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# NANCY YEN-WEN CHENG

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## EDUCATION

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1990      Master of Architecture, Harvard Graduate School of Design  
Thesis: Tradition and Innovation in a Cambodian Community Center, mixing  
manual and digital design methods.

1983      Bachelor of Arts cum laude, Yale University  
Architecture & Engineering (Mechanical) double major

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## ACADEMIC EXPERIENCE

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2014 Mar-June RMIT University, Melbourne      SIAL Visiting Associate Professor

2014 Feb      Carnegie Mellon University, Studio for Creative Inquiry      Visiting Scholar

2002-present University of Oregon (UO) Architecture Department      Associate Professor

1996-2002 University of Oregon (UO) Architecture Department      Assistant Professor

1993-1996 University of Hong Kong (HKU), Department of Architecture      Lecturer

1995      Massachusetts Institute of Technology      Visiting Scholar

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## PROFESSIONAL EXPERIENCE

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2013      Shanghai Xian Dai Architectural Group, October-November      Visiting Residency

2009      Leadership in Energy and Environmental Design      Accredited Professional

1994      NCARB      certified 60946

1993      Massachusetts State      Registered Architect 9051 (inactive)

1990-1993 Kallmann McKinnell & Wood Architects, Boston      Architect, CAD manager

1990      Raphael Moneo & Associates, Cambridge      Computer renderer

1988, 1989 Tams Consultants Inc., Boston      Designer

1986      CBT Inc., Boston      Designer/draftsman

1984-1986 Graham/Meus Inc., Boston      Project manager

1983-1984 Mark Mitchell & Assoc., Cambridge      Design team

1979-1980 Northeast Solar Energy Association, Boston      Intern

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## ACADEMIC AND PROFESSIONAL LEADERSHIP

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University of Oregon (UO) Architecture Department

2012-present Director, UO - Shanghai Xian Dai Sustainable Design Program & Exchange

## University of Oregon (UO) Architecture Department

- 2009-2013 Director, Portland Architecture Program
- 1998-2013 Coordinator, Digital Design Curriculum
- 2012-2013 Chair, Design Communications Task Force
- 2002 Director, Rome Summer Architecture and Urban Design Program
- 2007, 2009 2nd year Undergraduate Studio Coordinator, Arch 384
- 2002-2006 Program Initiator & Coordinator, University of Hong Kong student exchange
- 1997-1998 Architecture and Allied Arts Computing Task Force chair

## Association for Computer Aided Design in Architecture (ACADIA)

- 2011-2013 ACADIA Vice-President
- 2009-2011 ACADIA President
- 2007-2009 ACADIA Vice-President
- 1999-2002 ACADIA Steering Committee
- 1995-1999 ACADIA Outreach Officer & Steering Committee Member

## International Journal of Architectural Computing

- 2003-2011 Editorial Board (founding member)

## American Institute of Architecture's Technology in Architectural Practice (AIA-TAP) Knowledge Community (national resource group)

- 2001-2005 AIA-TAP leadership group
- 2004 AIA-TAP Chair
- 2004 Co-Chair, ACADIA / AIA-TAP Conference on Fabrication, Ontario, Canada, Nov.
- 2003 AIA-TAP Vice-Chair, Conference Organizing Committee

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## **PUBLICATIONS**

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### JOURNAL ARTICLES

1. Scalise, K., N. Cheng, and N. Oskui. (2009) "Rasch Family Models in e-Learning: Analyzing Architectural Sketching with a Digital Pen", *Journal of Applied Measurement*, JAM Press. Fall 2009; 10(3):281-95.  
- (2011) Reprinted in *Advances in Rasch Measurement, Volume Two*, edited by Nathaniel J. S. Brown et. al. (ISBN 978-0-9755351-8-1), JAM Press, 2011.
2. Cheng, N. (2006) "Learning design sketching from animations and storyboards", *International Journal of Architectural Computing*, Volume 4, Number 1, January 2006, pp. 1-17. invited, developed from best papers of CAAD Futures 2005 conference.

3. Cheng, N. (2003) "Approaches to Design Collaboration Research", *Automation in Construction Journal*, Volume 12, Issue 6, November 2003, Pages 715-723.

#### CONFERENCE PROCEEDINGS – BLIND PEER-REVIEWED FULL PAPERS

1. Cheng, N. and Brian Lockyear. (2014) "Communicating Climate-Smart Scenarios with Data-Driven Illustrations", *ACADIA 2014, Los Angeles*.
2. Lilley, B., R. Hudson, K. Plucknett, et. al. (2012) "Ceramic Perspiration: Multi-Scalar Development of Ceramic Material", *ACADIA '12: Synthetic Digital Ecologies* [32nd Annual Conference of the Association for Computer Aided Design in Architecture (ACADIA) ISBN 978-1-62407-267-3] San Francisco, October 18-21, 2012, pp. 97-108.
3. Cheng, N. (2012) "Petal Variations: Surfaces For Light And Shadow Effects" in *Hyperseeing, Special Issue on Shape Modeling International 2012, Fabrication and Sculpting Event & Exhibition*, the International Society of the Arts, Mathematics, and Architecture (ISAMA), College Station, Texas, May 22-25, 2012 pp. 61-71.  
<http://www.isama.org/hyperseeing/12/12a.pdf>
4. Cheng, N., Abraham Rodriguez and Ashley Koger. (2012) Folded Sun-Shades: from Origami to Architecture, in Digital Aptitudes, *Proceedings of the 100th Annual ACSA National Meeting*, March 1-4, 2012, Boston, MA.
4. Cheng, N. and Erik Hegre. (2009) "Serendipity and Discovery in a Machine Age: Craft and a CNC router", *ACADIA 09: reForm() - Building a Better Tomorrow*, ISBN 978-0-9842705-0-7] Chicago (Illinois) October 22-25, 2009), pp. 284-286.
5. Cheng, N. (2009) "Cultivating Collaboration: lessons from cohousing design studios", *The Value of Design, Proceedings of the 97th ACSA Annual Meeting*, Portland, OR, March 2009.
6. Cheng, N. and Andrew McKelvey (2005) Learning Design Process with Digital Sketching: Copying Graphic Processes from Animations and StoryBoards, *CAAD Futures 2005* [Proceedings of the 11th International Conference on Computer Aided Architectural Design Futures / ISBN 1-4020-3460-1] Vienna (Austria) 20-22 June 2005, pp. 291-300. <http://books.google.com/books?isbn=1402036981>. 87 of 172 accepted.
7. Cheng, N. (2001) "Depicting Daylighting: Types of Multiple Image Display", in *Reinventing the Discourse, Proceedings of ACADIA 2001* / ISBN 1-880250-10-1, Buffalo (New York) 11-14 October 2001, pp. 282-291.
8. Cheng, N. (2001) Capturing Place: A Comparison of Site Recording Methods, *CAAD Futures 2001 - Proceedings of the Ninth International Conference on Computer Aided Architectural Design Futures* [ISBN 0-7923-7023-6] Eindhoven, 8-11 July 2001, pp. 243-255. <http://books.google.com/books?id=foHbFdDk3d8C>
9. Cheng, N. (1999) "Playing with Digital Media: Enlivening Computer Graphics Teaching", *Media and Design Process* [ACADIA '99 Conference Proceedings / ISBN 1-880250-08-X] Salt Lake City 29-31 October 1999, pp. 96-109
10. Cheng, N. (1997) "Teaching CAD with Language Learning Methods", *Representation and Design* [ACADIA '97 Conference Proceedings / ISBN 1-880250-06-3], Cincinnati, OH., 3-5 October 1997, pp. 173-188
11. Cheng, N. (1995) "Linking the Virtual to Reality: CAD & Physical Modeling", *Sixth International Conference on Computer-Aided Architectural Design Futures* [ISBN 9971-62-423-0] Singapore, 24-26 September 1995, pp. 303-311.

