

Apr 16th, 8:00 AM - Apr 17th, 8:30 AM

Design Science 5 | STEAM Intelligence, Schedule

Edna W. Lawrence Nature Lab
Rhode Island School of Design, nature@risd.edu

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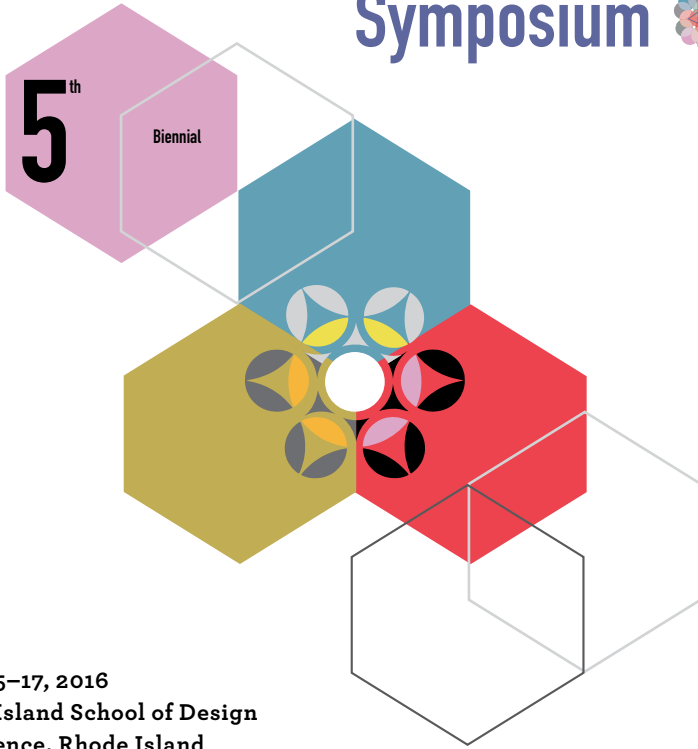
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Design Science Symposium



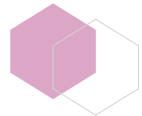
April 15–17, 2016
Rhode Island School of Design
Providence, Rhode Island

Presented by:
Edna Lawrence Nature Lab
& Synergetics Collaborative

Keynote Speakers



Special Events



Feature Presentations



Hands-on Workshops
Share & Tell



Friday, April 15th 2016

A.M.

10:00 – 12:00

**Tours of the Edna Lawrence Nature Lab & Arthur
Loeb Design Science Collection**
Nature Lab — Waterman Building

In 1937, Edna Lawrence founded the Nature Lab with a collection of 1,286 natural history objects. Today the Lab still offers unmediated access to natural history specimens, while fostering creative inquiry into biomimetics, biophilic design, ecology, and climate change.

The pioneering work of the Dutch scientist Arthur Loeb (1923–2002) established new ways of envisioning the structure of space at both macro and molecular scales. The objects and prints in the collection he left to RISD show core principles of pattern, symmetry, & structure.

P.M.

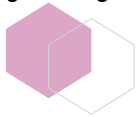
12:00 – 5:00

REGISTRATION
Chace Center — RISD Museum

3:00 – 5:00

Design Science Showcase
Nature Lab — Waterman Building
Symposium participants are invited to present materials, models, and other recent work in an informal and fun conversational setting.

