

TOM WEIS

Associate Professor
Rhode Island School of Design

EDUCATION

Rhode Island School of Design, Providence RI

Masters of Industrial Design with Honors 2006-2008

President's Scholar for High Artistic Achievement 2006-2008

Selected as one of six graduate student recipients.

The Atlantic Challenge Foundation, Rockland ME

Apprenticeship Program for Traditional Wooden Boatbuilding 1997-1999

Minnesota State University, Moorhead - Moorhead MN

Bachelors of Fine Arts, Cum Laude 1992-1997

TEACHING EXPERIENCE

Rhode Island School of Design

Providence, RI Spring 2022

Graduate Thesis

Co-taught a six-credit thesis course preparing second year graduate students as they complete independent thesis projects. Students meet weekly with faculty to prepare prototypes, concepts and final exhibit design for completion.

Rhode Island School of Design

Providence, RI Fall 2021

Advanced Studio - Design + Security

This course is co-taught with fellow ID faculty member, Charlie Cannon and was supported by an Academic Enrichment Grant, enabling two faculty members to teach a combined six credit and three credit studio to students from several departments. Cannon and Weis have worked together professionally on projects related to the security sector. Guest critics and SME's include members of the US Military, the UN Innovation Cell, Sandia National Laboratory and other NGO's. Students in this course explore a range of themes that touch on the future of security.

Rhode Island School of Design

Providence, RI Fall 2021

Special Topics Studio – Beauty, Objects & Experiences

This course encourages students to explore their own ideas and interpretations of beauty through a variety of projects. Students examine sensory experiences, human perceptions and cultural associations with nature, along with more traditional elements such as form, material and other interactions. Guests for this course include scientists, boatbuilders, artisans and fine artists. One of the goals of the course is to encourage students to consider the intentions behind their design decisions and to approach their work from a more comprehensive approach that engages our experiences regardless of the format.

Rhode Island School of Design

Providence, RI Fall 2019

Advanced Studio – Design, Culture & Global Security

This course explored topics that include measurement systems, communicating preparedness challenges and future scenarios development. Exercises included the development of new tools and processes for measuring abstract or difficult themes. Students also created artifacts and experiences that reflect the implications of future trends on global security issues.

Rhode Island School of Design

Providence, RI Fall 2019

Special Topics Studio – Global Food Challenges

A three-credit course related to food systems. Students worked with college dining services staff and various outside experts on food systems issues. Students also developed long term projects that included hands-on cooking and food preparation as a way to better understand elements including nutrition, logistics, labor and other topics that contribute to the food they made.

Rhode Island School of Design

Providence, RI Fall 2018

Advanced Studio – Trust & Verification

This six-credit studio examined the themes of trust and verification as they related to such topics as media platforms, governments, nonprofits and corporations. Students explored how these entities have had breaches of trust with their consumers, participants and the public. Partners include West Point, the Red Cross and N Square.

Rhode Island School of Design

Providence, RI Fall 2018

Special Topics Studio – Preventing Gun Violence

Co-taught with LTC Harry Jones from West Point, this class explores approaches to gun violence prevention. Projects include investigations into suicide prevention, community resilience and new products and technologies that promote safety. Partners and guests

include RISD CAPS (counseling and psychological services), Everytown for Gun Safety, the Providence Police Department, US Special Operations combat medics and Mass General Hospital.

Rhode Island School of Design

Providence, RI 2018

Graduate Student Thesis II

Co-taught a six-credit thesis course preparing second year graduate students as they complete independent thesis projects. Students meet weekly with faculty to prepare prototypes, concepts and final exhibit design for completion.

Rhode Island School of Design

Providence, RI Wintersession 2018

Intro to ID, Graduate Program

This five week course is designed to introduce new grad students in our 2.5 year track some of the processes and methods used within the discipline of ID.

Rhode Island School of Design

Providence, RI Fall 2017

Advanced Studio – Design Culture & Global Security

This six credit course was sponsored by the organization, N Square and was designed to engage students around the theme of nuclear threat reduction through the lens of Industrial Design processes. This course featured a joint exercise with faculty and cadets from the USMA at West Point and has resulted in a co-authored paper on the topic that will be presented at an upcoming conference. A small book about the course was also produced in conjunction with studio guests and sponsors.

