

Beth Mosher

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EDUCATION

University of Illinois, Urbana-Champaign, Illinois
MFA Industrial Design, 1990

Additional courses in human factors, entrepreneurial business practice,
and metal-working.

University of Chicago, Chicago, Illinois
BA Anthropology, cum laude, 1986

Additional courses in archaeology, psychology, history of science, fine art,
statistics and coding.

TEACHING INTERESTS

Design research
Future casting
System design
Brand strategy

Humanitarian Design
Data visualization
Experience design
Material culture

CURRENT PROFESSIONAL WORK

We are Allies, co-founded non-profit to reduce stigma around opioid use disorder while increasing availability and visibility of the overdose reversal medication. Along with team of doctors, pharmacists, people in recovery, and business people, designed and developed the initial system at a GE Foundation hackathon. Obtained 2nd round of funding from GE (\$25,000) to further develop business plan and manufacture products for the program roll. Awarded Facebook Social Entrepreneurship Award of \$5,000. Responsible for running the human-centered design research, designing the research probes and analyzing the data, designing case and interfacing with manufacturer, designing presentations and involved in developing system strategy and writing the business plan.

Every Baby, neonatal heart-rate monitor for developing countries. Working with team of doctors and engineers to develop a low-cost heart rate monitor that provides birth attendants with crucial heart rate information when resuscitating newborns. Applied for patents in US, Europe and India. Received a Partners Innovation Discovery Grant for \$100,000 to further develop and test the invention. Responsible for the human-centered design and collaborating with engineers and doctors to explore and test possible device configurations, given ergonomic, cultural and medical constraints.

https://www.elsevier.com/connect/when-seconds-count-finding-a-new-way-to-prevent-newborn-deaths/_nocache#comment-2491829535

The Codpiece Project: BIG Data, a material culture research project that uses design research techniques and data visualization to uncover patterns of codpiece use and meaning during the Early Modern Period. Researched different collections and libraries in US and Europe. Presented paper on findings at interdisciplinary conference, Siglo de Oro, in Madrid. Currently finalizing article for publication and also continuing research on second phase of project, exploring how non-Europeans responded to this flamboyant sartorial messaging system.

PROFESSIONAL EXPERIENCE

Beth Mosher Design, Principal. Boston, Massachusetts. 1998 – Present.

Consult on wide range of experimental design and design research projects for clients in the medical, footwear and high-tech industries, as well as government agencies. Recent work includes:

Massachusetts General Hospital Global Health

Mentored teams at Consortium for Affordable Medical Technologies Zika Hackathon, along with officials from the Obama administration, USAID, the CDC, MGH's Global Disaster Response Team and the Public Health Departments of New York, Jamaica, Panama and Brazil. Advised teams on how to use human-centered design and sustainable business strategies to address vector control, data collection and public engagement to combat the spread of the Zika virus.

Rhode Island College and University Research Collaborative

Received grant to build and analyze database of Rhode Island manufacturers and makers. Results used by the Rhode Island State Legislature for policy discussions on economic revitalization.

Environmental Protection Agency

Advised regional EPA office on strategies for creating a center for environmental sustainability in Southern New England.

Continuum

Member of an interdisciplinary research symposium as an expert in the design of junk food and its social origins.

Boston Scientific

Designed physical interfaces for minimally invasive surgical devices. Reduced surgeons' repetitive motion injuries by redesign of device handles. Involved in surgeon focus groups, photographic analysis, ergonomic testing and pig labs.

Dove/Unilever

Part of interdisciplinary team of scientists, engineers, designers and marketers. Created new strategic product concepts to build on the existing Dove brand. Concepts used to drive new research and product development within Dove.

MediSpectra

Designed physical interface of prototype laser scanner for cervical cancer. Conducted photographic analysis and interviews with doctors and patients. Reconfigured internal components to make device more accurate. Designed housing to make device less threatening to women participating in the testing.

Power Prosthetics, The Codpiece Project

Researched and adapted historical signifiers of masculine power to the current issue of the gender wage gap. Designed system of objects, able to be crafted and 3-D printed by individuals at home, to be used as empowerment tools during pay negotiations.