12. Kvan, T., Schmitt, G., Maher, M.L. and Cheng, N. (2000) "Teaching Architectural Design in Virtual Studios" in *Proceedings of the 8th International Conference on Computing in Civil and Building Engineering*, ASCE 2000 [ISBN 978-0-7844-0513-0] Stanford University, August 14-17, 2000, pp. 162–169. [http://dx.doi.org/10.1061/40513\(279\)21](http://dx.doi.org/10.1061/40513(279)21)
13. Cheng, N., et. al. (1994) "Place, Time and the Virtual Design Studio", *Reconnecting* [ACADIA Conference Proceedings / ISBN 1-880250-03-9] Washington University (Saint Louis / USA) 1994, pp. 115-132
14. Wojtowicz, J., et al. (1993) "Asynchronous Architecture", *Education & Practice: The Critical Interface*, ACADIA '93 Proceedings. ISBN 1-880250-02-0] Texas (Texas / USA) 1993, pp. 107-117.

## CONFERENCE PROCEEDINGS - REVIEWED ABSTRACTS

### *Shaping Light*

1. Cheng, N. (2012) "Shading With Folded Surfaces: Designing With Material, Visual and Digital Considerations", *Digital Physicality - Education and Research in Computer Aided Architectural Design in Europe (eCAADe'12) Conference Proceedings - Volume 2* / ISBN 978-9-4912070-3-7, Czech Technical University, Prague, 12-14 September 2012, pp. 613-620.
2. Cheng, N., Jeffrey Maas, Nicolaus Wright and William Robert Taylor. (2012) "Shaping Light: an emergent family of shading structures". *National Conference for the Beginning Design Student*, Lincoln, NE. March 2011. *poster*

### *Digital Sketching*

3. Scalise, K., Cheng, N. and Oskui, N. (2008) "Assessment in E-Learning: Analyzing Architectural Sketching With a Digital Pen", *American Educational Research Association Annual Meeting*, New York, NY, 2008.
4. Cheng, N. (2008) "Analyzing Design Sketching Abilities", *3<sup>rd</sup> International Conference on Design Computing and Cognition*, Georgia Tech, July 25-28, 2008. *poster*
5. Cheng, N. (2007) "Mining a Collection of Animated Sketches", *Predicting the Future* [eCAADe'07 Conference Proceedings / ISBN 978-0-9541183-6-5] Frankfurt am Main (Germany) 26-29 September 2007, pp. 447-456
6. Cheng, N., Elzeyadi, I. and McKelvey, A. (2005) "Unveiling Design and Cognition Process Through Digital Sketching: Methods and Tools for Environmental Design Research", *Environmental Design Research Association*, Vancouver, Canada, April 2005.
7. Cheng, N. (2004) "Stroke Sequence in Digital Sketching" in the *22nd Education and Research in Computer-Aided Design in Europe (eCAADe) Conference Proceedings* / ISBN 0-9541183-2-4, Copenhagen (Denmark) 15-18 September 2004, pp. 387-393.
8. Cheng, N. and Lane-Cummings, S. (2004) "Teaching with Digital Sketching", *Design Communication Association*, Jan 9-11, 2004, San Luis Obispo.
9. Cheng, N. and Lane-Cummings, S. (2003) "Mobile Tools for Learning About Places", *CAADRIA'03, Proceedings of Computer Aided Architectural Design Research in Asia*, Thailand. ISBN 974-9584-13-9

### *Physical and Digital*

10. Martens, B., Mark, E. and Cheng, N. (2006) "Thresholds between Analog and Digital Representations", *the 24th Education and Research in Computer Aided Architectural Design in Europe Conference Proceedings - eCAADe'06*, ISBN 0-9541183-5-9, University of Thessaly, Volos, Greece, Sept 6-9, 2006.

11. Cheng, N. (1998) "Wayfinding In Cyberspace - Negotiating Connections between Sites", *CAADRIA '98 [Proceedings of The Third Conference on Computer Aided Architectural Design Research in Asia / ISBN 4-907662-009]* Osaka (Japan) 22-24 April 1998, pp. 83-92
12. Cheng, N. (1995) "By All Means: Multiple Media", *Design Education, Multimedia and Architectural Disciplines [Proceedings of the 13th European Conference on Education in Computer Aided Architectural Design in Europe / ISBN 0-9523687-1-4]* Palermo (Italy) 16-18 November 1995, pp. 117-128.

