

JOSEPH HENRY WHEELER, AIA

Executive Summary CV

Co Director Center for Design Research

Lead Investigator at Virginia Tech for four major Solar Decathlon projects, five Solar Decathlon competitions and multiple research projects totaling 24 years of research activity. In this role, he supervised all design, development, fundraising, marketing, outreach, construction, competition and post competition exhibitions. For each project, he led large teams of cross-disciplinary students to develop highly sophisticated, cutting-edge research in smart construction and design.

International Honors and Awards

- World EXPO Exhibition 2020 EXPO Dubai, UAE. FutureHAUS, Sept 2021- April 2022.
- First Place Overall, Solar Decathlon Middle East Competition (SDME), FutureHAUS, 2018.
- First Place Architecture Subcategory. SDME. Juror: Billie Faircloth, KTA Architects.
- First Place Overall, Solar Decathlon Europe Competition (SDE), LumenHAUS, 2010.
- International AIA Award, *Institute Honor Award for Architecture*, LumenHAUS, 2012.
- First Place Architecture, SDE Competition, famous Australian Architect Juror: Glenn Murcutt, 2010.

National Honors and Awards

- 2022 Lifetime Achievement Award, USDOE/NREL-Solar Decathlon *Richard King Award*.
- 2019 New York City's SARA Special Project Design Award FutureHAUS. The four award recipients were VT, Miller Hull, Diller Scofidio & Jean Nouvelle Architects.
- 2019 Jury Award for Sustainability from Architizer A+ Awards.
- 2017 Hanbury Design Medalist National Visiting Research Award.
- 2017 Techome Brilliance Award. Smart Home Technology Award.
- 2016. Hive 100 Housing Innovation Award. Recognized as one of 100 top global innovators in Housing for research in modular-smart construction. Hanley Wood/Builder.
- 2012 Metropolis Magazine Editors Award, Best of ICFF, VT Urban Garden Project.
- 2011 NCARB Prize for Creative Integration of Practice and Education in the Academy. National Council of Architectural Registration Boards, LumenHAUS.
- 2011 CASE Creative Partnership Award of Excellence, LumenHAUS Team Award, The Council for the Advancement of Scholarship and Education (CASE).
- 2006 NCARB Prize for Creative Integration of Practice and Education in the Academy. National Council of Architectural Registration Boards, 2005 Solar House.

University Honors and Awards

- 2022 Excellence in Outreach Award, School of Architecture + Design, Virginia Tech.
- 2021 Excellence in Outreach Award, School of Architecture + Design, Virginia Tech.
- 2019 Excellence in Creative Achievement, School of Architecture + Design.
- 2010 X-caliber Award, University Team Award for Outreach Excellence, Virginia Tech.
- 2010 Excellence in Outreach Award, VT School of Architecture + Design.
- 2008 Award for Excellence in Outreach, VT College of Architecture & Urban Studies.
- 2007 Creative Achievement Award, VT College of Architecture and Urban Studies.
- 2007 Certificate for Teaching Excellence, VT College of Architecture and Urban Studies.

Research Projects

- 2018-19 FutureHAUS Dubai, Energy Positive, Prefabricated, Smart home.
- 2017 Disaster Relief Housing. Industrialized Manufactured Housing for US FEMA
- 2017 Affordable Housing. Industrialized Manufactured Housing for US HUD.
- 2017 ProjeKT Home. 2000 sq.ft. demo smart home for Greenbuild, LA Conv. Cntr.
- 2017 Bedroom/Office of the Future. Industrialized Manufactured Housing. NBS Expo.
- 2016 Bedroom of the Future. Industrialized Manufactured Housing. NBS Expo.
- 2016 Bathroom of the Future. Industrialized Manufactured Housing. NBS Expo.
- 2015 Living Room of the Future. Industrialized Manufactured Housing. AIA Expo.
- 2015 Kitchen of the Future. Architecture and Industrialized Processes. NBS Expo.
- 2012 US Army Grant Self-Sustainable Living Module - Small Expeditionary Forces.
- 2011-13 Industrialized Housing, Research Collaborative w/ Skidmore Owings & Merrill.
- 2010 VT LumenHAUS, Solar Decathlon Europe Competition, Madrid, Spain.
- 2009 VT LumenHAUS, US Dept. of Energy Solar Decathlon, Washington DC.
- 2008 Prefab Modular Housing Prototype for Habitat for Humanity, Cambria, VA.
- 2008 Industrialized Processes Manufactured Furniture, Milan Italy, Koln, Germany.
- 2005 VT 2005 Solar House, US Dept. of Energy Solar Decathlon, Wash. DC.
- 2005 ABC's *Extreme Makeover Blacksburg Build*. Lead Architect, Project Coordinator;