The Junk Food Project

Researched development of junk food, exploring how it is cloaked in familiar, nostalgic references to gain our acceptance. Developed new methodology to spark innovative design solutions by mining historical objects for new references and forms.

Ethical Issues of Mass Production

Explored design profession's lack of ethical leadership in factory worker abuse and posited ways to include their needs under the larger research umbrella of "human-centered design". Created short mockumentary film "Potato, an Animated Look at Voluntary Self-Production" to highlight the profession's silence on this issue and its tacit pretense that our objects produce themselves.

Mantis, Vice President of Advanced Products and Design. Portland, Oregon.
Spring 1997 - Spring 1998

Founding member of athletic footwear company, defined product line and managed product cycle, designed performance athletics technology and footwear.

Nike, Footwear Designer, Advanced Product Engineering. Portland, Oregon.
Spring 1995 - Spring 1997

Developed new technologies and designs to enhance elite athlete performance. Coordinated with marketing, research and production engineering. Conducted research to understand global trends, consumer behavior and the psychological factors influencing athletic performance.

frogdesign, Industrial Designer. Menlo Park, California.
Summer 1991- Winter 1994.

Coordinated interdisciplinary design teams for domestic and international clients. Responsible for design development, presentations, implementation during manufacturing, proposal writing and project management. Clients included Next, IBM, Langenscheidt, Disney, Logitech and Swatch.

Smart Design, Industrial Design Intern, New York City.
Summer 1989

Designed desk-top furnishing systems for Knoll International.

TEACHING EXPERIENCE

Rhode Island School of Design, Professor of Industrial Design. Providence, Rhode Island. Fall 2002 – Present.

Graduate Thesis Research Studio, Fall 2019 - present. Co-taught first semester of the ID graduate thesis year, guiding students during their research and problem framing through desk research, human-centered design research and making and testing research probes.

Low Tech, High Tech: Springboard to Innovation, Junior Special Topic Studio, Fall 2017 - present. After recreating ancient technologies in time-keeping and navigation and temperature control, students built on what they had learned build new designs, resulting in both objects and digital applications.

Sophomore Industrial Design Principals II, Spring 2015 - present. Co-led faculty team of six sections, teaching students foundational principals in industrial design, including form, material, mechanics, manufacturing, and human-centered design research.

The Processing Playground Coding Workshop, Spring 2015 - present. Developed new workshop course, introducing students to the basics of interactive, object-based coding, using the Processing language. Taught 3 four-week sections, which culminated in a group laptop farm.

Strategic Futures, Senior Advanced Studio, Fall 2012 – Fall 2014, Fall 2017. Experimenting with future casting techniques, such as strategic gaming and future scenario-building, students applied the techniques to future brand strategies, designing both future scenarios and the objects that live in them.

Experiencing Objects, Senior Advanced Studio, Fall 2015.

After analyzing experiences, from the Japanese tea ceremony to ordering a burger at MacDonal'd's, students then designed new objects to act as portals to richer and more meaningful experiences.

Human-centered Design Research, Junior Special Topic Studio, Fall 2015.

Using RISD as a laboratory, students learned about different design research tools and used them to uncover insights into barriers to community formation. Students then developed new objects and systems to overcome these hurdles, in order to build a healthier RISD community.

Design for Discourse, Junior Special Topic Studio, Fall 2014.

Students learned new design methodologies to create engaging, speculative objects that raise awareness of the issues underlying conflict, including congressional partisanship and the income gap.

Graduate Thesis Studio I & II, Fall 2002, Spring 2003, 2006, 2008, 2009, 2011 – 2014.

Guided graduate students through the development of their thesis projects, from research and concept brainstorming through the final design and the written, verbal and visual presentations of their work.

Graduate Seminar I & II, Fall 2006, Spring 2008, 2009, Fall 2010, 2012, 2013.

Examined critical issues in industrial design, including environmental sustainability, research, comparative aesthetics and human-centered design. Explored the links between historical design movements and political movements and examined the impacts on design today.