#### *Online Collaboration and Education*

13. Alyea, C. and Cheng, N., (2011) " Online / On Target: Reflective Practice through Blogging", *Beginning Of/In the End: Part 1, National Conference for the Beginning Design Student*, Lincoln, NE. March 1-4, 2011.
14. Cheng, N., Kieferle, J. and Grunau, J. (2005) "Intercontinental Seating, Digital Design: The Quest for New Paradigms" *eCAADe'05 / ISBN 0-9541183-2-4 / Lisbon (Portugal)* 21-24 September 2005, pp. 47-54.
15. Cheng, Nancy and Kvan, Thomas (2000) "Design Collaboration Strategies", *Proceedings of the Fifth International Conference on Design & Decision Support Systems in Architecture 2000*, pp. 62-73.
16. Cheng, Nancy and Kvan, Thomas (2000) "Design Collaboration Strategies", *Proceedings of SIGraDi'2000 - Constructing the digital Space* [ISBN 85-88027-02-X] Rio de Janeiro (Brazil) September 25-28, 2000, pp. 45-49.
17. Cheng, N. (1999) "Filling in Missing Links: using the Internet to strengthen a learning community", *ACSA West Regional Conference*, Portland, Oregon, 1999.
18. Kvan, T., Cheng, N. and Bradford, J. (1994) "Virtual Design Studios" in Maver, T., and J. Petric (eds.), *The Virtual Studio*, ECAADE'94, Glasgow, Scotland.
19. Cheng, N. (1998) "Digital Identity in the Virtual Design Studio", in *Constructing Identity, souped-up" and "unplugged"*, *Associated Collegiate Schools of Architecture (ACSA) 86th Annual Meeting Proceedings, 1998*.
20. Cheng, N. (1996) Teaching CAD as a Foreign Language, *CAADRIA '96 [Proceedings of The First Conference on Computer Aided Architectural Design Research in Asia / ISBN 9627-75-703-9]* Hong Kong (Hong Kong) 25-27 April 1996, pp. 11-20

#### EDITED VOLUMES

1. Cheng N. and Kieferle, J. (2008) *IJAC, International Journal of Architectural Computing*, issue on "Performance-based Design", Vol 6, Issue 1, January 2008.
2. Cheng N. and Pinet, C. (eds.) *IJAC*, issue on "Digital Design Methods", Vol. 4, Issue 2, June 2006
3. Beesley, P., Cheng N. and Williamson, S. (2004) *Fabrication: the Digital Practice of Architecture* [Proceedings of the 23rd Annual Conference of ACADIA and the 2004 Conference of the American Institute of Architecture Technology in Architectural Practice (AIA-TAP) Knowledge Community / ISBN 09696665-2-7] Cambridge (Ontario) November 8-14, 2004. University of Waterloo Press, 2004. 440 pages.
4. Cheng N. and Do, E.Y-L. (2003) *IJAC*, issue on "Physical Computing and Tangible Media", Vol. 1, Issue 2, June 2003.

## BOOK CHAPTERS

1. Cheng, N. and Kieferle, J. (2011) "Teaching about Shadows" in Peter Petschek and Siegfried Gass's *Constructing Shadows: Tents, Pergolas, Cables, Plants*, [ISBN 978-3034607148] Birkhauser Architecture, May 2011.
2. Wojtowicz, J., Papazian, P., Fargas, J., Cheng, N. and Davidson, J. (1995) "Aspects of Asynchronous and Distributed Design Collaboration" in Wojtowicz, J. (ed.), *Virtual Design Studio* [ISBN 962-209-364-7], HKU Press, 1995, pp. 41-49.  
<http://www.lib.hku.hk/Press/9622093647.pdf>
3. Wojtowicz, J., Cheng, N. and Kvan, T. (1995) "Postscript: The Virtual Design Studio 1994" in Wojtowicz, J. (ed.), *Virtual Design Studio* [ISBN 962-209-364-7], HKU Press, pp. 130-154. <http://www.lib.hku.hk/Press/9622093647.pdf>

## INVITED PUBLICATIONS

1. Cheng, N. (2011) Foreword: The Need for Nimble Thinking, ACADIA 11: Integration through Computation [Proceedings of the 31st Annual Conference of the Association for Computer Aided Design in Architecture (ACADIA)] [ISBN 978-1-6136-4595-6] Banff (Alberta) 13-16 October, 2011, pp. 18-19
2. Hager, L., Bramhall, R., Cheng, N. and Alyea, C. (2011) *Final report - University of Oregon*, Inter/National Coalition of Electronic Portfolio Research, Feb 2011.  
<http://ncepr.org/finalreports/cohort5/UO%20Final%20Report.pdf>
3. Cheng, N. (2010) "Digital Seeds", Introduction to *LIFE in:formation, On Responsive Information and Variations in Architecture*, v. 2 [Exhibition Catalog of ACADIA 2010 / ISBN 978-1-4507-3472-1] New York 21-24 October, 2010), pp.9-10
4. Cheng, N. (2010) "Sustainability through Teamwork: using social media to drive collaborative eco-projects", *CAAD - Cities - Sustainability, 5th International Conference Proceedings of the Arab Society for Computer Aided Architectural Design* [ASCAAD 2010 / ISBN 978-1-907349-02-7], Fez (Morocco), 19-21 October 2010, pp. 5-18.
5. Cheng, N. (2010) "ACADIA: An Ecosystem of Ideas", Introduction to *LIFE in:formation, On Responsive Information and Variations in Architecture v. 1* [Proceedings of the 30th Annual Conference of the Association for Computer Aided Design in Architecture (ACADIA) ISBN 978-1-4507-3471-4] New York 21-24 October, 2010), p.7.
6. Cheng, N. (2010) "Forward", *Parametricism (SPC) ACADIA Regional 2011 Conference Proceedings*, April 2010, Lincoln, Nebraska. p.8.
7. Cheng, N. and Kieferle, J. (2008) "More than Skin deep: Early Design Evaluation Tools", *IJAC*, Vol 6, Issue 1, pp. iii-iv(1)
8. Cheng, R. et. al. "Integrated Practice and Comprehensive Design Report", *White paper from ACSA Topic Groups for the Accreditation Review Conference*, committee chaired by Renee Cheng, Oct 2007.
9. New Challenges, New Opportunities, AECbytes Viewpoint #8 in AEC Bytes website, August 25, 2004. [http://www.aecbytes.com/viewpoint/2004/issue\\_8.html](http://www.aecbytes.com/viewpoint/2004/issue_8.html)
10. Cheng, N. et. al. "ACADIA White Paper on Digital Design Curriculum" for *National Architectural Accreditation Board*, 2003
11. Cheng, N. (2003) "Digital Curricula: Effective Integration of Digital Courses – a delicate balance", *ACADIA 2003 conference proceedings*, ISBN 1-880250-12-8] Indianapolis (Indiana) 24-27 October 2003, pp. 129-130.

