

## EDUCATION:

Master of Fine Arts in Design, Stanford University, California, 2002.

- Thesis: Communication on the Road: Promoting Safe Interaction Between Pedestrians, Cyclists and Vehicles.
- Advisors:  
Professor Matt Kahn, Department of Art and Art History.  
Professor David Kelley, Mechanical Engineering, Co-Founder, IDEO and the d.school (Hasso Plattner Institute of Design).

Bachelor of Arts in Art and Art History, Reed College, Oregon, 1994.

- Thesis: The Tall Building Once Again Reconsidered: Public Perceptions and Psychological Determinants of Skyscraper Form 1870-1916, 1993.

## ADDITIONAL TRAINING:

- Training Certificate in Biomimicry Practice, Biomimicry Institute, 2012.
- Design Management Certification, Design Management Institute, 2011.
- Certificat Pratique de la Langue Française, Université de Haute Bretagne II, Rennes, France, 1991.

## ACADEMIC APPOINTMENTS

- Associate Professor (with Tenure) Industrial Design, Virginia Tech, 2019-Present.
- Associate Professor, Industrial Design, Virginia Tech, 2012-2019.
- Visiting Critic, Social Entrepreneurship, Parsons School of Design, 2006-2008
- Adjunct Professor, Industrial Design, Pratt Institute, 2005.
- Graduate Teaching Assistant, Product Design, Dept. Mechanical Engineering, Stanford University. 2001-2002.
- Graduate Teaching Assistant, Product Design, Dept. of Art and Art History, Stanford University. 2001-2002.

## ACADEMIC AFFILIATIONS:

- Co-Founder, BioDesign Research Group, College of Architecture, Arts and Design, Virginia Tech, 2020-Present.
- Center for Renewable Materials, University of California, San Diego. 2019-Present.
- Heath Science and Technology Steering Committee, Virginia Tech Carillion School of Medicine, 2016-Present.
- Center for Human Computer Interaction, 2017-present.
- Institute for Creativity Arts and Technology Senior Fellow. 2014-present
- Virginia Tech Center for Gerontology, Faculty Affiliate, 2013-present.

## PROFESSIONAL APPOINTMENTS:

Below are highlights of my ongoing professional design and advising activities. Not included are other positions that are under NDAs.

- Clean the World Foundation, Technical Advisor, 2022-
- Strategic Design Advisor, Nokero Solar, Social Lighting Startup, 2017-
- Consulting Design Director, Well Health, Startup, 2014-2015.
- Consulting Design Director, Kid O toys, 2013-2015.
- Associate Director, Industrial Design, Smart Design, New York, NY 2008-2012.
- Senior Industrial Designer, Smart Design, New York, NY 2005-2008.
- Industrial Designer, Michael Graves Design Group, Princeton, NJ 2003-2005.
- Industrial Design Intern, The North Face, San Leandro, CA 2002.
- Industrial Design Intern, XtraCycle, Berkeley, CA, 2002.
- User Experience Intern, Adobe Systems Inc, San Jose, CA 2001.
- 3d Visualization Specialist, Flite Lab, Fin-Tech Startup, New York, NY 1996-1998.

## PROFESSIONAL AFFILIATIONS:

Industrial Design Society of America (IDSA), Professional Member.

## PUBLICATIONS:

### 1. Books

- Kennedy, B., "Reimagining Alternative Technology for 21<sup>st</sup> Century Design" Routledge, Abington, UK. *Forthcoming Winter 2023*.

### 2. Book chapters

- Kennedy, B., Maurer, C., and Sullivan, W., "Bio-Fabrication and Bioinspired Manufacturing Techniques for the Built Environment" in *Advances in Materials and Processing*, ed. Yoseph Bar-Cohen. (CRC Press, Taylor and Francis, 2018). 97-124.
- Kennedy, B., "Intelligent Materials: Designing Material Behavior" in *Design for Emerging Technologies*, ed. Jonathan Follett. (O'Reilly, 2014). 27-41.