Research and Ritual, Advanced Studio, Fall 2011.

Students experimented with different human-centered research techniques to develop research insights. After studying different religious rituals as designed experiences, students then analyzed problematic patterns of everyday behavior and redesigned daily rituals to positively impact behavior.

Stop That Bug! Environmental Studio Spring 2011.

Working with Harvard University's Arnold Arboretum, students researched past and current eradication efforts of the invasive Asian Long-horned Beetle. They then developed design proposals for systems, objects and outreach programs to help aid the detection of the insect and to prevent its spread.

Kimberly Clark Green Studio, Fall 2010.

Taught sponsored advanced studio to explore and develop a second, more permanent life for a currently single-use, non-woven material used extensively in the medical industry for surgical instrument sterilization.

Graduate Studio I & II, Fall 2003, 2005, 2006. Spring 2004 - 2006.

Introduced new students to creative design processes and research methodologies through projects about the role of objects in society, user-centered design and brand strategy.

Product Design 101, Winter 2008, Winter 2009.

Introduced students from all disciplines to basic design process through assignments in applied observational research and biomimicry.

Presentation I, Spring 2004, Spring 2005.

Taught sophomores persuasive presentation techniques, both verbal and visual.

Drawing for Designers, Fall 2005.

Taught undergraduates and graduates to use drawing as both a means of expressing ideas and as a reflexive tool.

Designing Ritual Objects, Winter Session 2004.

Taught students ethnographic research techniques within the context of religious rituals. Taught design development methodologies and presentation techniques.

Manufacturing Techniques, Fall 2002.

Introduced undergraduates to different manufacturing techniques through presentations and factory tours.

Wentworth Institute of Technology, Assistant Professor of Industrial Design, Boston, Massachusetts. Summer 2001 - Spring 2002.

Freshman Foundation Studio, Spring 2002. Taught aesthetic principles and managed course content and adjunct faculty in four other class sections.

Senior Industrial Design Studio, Spring 2002. Taught seniors techniques in cross-cultural research and explored how to instill meaning in objects.

2-D and 3-D Software, Fall 2001, Spring 2002. Introduced students to Illustrator, Photoshop and Cobalt modeling software and taught students how to convey graphic information effectively.

Sophomore Industrial Design Studio, Fall 2001. Taught basic design process, including research, brainstorming and form development.

Modeling Techniques, Fall 2001. Introduced sophomores to hand and machine model making techniques.

Senior Industrial Design Thesis, Summer 2001. Advised seniors on their capstone thesis projects.

University of Illinois, Urbana-Champaign, Instructor of Record. Urbana-Champaign, Illinois. Fall 1988 - Spring 1990.

Drawing Theory, Fall 1988 – Spring 1990. Introduced beginning design students to drawing theory and drafting. Designed course content and assigned grades.

SELECTED CONFERENCE PRESENTATIONS

“Datos Masivos: la bragueta como marca de la etapa de vida en la corte de Felipe II.”

Presented research paper at XI Congress of the International Association of the Siglo de Oro, Madrid, Spain, July 10, 2017.

“Designing Junk Food: a critical romp through the genealogy of snack food to uncover why we accept the ersatz for the real.” Presented paper at the First European Conference on Understanding Food Design: From User Experience to People-Centered Design, Milan, Italy, October 8 -10, 2015.

“50 More Years: what might happen to design and how we can prepare for it.” Presented lecture at the International Conference of the Industrial Design Society of America, Seattle, Washington, August 19 - 22, 2015.

“Exploring Ethical Issues of Mass-Production in Industrial Design Through Time-Based Media.” Presented paper at the 6th UNIDCOM/IADE International Conference, Lisbon, Portugal, October 6 – 8, 2011. Paper also published in the proceedings.

“Visceral Research, Virtual Food: What Our Edible Culture Can Tell Us about Ourselves.” Presented paper at International Council of Societies of Industrial Design Conference. San Francisco, California, October 2007.