12. Cheng, N. "University of Oregon", student work published in *FormZ Joint Study Annual Reports*, 1996-2002.
13. Cheng N. (2001) "Evolution of Digital Design Teaching: A Course as Microcosm for Educational Issues", *ACADIA Quarterly 2001*, vol. 20, pp. 13-17.
14. Cheng, N. (1999) "Digital Design at UO", *ACADIA Quarterly*, 1999, vol. 18, no. 4, p. 18.

## DESIGN INSTALLATION

1. Dancing Light, with Tina W. Wong, Nicholas Shanks, Srivashini Balaji and Si Emma Chen, White Stag Block, Portland, March 2013.
2. Shaping Light Veil, Demonstrated how parametric modeling and digital fabrication techniques could be used to explore optical properties. White Stag Block, Portland., Winter 2011.
3. AAA Voices installation, a collaboration with Erik Hegre, Matt Linn, Daniele Cohen. Lawrence Hall, May 2009.

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## RESEARCH FUNDING & AWARDS

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1. International Champion, Australian Research Council funded project, "Integrating Architectural and Mathematical Knowledge to Capture the Dynamics of Air in Design" with PI's Mark Burry, Robin Drogemuller, Jane Burry, et. al. RMIT University, \$4600, March-June 2014.
2. "Data Driven Illustrations for Climate Smart Communities Scenarios", Oregon Transportation Research and Education Consortium, with Oregon Metro Principal Transportation Manager Kim Ellis and GIS Program Supervisor Molly Vogt. \$10,000, March 2013.
3. Biomimicry Student Design Challenge, student entry in top 10 finalists 2012.
4. ePortfolios Project, \$45,000 UO provost funding for 5-person team researching online systems for learning and assessment, 2008-2011
5. Inter/National ePortfolios Research Coalition group membership: ~\$8000 funding for 3 years travel and membership fees, 2008-11.
6. "Shaping Light with Digital Fabrication", AAA Summer Research Award, \$4000, 2011
7. Jerry and Gunila Finrow Studio Enrichment Award, \$5000 for "Digital to Physical: See it, Measure it, Feel it", for Fall 2009.
8. UO AAA Equity and Diversity Fellowship: \$1000 for AAA Voices installation, a collaboration with Erik Hegre, Matt Linn, Daniele Cohen. May 2009
9. "Distinguished Speaker Series: Creating the Unimaginable: How Computers Have Transformed Art and Design" funding, UO College of Arts and Sciences (\$8000), Computer Science Department (\$5000), AAA (\$3000), 2008
10. UO Educational Technology Funding, \$23,600 for digital sketching in design collaborations, 2006-2007
11. UO IT Fellowship, \$8000 for developing Digital Sketching website & lessons, 2005-2006
12. Northwest Academic Computing Consortium, "Tracing Ideas Through Digital Sketching", \$10,000, April 2003
13. UO Educational Technology Curriculum Development Grant "Communicating Place" \$15,500 Mar 2002

14. John Yeon course release research grant, \$8,000 Winter 2002
15. Gold medal Design Award for Environmental Sensitivity with Scott Howe, ShelterResorts Design Competition 2000
16. Intel's Research and Development Arts and Entertainment division equipment grant (with Department of Art faculty) ~\$200,000, 1998-1999
17. Autodesk donation: group proposal yielded 25 copies of AutoCad ~\$75,000, summer 1997
18. University of Oregon Foundation, Research start-up funding, \$75,000, 1996-1999
19. Leung Kau Kui Research & Teaching Endowment Fund, University of Hong Kong for Spatial Visualization and Design Representation, \$19,430, awarded Jan 1994.
20. Committee on Research and Conference Grants (CRCG), Univ. of Hong Kong, Research Grant for "Developing Spatial Representations Through New Media", \$19,490
21. CRCG, Univ. of Hong Kong, five grants for travel to international conferences

#### PROGRAM DEVELOPMENT AWARDS

1. Global Seminars Development Grant for developing University of Hong Kong and University of Oregon Sustainable Design Exchange program, UO International Affairs, \$2500, awarded June 2013.
2. International Travel Grant for developing University of Hong Kong and University of Oregon Sustainable Design Exchange program, UO's National Resource Center for East Asian Studies, \$750, awarded May 2013.

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#### INVITED LECTURES & WORKSHOPS

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- |      |   |
|------|---|
| 2014 | "Cool Folding" workshop and "Creating Sustainable Portland" lecture, Huazhong University and 403 International Art Center, Wuhan, China, July 13-21, 2014                                 |
| 2014 | "Shaping Light" lecture, University of Newcastle, School of Architecture and Built Environment, Newcastle, Australia, May 28, 2014  |
| 2014 | "Shaping Light" lecture, Deakin University, School of Architecture, Geelong, Australia, May 2, 2014   |
| 2014 | "Shaping Light: from Origami to Sun-shading Screens", RMIT University Design Hub, Melbourne, Australia, March 18, 2014  |
| 2014 | "Shaping Light" public workshop & lecture to first year Architecture students, Carnegie Mellon University, Pittsburgh, PA, Feb 5 and 10, 2014.  |
| 2014 | "Shaping Light" workshop, Hochschule Rheinmain, Wiesbaden, Germany, Feb. 17-20, 2014.   |
| 2013 | "Sustainable Portland" and "Shaping Light" lectures, Sri Venkateshwara College of Architecture, Hyderabad, India, December 17, 2013.  |
| 2013 | "Data-Driven Illustrations for Climate Smart Communities", plenary lecture, Green India: Strategic knowledge for combating climate change, Pondicherry University, India, Dec. 5-7, 2013. |
| 2013 | "Shaping Light" lecture, XinCheJian Hackerspace, Shanghai, China, November 26, 2013   |