Rhode Island School of Design

Providence, RI Fall 2017

Special Topics Studio – Aquaponics Studio

Taught in conjunction with RISD's Nature Lab, this course explored small-scale and large-scale aquaponics systems and engaged students in hands-on practices that drew from both scientific and design approaches.

Rhode Island School of Design

Providence, RI Fall 2016

Advanced Studio – Angles, Curves and Complex Forms

This six credit course introduced students to advanced fabrication techniques and design processes in wood. Students explored the unique properties and characteristics of the material and designed with those strengths and weaknesses in mind.

Rhode Island School of Design

Providence, RI Fall 2016

3-Credit Special Topics Studio – Natural Systems/Natural Materials

Working in conjunction with RISD's Nature Lab, students observed and explored natural ecosystems and environments. Following explorations in both natural and product life cycles, students prototyped new product concepts using environmentally friendly materials such as mycelium and microbial leather. Many students made their own bio-plastics and other experimental materials.

Rhode Island School of Design

Providence, RI Spring 2016

Graduate Student Thesis II

Co-teaching a six-credit thesis course preparing second year graduate students as they complete independent thesis projects. Students meet weekly with faculty to prepare prototypes, concepts and final exhibit design for completion.

Rhode Island School of Design

Providence, RI Winter Session 2016

Introduction to Industrial Design, 2.5 year grad students

This five-week course was designed to introduce incoming grad students without an undergrad in ID to the design process. We worked with an outside organization called Nsquare for the duration of the class. . Nsquare's mission is to reinvigorate the conversation around nuclear arms and global security. Students worked on experimental research techniques, discursive design, created games for future scenarios and created a final exhibit design that focused on the overarching theme of the class.

Rhode Island School of Design

Providence, RI Fall 2015

3-Credit Special Topics Studio – Beautiful Objects & Forms

Students in this course explored the creation of forms through a series of short exercises and longer projects. An investigation of materials and their properties helped to drive the design process as students worked to create objects that reflected their perceptions and interpretations of beauty.

Rhode Island School of Design

Providence, RI Fall 2015

Graduate Student Shop Experience

This required course for all incoming graduate students in the Industrial Design department introduces them to the safe practices and techniques in the wood, metal and prototyping shops. The curriculum is designed to integrate the critical making skills with the graduate program.

The Center for Furniture Craftsmanship

Rockport, ME March 2015

Guest lecturer/critic in the nine-month furniture program. Advised students on the design process and facilitated workshops to inspire creative thinking and ideation.

Rhode Island School of Design

Providence, RI Fall 2014

Graduate Student Shop Experience

This required course for all incoming graduate students in the Industrial Design department introduces them to the safe practices and techniques in the wood, metal and prototyping shops. The curriculum is designed to integrate the critical making skills with the graduate program.

Rhode Island School of Design

Providence, RI Fall 2013

3 Credit Special Topics Studio – Prototyping: processes and techniques

Students in this course develop multiple iterations of concepts that “look like” or “work like” a specific intention. They use human-centered feedback and empathy tools to drive their designs, producing rapid sketch models to learn from real scenarios.

Graduate Student Shop Experience

This required course for all incoming graduate students in the Industrial Design department introduces them to the safe practices and techniques in the wood, metal and prototyping shops. The curriculum is designed to integrate the critical making skills with the graduate program.

Wood I

As one of six faculty instructors for this course, a series of exercises have been developed to introduce sophomores in the department to the basic elements of woodworking. Students develop an understanding of hand tools, materials and safe and appropriate procedures which will become the foundation for future work in the woodshop.

Rhode Island School of Design

Providence, RI Fall 2012

3 Credit Special Topics Studio – Ergonomics

This course examined the unique constraints of a commercial fishing vessel and the role that design can play to alleviate such issues as safety, fatigue and efficiency. Students prototyped new concepts to test in user-specific scenarios.

Rhode Island School of Design

Providence, RI Fall 2011

6 Credit Advanced Studio – Modular Furniture

Designed course curriculum on mass-produced furniture construction. This course emphasized the development of physical prototypes grounded in user research and model

making. Students were expected to have strong presentation skills and to explore concepts that used efficient and less wasteful construction techniques.