EXHIBITIONS

- “Power Prosthetics”, Faculty Biennial, Rhode Island School of Design Museum. Providence, Rhode Island, February 20 – March 22, 2015. Invitational show.
- “potato: an animated look at voluntary self-production”, Faculty Biennial, Rhode Island School of Design Museum. Providence, Rhode Island, February 21 – March 3, 2013. Invitational show.
- “Slow Food Mass Production”, Faculty Biennial, Rhode Island School of Design Museum. Providence, Rhode Island, February 19 – March 15, 2011. Invitational show.
- “Fab Foods: Design as Innovation Tool.” Biennale Internationale Design 2008, St. Etienne, France. Juried show, November 2008. (catalog)
- “Virtual Food”, Faculty Biennial Exhibition, Rhode Island School of Design Museum. Providence, Rhode Island, Fall 2005. Invitational show.
- “The McDonald's Project.” Design Exchange, Toronto, Canada. Juried show. Fall 2003, <www.dx.org/museum/exhibit.html>.
- “Disturb, Delight, Design.” Revolving Museum, Boston, Massachusetts. Juried show. August 2001, <www.release1.net/v2/indexFlash.html>.

SELECTED ARTICLES AND REVIEWS

- Pollard, Amy. “We Are Allies Offers New Solution to Ongoing Opioid Epidemic.” MedTech Boston. 30 May, 2017. <https://medtechboston.medstro.com/blog/2017/05/30/we-are-allies-offers-new-solution-to-ongoing-opioid-epidemic/>
- Bartlett, Jessica. “GE picks five teams to tackle Boston's opioid crisis.” Boston Business Journal. Sep 13, 2016. <https://www.bizjournals.com/boston/blog/health-care/2016/09/ge-picks-five-finalists-to-tackle-bostons-opioid.html>
- Bebinger, Martha. “Hacking A Solution To Boston's Opioid Crisis.” September 12, 2016. <http://www.wbur.org/commonhealth/2016/09/12/opiod-hackathon>
- Johnson, Akilah. “Hack-a-thon yields ideas to combat opioid crisis.” Boston Globe. September 12, 2016. <https://www.bostonglobe.com/metro/2016/09/11/hack-thon-yields-ideas-combat-opioid-crisis/Uh9gxyEdwji0cW2gLYtP6H/story.html>
- Bert, Allison. “When seconds count – finding a new way to prevent newborn deaths.” 29 January 2016. Elsevier Connect. https://www.elsevier.com/connect/when-seconds-count-finding-a-new-way-to-prevent-newborn-deaths/_nocache#comment-2491829535
- Elsevier. “Empowering Unrelenting Knowledge: a 48-hour global challenge to save newborns.” Jan 27, 2016. https://www.youtube.com/watch?time_continue=3&v=5dpFsw9MzWc
- Elsevier. “Behind the scenes: Human-centered design.” January 28, 2016. <https://www.youtube.com/watch?list=PLbMs68P11eF-JVdIWdJHAjZHUQ8pPSNyQ&v=H9251UnFFkl>
- Elsevier. “Behind the scenes: Reflections from the team.” Jan 28, 2016. <https://www.youtube.com/watch?v=TtKSvi9xzW8&list=PLbMs68P11eF-JVdIWdJHAjZHUQ8pPSNyQ&index=4>
- Gorelick, Susan, Beth Mosher and Dawn Edmundson. “Rhode Island’s Maker Related Assets”, analysis of Rhode Island makers and manufacturers to inform public policy and to help revitalize the state’s economy, Rhode Island College and University Research Collaborative, June 2015.

Geise, Lucretia Hoover and Henry B. Hoover Jr., Breaking Ground: Henry B. Hoover, New England Modern Architect, quoted page 135-136, Friends of Modern Architecture, Lincoln, University of New England Press, 2015.

RISD Museum Channel, interviewed about the use of ancient Egyptian ceramic vessel in design pedagogy. December, 2014.
http://risdmuseum.org/pages/channel_1999551

Somerson, Rosanne and Mara L. Hermano. The Art of Critical Making: Rhode Island School of Design on Creative Practice, work featured from Kimberly Clark Green Studio, p 234, Wiley 2013.

