)
2005 - Featured guest on the HGTV Network, [OFFbeat America](#)
2004 - Completed construction on Villa Vuoto
2003 - Registered Architect, State of Ohio
2002 - Launched the 'Why Learn to Draw?' initiative, [creativity against the world](#)
2001 - NCARB Certification, licensed to practice throughout North America
2000 - Established SCHLUEBarchitecture studio, private practice, Pittsburgh
2000 - Registered Architect, State of Pennsylvania
1994 - Master of Architecture, Pratt Institute
1993 - Bachelor of Architecture, Pratt Institute
1991 - Bachelor of Science in Architecture, Ohio State University
1968 - Born in Columbus, Ohio

Selected Publications:

2017 - eave shakings: North Hills Monthly Magazine, vol.3 (Villa Vuoto Publications, Pittsburgh)

2016 - mousetrap (Villa Vuoto Publications, Pittsburgh)

2008/2010 - Villa Vuoto: An Architect's Manifesto on the Origin of Creativity (Stella Cadente Publications, Pittsburgh)

2002/2005 - creativity against the world (Villa Vuoto Publications, Pittsburgh)

1994 - gestured form and activated space (Pratt Institute, New York)

Contact:

Matthew Schlueb, SCHLUEBarchitecture

website: <http://www.FINALmove.com>

phone: 724-934-7868

email: schlueb@FINALmove.com

publications: <http://www.amazon.com/author/schlueb>

abridged cv: <http://www.schluebarchitecture.com/schlueb.pdf>

