

Skills and Tools

Sustainable design strategy. Teaching / training. Research. Biomimicry. LEED AP BD+C. Life Cycle Assessment (SimaPro, SustainableMinds, others). Design Thinking. SolidWorks CAD. Information architecture. Digital media. Physical prototyping. Technical writing.

Employment

- Sustainable Design Consultant, 8/01-present
Clients: **Autodesk**, San Francisco CA. **Cradle to Cradle Product Innovation Institute**, San Francisco CA. **Rocky Mountain Institute ("RMI")**, Snowmass CO. **The Biomimicry Institute**, Helena MT. **Natural Logic**, Berkeley CA. **Novartis**, San Carlos, CA. **Component Engineering**, Seattle WA. **ExBiblio**, Seattle WA. **Anthro**, Portland OR. **Chorus Motors**, Gibraltar. **Lawrence Berkeley National Laboratory**, Berkeley CA.
- Adjunct Faculty / Lecturer, 1/08 - present
Minneapolis College of Art & Design ("MCAD"), Minneapolis MN. 1/08-present.
Stanford University, Stanford CA. 9/07-3/10. **Emily Carr University of Art & Design**, Vancouver BC. 1/12-4/12. **California College of the Arts**, San Francisco CA. 9/09-12/09
- Sustainability Research Manager, **Project FROG**, San Francisco CA. 12/07-12/10
- Contributing Editor, **Worldchanging**, Seattle WA. 4/04-11/10
- Technical Training Instructor, **Applied Materials**, Santa Clara CA. 9/97 - 6/2K
- High School Physics Teacher, **The American School**, Tegucigalpa, Honduras. 8/95 - 1/96

Education

Univ. of California Berkeley, PhD in Mechanical Eng., expected 2017. SAGE-IGERT Fellow.
Stanford University, M.Eng. in Product Design, 2003. MAP Sustainable Energy Fellow.
Reed College, Bachelor of Arts in Physics, 1995

Sustainable Design Strategy

- Designed & project-managed *AskNature.org* v0.1 biomimicry database, listed in Fast Company's Decade In Design (Biomimicry Inst., RMI)
- Contributed to cargo bicycle design for rural Africa featured in Cooper-Hewitt National Design Museum's exhibit "Design for the Other 90%", 2007
- Life-cycle assessment & green design strategy (Novartis, Project FROG, ExBiblio, Natural Logic, Celery Design, Autodesk, UC Berkeley)
- Building energy modeling, renewable energy generation modeling (Project FROG)
- Juror for sustainable design competitions:
Dell's ReGeneration 2008, Greener Gadgets 2010, San Francisco IDSA's Digging Deeper 2010, Autodesk's Design For Your Product Lifetime 2012.
- Reviewer for the *Living Principles* green design guide by Brink, Destandau, & Hamlett for AIGA
- Created green building materials and products library (Project FROG)
- Co-developed *Design Intent Tool* for commissioning green buildings (Lawrence Berkeley Lab)

Teaching

- Lead author of *Autodesk Sustainability Workshop*, site listed in Fast Company's Ten Most Innovative Companies in Education 2011 (Autodesk)
- Awarded best technical instructor three times in three years (Applied Materials 1997-2000)
- Created classes at graduate, undergraduate, and high school levels (Stanford, MCAD, Emily Carr, Applied Materials, The American School)

Publications

Books & Online Courses

- Lead author of *Autodesk Sustainability Workshop* online education portal (Autodesk, 2010-2015)
- Co-author of *Worldchanging: A User's Guide to the 21st Century*, Abrams 2006. (2nd ed. 2011.)
- Co-author of Cradle to Cradle Product Innovation Institute's online education (C2CP11, 2014)
- Contributor to: *Packaging Sustainability* and *Sustainable Graphic Design*, both by Wendy Jedlicka, Wiley & Sons 2009. *Green Graphic Design* by Brian Dougherty. Allworth Press, 2009. *Eco-Labels: Concerns and Experiences* by Asha Joshi. ICFAI Univ. Press, 2008.

Academic Journal Articles

- Faludi, J., et al. "Comparing Environmental Impacts of Additive Manufacturing vs. Traditional Machining via Life-Cycle Assessment." *Rapid Prototyping Journal*, Vol. 21 Iss. 1, pp.14-33, 2015.
- Faludi, J. and Lepech, M. "Ecological Payback Time of an Energy-Efficient Modular Building." *Journal of Green Building* Vol. 7, No. 1, pp.100-119, 2012.
- Faludi, J., et al. "Using Life Cycle Assessment Methods to Guide Architectural Decision-Making for Sustainable Prefabricated Modular Buildings." *Journal of Green Building* Vol. 7, No. 3, pp.151-170, 2012.
- Faludi, J., et al. "Aiding Alternatives Assessment With An Uncertainty-Tolerant Hazard Scoring Method." *Journal of Environmental Management* (submitted, in review as of 2015-01-04).
- Faludi, J., et al. "Environmental Impacts of Selective Laser Melting: Do Printer, Powder, Or Power Dominate?" *Journal of Industrial Ecology* (submitted, in review as of 2015-01-04).