Herrera, Tilde. "Students Give Kimberly Clark a Lesson in Design Thinking." GreenBiz.com 29 Aug. 2011.
<<http://www.greenbiz.com/news/2011/08/29/students-give-kimberly-clark-a-lesson-in-design-thinking?page=0%2C0>>.

Davis, Marion. "RISD Students Help Address Waste Problem of Sterilization Wrap." Providence Business News 4 Oct. 2010. <<http://www.pbn.com/RISD-students-to-help-address-waste-problem,52781>>.

Pulfer, Rachel. "The Industrial Design of Junk Food." Azure Magazine 24 Oct. 2007.
<http://www.azuremagazine.com/newsviews/index.php?start_rec=95>.

Diana, Carla. "Device Art: Coming to America?" Core 77 Sept. 2007.
<http://www.core77.com/reactor/07.07_deviceart.asp>.

Mosher, Beth. "The Fifth International Design Biennale." Big Red and Shiny vol. 54 18 Dec. 2006. <<http://bigredandshiny.org/11187/the-5th-international-design-biennial/>>

"Disturb, Delight, Design." Adbusters, Journal of the Mental Environment vol. 40 Mar./Apr. 2002: 105-109.

Goodrich, Kristina. "Donna designer in Usa" [Women Designers in the USA], Ottagono: Bimestrale di disegno industriale vol. 148 Feb./Mar. 2002: 50-51.

Graeber, Charles. "New and Improved." Wired Magazine Sept. 2001: 56.

INVITED LECTURER, PANELS AND WORKSHOPS

Critical Design, Critical Futures Symposium, presented speculative future-casting techniques for the Speculative Futures: Theory and Practice panel, Providence, Rhode Island, April 24, 2015.

Brown Advanced Research Institute, advisor on human-centered research and engineering ethics for young researchers from the Global South. June 2013, June 2014.

The Collaborative: Connecting Public Policy and Academic Research for Rhode Island, Invited participant in Advanced Manufacturing brainstorming session to investigate ways to improve Rhode Island's economy, Rhode Island State House, October 17, 2013.

Many Modes: Recent Investigations in Research, Teaching and Practice Conference, presented "Visceral Research, Virtual Food", Providence, Rhode Island, November 14, 2012.

The Institute for Infinitely Small Things, presented "How to Get the French to Eat Junk Food" project at workshop, Boston, November 3, 2012.

A Better World by Design Conference, moderator for panel on the role of human-centered design in international development, Providence, RI October 29, 2012.

Environmental Justice League of Rhode Island, lectured on how design research methodologies could improve community participation in remediation efforts at the Gorham factory site in Providence, Providence, RI, January 18, 2012.

Design Matters: A Dialogue on Design Education and Development, panel participant on design education, IDSA National Conference. Boston, Massachusetts. April 2006.

IDSA Northeast District Conference, Boston, Massachusetts, April 2004. Panel discussion about current issues facing industrial designers.

EXTERNAL REVIEWER

University of Michigan, Stamps School of Stamps School of Art & Design, requested by school to be external reviewer for faculty promotions to Full Professor, January 2020

International Conference on Industrial Design Engineering (ICIDE 2018), Dubai, UAE, member of technical review committee for conference paper proposals, Fall 2017

Reviewed book proposal, Food Design Convergences: Messages, methods and media by Dr. Sonia Massari for publisher Springer's Food Science, October 2016

Virginia Commonwealth University, requested by school to be external reviewer for faculty promotions to Associate Professor, August 2013, August 2016.

Industrial Design Society of America, reviewed educational papers for Society's Educational Symposium at the National Conference, May 2016.

Parsons Product Design, requested by school to be external reviewer for faculty tenure, August 2014 (other external reviewers included Paola Antonelli, Senior Curator, Department of Architecture and Design, MoMA).

RECENT CONFERENCES ATTENDED

XI Congress of the International Association of the Siglo de Oro, Madrid, Spain, July 10 – 14, 2017.

