

marci s. uihlein

education:

University of Illinois at Urbana-Champaign, School of Architecture

Master of Architecture, Structures Option, awarded August 2000

Summer in China Program in conjunction with Tongji University and the University of Illinois at Urbana-Champaign, School of Architecture

Workshop based in Shanghai, China, Summer 2000

Technische Universität München exchange in conjunction with the University of Illinois at Urbana-Champaign

Summer Design Studio in Munich, Germany, 1999

University College of Wales, Aberystwyth, United Kingdom

Academic Year Abroad, 1991-1992

University of Illinois at Urbana-Champaign, College of Liberal Arts & Sciences

Bachelor of Arts, Art History, awarded May 1995

professional registration:

Professional Engineer, State of California

teaching experience:

University of Illinois at Urbana-Champaign School of Architecture

Associate Professor, 2017 - Current

Assistant Professor, 2010 – 2017

Unit Four Summer Math Camp, 2017

Workshop on architecture with 4th & 5th Graders

University of Illinois at Urbana-Champaign Study Abroad Program at Versailles, School of Architecture Visiting Lecturer, 2007-2010

Engineers Alliance for the Arts, Three Brick Project, 2003

Co-led multi-week engineering project in San Francisco high school.

courses taught:

Arch 351 – Statics and Dynamics

This is the introductory undergraduate structures course which includes: the study of equilibrium of rigid bodies; trusses; shear and bending moments in beams; arches and frames; cables; friction; introduction to dynamics; in architectural applications.

Arch 352 – Mechanics of Materials and Design Applications

The second in the undergraduate structures series which incorporates: the study of stresses, strains, and deformations in axially loaded members; direct shear and bearing stresses; torsion; beam stresses and deflections; stresses under combined loading; column buckling; design of structural members; introduction to statically indeterminate structures; in architectural applications.

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Arch 550 – Reinforced Concrete Design

This is the first graduate course in concrete for the Structures Option. Topics include: selection, design, and comparison of reinforced concrete floor systems for buildings; study and design of columns and footings. Skills are learned in the selection and comparison of concrete systems and concrete design methods.

Arch 551 – Structural Analysis

This is the introductory course for the graduate Structures Option. Topics include: advanced problems in the analysis of statically determinate structures; general theories and methods of analysis of statically indeterminate structures by geometric and energy methods; and introduction to building loads.

Arch 556 – Advanced Structural Planning

This course is designed to conclude the Structures Option. Topics include: the study and determination of the loads, functional and spatial requirements, and construction problems in the selection and design of structural systems for buildings; cost estimates; and integration of architecture with structure. Topics are taught through a semester-long project which involves architectural and structural design.

Arch 572 –Design: Behavior & Environment (co-taught)

Graduate design studio explorations responding to social, economic, political and behavioral dimensions of human existence and settlement. Projects investigate the experience of physical environments at the human scale and socially sustaining design strategies addressing diverse human needs.

Arch 595 EQ – Seismic Design of Buildings

This graduate course allows students to study the complex response of buildings to earthquakes. Course topics include: elements of seismology, basic concepts of structural dynamics; behavior of building structures under earthquake loading; architectural seismic design.

faculty advisor:

Ceramic Tensegrity Pavilion with Shelby Orr and Logan Whitley. Competition Selection for the International Association of Shell & Spatial Structures International Conference, October 7 – 10, Barcelona, Spain.

exhibitions:

Revealing Presence: Women in Architecture at the University of Illinois, 1874–2019, Krannert Art Museum, University of Illinois at Urbana-Champaign, September 26 – October 12, 2019. Joint Exhibition Curator & Director of Design and Installation with Sara Bartumeus. Andrea Melgarejo de Berry, Design Lead.

publications:

articles:

Uihlein, Marci S. “Editorial: “The Translation of Meaning,” for *Technology | Architecture + Design*, vol.4, No. 1 (2020): p 1.

Uihlein, Marci S. “Editorial: Uihlein, Marci S. “Editorial: “Data Integrity and Future Systems,” for *Technology | Architecture + Design*, vol.3, No. 2 (2019): p 127.

