

Education **Doctor of Philosophy in Architectural Science**
Rensselaer Polytechnic Institute, Troy, New York
Dissertation Title: (In)Forming: the Affordances of Digital Fabrication in Architectural Education

Master of Architecture
The University of Illinois, Chicago

Bachelor of Architecture
Minor in Philosophy
California Polytechnic State University, San Luis Obispo, CA

Administrative Experience **Architecture Department Head, 2022 -**
Associate Dean for Academic Affairs, 2017 - 2022
College of Architecture and Environmental Design
Chair of Tenure and Tenure-Track Faculty, 2016-2017
Chair of Curriculum Committee, 2012-2017
Director, Architecture Summer Career Workshop, 2006 -

Academic Experience **Professor of Architecture, 2017 -**
Associate Professor of Architecture, 2012 - 2017
Assistant Professor of Architecture, 2008-2012
Lecturer in Architecture, 2002-2004, 2008.
California Polytechnic State University, San Luis Obispo, CA

Visiting Assistant Professor of Architecture, Winter and Spring 2007
The University of Oregon

Research Fellow, Institute for Digital Fabrication, Fall 2007
Ball State University

Doctoral Teaching Fellow, AY 2005, Fall 2006, Fall 2007
Rensselaer Polytechnic Institute

Teaching Assistant, 2000-2001
University of Illinois, Chicago

Guest Critic
California College of the Arts 2011, 2013, 2015, UNC Charlotte 2014, UC Berkeley 2013, University Southern California 2012, Arizona State University 2009, Cranbrook Academy of Art 2006-2008, RISD 2007, Columbia University 2005-2006, Pratt Institute 2006, Catholic University of America 2006/2011, UIC 1996-2002, IIT 2001

Professional Experience **Associate, OWP/P Architects, Chicago, IL, 1997-2002**
Intern Architect, Jaeger Nickola Architects, Park Ridge, IL, 1995-1997

Mark N. Cabrinha, Ph.D.

Cal Poly Architecture Department

**Peer-Reviewed
Publications**

"Lattice Shell Methodologies: Material Values, Digital Parameters," *Digital Wood Design: Innovative Techniques of Representation in Architectural Design*, eds. Fabio Bianconi and Marco Filippucci. Springer, Switzerland (2019).

"Geodesic Lattice Shell Methodologies," *Proceedings of the annual symposium of the International Association of Shell and Spatial Structures (IASS)*. Tokyo, Japan (2016).

"Parameters for Plasticity: An approach to FRP unitized facade design," w/ Jeff Ponitz, *Proceedings of the Facade Tectonics World Congress*, Los Angeles, California (2016).

"Simplicity: Unitized FRP Facade Systems," w/ Jeff Ponitz, *Design Agency: Proceedings of the 34th Annual Conference of the Association for Computer-Aided Design in Architecture (ACADIA)*, Los Angeles, California (2014).

"Learning Networks: Accelerating Creativity through the Entanglement of Social Interaction, Constructed Artifacts, and Dynamic Environments," w/ David Preston, Royal Geographical Society International Conference, London, England (2014).

"Lattice Shell Methodologies," *Rethinking Comprehensive Design: Speculative Counterculture, Proceedings of the 19th International Conference of the Association of Computer-Aided Architectural Design Research in Asia, CAADRIA 2014*. Kyoto, Japan (2014).

"Composite FRP Unitized Facades," w/ Jeff Ponitz, *Rethinking Comprehensive Design: Speculative Counterculture, Proceedings of the 19th International Conference of the Association of Computer-Aided Architectural Design Research in Asia (CAADRIA)*. Kyoto, Japan (2014).

"Surface Effects and Spatial Affect in Digital Fabrication," w/ Jeff Ponitz (primary author) and Clare Olsen, *Engaging Media: Proceedings of the 31st Annual National Conference on the Beginning Design Conference (NCBDS)*, Houston, Texas (2014).

"The SLO_Gen Table: Cultivating Industry / Academic Partnerships," *Proceedings of the TxA Interactive*, Texas Society of Architects 74th Annual Convention. Fort Worth, Texas (2013).

"Molding Ecologies: Concrete, Climate, and Craft," w/ Clare Olsen, Jeff Ponitz, and Carmen Trudell, *New Constellations New Ecologies Research and Design Projects Catalog, 101st Annual Meeting of the ACSA*, San Francisco, California (2013).

Cabrinha, Johnson, Steinfeld, eds. *Synthetic Digital Ecologies: Proceedings of the 32nd Annual Conference of the Association for Computer-Aided Design in Architecture (ACADIA)*, San Francisco, California (2012).