International Lectures

- **Wheeler, J.** (2018 Dubai UAE) *FutureHAUS* Herman Miller Showroom, Perkins & Will.
- **Wheeler J.** (2019 Aarhus, DK) Design-Build Research at VT. Aarhus University.
- **Wheeler, J.** (2016) TEDX Herndon Building for the Future. Joseph Wheeler
- **Wheeler, J.** (2012 Helsinki, Finland) *Innovations in Energy Efficient Construction*. Energy Efficient Building Seminar, Energy Efficient Timber Construction in the Finnish Context, Hosts: U.S. Embassy of Finland, the EU's 10-Action and Aalto University.
- **Wheeler, J.** (2011 Erfurt Ger.) "The LumenHAUS," *Intl. Congress, Bauhaus SOLAR*.
- **Wheeler, J.** (2011 Rome, Italy) *Net Zero Architecture, MED In ITALY Processo Progettuale e Realizzativo di un Prototipo Casa Vincente*, Univ. degli Studi di Roma Tre.
- **Wheeler, J.** (2011 Barcelona Es). *Net Zero-Energy Buildings, from Research to Real Construction*. IDEA Intl.Conf-10-Action, Institute - Diversificación y Ahorro de la Energía.
- **Wheeler, J.** and Dunay, R. (2010 Lyon, France) *Green Buildings and Renewable Energies*. Pollutec Intl. Conference on Technology and Services to the Environment: Strategic Roadmaps to 2050. DOE and ADEME Energy Seminar,
- **Wheeler, J.** (and Dunay R.) (2010 Paris, France). Innovative Technologies & Renewable Energy," Invest in America Conference, United States Chamber of Commerce.
- **Wheeler, J.** (2011 Milan, Italy). "LumenHAUS, A Net-zero Energy Dwelling," *Ordine Degli Architetti, Pianificatori, Paesaggisti E Conservatori (Milan Architect's Chamber)*,
- McCoy, A.P., Schubert, R., Dunay, R., and **Wheeler, J.** (2010 Cairo, Egypt). *LumenHAUS: Uses and Benefits of ICT for Educational Achievement and Market Advantage*. Lecture at the CIB W78 Conference 2010: 27th Annual Conference on Applications of IT in AEC Industry and BIM Research Workshop.

International Exhibitions

- House Exhibition (Dubai, UAE) 2020 World EXPO. *FutureHAUS, House of the Future*.
- House Exhibition (Dubai, UAE) 2018 Solar Decathlon Mid. East. Solar Innovation Center.

- 2017 (Dubai, UAE) SDME Architectural Model Exhibition. World Energy Summit
- 2011 (Venice, IT) Architecture Biennale Citation, *Solar Decathlon Europe* multimedia exhibition showcasing *LumenHAUS*, winner of the competition, Spanish Pavilion.
- 2010 (Madrid, Spain) *Solar Decathlon Europe* House Exhibition, 2010. Villa Solar.
- 2009 (Madrid, Spain) SD Europe Architectural Model Exhibition. World Energy Summit
- 2008 (Milan IT) *Industrialized Furniture Exhibition* Milan Intl.Furniture Fair, w/ Dunay, R.
- 2008 (Köln DE) IMM Intl. Furniture Fair, *Industrialized Furniture*. w/ Dunay, R.

National Exhibitions

- 2019 New York Design Week. FutureHAUS Exhibited on Times Square, New York, NY. May
- 2019 FutureHAUS on the Drillfield. Blacksburg Campus. One month duration. April 2019
- 2019 Innovation Campus Exhibition, FutureHAUS in Alexandria VA, June-Aug 2019
- 2018 Wood-Mode New Products Showcase, Kitchen of the Future 2.0, Hershey PA
- 2017 FEMA and HUD Prototype Demonstrations. Disaster relief concept home displayed for FEMA in Marathon Key, FL., Orlando, FL, and Charlottesville, VA.
- 2016 USGBC Greenbuild Concept Smart Home Design Exhibition. With KB Homes and Hanley Wood. Designed, Built and Exhibited *Koncept Home* at a national sustainability EXPO in the LA Convention Center
- 2016 Kitchen and Bath Industry Show (KBIS) Bedroom/Office of the Future.
- 2015 AIA National Conference; VT FutureHAUS Research Exhibition.
- 2015 Kitchen and Bath Industry Show (KBIS) FutureHAUS Kitchen.
- 2012 Urban Garden Project, Intl. Contemporary Furniture Fair (ICFF) Javitz, NY,NY.
- 2012 LumenHAUS exhibit at Farnsworth House. Natl. Historic Trust. Plano, Illinois.
- 2010 Millennium Park Exhibition, USGBC Green Build Chicago, Lumenhaus.
- 2009 National Building Museum Exhibition. *Sustainable Communities*.
- 2009 LumenHAUS, Solar Decathlon Competition, National Mall, Washington DC.
- 2009 *Industrialized Furniture 3*. Intl. Contemporary Furniture Fair (ICFF) NY. NY.
- 2008 Eclipsis Screen System. Taubman Museum of Art. Roanoke, VA.
- 2006 Solar Home Exhibition. Richmond Science Museum, 7 year duration. Rich. VA.
- 2006 Association of Energy Conservation Professionals: Fourth and Sixth Annual Green Living and Energy Expo 2005 Solar Decathlon DC, 2005 VT Solar House.
- 2004 International Contemporary Furniture Fair (ICFF) *Design Works from Virginia Tech's School of Architecture + Design*. Jacob Javits CC. New York, NY.
- 2001 Exhibition for the National Historic Trust. *Virginia Tech Furniture Designs at Frank Lloyd Wright's Pope Leighy House*. Lorton, VA.