Uihlein, Marci S. “Editorial: The Speed of Urbanizing,” for *Technology | Architecture + Design*, vol.3, No. 1(2019): pp. 1

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Uihlein, Marci S. "Editorial: Open," for Technology | Architecture + Design, vol.2, No. 1 (2018): pp. 2-3.

Caryn Brause, Chris Ford, Clare Olsen, Jeana D'Agostino Ripple, Marci S. Uihlein, and Andrzej Zarzycki . "Why TAD?" for Technology | Architecture + Design, vol.1, No. 1 (2017): pp. 1-2.

Uihlein, Marci S. "Structural Engineering Participation in Integrated Design" for Practice Periodical on Structural Design and Construction (2016), DOI: 10.1061/(ASCE)SC.1943-5576.0000302.

Uihlein, Marci S. "The University of Illinois, N. Clifford Ricker, and the Origins of Architectural Engineering Education in the United States," for Journal of Architectural Engineering, vol.22, No.3 (September 2016): pp. 02516002: 1-13, DOI: 10.1061/(ASCE)AE.1943-5568.0000175.

Uihlein, Marci S. "When Integration Goes Wrong: Learning from the Mistakes of Practitioners" *Journal of Architectural Engineering*, doi: 10.1061/(ASCE)AE.1943-5568.0000207 (2016)

Uihlein, Marci S. "Elmer Lawrence Corthell and the Ambitions of a Civil Engineer" for Construction History: International Journal of the Construction History Society, vol. 31, No.1 (2016): pp. 141-159.

Uihlein, Marci S. "Characteristics of Structural and Architectural Integration as Identified by U.S. Architectural Practitioners," *Journal of Architectural and Planning Research*, Vol. 32:3 (Autumn 2015): 258-270.

Uihlein, Marci S. "Integrating Structure and Architecture: Guidance for the Structural Engineer," *Practice Periodical on Structural Design and Construction*, vol. 20:4 (November 2015): pp 04014049: 1-11.

Uihlein, Marci S. "Structural Integration in Practice: Constructing a Framework from the Experiences of Structural Engineers," *Journal of Professional Issues in Engineering Education and Practice*, vol. 141:3 (July 2015): pp 04014010: 1-8.

Uihlein, Marci S. "The State of Integration: An Investigation of Integration in the AEC Community" *Journal of Architectural Engineering*, vol. 20: 2, (June 2014): pp 05013004: 1-6.

Uihlein, Marci S. "Ove Arup's Total Architecture, Integrated Project Delivery, and the Role of the Engineer," *Architectural Science Review* (2014). doi:10.1080/00038628.2014.963022.

Uihlein, Marci S. "Architecture, Structure, and Loads: A Moment of Change?" *Enquiry: The ARCC Journal of Architectural Research*, 9:1 (2012). < <http://www.arcc-journal.org/index.php/arccjournal/article/view/67>>

invited lectures and panels:

Invited Pedagogical Webinar: "ACSA Pivot to Online Learning: No Labs, No Robots, No CNC Machines: How can Material and Technological Investigations Continue in a Virtual Learning Environment?" With Andrzej Zarzycki and Martina Decker. First of the Series, March 13, 2020.

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Opening Panel, 2017 AIA Research Summit, St. Louis, Missouri, (June 28, 2017)

“Discovering Structural Integration” Massachusetts Institute of Technology, Building Technology Seminar Series, Cambridge (April 7, 2014).

conferences

papers:

Uihlein, Marci S. with Shelby Orr and Logan Whitley, “Ceramic Tensegrity,” Accepted for International Association of Shell and Spatial Structures International Conference, October 7 – 10, 2019, Barcelona, Spain.

Uihlein, Marci S. “Maps, Videos, and Structures: Visualizing Structural Concepts through Media-Based Assignments,” Accepted for the Building Technology Educators Society, June 2019, Amherst, MA.

Presenter on the “Accessing the Quality of Architecture Research & Scholarship” Panel (as part of the ACSA Research & Scholarship Committee), March 30, 2019 at the ACSA Annual Meeting in Pittsburgh.