### 3. Journal Articles

- Kowalski, N., Shi, W., Kennedy, B., Boreyko, J. "Optimizing Fog Harps," *Applied Materials and Interfaces*, 13 (32), 38826–38834 (2021).
- Shi, W., Van der Sloot, T., Hart, B., Kennedy, B., Boreyko, J. "Harps Enable Water Harvesting under Light Fog Conditions," *Advanced Sustainable Systems*, <https://doi.org/10.1002/adsu.202000040>, (2020).
- Kennedy, B. "Fog Harp: University invention to real-world impact," *Zygote Quarterly* 27, 28-41 (2020).
- Kennedy, B., Boreyko, J., Shi, W., "The Value of Lab-Engaged ID: Designing a Fog Harvesting Harp," *Innovation*, 37 (4), (2018).
- Mueller, R., Abaid, N., Goel, A., Kennedy, B., Boreyko, J., Kim, S., Fowlkes, C., Grimm, C., Murphy, C., "Biodiversifying Bioinspiration," *Bioinspiration & Biomimetics*, 13 (5), (2018).

- Shi, W., Anderson, M., Tulkoff, J., Kennedy, B., Boreyko, J. "Fog Harvesting with Harps," *Applied Materials and Interfaces*, 10 (14), 11979-11986 (2018).
- Liu, M., Lin, R., Zhou, S., Yu, Y., Ishida, A., McGrath, M., Kennedy, B., Hajj, M., Zuo, L. "Design Simulation and Experiment of a Novel High Efficiency Harvesting Paver," *Applied Energy*, 212, 966–975 (2018).
- Kennedy, B. "Product Design Macronaut," *Zygote Quarterly* 19, 36-55 (2017).
- Kennedy, B. "The De Mestral Project: Using Macro Photo-journaling To Stimulate Interest in Bio-inspired Design and Science, Technology, Engineering and Mathematics Disciplines," *Int. J. of Design & Nature and Ecodynamics* 12, 185-193 (2017).
- Kennedy, B. "The Application of Bioinspiration to Human-Centered Product Design," *Int. J. of Design & Nature and Ecodynamics* 9, 230-236 (2014).

#### 4. Invited Conference Talks and Papers in Refereed Conference Proceedings

- Kennedy, B., (Speaker) and Boreyko, J. (2022) "Fog Harps: Bioinspired Material Systems for Collecting Atmospheric Water." *BioINSPIRE 22: 6<sup>th</sup> International School and Conference on Biological Materials Science*, 21-24 March, 2022, Konstanz, Germany (and online).
- Shi, W., Van der Sloot, T., Kennedy, B. and Boreyko, J. (2019) "Redwood-Inspired Fog Harps." *Proceedings of the 8th International Conference on Fog, Fog Collection and Dew (IFDA)*, July 18, 2019, Taipei, Taiwan.
- Kennedy, B. (2018). "Design for Water Access." *Digital Proceedings of the 2018 Industrial Design Society of America (IDSA) Education Symposium*, September 19-22, 2018. New Orleans, LA. (Received IDSA Edu Symposium Best Paper Award 2018).
- Kennedy, B. (2017). "Considering Unintended Impact of Innovation in Design Education." *Proceedings of the National Conference on the Beginning Design Student (NCBDS) 33*, 2017. *Begin with Why: Ethics and Values in Beginning Design*, March 9-11, 2017. University of Utah, Salt Lake City, UT. 256-262.
- Kennedy, B. (2016). "The De Mestral Project: Macro photographic device for Biology-inspired Design." *Proceedings of the Design And Nature Conference*, September, 2016. New Forest, UK.
- Kennedy, B., Nagel, J. & Buikema, A. (2015) "Integrating Biology, Design and Engineering for Sustainable Innovation." *Proceedings from the 5th IEEE Integrated STEM Conference*, March 7, 2015. Princeton University, Princeton, NJ. 88-93.