- 2013 “Shaping Light” Lecture and Workshop, Xian Jiaotong Liverpool University, Suzhou, China, October 18-22, 2013.
- 2013 “Shaping Light” lecture, exhibit and activity booth, Portland Mini-Maker Faire, Oregon Museum of Science and Industry, Portland, OR, September 14-15, 2013.
- 2013 “Shaping Light” lecture, Bay Area Maker’s Faire, San Mateo, CA, May 29, 2013
- 2010 Keynote speaker: CAAD - Cities - Sustainability, the 5th International Conference of the Arab Society for Computer Aided Architectural Design (ASCAAD 2010), Fez (Morocco), 19-21 October 2010.
- 2010 "Designing for Usability - Tea Implements" workshop, Tatung University, Taipei, Taiwan, December 2010.
- 2009 “Food as Cultural Offering”, UO workshop for Tatung University Students, July 2009.
- 2007 “Design Education at the University of Oregon” lecture and “Digital Sketching: Design Media and Process” presentation, Kumamoto University, Japan. Dec. 2007.
- 2006 “Media & Design Thinking” lecture, “The Beauty of Shadows” workshop, University of Applied Sciences-Wiesbaden, Germany, Dec. 2006.
- 2005 “Digital Sketching” Workshop, Ball State University, Muncie, IN, March 2005
- 2005 “Digital Sketching” Workshop, Design Communication Association in Montana, August 2005
- 2005 “Digital Sketching” Workshop, ACADIA Conference, Savannah, GA, Oct. 2005
- 2005 Lecture & workshop, “Digital Sketching”, Florida Atlantic Univ., March 17-18, 2005
- 2004 Seminar & workshop “Place Tools & Digital Sketching”, Univ. of Hong Kong, May 4, 2004
- 2004 Seminar “Place Tools and Digital Sketching”, Univ. of Singapore, May 17, 2004
- 2003 ACADIA Digital Pedagogy Topic Chair & panel moderator, Oct. 2003
- 2003 "Mobile tools & Digital Sketching" lecture, American Institute of Architects-Southwest Oregon, Eugene. June 2003
- 2002 ACADIA Architectural Education panelist, Nov. 2002
- 2002 Topic chair, “Electronic Media in Education” panel, ACSA National Meeting, March 2002
- 2001 Lecture, "Communicating Place", Univ. of Washington, Nov. 2001
- 2001 Lecture, "Communicating Place", Ball State University, Oct. 2001
- 2001 Panelist "Round-table on Distance Education", ACSA National Meeting, Baltimore, March 2001
- 1998 Lecture & workshop "Architects and the Web", Southern Univ., Baton Rouge, Aug 1998
- 1998 Lecture & workshop "Digital Design in the Virtual Studio", University of Utah, Jan 1998

## PEDAGOGICAL ADVISING

- 2012-2013 Autodesk Sustainability Workshop's Building Performance Analysis Certificate, Pilot Educator Group
- 1999 "Design for the Digital Age" course development consultant, University of Minnesota

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## PROFESSIONAL PRESENTATIONS

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- 2013 "Data-Driven Illustrations for Climate Smart Communities" lecture, Indian Institute of Architects, Andhra Pradesh Chapter, Hyderabad, India, December 20, 2013.
- 2013 "Sustainable Portland: What makes it green?" lecture Shanghai Xian Dai Architectural Design Group, Shanghai, China, Nov. 12, 2013
- 2013 "Shaping Light: from Origami to Sun-shading Screens" lecture, Shanghai Xian Dai Architectural Design Group, Shanghai, China, Oct. 29, 2013
- 2013 "Shaping Light", Forum for Women in Architecture and Related Design, Portland, OR, May 23, 2013
- 2012 "Cutting Edge: Digital fabrication and craft today" w/ Heidi Beebe & Susanna Hohmann, Oregon Design Conference, Salishan, OR, April 26-28, 2012.
- 2012 "Digital Technology in Architectural Education" respondent, 100th ACSA National Meeting, Boston, MA. March 2012
- 2010 Panel on Sustainable Cities Initiative, AIA Oregon Design Conference, Salishan, OR. May 8, 2010
- 2010 "Using E-Portfolios in a Web 2.0 Community to Develop Professional Skills" with Andrew Bonamci and Ron Bramhall, EDUCAUSE Learning Initiative Annual Meeting, Austin, TX. Jan 19-21, 2010.
- 2009 Architectural Education in Oregon, Randy Gragg's Bright Lights discussion series, Portland, OR. Oct. 5, 2009
- 2008 "Building Information Modeling and Sustainable Design", Oregon University System's Summer Sustainability Institute, Portland, OR July 22, 2008
- 2007 "Digital Sketching" workshop, American Institute of Architects-Southwest Oregon, June 2007
- 2005 "Cool Tools for Designers" workshop, AIA National Convention, San Diego, May 18, 2005
- 2004 "Cool Tools for Designers" workshop, AIA National Convention, Chicago, June 2004
- 2004 "Intelligent Building" panelist, AIA-Technology in Architectural Practice / ACADIA 2004 Fabrication Conference, November 12, 2004.
- 2003 "Effective Digital Collaboration" panel organizer and moderator, Connecting the Dots, the AIA-Technology in Architectural Practice Fall Conference, San Francisco, Sept. 16-19, 2003.