Presenter, ACSA Research & Scholarship Committees Special Focus Session at the 106th Annual Meeting for “Architecture’s Approach to STEM,” Denver, Colorado, 2018.

Building Technology Educators’ Society, June 8-10, 2017, Des Moines, Iowa: Uihlein, Marci S. “Building Structural Education: Structures Textbooks Used by Architectural Students.”

Structures Congress, Structural Engineering Institute, Denver, April 6-8, 2017, Denver, Colorado: “Early Twentieth Century Efforts and Twenty-First Century Structural Engineering Licensure.”

Structures Congress, Structural Engineering Institute, Denver, April 6-8, 2017, Denver, Colorado: “Making links: Teaching structures through connecting industry, theory, and project work.”

International Conference on Structures and Architecture, July 27-29, 2016, Guimaraes, Portugal: “Claiming Ground: The First Structural Engineering License in the United States.”

Construction History Society of America, Fifth Biennial, Austin, Texas, May 26-28, 2016: “From Architecture came Structural Engineers: Structural Engineering Licensure in Illinois,”

Sixth Annual Association for Preservation Technology Western Great Lakes Chapter Symposium, Northbrook, Illinois, April 16, 2016: “The History of the First Structural Engineering License in Illinois and the United States,”

BTES Conference 2015, Salt Lake City, Utah, June 24-27, 2015: “Structures and Studio: Natural Allies in Linked Classes.” with Scott Murray, University of Illinois.

Fifth International Congress on Construction History, Chicago, Illinois, June 3-7, 2015: “American Institute of Consulting Engineers and the Professionalization of the American Engineer.”

AIA MN/Construction History Society of America Conference, Minneapolis, Minnesota, November, 12-14, 2014: “The Ambitions of a Civil Engineer: E. L. Corthell and His Efforts to Change the Profession.”

Structural Engineering Institute, Structures Congress, Portland, Oregon, April 23-25, 2015:
“Expanding the Education of Structural Engineers: Structural Planning Integrated with an Architectural Design Studio.”

“A Two-Way Street: Structural Engineers and Their Relationships with Architects”

Architectural Engineering Institute Biennial Conference, Milwaukee, Wisconsin, March 24-27, 2015: “Anti-Integration: Defining Integration by What it Ain’t.”

History of Engineering: International Conference on History of Engineering, Naples, Italy, May 19-20, 2014: “Establishing a Field: the Foundations of Architectural Engineering in Nineteenth Century America.”

Structural Engineering Institute, Structures Congress, Boston, Massachusetts, April 3-5, 2014: “Integration Insights from the Field: Views from Architectural Practitioners.”

AIA Forefront: Architects as Collaborative Leaders, Salt Lake City, Utah, October 24-25, 2013: “Integration Insights from Structural Engineering Practitioners.”

ICSA 2013: The Second International Conference on Structures and Architecture, Guimarões, Portugal, July 24-26, 2013:

“The Structural Engineer: Finding the Philosophy of the Profession.”

“Examining the Architectural Engineer”

BTES Conference 2013, Bristol, Rhode Island, July 11-13, 2013: “Architectural Engineering in the Curriculum: An Examination of AE and its Relationship to Architecture.”

First Annual Conference on Architecture and Civil Engineer, Singapore, March 18-19, 2013: “Structural Integration: An Undefinable Idea?”

Architectural Engineering Institute Conference in State College, PA, April 3-5, 2013: “Integration in the classroom: Structural Planning and Design.”

ACSA International Conference, June 20–22, 2012, Barcelona, Spain: “Forces of Change: Past and Present.”

ACSA Teachers Seminar, June 16-18, 2011, New York, New York: “Examining an Engineer’s Design Studio”

reviewer and scientific committees:

Scientific Committee for 2020 Construction History Society of America Conference, (Conference postponed due to COVID -19)

Scientific Committee for the 2020 ARCC-EAAE International Conference, (Conference postponed due to COVID -19)

BTES Scientific Committee for 2019 BTES Conference, June 19-22, 2019, Amherst, MA

ARCC - EAAE 2018 International Conference, 2018, Philadelphia.

Scientific Committee for International Association for Shell and Spatial Structures (IASS) Annual Symposium, 2018, Boston, MA.

