

ZACH SEIBOLD

Lecturer in Architecture and Research Associate, Harvard University Graduate School of Design
Adjunct Professor, Wentworth Institute of Technology
Co-founder, VHS Office

Curriculum Vitae

EDUCATION

Harvard University: Graduate School of Design: Cambridge, MA: 8.2013 - 5.2015

Master of Design Studies: Technology

Thesis: Adaptive Frames

Courses in computational design, digital fabrication, material systems, art design + the public domain.

Massachusetts Institute of Technology: School of Architecture + Planning: Cambridge, MA: 08 - 12.2014

Course in Media Arts and Sciences: How to Make Almost Anything

Syracuse University: School of Architecture: Syracuse, NY: 8.2003 - 12.2008

Bachelor of Architecture awarded Magna Cum Laude

Thesis: From the Ashes of Fordism

Spring 2006 Study Abroad: Florence, IT

Cornell University: College of Architecture Art + Planning: Ithaca, NY: 6 - 8.2002

Courses in architecture theory and design.

SELECT RESEARCH + DESIGN WORK

Material Processes + Systems Group, Harvard GSD: Research Associate: 2016 – Present: Cambridge, MA

Post-tensioned Ceramics: Lead Designer of a novel structural system using post-tensioned slender ceramic extrusions and custom 3D printed connectors. Responsibilities included mechanical testing, development of parametric models for fabrication and analysis, prototype fabrication, and project management for the fabrication of a full-scale mock-up.

Ceramic Tectonics - Tile Grid Shell: Project lead for an all-ceramic grid shell structure exhibited at Cevisama 2018.

Ferro-tiles: Development of a dynamic, reusable mold system for various cast-able building materials.

Ceramic 3D Printing: Ongoing research of additive manufacturing techniques for ceramic building components, including research of functionally-graded materials, 5-axis robotic printing.

Ceramic Morphologies: Development and project management of a novel 3d printing strategy for ceramic building components, including the fabrication of a pavilion exhibited at Cevisama 2017.

VHS Office: Co-Founder, Principal: 2012 – Present: Somerville, MA

Farm Lane Residence, Westwood, MA: Schematic design through construction administration for renovations to an existing single family residence. Construction completed summer 2018.

Massey-Norman Residence, Brooklyn, NY: Design and construction of renovations to an existing multi-family residence. Construction completed in 2013.

Höweler + Yoon Architecture: Designer/Fabricator: 2015 – 2016: Boston, MA

FloatLab, Philadelphia, PA: Schematic design and project management of a 75' diameter floating platform devoted to art and ecology on the Schuylkill River, including the testing and deployment of an occupiable design prototype. Honorable Mention: 65 th Annual Progressive Architecture Awards

Swingtime 3.0, Boston, MA: Design, prototyping, fabrication and installation of translucent roto-molded swings, including the design and production of custom electronics.

Empathy Pavilion, Dubai Expo 2020, Dubai, UAE: Concept design of 80,000sf Expo Pavilion, including the development of parametric tools for evaluating design iterations.

Peppertree Residence, Great Falls, VA: Produced construction documents, preliminary cost estimates and managed the bidding process for a 6,000sf residence.

Fabrication: Managed in-house fabrication shop, including 3-axis CNC mill, laser cutter and wood shop. Generated 3d models for CNC production and direct communication with fabricators.

MOS Architects: Intermediate Architect: 2011 - 2012: New York, NY

Foreclosed: Rehousing the American Dream: Produced physical models and films for 2011 MoMA exhibition.

226 W 135th St: Produced DoB submittal, coordinated consultants, designed details and managed construction.

Syracuse University: Project Manager: 2009 - 2011: Syracuse, NY

The 601 Tully Project, Syracuse NY: Collaborated with multiple organizations to convert an abandoned residence into a center for art, writing and entrepreneurship. Created graphic and written content for major grant applications, governmental approval hearings, social media, speaking engagements, press packets and community events. Coordinated the sourcing, processing and re-purposing of local building materials.