"Scale Matters," *Working Full-Scale*, Phillip Anzalone, ed. Columbia University Publications (2012).

"Risky Business: from Direct Fabrication to the Abstract Workshop" *Proceedings of the ACSA Annual Conference Digital Aptitudes*, Boston, Massachusetts (2012).

"Subverting Gender in the Design-Build Studio" *Proceedings of the ACSA Fall Conference Local Identities / Global Challenges*, Houston, Texas (2011).

"Crossing the Digital Divide through Digital Dexterity" *Proceedings of the ACSA National Conference*, Montreal, Canada (2011).

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**Peer-Reviewed
Publications**
(cont'd)

"Parametric Sensibility: Cultivating the Material Imagination in Digital Culture," *Life In:Formation: the Proceedings of the Association for Computer-Aided Design in Architecture (ACADIA)*, New York, New York (2010).

"Craft and Culture: the F-Stop Student Lounge" and "Material Assembly: the Moveable Feast," *Input Output: Adaptive Materials and Mediated Environments*, Temple University, Pennsylvania (2010).

"Material Imagination in Digital Culture," *MADE: Design Education and the Art of Making, Proceedings of the 26th Annual National Conference on the Beginning Design Conference (NCBDS)*, Charlotte, North Carolina (2010).

"Life Size: Environmental Knowing through Full Scale Installations" *Proceedings of the ACSA National Conference*, Portland, Oregon (2009).

"Installing a Studio-Based Collective Intelligence" and "Moveable Feast" *Proceedings of the ACSA West Central Conference*, Champaign, Illinois (2008).

"Gridshell Tectonics: Material Values Digital Parameters," *Silicone + Skin: Proceedings of the Association for Computer-Aided Design in Architecture (ACADIA)*, Minneapolis, Michigan (2008).

"Enabling Constraints in the Digital Design Process through a Plywood Gridshell," *Green Challenges in Research, Practice, and Design Education: Proceedings of the Architectural Research Centers Consortium (ARCC)*, Eugene, OR (2007).

"(In)Forming: the Affordances of Digital Fabrication in Design Education," *Fresh Air: Proceedings of the ACSA National Conference*, Philadelphia, PA (2007).

Luhan, Anzalone, Cabrinha, Clark, eds. *Synthetic Landscapes: Proceedings of the Association for Computer-Aided Design in Architecture (ACADIA)*, Louisville, Kentucky (2006).

"Synthetic Pedagogy," Introduction and Topic Node Chair, and "25th Anniversary White Papers," Introduction, in *Synthetic Landscapes*.

"Technique as Method," *Intersections: Proceedings of the National Beginning Design Conference*, Des Moines, Iowa (2006).

"From Bezier to NURBS: Integrating Digital and Material Techniques in a Plywood Shell," *Smart Architecture: Proceedings of the Association for Computer-Aided Design in Architecture (ACADIA)*, Savannah, Georgia (2005).

"Thinking is Making: Emphasizing Inquiry through Technique in the Beginning Design Studio," w/ Keith Wiley, *A Beginner's Mind: Proceedings for the National Beginning Design Conference*, San Antonio, Texas (2005).

"Stressed Skins: Skin is Structure," in Growthspurt Exhibit, *Fabrications: Proceedings of the Association for Computer-Aided Design in Architecture (ACADIA)*, Toronto, Canada (2004).

"Function Follows Form: 10 Sticks (and a Bench)," *Connecting Crossroads: Proceedings of the Association for Computer-Aided Design in Architecture (ACADIA)*, Indianapolis, IN (2003). Also Published and Presented as: "Weaving Form and Function," *Weaving: Proceedings of the ACSA West/Central Conference*, Indianapolis, IN (2003).

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Selected Trade Publications

Gardiner, Ginger. "The building envelope: FRP unitized facades," in *Composites World* Vol 1, No 4: 54-56, April 2015. <http://www.compositesworld.com/articles/the-building-envelope-frp-unitized-facades>

Gardiner, Ginger. "Composites in architecture: Educating for Growth," *CompositesWorld.com* (12/16/14) at <http://www.compositesworld.com/blog/post/composites-in-architecture-educating-for-growth>

Werner, Frank. "Extending the Designer's Palette with Block," *Dynamics of Masonry* Vol 2, No 5 (2016).