Building Technology Educators’ Society (BTES), 2017, June 8-10, 2017, Des Moines, Iowa

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Construction History Society of America, Fifth Biennial, Austin, Texas, May 26-28, 2016.

Scientific Committee Member, Fifth International Congress on Construction History, Chicago, Illinois, June 3-7, 2015.

AEI Biennial Conference, Milwaukee, Wisconsin, March 24-27, 2015.

BTES Special Focus Session at 102th ACSA Annual Meeting, 2014, for session entitled: "Integration Complexities: Technology Education through Collaborative Learning."

47th International ASA-Conference "Cutting Edge in Architectural Science" 13th – 16th November 2013 co-hosted by the School of Architecture, the Chinese University of Hong Kong & the Architectural Science Association (ASA).

session moderator:

"Surface" at the ACSA 108 Annual Meeting, June 16, 2020, Virtual.

BTES Special Focus Session at the 106th ACSA Annual Meeting, Denver, Colorado, 2018. Session entitled: "Technology Matters."

BTES Conference 2017, Des Moines, Iowa, June 8-10, 2017. Session entitled, "Materials."

Structures Congress 2017, Denver, Colorado. Session entitled, "Still in Use: Structural Engineering History and Contemporary Design Practice."

104th ACSA Annual Meeting, Seattle, March 17-19, 2016, session entitled: "Structure as Design Knowledge" with Tyler Sprague and Robert Dermody.

Fifth International Congress on Construction History, Chicago, Illinois, June 3-7, 2015: "Anti-Seismic Construction" and "Concrete Shells."

workshops and webinars:

Uihlein, Marci S., Andrzej Zarzycki, Hazem Rashed-Ali, and Thomas Fisher. "Architectural Research: Designing Your Research Project," American Institute of Architects Conference on Architecture, Las Vegas, Nevada (June 6-8, 2019).

Co-organizer and presenter for a half-day workshop: Defining Your Research at the ACSA Annual Meeting, March 28, 2019 at the ACSA Annual Meeting in Pittsburgh.

Co-Organizer, presenter for Pre-Conference Workshop: "Defining Your Research" at the 106th ACSA Annual Meeting, 2018.

Co-Organizer for Pre-Conference Workshop: "Architecture Research 101: What, How, and Why?" at the American Institute of Architects National Conference, 2018.

Co-Organizer for series of four TAD Webinars for ACSA (<http://www.acsa-arch.org/programs-events/webinars/tad-webinars-workshop-series>), 2018.

Moderator, TAD Webinar for ACSA: Understanding Your Resources: Internal and External, March 29, 2018.

grants:

National Endowment for the Humanities Preservation Assistance Grant for the preservation and cataloging of the Architecture Drawing Archive, 2019, \$10,000.

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Student Cultural Programming Fee Grant from the student committee for the Women's Reunion + Symposium, 2019, \$5000.

Principal Investigator, College of Fine and Applied Arts, Design Research Fellow, 2015-2017, \$25,000.

Co-Principal Investigator with Swain, Ellen, Whitacre and James, Belovari, "Mapping History at the University of Illinois: A Digital Humanities Project", Innovation Fund Proposal, University Library, 2016, \$27,320.

Campus Research Board Award, "The Structural Engineer as Designer: Architecture's Creative Partner", 2014-2015, \$15,395.

Principal Investigator, University of Illinois, College of Fine and Applied Arts, Creative Research Award, 2012-2013, \$2932.

Campus Research Board Award, Humanities Release Time. "Building Revolution: Examining Historic, Existing, and Future Roles of Architects and Their Collaborators'." Awarded for one semester in AY 2012-2013.

Principal Investigator, University of Illinois, College of Fine and Applied Arts, Creative Research Award, 2011-2012, \$5000.