- 2003 "Capturing Places: Mobile Tools for Site Data" co-presenter with Mitsuo Morozumi, the AIA-Technology in Architectural Practice 2003 Fall Conference, San Francisco, Sept 16-19, 2003.
- 2003 "Mobile tools & Digital Sketching", AIA Southwest Oregon, Eugene, OR. June 2003
- 2002 "Collaboration Strategies in Architectural Education" for the AIA-Technology in Architectural Practice's Six Degrees of Collaboration conference, D.C., April 4-6, 2002
- 2001 "Web Portfolios that Work" seminar, AIA National Convention, Philadelphia
- 2000 "Web Portfolios that Work" seminar, AIA National Convention, Denver May 2000

#### LOCAL PRESENTATIONS

- 2010 "Blogging and Instruction: A Panel Discussion" with Mark Blaine, Lori Hager and Ron Bramhall, Educational Technology session, University of Oregon Knight Library, Nov. 10, 2010.
- 2010 "ePortfolio Learning for 21st Century Readiness with the University of Oregon", with Lori Hager and Ron Bramhall, web teleconference for the Electronic Portfolio Action and Communication group, Nov 15, 2010.
- 2009 "Teaching Graphic Techniques" lecture/demonstration for UO Information Services' Collaboration Center Symposium, March 2009.
- 2009 "Greening our Planet: Intentional Communities", Good Earth Green Home Show, Jan 2009
- 2008 "Teaching Graphic Techniques", UO Collaboration Center, and Open House, Nov. 2008
- 2008 "Computing Across the Curriculum" UO Educational Technology workshop, April 2008
- 2008 "Collaboration" panel, UO HOPES Eco-Design Conference, April 2008

#### MEDIA COVERAGE

- 2012 "Pay Attention Folks, the ACADIA Digital Tribe is Going to Change the World", Oct. 24, 2012. [http://www.architizer.com/en\\_us/blog/dyn/58770/pay-attention-folks-the-acadia-digital-tribe-is-going-to-change-the-world](http://www.architizer.com/en_us/blog/dyn/58770/pay-attention-folks-the-acadia-digital-tribe-is-going-to-change-the-world)
- 2012 DeFreitas, S. "Smart Digital Origami Sunshades Shape the Light", Earth Techling, September 13th, 2012. <http://www.earthtechling.com/2012/09/smart-digital-origami-sunshades-shape-the-light/>
- 2011 Samiee, S. (2011) "Shaping Light Veil: Prof. Nancy Yen-wen Cheng, Jeffrey Maas and Nicolaus Wright, January 29, 2011. <http://aaablogs.uoregon.edu/blog/2011/01/29/shaping-light-veil-professor-nancy-yen-wen-cheng-jeffrey-maas-nicklaus-wright/>
- 2009 Chinn, Andre. (2009) "Profile: Nancy Cheng" in the Collaboration Center Symposium and Open House ", Cover Story of UO *IT Connections*, April 18, 2009. <http://it.uoregon.edu/itconnections/collaboration-center-symposium-and-open-house>

- 2004 Logitech Io Forum Expert Event featuring Nancy Cheng Jun 3- Aug 15, 2004
- 2003 Khemlani□, Lachmi. (2003) " AIA Technology in Architectural Practice Conference--Part 1" in CADENCE AEC Tech News #108, October 23, 2003.
- 2002 Laiserin, Jerry. (2002) "From atelier to e-telier: virtual design studios", Architectural Record; Jan 2002, vol. 190, no. 1, p. 141.
- 2000 Oregon Multimedia Association's Women in Multimedia Webpage.
- 1998 Intel Corporation's Showcase of Creative Applications, Hillsboro, OR, Nov. 19

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**TEACHING** <http://pages.uoregon.edu/design/nywc/HTML/teaching.htm>

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### **COURSES TAUGHT – RMIT UNIVERSITY**

- ARCH1040 Digital Material – co-taught with Nicholas Williams and Mehrnoush Latifi, March-June 2014
- MDIT Designing Responsive and Adaptive Environments, Intensive Workshop – co-taught with Jane Burry for Master in Design Innovation and Technology students, May 2014

### **COURSES TAUGHT - UNIVERSITY OF OREGON**

#### **DESIGN COMMUNICATION COURSES - REQUIRED**

- ARCH 202 Design Skills: introductory drawing for undergraduates, Winter 2008
- ARCH 222 Intro to Architectural Computer Graphics for undergraduates Fall 1997-2002
- ARCH 611 Graduate Design Process: introductory drawing, Summer 2006
- ARCH 610 Graduate Intro to Architectural Computer Graphics, Fall 2005, Fall 2006, Winter 2009
- ARCH 4/523 Design Development Media, Fall 2002, Fall 2003, Spring 2005, Winter 2006, Winter 2007, Fall 2007, Spring 2008, Winter 2010

#### **DESIGN COMMUNICATION COURSES - ELECTIVE**

- ARCH 4/524 Advanced Design Development Media, 1997, 1998, 2000, 2001
- ARCH 4/508 Design Collaboration, Winter 1997, 2004
- ARCH 4/508 Computer Modeling and Rendering Workshop, Summer 1998
- ARCH 4/510 Understanding CAD, Spring 1997
- ARCH 4/601 Research on Digital lighting, Wearable computers, Animation & lighting, Placetools, Shaping Light, Winter/Spring 2000, 2001, 2003, 2013
- ARCH 4/606 Special Studies in Digital Media, Web Portfolios, Summer 1999, Winter 2000, 2001, 2003

#### **ARCHITECTURAL DESIGN STUDIOS**

- ARCH 181,182 Beginning Architectural Design I & II, undergraduate, 1997-2003, Spring 2008
- ARCH 281 Intermediate Architectural Design I, undergraduate, Fall 2000-2, 2004-7, 2009
- ARCH 384 Architectural Design IV undergraduate instructor & coordinator, Spring 2007, 2009
- ARCH 680 Graduate Introductory Architectural Design, Summer 1999

- ARCH 4/584 Architectural Design, undergraduate and graduate, 1997–2003, Spring 2006, Winter 2007, Fall 2007, Fall 2008, Fall 2009
- ARCH 4/585 Advanced Architectural Design I, undergraduate and graduate, Winter 2005, 2011, 2012, 2013
- ARCH 4/586 Advanced Architectural Design II, undergraduate and graduate, Spring 2005, 2011, 2012, 2013

#### DESIGN ELECTIVES

- ARCH 4/507 Light and Shadow Seminar, Spring 2011, Spring 2012
- ARCH 4/507 Ecovillages Seminar, Winter 2005
- ARCH 4/507 Rome Summer Abroad Preparation Seminar: A Sense of Place, Spring 2002
- ARCH 608 The Beauty of Shadows Workshop, Winter 2009