Testimonies, Consultancies, Symposia and Events Organized

- 2018 Hokies In the Middle East. VT Language and Culture Institute + VT Alumni Association. Presentation with the VT FutureHAUS team to 100 VT Alumni in the Middle East Emirates Towers, Dubai UAE.
- 2018 University Wide Lecture: James Timberlake of Kieran Timberlake Architects, Moss Arts Center, Sponsored by Covestro (\$7000 sponsorship)
- 2010 Congressional Internet Caucus Invited Exhibition, *VT LumenHAUS*, Hart Senate Office Building, Washington DC.
- 2009 Expert Witness, US Congress; Internet Caucus Smart Home Tech. Wash DC.
- Symposium Co-chair. *Digital Craft in Today's Arch. Practice*. Blacksburg, VA 2007.

- Consultant, Embassy of the U.S., Madrid, Spain, Information Resource Center, 2007.
- Professional Consultant to 12 Intl. Solar Decathlon Teams. 2010-present
- US House of Representatives Expert Witness; Cmte. on Science, Wash DC, 2006.
- Natl. Competition Organizer-Project Team Member, Martin Luther King Jr. National Memorial Competition. Wash. DC, 2002.
- Natl. Competition Organizer-Project Team Member Frederick Douglas Mem. Gardens, Anacostia, Wash., D.C. 2004.
- Intl. Competition Organizer-Project Team Member, Solar Decathlon, Wash DC, 2000.

Fundraising

\$4,603,725.00 Total Cash and Gift in Kind Raised Since 2005 for academic research projects. Industry Partners include Kohler Corporation, Philips, DuPont, Dow, Dominion Energy. Government partners include FEMA and HUD and DOE.

Patents and Disclosures

- 2022 US Patent #62/892.055 Functional Modular Cartridges & Methods: Wheeler,Vance.
- 2013 US Patent #8,371,089 Modular Bldg. System. Inventors: Wheeler,Dunay,Clark, King.
- 2013 Patent Disclosure, Modular Wall Assembly System, Sole Inventor: Wheeler, J.

Selected International Press

A+U Architecture + Urbanism Journal (Japan), 2A-Architecture & Art (UAE), Brisbane Times (Australia), Architektur Fachmagazin (Austria), Arquitectura y Construction (Spain).

Selected National Press

Since 2010, my work has been covered by multiple major media outlets. Publishers include; New York Times, Wall Street Journal, Washington Post, USA Today, Princeton Review, Chronicle of Higher Education, Architect Magazine, Architectural Record, Popular Mechanics, Builder Magazine, WIRED Magazine, HGTV, CNN, NBC Today Show, ABC Good Morning America, ESPN, National Public Radio, Architect's Newspaper

Education

- 1995 Masters of Architecture, Virginia Polytechnic Institute and State University.
- 1992 B.S. Architecture, Florida Agricultural and Mechanical University.
- 1989 Associate of Arts Degree, Florida State University

Academic and Administrative Appointments

- 2011- Co-founder and Co-director, Virginia Tech Center for Design Research.
- 2014 Promoted to Full Professor, Virginia Tech
- 2007 Promoted to Associate Professor with Tenure, Virginia Tech.
- 1998- Assistant Professor, Virginia Tech.

Professional Service

- 2013 Founding Member, Natl Institute of Bldg. Sci. (NIBS) Off-Site Construction Council.
- 2005-16. Board Member, American Institute of Architects, Blue Ridge Chapter (BRAIA).