Principal Investigator, University of Illinois, Campus Research Board, 2011-2012, \$12,041.

organizations:

Technology | Architecture + Design, 2016 - current

Founding Editorial Member of this ACS/Taylor & Francis Journal
Issue Editor, Volume 2:1
Executive Editor, 2018 -

Associated Collegiate Schools of Architecture, ACSA

Research & Scholarship Committee Member, 2017-2018, 2018 – 2019
Faculty Councilor, 2015 -2018

AISC Partners in Education Committee Member, 2015 - current

Building Technology Educators Society, BTES

Past-President, 2018
President, 2017
President-Elect, 2016
Secretary, 2013 - 2015
Elected Board Member, November 2011

Construction History Society of America

Member, Managing Committee 2015 - present

American Society of Civil Engineers, ASCE, Member, 2011- current

Associate Member, ASCE 07-16 Main Committee, 2012 – 2015
Secretary, ASCE 7-16, Dead & Live Load Committee, 2012 – 2015

Structural Engineers Association of Northern California, SEAONC, 2000-2004

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service:

university:

- 2018 Member, Head of Ricker Library of Art and Architecture Search Committee
- 2016 University of Illinois Faculty Retreat, Faculty Demonstration (March 4)
- 2016 CITL Teaching with Technology Seminar Series: Geographic Information System (GIS), Story Maps that Shake Up the Classroom. Projects with James V. Whitacre (Mar. 2)
- 2015 CITL Teaching with Technology Brown Bag Series: Media-Based Assignments—Keeping Students Engaged with Robert Baird (December 9)
- 2012-2018 Member, Gender Equity Council
- 2012 Member, subcommittee for Women's Mentoring Program: Moving Forward
- 2013 Member, subcommittee for Mentoring of Women Faculty.
- 2013 Guest Lecturer, LIS 548: Library Buildings, Summer.

college:

- 2016-2019 Member, Diversity, Equity, and Inclusion Committee
- 2017 Member, College Strategic Planning Theme Committee on Design Across Campus
- 2017 Co-moderated panel for College with Conor O'Shea, (March 28) "Design Research: Creating Knowledge."
- 2017 Member, College Strategic Planning Theme Committee
- 2016 Krannert Uncorked + On Topic with Mary Pat Mattson (April 14), "Mega".

school:

- 2018-2020 Member, Lecture Committee (Theiss Lecture)
- 2018- 2019 Executive Committee Member
- 2018 Chair of Kerbis Endowed Chair Search Committee
- 2018 Co-Organizer of ISoA's Women's Reunion & Symposium with S. Bartumeus
- 2018 Member, Search Committee for Lecturer (Structures), School of Architecture, Abroad Program, Barcelona-El Vallès, Spain
- 2017-2018 Member, Faculty Grievance Committee
- 2016-2017 Member, Media Presence Committee
- 2015 Acting Chair of Lecture Committee, Spring Semester.
- 2014-2016 At-Large Member, Curriculum Committee.

professional practice experience:

Design Research Consultant

Mumford House Redevelopment, University of Illinois, Urbana, Illinois, 2011
Architect: Jeffery Poss and Paul Kapp, Urbana, IL
Engineering consultant for funded research project to explore three new architectural solutions for existing 1870 "Model Farmhouse" on the campus.

Arup, Los Angeles, California,

Project Engineer in Structural Group, 2004-2007

Project Manager, 2006-2007

Fresno Metropolitan Museum, Fresno, California, 2005-2007
Architect: Michael Maltzan Architecture, Los Angeles, California
Lead Project Engineer from programming to construction administration for the refurbishment of the historic Fresno Bee Newspaper building (1922).
Responsibilities include the detailed design of modifications to the existing structure, as well as the structural design of the new 5-story addition to the museum

with a special concentric braced frame lateral system.

Project manager for the construction administration managing a multi-disciplinary team including mechanical, electrical, plumbing, acoustic, and fire engineers.

Los Angeles International Airport, Los Angeles, California, 2006-2007

Architect: Gensler, Los Angeles, California

Lead Project Engineer from concept design to construction documents for a confidential project work.

Chalon Road Residence, Bel Air, California, 2006-2007

Architect: John Pawson, London, United Kingdom

Project engineer for the schematic and construction phases of a 20,000 sf residence.

Orange County Museum of Art Competition, 2006

Architect: Gigon/Guyer Architekten, Zurich, Switzerland

Engineer on the concept design team of a museum and residential project for one of the four finalist teams of Shigeru Ban, Gigon/Guyer Architekten, Abalos & Herreros, and Morphosis. Morphosis selected.