Massachusetts General Hospital Global Health Opioid Epidemic Challenge Summit, Boston, MA, September 9, 2016. <http://www.globalhealthmgh.org/camtech/portfolio-item/opioid-epidemic-challenge-summit-and-hack-a-thon/>

First European Conference on Understanding Food Design: From User Experience to People-Centered Design, Milan, Italy, October 8 -10, 2015.

International Conference of the IDSA, Seattle, Washington, August 19 - 22, 2015.

MIT Media Lab Design Summit, "Knotty Objects, Celebrating the Chimeric Nature of Design", Cambridge, MA July 15 - 16, 2015.

Materials Education and Research in Art and Design, RISD, June 6 – 8, 2013.

Industrial Design Society of America District Conference, Providence, RI April 8 - 9 2011.

Mass-Made Symposium, DIGMA (Design Industrial Group of Massachusetts), May 25, 2011.

Materials Genome Initiative Symposium, Brown University, March 29, 2012.

DesignEd: Advancing Design Education Symposium, DIGMA, May 4, 2012.

Green Technology Conference, Brown University Forum for Enterprise, Providence, Rhode Island, February 2008

Design 2.0: Discussions on Design Strategy and Innovation, Core 77, Boston, Massachusetts, November 2006

Cumulus Conference, International Association of Universities and Colleges of Art, Design and Media, Nantes, France, June 2006

American Society for Aesthetics Conference, Providence, Rhode Island, October, 2005

IDSA National Professional and Educators Conference, New York, NY, August 2003

INSTITUTIONAL SERVICE

Rhode Island School of Design

Chair, Academic Policy Committee, Fall 2020 - present

Member of the Instruction Committee, Fall 2020 – present

Co-chair, Departmental Social Equity and Inclusion Committee, Summer 2020 - present

Committee on Faculty Appointments, Fall 2014 – Spring 2016, Fall 2017 - present

History, Philosophy and Social Science Search Committee, Fall 2015 - Spring 2016

Member of the RISD/Brown Ethical Making discussion group that received grant to run the Brown/RISD Critical Futures Symposium, Spring 2014 - Spring 2015

Participated in departmental workshops for self-study, Fall 2014 - Spring 2015

Graduate Director, Industrial Design, Fall 2010 – Spring 2014

Landscape Architecture Search Committee, Winter Session - Spring 2013

Chair of ID Search Committee, Fall 2011 - Spring 2012

Admissions Committee, Fall 2002 - Spring 2006, Fall 2010 - Spring 2011

Brown/RISD Dual Degree Oversight Committee, Fall 2008 - Spring 2009

Presidential Search Committee Faculty Panel, Spring 2008

Faculty Meeting Steering Committee, Fall 2006 - Spring 2008

Board of Trustees Academic Affairs Committee, Fall 2005 - Spring 2006

Masters of Industrial Design Curriculum Committee, Fall 2007 - Spring 2014

ID Faculty Search Committee Member, 2004, 2005

ANTHROPOLOGY AND ARCHAEOLOGY RESEARCH

Smithsonian Institution, Physical Anthropology Intern, Washington, D.C., Summer 1985. Analyzed skeletal remains from police forensics cases. Identified effects of disease, nutrition and occupation as well as possible cause of death.

Oriental Institute, University of Chicago, Archaeology Intern, Luxor, Egypt, Winter 1985. Excavated test trenches in remaining deposits within the Luxor Temple site and analyzed patterns of habitation from the Pre-Dynastic Period to the Islamic Period. Supervised teams, prepared maps and drew illustrations for publication.

Centre National de Recherches Scientifiques, Archaeology Intern, Bahrain, Winter 1983. Excavated Islamic Period fortress site and determined patterns of use and trade routes in the Arabian Gulf. Surveyed site, supervised teams, analyzed finds and drew scientific illustrations.

Smithsonian Institution, Physical Anthropology Intern, Washington, D.C., Spring 1982. Reconstructed skeletal remains from Bronze Age site in Bab edh-Dra, Jordan and analyzed remains to determine ancient population health patterns.

SKILLS

French proficient, familiar with Arabic, German, Spanish and Japanese.

Software: Processing, iStopMotion, Audacity, Adobe Suite, SolidWorks, Rhino