SELECT PUBLICATIONS

Seibold, Z; Grinham, J; Geletina, O; Ahanotu, O; Sayegh, A; Weaver, J; Bechthold, M: "Fluid Equilibrium: Material Computation in Ferrofluidic Castings" in *Re/Calibration: On Imprecision and Infidelity: Proceedings of the 38th Annual Conference of the Association for Computer Aided Design in Architecture*, 2018.

Seibold, Z; Hinz, K; Garcia del Castillo, J.L; Alonso, N.M; Mhatre, S; Bechthold, M: "Ceramic Morphologies: Precision and Control in Paste-Based Additive Manufacturing" in *Proceedings of ACADIA Conference: Re/Calibration: On Imprecision and Infidelity: Proceedings of the 38th Annual Conference of the Association for Computer Aided Design in Architecture*, 2018.

Seibold, Z., Mesa, O., Stavric, M., Bechthold, M.: *Ceramic Tectonics: Tile Grid Shell* – Proceeding of the IASS Symposium 2018, MIT Press Journals, Cambridge. 2018.

Bernstein, Fred. "The Brilliant Trick That Turned an Old Brooklyn Storefront Into a Modern Pied-à-Terre." *New York Magazine Design Hunting* Fall/Winter 2018, Oct. 2017, <https://www.thecut.com/2017/10/the-trick-that-turned-a-storefront-into-a-pied-terre.html>.

Seibold, Zach, et al. "Voxel Beam: Re-Fabricating a Structural Beam." *Proceedings of the 20th International Conference of the Association for Computer-Aided Architectural Design Research in Asia, CAADRIA 2015*.

GSD Platform 7, Harvard GSD: Work from the spring 2014 semester featured in publication and exhibition of current research at the Graduate School of Design

Seibold, Zach, et al. "Robotic Fabrication of Components for Ceramic Shell Structures." *Journal of the International Association for Shell and Spatial Structures* 55.4 (2014): 237-42.

Seibold, Zach, et al. "Robotic Fabrication of Components for Ceramic Shell Structures. Presented at the International Association for Shell and Spatial Structures IASS-SLTE 2014 Symposium, Brasilia, Brazil, September 15-19, 2014; paper 319.

"601 Tully" Lecture presented at Upstate: Syracuse University School of Architecture, Syracuse, NY, November, 2009.

"MLAB: Mobile Literacy Arts Bus" Lecture presented at Massachusetts College of the Arts, Boston, MA, February 2009.

ARCHITECTURE FACULTY POSITIONS

Harvard University Graduate School of Design, Cambridge, MA

Lecturer in Architecture: 07.2019 - Present

Instructor: Digital Skills Workshop: 08-09.2014, 08-09.2015

Architecture Studio Instructor: Career Discovery: 6-7.2015

Wentworth Institute of Technology, Boston, MA

Adjunct Professor: 01.2017-Present

ORIGINAL ACADEMIC COURSEWORK

Fall 2019

VIS-2228: Digital Media: Manipulations – Harvard University Graduate School of Design

An introduction to fundamental concepts, techniques, and methods in digital design, with a focus on reciprocal processes of translation between digital media and material artifacts. Key topics are explored through techniques of robotic hot wire cutting and projection mapping.

ARCH 3800: Techniques and Technologies in Digital Fabrication – Wentworth Institute of Technology

A graduate-level elective course on advanced digital fabrication techniques in architecture, with a focus on parametric design strategies and the fabrication of full-scale design prototypes using a variety of digital fabrication techniques.

Spring 2018

ARCH 3800: Techniques and Technologies in Digital Fabrication – Wentworth Institute of Technology

A graduate-level elective course on advanced digital fabrication techniques in architecture, with a focus on parametric design strategies and the fabrication of full-scale design prototypes using CNC machining, vacuum forming and 3D printing.

Spring 2017

ARCH 3700: Techniques and Technologies in Digital Fabrication – Wentworth Institute of Technology

An advanced undergraduate-level course on advanced digital fabrication techniques in architecture with a focus on parametric design strategies and the fabrication of full-scale design prototypes, focused on the CNC machining wood sheet materials.