Collaborative Study, Fall 2011

Faculty advisor for two upper level students interested in developing an original line of furniture. The semester was an in depth exploration of materials with an emphasis on construction techniques and physical properties.

Watershed Community School (watershed-school.org)

Rockland, ME Fall 2011 to 2014

Developed a comprehensive design program for high school students from grade 9 to 12. Each student explored the foundations of 2d and 3d design in their freshman and sophomore year. Advanced courses focus on collaborative projects and work with computer programs, 3d printing and a range of construction and fabrication techniques.

See Why, Summer Design Workshops

Rockland, ME Summer 2011

Developed a series of one to two week summer courses for teens to introduce them to a variety of design related topics. These courses were co-taught by visiting and local designers and artists. Curriculum included such topics as the design and construction of skateboards, stop-motion animation, the creation of illuminated objects and mixed media explorations.

Farnsworth Art Museum

Rockland, ME April 2009 to June 2009

Instructed a teen course called "You know what I'm Saying?" which I designed to encourage local teens to explore their stories and lives in the community. This series placed a heavy emphasis on generating original work, reflective of the individuals. A final exhibition was produced and displayed in Julia's Art Gallery, which is an active part of the Farnsworth Museum.

Maine College of Art

Portland, ME April 2009

Guest Lecturer / Critic

Was invited as a participant in a visiting artist series. Lectured in a presentation open to the public as well as the College. Acted as a visiting critic in the Furniture Design Department and met with Individual students.

Syracuse University

Syracuse, NY October 2008

Guest Lecturer / Critic

Presented work to two sessions of a “Design Odyssey” course, and met with graduate students for individual critiques of their work.

PRySM (Providence Youth Student Movement)

Providence, RI 2007-2008

Teacher / Youth Art & Design Program

Designed and implemented a series of comprehensive workshops, lessons, field trips and activities for a non-profit outreach program for South East Asian teenagers and young adults. Designed all lessons and activities to explore the concepts of personal and cultural identity. Assisted with projects and lesson plans for a GED program within PRySM.

Rhode Island School of Design

Ready To Assemble Furniture Studio Class

Teaching Assistant 2006-2007

Assisted with the instruction of an upper-level undergraduate studio course. Provided technical, conceptual support for all levels of ideation, construction and finishing of student projects.

Atlantic Challenge Foundation

Rockland, ME

Youth Mentor 1998

Worked with local teenagers on a weekly basis, teaching fundamental skills involved in wooden boatbuilding and maintenance.

Cass County Juvenile Detention Center

Fargo, ND

Volunteer Art Teacher 1993

Met twice a week with at-risk teenagers from 13 to 17 in the Juvenile Unit of the County Jail. Co-taught group classes through a variety of creative mediums as a means of personal expression.

PROFESSIONAL EXPERIENCE

Altimeter Group (wearealtimeter.group)

Co-Founder and Chief Creative Officer, January 2020 to present

Following years of experience working with a variety of government agencies, NGO's, think tanks and organizations in security or security adjacent fields, I co-founded a company in partnership with retired LTC Harry Jones. Our team consists of designers, retired military officers, writers, financial analysts, filmmakers and other creatives. We have two distinct arms of our company, Altimeter Group and Altimeter or (Alt) Labs. Altimeter Group focuses on Government clients (Department of Energy, Department of

Defense) and other traditional institutions. We have worked with clients to run table top exercises, envision new models to attract and retain a workforce for classified spaces and imagine the future of security. We leverage the creativity of our clients and teams to build resilience at multiple levels. Alt Labs has an R & D focus and allows our team to collaborate on speculative projects with other creative agencies and partners (including the United Nations Innovation Cell and other corporate partners).

International Atomic Energy Agency, January 2020

Worked on a team to co-design an immersive three day workshop on the adoption of new technologies and approaches for nuclear safeguards and verification purposes. This interactive event was the first of its kind and was held for IAEA staff and member state sponsors. In addition to the co-design of this workshop, I acted as the lead facilitator for the workshop and the MC for the entire event. This role required me to prompt the audience with important questions following talks from experts inside and outside of the nuclear field.