Academic Conference Papers

- Faludi, J., "A Sustainable Design Method Acting As An Innovation Tool," *International Conference on Research Into Design*, Bangalore, India, Jan. 7-9, 2015.
- Faludi, J., et al., "Does Material Choice Drive Sustainability of 3D Printing?" *International Conference on Mechanical Engineering and Mfg.*, Istanbul, Turkey, Feb. 16-17, 2015.
- Faludi, J., et al., "Sustainability of 3D Printing vs. Machining: Do Machine Type & Size Matter?" *Proc. of the 11th International Conference on EcoBalance*, Tsukuba, Japan. Oct. 28-30, 2014.
- Faludi, J., "Integrating LCA Into a Design Innovation Method," *Proc. of the 11th International Conference on EcoBalance*, Tsukuba, Japan. Oct. 28-30, 2014.
- Faludi, J., and Menter, A., "Sustainable Design Education Through a Self-Directed Online System," *Proceedings of the ASME IDETC Conference*, American Society of Mechanical Engineers, Portland, Oregon. Aug. 4-7, 2013.
- Faludi, J., "Sustainable Design Education Through Modular Online Content," *Society for Information Technology & Teacher Education International Conference* Vol. 2012 No. 1, 2012.
- Faludi, J., "The Biomimicry Portal: A Tool For Sustainable Innovation," *Sustainable Innovation 11th International Conference*, Chicago, IL, Oct. 23-24 2006.
- Hardham, C., Faludi, J., et al., "Multi-DOF isolation and alignment with quiet hydraulic actuators," *Proceedings of ASPE Spring Topical Meeting on Control of Precision Systems*, 2004.

Reports & Misc.

- Faludi, J., *Estimating the Environmental Impacts of Widespread 3D Printing*. Policy paper for the Organisation for Economic Co-operation and Development (OECD), 2015.
- Miller, M., Faludi, J., Bellafiore, A., *The Science and Technology of Advanced Structural, Material and Environmental Systems in Quick-to-Deploy, High-Performance Green Solutions*. Report for the Office of Naval Research, 2009.
- Author of over 200 articles for Worldchanging.com, 2004 - 2008.

Presentations and Workshops

Lectures, workshops, and panels at conferences, schools, and businesses, including:

- US National Library of Medicine, 2003
- Better World Business Forum, Paris, 2004
- Technische Universiteit Delft, Holland, 2004
- Doors of Perception, Delhi, 2005
- Antioch University, 2005
- Arup, 2006
- Sustainable Innovation, 2006
- Simon Fraser Univ., 2006
- Foo Camp, 2007
- ArquinFAD, Barcelona, 2007
- San Jose State University, 2007
- ConAIR, 2007
- Lawrence Berkeley Labs, 2007
- UC Berkeley Extension, 2007 & 2009
- UC Berkeley, 2008
- Salone Internazionale del Mobile, Milan, 2008
- Mattel, 2008
- Emily Carr University, Canada, 2008 and 2010
- SolidWorks World, 2008
- Biomimicry Alumni Gathering, 2009
- ETech, 2009
- San Francisco Ignite, 2009
- Sustainable Minds, 2009
- Taipei Design Center San Francisco, 2009
- West Coast Green, 2009
- Designers Accord Summit, 2009
- Sustainable Brands, 2009
- Sustainable Brands Boot Camp, 2010
- Better Buildings - Better Business, 2010
- Action for a Sustainable America Sustainable Manufacturing Summit, 2010
- San Francisco Green Fest, 2010
- Engineers for a Sustainable World, 2010
- Esalen Institute, 2010
- Steelcase, 2010
- Good People Share, Brazil, 2010
- Project Brains, Brazil, 2010
- 3M, 2010
- Johnson & Johnson, 2010
- Society of Environmental Toxicology and Chemistry (SETAC), Budapest, 2011
- Celsius and Beyond, 2011
- American Society for Engineering Education webinar, 2011
- Taipei Design Center San Francisco, 2011
- Baldwin-Wallace Sustainability Symposium (keynote), 2011
- IKEA, 2011
- GreenerMind Summit, 2011 & 2013
- Society for Information Technology and Teacher Education, 2012
- Association for the Advancement of Computing in Education EdMedia, 2012
- Architecture for Humanity, 2012
- UC Berkeley ME 290P, ME 290i, ME 290KA, ME 290KB, MBA 296, CEE 292A, and ME 110, 2012 - 2015
- Swissnex 3D Printing and Biomaterials, 2013
- American Society of Mech. Eng. International Design Engineering (ASME IDETC), 2013
- Ellen MacArthur CE100, London, 2013
- CleanEdge webinar, 2013
- GreenBiz VERGE, 2013
- O'Reilly Solid, 2014
- UC Berkeley Osher Institute, 2014
- Buildwell, 2014
- KPFA radio, 2014
- EcoBalance, Tokyo 2014
- Universidad Nacional Autónoma de México Sustainability Forum (keynote) 2014
- International Conference on Research into Design (ICORD), Bangalore 2015
- International Conference on Mech. Eng. & Mfg. (ICMEM), Istanbul 2015
- Featured or quoted in *Wall Street Journal*, *60 Minutes*, *San Francisco Chronicle*, *BoingBoing*, *Fast Company*, *Salon.com*, *Treehugger*, *C|Net*, *Australian Broadcast Corp. radio*, *Canadian Broadcast Corp. radio*, *Globe.net*, *California Magazine*, *Zygote Quarterly*, *Estadão*, *Epoca Negócios*, & others.