#### COMPETITIVE FUNDING (Selected, not including pending applications): \$500K+

- Proof of Concept Fund, Office of Research + Innovation, 2020, Fog Harp, \$50K.
- Autodesk Technology Center Residency Boston, Fog Harp, 2020 (Postponed).
- Comstock / Greenshift, Corporate Sponsorship of Fog Harp, 2018-2022, \$450K.
- Institute for Creativity Arts and Technology, Fog Harp SEAD, 2016, \$18K
- Autodesk, Studio in Design and Dignified Aging, 2016 \$15K.
- Eastman Chemical, 3d Printers, Amphora material exploration, 2015, \$40K.
- SFCS Architects, Studio in Design and Dignified Aging, 2014-2020 \$30K.

## PATENTS:

- 2022 'Fog Harvester having a vertical wire array and uses thereof,' US 11,466,437.
- 20+ US, EU, Canada, Japan and China Design and Utility Patents including two current applications pending.

## PROFESSIONAL DESIGN, RESEARCH and INNOVATION RECOGNITION (Selected):

- 2022 European Product Design Award, Professional Category.
- 2022 University Research and Innovation Excellence Award, Virginia Tech.
- 2020 IDEA Award, Finalist, 2020, Fog Harp.
- 2019 Finite Water, Documentary Film, Coverage, Fog Harp.
- 2018 National Collegiate Inventors Competition, Finalist, Fog Harp.
- 2018 ICAT Creativity and Innovation Festival, Innovation Award, Fog Harp.
- 2018 A' Design Award, Nokero Soli Flashlight.
- 2018 A' Design Silver Award, Folium Hydrophobic Bicycle Seat.
- 2017 Eleven Biomimicry Challenge, Honourable Mention, Folium Bicycle Seat.
- 2017 A' Design Silver Award, Macronaut Smartphone Loupe.
- 2015 Highway1 Startup Accelerator Finalist, Well Telehealth Thermometer.
- 2013 Consumer Reports, Best Pick, OXO tot Sprout Chair.
- 2012 IDEA Gold, OXO tot Perch Booster Seat.
- 2012 Chicago Athenaeum Good Design, OXO tot Perch Booster Seat.
- 2012 Spark! Award, OXO tot Perch Booster Seat.
- 2012 iF Award, 2012, OXO tot Sprout Chair.
- 2012 iF Award, OXO tot Feeding line.
- 2012 Red Dot Award, OXO tot Feeding line.
- 2011 Red Dot Award, **Best of the Best**, OXO tot Sprout Chair.
- 2012 IDEA Silver, OXO tot Sprout Chair.
- 2012 IDEA Finalist, OXO tot Feeding Line
- 2011 Spark! Silver Award, OXO tot Sprout Chair.
- 2010 JPMA Innovation Award, OXO tot Mini Silicone Dishwasher Basket.
- 2010 Cooper Hewitt National Design Award, Product Design, Smart Design.
- 2005 Chicago Athenaeum Good Design, Elevated Dog Bowl, Michael Graves Design

## MEDIA COVERAGE

- My professional and research work has been published and exhibited by the New York Times, PBS Newshour, BBC, NPR, CNN, the Washington Post, Czech National Radio, the Boston Globe, Fast Company, the VERGE, Times Live South Africa, Ingeniøren, the Smithsonian, ICFF, the Dubai World Expo and in the Feature Documentary Finite Water amongst other venues.

#### TEACHING AWARDS:

- 2016 Seminar Class Teaching Excellence Award, Virginia Tech.
- 2014 New Faculty Teaching Award, Virginia Tech.

#### STUDENT AWARDS AND EXHIBITIONS:

- Moove Razor, David Shaltanis 2021 IDEA Gold, Student Category. This thesis project was the outcome of a brief and collaboration driven by the premise of my book, "Reimagining Past Technology for 21<sup>st</sup> Century Design."
- My students' work has been internationally recognized between 2012-2021: IDEA, Core77 (+Community Choice Award), European Product Design Award, International Forum iF, A' Design Awards, International Housewares Association, Cradle to Cradle Product Design Award, Stanford Center on Longevity, Google Aging 2.0 and has been exhibited at the International Contemporary Furniture Fair (ICFF), New York City, the Cooper Hewitt National Design Museum, New York City and the Global Grad Show, Dubai.