#### PRACTICAL TRAINING

- 4-day Urban Experience for new graduate students 2010 San Francisco, 2011 Seattle, 2012 Seattle
- ARCH 409 Practicum University Teaching (various)
- ARCH 602 Supervised College Teaching (various)
- ARCH 609 Practicum, Off-Campus Experience 2012-2013

#### GLOBAL TEACHING

- 2012 Sustainable Design Program for Shanghai Xian Dai Visiting Architects in Oregon.
- 2002 Rome Architecture and Urban Design Studio, June-August

#### INVITED UO PRESENTATIONS

- 2011 "Skins" for Kiersten Muenchinger's Product Design Biomimicry class, April 2011
- 2006 "Digital Sketching Workshop", UO Computer and Information Science Colloquium, December
- 2006 "Digital Sketching", UO IT Fellows Presentation, March 13, 2006
- 2006 "Digital Sketching", UO AAA Board of Visitors, Feb 2006
- 2004 "Placetools & Digital Sketching" lecture for Julianna Newton in UO Journalism
- 2004 "Collaborative Studios & Digital Sketching" lecture, UO Faculty Multimedia Training, June 2004
- 2003-2005 "Digital Sketching" workshops for J. Reaves Arch 611 Graduate Design Process, July 2005; M. Reaves' Art class, Fall 2004; G. Utsey's Arch 4/523 Design Development Media, Fall 2003; G. Utsey's Arch 611 Graduate Design Process, July 2003; K. O'Connell's Arch 4/523, July 2003
- 2003 "Mobile tools & Digital Sketching" talk, Architecture Department Faculty Research Forum, March 2003

#### **COURSES TAUGHT - UNIVERSITY OF HONG KONG**

##### DIGITAL MEDIA

- 1993-1995 Computer Aided Architectural Design I, Fall 1993, Fall 1994, Fall 1995
- 1994-1996 Computer Aided Architectural Design II, Spring 1994, Spring 1995, Spring 1996
- 1993-1995 Virtual Design Studio, Spring 1993, Spring 1994, Spring 1995
- 1994-1996 Seminar on Architectural Representation, Fall and Spring, 1994-1996

## ARCHITECTURAL DESIGN

- 1994 First Year Architectural Design, Spring 1994  
1993-1996 Second Year Architectural Design, Fall 1993, Fall 1994-Spring 1996, Coordinator  
Spring 1995  
1993-1996 M.Arch. Thesis supervision

## STUDENT WORK EXHIBITS

- 2010-2012 Selected Graduation Work, UO White Stag Block  
2010 Sustainable Cities, Gresham City Hall, meeting with Congressman Blumenhauer  
2007 River Road Ecovillage Design Studio Exhibition, Atrium Building, Eugene, OR  
2006 "Cohousing Design workshop" at the Village Building Convergence, Portland, OR  
2000 ACADIA exhibit at A/E/C Systems conference, Washington, D.C.  
1999 ACADIA conference, Salt Lake City, UT  
1999 ACADIA exhibit at A/E/C Systems conference, Los Angeles, CA  
1999 AIA Pacific Northwest Regional Conference, Sunriver, OR  
1998 ACSA National Meeting, Cleveland, OH  
1997 UO Alumni Advocates lobbying state funding for higher education, Salem, OR

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## PROFESSIONAL SERVICE & AFFILIATIONS

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- 2014-2017 Harvard Graduate School of Design Alumni Council member

## RESEARCH REVIEW COMMITTEES

- 1996-2003 ACADIA (North American) & 2003 Pedagogy Node Chairman  
2006, 2011  
2012 Practical Building Information Modeling Symposium, USC  
2008, 2011 International Journal of Architectural Computing  
2009, 2011 Computer Aided Architectural Design Futures (international)  
2001-2007 Education and Research in Computer Aided Architectural Design in Europe  
2009, 2011  
2007, 2009 Arabic Society of Computer Aided Architectural Design (ASCAAD)  
1997-2000 Computer Aided Architectural Design Research in Asia (CAADRIA)  
2002, 2003, 2007  
2009 Preservation Education & Research journal  
2001, 2007, Iberoamerican Society of Digital Graphics (SiGraDi)  
2008  
2007 Architectural Research Center Consortium  
2006 Artificial Intelligence for Engineering Design, Analysis and Manufacturing  
journal

- 2006 First International Conference on Digital Architecture & Construction, Organizing Committee, Seoul, Korea, September 19 – 21, 2006
- 2006 Environmental Design Research Association, EDRA 38.
- 2004, 2006 Design Computing and Cognition, Advisory Board
- 2004 Design Decision Support Systems, University of Eindhoven, the Netherlands
- 2004 Computing and Education Journal reviewer, September 2004
- 1997, 1998 Association of Collegiate Schools of Architecture
- 2000, 2002

#### GRANT REVIEWER

- 2013, 2011 Maine Development Awards, administered by the Research Competitiveness Program, American Association for the Advancement of Science
- 2005, 2006 Hong Kong Research Grants Council
- 2008

#### BOOK PROPOSAL REVIEWER FOR PUBLISHERS

- 2012 Chapter of *Designing the Dynamic*, edited by Jane Burry, Royal Melbourne Institute of Technology, May 2012
- 2010 Chapter of *Computational Design Methods and Technologies: Applications in CAD, CAM and CAE Education* edited by Ning Gu and Xiangyu Wang, University of Newcastle and University of Sydney, July 2010
- 2010 Mobile information processing in architecture and building by Alexander Koutamanis, January 2010.