Sandia National Laboratory

Design Consultant, June to present

Working as a lead designer with a team of Sandia strategists to co-develop a Strategic Futures workshop for Sandia leadership. This workshop focused on global trends and their implications on national security issues in the future. Following several rounds of testing, our final version of the workshop was facilitated to leadership and resulted in a multi-page report that is currently in OOU (official use only) status due to some sensitive content. We are in the early stages of development for a second phase of this workshop moving forward into 2020.

International Atomic Energy Agency

Guest Speaker, November 2018

Invited to speak during the plenary session on the topic of Innovation at the Symposium of International Safeguards in Vienna, Austria at the United Nations. Close to 800 participants from 90 countries and 16 International Organizations were in attendance. Following my talk, I spoke on a panel and joined an interactive session with IAEA leadership. I have since been invited to run a workshop for an upcoming symposium in 2020.

Global Security Fellowship Grant Recipient

Awarded by the John D. and Catherine T MacArthur Foundation, August 2018

Wrote a \$115,000.00 grant proposal to initiate a new Fellows program with two recent RISD alumni. Fellows are working with Primary Investigator, Tom Weis, to explore the topic of nuclear threat reduction. Project partners include the US State Department's Office of Verification, Planning and Outreach.

Hyundai Motor Group

Workshop Design and Facilitation, August 2018

Co-designed a 10 day workshop for Hyundai design and engineering team based on biomimicry principles. Worked with RISD Nature Lab staff to investigate insect biology and behaviors as a form of inspiration.

N Square

Consulting, 2017 to 2020

Nsquare, an organization formed to engage the public around nuclear threat reduction has contracted me to develop new curriculum and initiatives around the education of the topic. Additionally, I am working with a nine-person team exploring new processes and approaches to contribute to the Verification and Safeguards as they relate to arms control and treaty obligations.

In the fall of 2018, worked with the RISD research office to plan and coordinate an event co-hosted between N Square and RISD. This was funded by a \$70,000 grant from the New Venture Fund and brought in over 50 guests from various think tanks, government organizations and universities. The event also featured an exhibition of work from risd students, alumnus and outside partners that related to nuclear threat reduction. This grant also funded three graduate assistantships to assist, coordinate and research content related to the conference.

The Steel House

Co-founder and CEO, 2014 to present

The Steel House is a center for design, technology and education located in Rockland, Maine. The Steel House teaches courses to local high school students and adults in topics ranging from design, fine art, printmaking and robotics. Started in 2014, the Steel House now consists of two shared work spaces with over 20 members (including three RISD alums) Steel House was recognized as an organization that is transforming communities into innovation hubs by the World Bank. Our organization has acted as a hub for creative individuals and small businesses in mid coast Maine.

The Apprenticeshop

Board Chair, 2014 to 2017

The Apprenticeshop is a non-profit school for traditional wooden boatbuilding and seamanship. This year round school serves over 400 children and adults through sailing, seamanship and wooden boat building courses. Wrote a \$50,000.00 Grant Award from the National Parks Service for a new Maritime Skills Program for local youth.

Design that Matters (designthatmatters.org)

Cambridge, MA

Freelance Designer, August 2010

Built two working prototypes of a phototherapy device for infants in developing countries born with jaundice. This prototype was field tested in Vietnam.

Design that Matters

Cambridge, MA

Freelance Design Director, November 2009 to March 2010

Project lead on a team of designers and engineers constructing the second version of an infant incubator intended for developing countries. This prototype has been selected as an entry in the Cooper Hewitt National Design Museum's 2010 triennial and was featured in TIME magazine's Top 50 Inventions of 2010

Freelance Design / Build Project Manager, June to September 2009

Led a crew of builders, technicians, and subcontractors to design and build a retail store space in historic Rockland, Maine. This project required strong management skills to work with a broad range of constituents. The project was successfully completed on time and within the allotted budget.