General team member, 2004-2007

Engineer providing project support for various stage and responsibilities ranging from connection, member, and system design for:

Los Angeles County Art Museum Addition, Los Angeles, California

Portland Aerial Tram, Portland Oregon

BMW Hydrogen Refueling Station, Ventura County California

Tempe Center for the Arts, Tempe, Arizona

The Christ and St. Luke's Episcopal Church project, Norfolk, Virginia

Los Angeles Community College, Central Plant, Los Angeles, California

Kaiser Permanente Panorama City Hospital, Panorama City, California

CSU Channel Islands Broome Library, California

Arup Internal Projects:

Organized weekly Structural Group Meetings for training, 2004-2007.

Coordinated and co-led site visits to multiple projects in San Francisco, Denver, and Los Angeles for groups of 15 people from the three Arup offices, 2006-2007.

TV Program: Where Did It Come From?: Ancient Rome: Rise of the Apartments, 2006

Provided structural analysis and model for a multi-story apartment Roman apartment building in Ostia Antica. Consultant for this episode of the program.

Ove Arup and Partners, San Francisco, California, 2000-2004

Engineer in Structural Group

New San Mateo Public Library, San Mateo, California, 2003-2004

Architect: EHDD Architecture, San Francisco, California

Engineer for schematic design to construction documents for a 90,000 sq ft city library. Project engineer responsible for design and detailing of the buckling-restrained braced frame lateral resisting system as well as primary gravity system.

University of California, Davis, Genome & Biomedical Sciences Facility, 2000-2002

Architect: Anshen + Allen, San Francisco, California

Engineer for design development to construction documents. Responsible for design and detailing of the buckling-restrained braced frame lateral resisting system for

this 200,000 sq ft structure. Responsible for gravity as well as vibration analysis of lab and office floors to meet needs of required equipment.

Kaiser Medical Office Building IV, Santa Rosa, California, 2002-2003

Architect: Ratcliff Architecture, Emeryville, California

Project Engineer for design development through construction administration of 60,000 sq ft fast-track office building. Responsible for design and detailing of the eccentric-braced frame lateral resisting system and primary gravity system.

Kaiser Santa Clara Hospital - Phase 1, Santa Clara, California, 2003

Architect: Anshen + Allen, San Francisco, California

Engineer for construction documents to construction administration for large hospital complex. Design and detailing for MEP equipment anchorage.

Kaiser Santa Clara Hospital - Phase 2, Santa Clara, California, 2002-2003

Architect: Anshen + Allen, San Francisco, California

Engineer for schematic design to construction documents for large hospital complex. Participated in the design a hospital building and detailed MEP equipment anchorage through OSHPD review

Intermountain Health Care, Salt Lake City, Utah, 2003

Architect: Anshen + Allen, San Francisco, California

Engineer for lateral system schematic design for the Women's & Newborn Center.

Folsom Towers, San Francisco, California, 2001

Potential Work for Developer

Designed parking structure with recycled structural members & removable decking.

Historic Preservation Education Foundation/National Park Service, 1999

Editorial Assistant for Historic Roofing Conference & Exhibition Handbook

Researched historic roofing systems, compiled and formatted authors papers.

Wiss, Janney, Elstner Associates, Inc. Northbrook, Illinois, 1998

Summer Intern at A/E Firm and participated in site visits, including window and masonry surveys. Created and updated construction documents using AutoCAD.

honors:

2016-2018 College of Fine & Applied Arts, Design Research Fellow

2015-2016 College of Fine Arts Faculty Excellence in Education Award

2016 MBMA Faculty Fellow (Metal Building Manufacturers' Association)

2015 MBMA Faculty Fellow (Metal Building Manufacturers' Association)

2013 BTES Emerging Faculty Award (Building Technology Educators' Society)

2011 AIAS Excellence in Architectural Education

2008 – 2009 Dean F. and Avis E. Hilfinger Faculty Fellowship, 2008-2009

Listed in the List of Teachers Ranked as Excellent by Their Students,

Years: 2008, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2019