#### DESIGN JURY

- 2007 Design Communication Association's Design Exhibition, Summer 2007
- 2007 Koizumi International Lighting Design Competition for Students, May 2007
- 2005 Possible Futures III competition at the Bienal Miami + Beach 2005, invited by Alfredo Andia, Florida International University, November 2005.
- 2001,2002 Far Eastern International Digital Architectural Design award
- 2004

#### TENURE & PROMOTION REVIEWS

- 2014 University of Calgary
- 2013 Texas Tech University
- 2012 California Collage of the Arts
- 2010 University of Missouri
- 2010 University of Sydney
- 2008 King Fahd University of Petroleum & Minerals, Saudi Arabia

2007 University of Florida  
2006 Mississippi State University, Univ. of Wisconsin Milwaukee, & Univ. of North Carolina Greensboro  
2005 Georgia Institute of Technology  
2003 Carnegie Mellon University

## PROFESSIONAL ACTIVITIES

1994-present Association for Computer Aided Design In Architecture member  
2012 American Institute of Architecture (AIA) Oregon Design Conference, Organizing Committee  
2010 Rail-Volution: Building Livable Communities with Transit's Local Host Committee  
2009 AIA-Southwest Oregon Speaker Committee  
1994-2005 American Institute of Architecture member  
2008-2009 Oregon 3D Digital Initiative, member  
2007 Living In the Knowledge Society (LIKES) Tech Community-building Project

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## UNIVERSITY SERVICE

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### UNIVERSITY OF OREGON

2009-present Portland White Stag Art and Interior Design Committee  
2011 Riverfront Design Advisory Committee, Summer 2011  
2009-2011 Portland White Box Gallery Committee  
2010 Portland Sustainability Committee  
2008-2009 Summer Research Awards Committee  
2009 Energy Monitoring Advisory Committee  
2005-2007 Campus Planning Committee 2005-07  
2002-2003 Campus Planning Committee Design Review Subcommittee Chair  
2005, 2006 Architect Selection Panel  
2007  
2004-2006 Center for Study of Women in Society, Executive Board  
2005 Vice Provost of Information Services Search Committee  
2003 Vice Provost of Academic Affairs Search Committee  
1998-2000 Technology Transfer Committee

### UO SCHOOL OF ARCHITECTURE AND ALLIED ARTS

1996, 1997, 2011, 2013 Staff Search Committee

1996-2000 Digital Media Task Force member, previously Computing Task Force  
2007-2009  
2004-2006 Equity and Diversity Committee

#### UO ARCHITECTURE DEPARTMENT

2011-2013 Design Communications Task Force  
2010-2013 Lectures & Exhibits Committee  
2007, 2012-13 Personnel Committee  
2008 Admissions Committee  
2010-2013  
1996-2013 Computer hardware and software purchase advising  
2012 University of Liechtenstein exchange pilot trip  
2009-present Initiated & coordinated the Shanghai Xian Dai Summer Internship program  
1997-1999 Faculty Search Committee  
2000-2001, 2003, 2006-7, 2010-11  
2009 Scholarship Committee  
1996, Curriculum Committee  
2004-2006  
1996-2002 FormZ Joint Study Coordinator: archiving and publishing student work  
2001, 2010 Digital slideshow program for accreditation & Web gallery  
1999-2001 Technology Teaching Certificate Program Workgroup, Web author  
2001 Autodesk Architectural Studio (Studiodesk) liason  
1997-2001 Computer Requirement Subcommittee  
1996 Computer Instructional Support Search Committee

#### UO LECTURES AND WORKSHOPS ARRANGED (SELECTED)

2013 Neri Oxman, MIT Media Lab, Portland, April 2013  
2013 Jeff Maas's Grasshopper / Diva Workshops, Eugene & Portland  
2012 Scott Crawford's Grasshopper / Diva Workshop, Eugene  
2012 Jim Cowan's Revit and Vasari Workshops, Portland and Eugene. January  
2011-12 Oregon College of Arts and Crafts' design-build collaboration, in Portland  
2011 Jason K. Johnson and Andy Payne's Responsive Surfaces : Grasshopper & Firefly workshop, in Portland, August  
2011 CeramicSkin: digital clay workshop: Oregon College of Arts and Crafts, UO Art collaboration, in Portland and Eugene, January  
2011 Frank Barkow lecture, Barkow Leibinger, Berlin, Germany in Portland & Eugene  
2011 Jun Li lecture, Shanghai Xian-Dai Architectural Group, China, in Portland & Eugene

- 2011 Mark & Peter Anderson lecture & workshop, Anderson and Anderson, San Francisco, with Oregon College of Arts and Crafts, in Portland & Eugene
- 2010 Alice Kimm lecture, of John Friedman - Alice Kimm architects & Univeristy of Southern California, in Portland and Eugene
- 2009 McNeel's Rhinoscript programming workshop, in Portland
- 2009 Nancy Clark Brown, Autodesk, "Energy for Sustainable Design", in Eugene, Feb.
- 2008 Rhino software workshop in Eugene, September
- 2006-2008 Building Information Modeling panel and workshops, in Eugene
- 2007 Ellen Yi-Luen Do lecture, Georgia Tech / UW-Seattle, in Eugene
- 2007 Joachim Kieferle, Univ. of Applied Sciences-Wiesbaden, Germany with Rudiger Ruby of Darmstadt, lectures in Eugene and Portland, City Slices design workshop
- 2006 Henry Sorenson lecture and workshop "Perspective Drawing", Montana State University, Bozeman, MT, in Eugene
- 2000 Joachim Kieferle research lectures, University of Stuttgart, Germany, in Eugene
- 1999 Prof. Mitsuo Morozumi and Mr. Riken Homma of Kumomoto University, Prof. Jerzy Wojtowicz of University of British Columbia in Eugene
- 1998 Dirk Donath lecture "Augmented and Virtual Reality", Weimar University, Germany in Eugene
- 1997 Ken Yeang lecture, Hamzah & Yeang, Malaysia. in Eugene

#### EXHIBITS FACILITATED

- 2010-2012 Selected UO Architecture Graduation Work (summers), at UO Portland
- 2012 Frames for Living: William Wurster, with the Architecture Foundation of Oregon, at UO Portland
- 2012 Smarter Living - the 2000 Watt Society, with the Swiss Consolate of San Francisco, at UO Portland
- 2012 Architecture and Legacy of Pietro Belluschi, Oregon Historical Society (UO student-built models)
- 2010 Behnisch Architects' Ecology - Design - Synergy, at UO Portland
- 2010 wHY Architects' Four Salvaged Boxes, a Sustainable Design Exhibit, at UO Portland