Cabrinha, Mark and Alex Keifer and Jacob Van de Roovaart. "Screen Block Innovation Incorporates Structural Reinforcement: Flip Block," *Dynamics of Masonry* Vol 2, No 5 (2016). <http://dynamicsofmasonry.com/index.php/archives/current-issue/universities-teach-architectural-students-design-new-cmu-extend-palette>

LG Hausys. "A New Generation of Inspiration: SLO TABLE," <http://www.lghimacsusa.com/media/93/111> (2015)

LG Hausys, "Organic SLO_Gen table - made with HI-MACS - amazes visitors at Gensler offices," <http://himacs.eu/en/slogen-table>

Peters, Brady and T. Peters. "Introduction," *Inside Smart Geometry: Expanding the Architectural Possibilities of Computational Design*, Wiley UK (2013).

Invited Lectures

"Open Source Learning Lab Kit," Autodesk Pier 9, AIR Presentation, San Francisco, CA (2016) <https://vimeo.com/161645304>.

"Open Source Learning Lab Kit," Digital Craft Lab, California College of Arts, San Francisco (2016).

"Screen Block," Keynote at Annual Business Meeting of Concrete Masonry Association of California and Nevada (CMACN), Carmel, CA (2015).

"Mass Customization of Concrete Masonry Units," The Masonry Society, University Professors' Masonry Workshop, Las Vegas, NV (2014) and San Diego, CA (2016).

"The Teaching Practitioner / The Practicing Teacher", ACSA Annual Meeting of College of Distinguished Professors Special Focus Session (2013)

"Cultivating the Material Imagination in Digital Culture," Digital Provocations Symposium, University of Minnesota, Minneapolis, MI (2012).

"Materials First", Institute for Digital Fabrication, Ball State University, Muncie, IN (2007).

Funded Research

\$10,000 Hearst Student-Scholar Fellowship (2017-2018)

\$30,000 Hearst Teacher-Scholar Grant (2015-2016)

\$5,000 Association of Composite Manufacturers Association, Architectural Division of ACMA's Composites Growth Initiative. Funded exhibition at AIA National Convention, Chicago (2014).

\$6,500 ENCLOS Corp, funded student travel to AIA National Convention, Chicago (2014).

\$50,000 Material Innovation Fund, Concrete Masonry Association of California and Nevada(2013-2017).

\$25,000 Learn By Doing Commons Design Charette, Office of the President, Cal Poly (2013).

\$6,500 Greenwall Greenhouse at Chumash Farms, PDCI SEED Grant (2011).

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Academic Service

Co-Chair, ACADIA Conference 2012, "Synthetic Digital Ecologies", San Francisco, CA.
West Regional Director of the ACSA, 2010-2013
Steering Committee, ACADIA, 2009-2011
Chair, ACADIA Competition Committee, 2007-2008
Co-Chair, ACADIA Conference 2006, "Synthetic Landscapes", Louisville, KY.
Design and Production of *Proceedings for the Bi-Annual Conference of the Design Communication Association*, Cal Poly, San Luis Obispo (2004).
External Tenure Review: Drexel University (2016), Georgia Tech (2015)
Peer Reviewer: Journal of Architectural Education (JAE) 2016, Architectural Research Centers Consortium 2007, National Beginning Design Conference 2006 & 2007, ACSA Annual Meeting 2003/2007/2009-2012, ACSA Regional 2007, ACADIA Annual Meeting 2003,2008,2012
Session Moderator: "Architecture and Media," ACSA Annual Meeting 2004.
Competition Juror: 2005 Biental Miami + Beach

Honors and Awards

Artist-in-Residence, Autodesk Pier 9, Fall 2015
Architecture Faculty Merit Award, 2012
RPI Faculty Graduate Recognition Award for Excellence in the Study of Architecture, May 2010
ARCC/King Medal for Excellence in Architectural and Environmental Research, May 2010.
2010 NCARB Prize for Creative Integration of Practice and Education in the Academy, with Jim Doerfler, Tom Fowler, and Kevin Dong.
Doctoral Fellow (2004-2005), Phillip H. Parthesius Fellowship, Rensselaer Polytechnic Institute
Cal State Forgivable Loan Doctoral Incentive Program Recipient (2004-2008)
Lecturer of the Year Award nominee (2004), Cal Poly, San Luis Obispo
Award of Distinction (2002), A.E. Stevenson High School conferred by the Joint Annual Conference of Illinois School Boards, Business Managers, and Superintendents.

Registered Architect, State of Illinois, beginning 2001 (currently inactive).
Association for Computer Aided Design in Architecture, ACADIA.