Respond / Design, Rhode Island School of Design

Providence, RI

Co-Founder, 2006-2008

Initiated a multi-disciplinary campus organization addressing issues of social responsibility and environmental concerns within the fields of art and design. Provides a weekly forum for all members of campus to gather to address related issues and concerns. In 2007, sponsored and organized an exhibition and companion publication, Hi Res, showcasing student work and guest writing on topics of sustainability and social responsibility.

Industrial Design Department, RISD

Providence, RI

Shop Technician, 2006-2008

Manage and ensure the safe use of a large woodshop utilized by undergraduate, graduate students and faculty. Maintained all hand and power tools; assisted lead technician with the development and construction of shop systems; and provided demonstrations in tool safety and care.

Design That Matters

Cambridge, MA

Freelance Product Designer, 2007

Worked with a collaborative team of designers, engineers, human factors specialists, and medical professionals from Harvard, Mass General Hospital, Brigham and Women's and Children's Hospital. Developed a working prototype of a low-cost infant isolette for developing countries through the Global Health Initiative at CIMIT (The Center for the Integration of Medicine and Innovative Technology). Facilitated research, concept development, schematic drawings, prototypes and client presentations.

Bench Dogs Furniture and Design, Inc.

Rockland, ME**Designer & Cabinetmaker, 2003-2006**

Oversaw the construction and installation of multiple, simultaneous projects from custom furniture to historic storefronts and commercial businesses. Worked directly with clients in all aspects of construction and design of custom made pieces.

Wooden Boat Restoration / Custom Woodworking**Rockland, ME****Owner / Woodworker, 2002-2003**

Worked as an independent contractor on restoration crews for historic fishing vessels in Donegal, Ireland and the Long Island Maritime Museum. Re-framed, planked and restored large historic vessels. Custom furniture-maker for architects and interior designers. Designed and constructed original pieces for clients in Mid-Coast Maine, New York City, and Los Angeles. Contractor/lead builder for several renovations and additions to historic homes, supervising a crew of builders and sub-contractors throughout projects.

Martin Puryear / Sculptor**Accord, NY****Studio Assistant, 2000-2002**

Responsible for the construction and execution of all aspects of the artist's' studio work. Employed intensive fabrication techniques required for multiple mediums in large scale pieces, scale models and original furniture. Maintained all shop equipment, tools, inventory and materials. Assisted in all aspects of shipping, handling and installation of artwork for major galleries and museums.

RECOGNITION & AWARDS

Co-authored an article, [*The Art of Communicating Nuclear Risk*](#) with Dr. Sara

Kutchesfahani for the Bulletin of Atomic Scientists, Sept 2021

TedX Speaker November 2019, Portland, ME

2019 Fellow, Poptech Organization poptech.org Presented at annual Poptech conference

Guest Judge, USMA West Point Soldier Design Competition. April 2018 West Point, NY

Design Mentor, Camtech/MGH Gun Violence Prevention Hackathon. April 2018,

Cambridge, MA

Facilitator/Nsquare Nuclear Convening: December 2017, Stinson Beach, CA

Facilitator/Consultant, Disruptive Futures: 2016 Nuclear Weapons Summit. Santa Fe, NM

Presenter, American Academy of Arts/Sciences. Cambridge, MA Spring 2016

Board Chair, The Apprenticeshop, Rockland, ME 2014 - 2017

External Review Committee Member and Moderator. RISD ID Department

Fall 2013 Studio Fellowship, The Center for Furniture Craftsmanship Rockport, ME 2009

Advisory Board Member, Maine Center for Contemporary Art Rockport, ME 2009

President's Scholar 2006-2008 RISD

Presidential Search Committee, RISD - Providence RI Graduate Student Representative
2007-2008

Nominated and selected on a twenty-person committee consisting of faculty, staff,
administration and trustees. Participated in the extensive selection and interview
process for the former president of RISD, John Maeda

Rachel Carson Award for Environmental Leadership in Design - RISD 2008

Cooper Hewitt National Design Museum 2010 Triennial

Time Magazine's Best Inventions of 2010, First Place

REFERENCES

Michael Beresford

Professor Emeritus, Rhode Island School of Design
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Erika Gregory

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LTC Brian Novoselich

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Deborah Rosenblum

United States Assistant Secretary of Defense for nuclear, chemical and biological defense
programs.

(Please inquire for contact information)