5:00 – 6:30

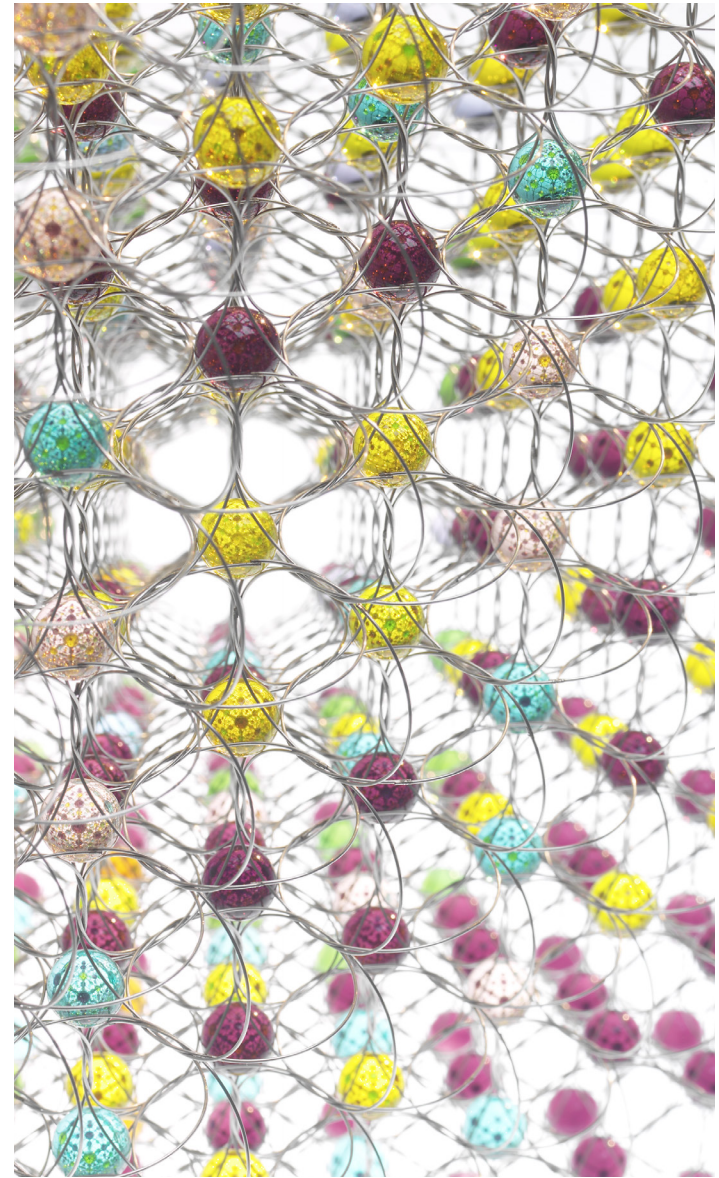


Welcoming Reception
Dennis Dreher “Space Weaving” Exhibition
Curated by Amy Leitdke
Nature Lab — Waterman Building

8:00 – 10:30



***R. Buckminster Fuller: The History
(and Mystery) of the Universe***
D.W. Jacobs Performance
Chace Center — RISD Museum
Hosted by the RISD Architecture Department



Dennis Dreher, *Garden Party* (detail), wire and glass marbles.

Saturday, April 16th 2016

A.M.

8:00 – 12:00

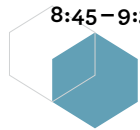
REGISTRATION

Chace Center — RISD Museum

8:30 – 8:45

Welcome and Introductory Remarks
Pradeep Sharma, Ph.D., RISD Provost
Carol Giuriceo, Ph.D., RI STEM Center Director
Simone Palmer, RIDE Science & Technology Specialist
Barbara Wong, Providence City Arts Director
Chace Center — RISD Museum

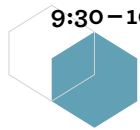
8:45 – 9:30



Keynote Presentation: Bill Browning
*Biophilic Design & Bioinspired Innovation:
Bridging the Natural and Built Environments*
Chace Center — RISD Museum

Bill Browning is one of the green building and real estate industry's foremost thinkers and strategists. In 2006, Bill co-founded Terrapin Bright Green.

9:30 – 10:15



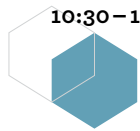
Keynote Presentation: Rebecca Kamen
*Making the Invisible, Visible:
Discoveries Between Art and Science*
Chace Center — RISD Museum

Rebecca Kamen's work explores the nexus of art and science informed by wide-ranging research into cosmology, history, philosophy, and various scientific fields.

10:15 – 10:30

Break

10:30 – 11:15



Keynote Presentation: Haresh Lalvani
X-STRUCTURES

Chace Center — RISD Museum
Haresh Lalvani, Ph.D., sculptor, architect, morphologist, visual mathematician, inventor, and a professor at Pratt Institute, has been working for over 30 years to “decode the morphological genome” to identify the principles underlying form.

11:15 – 11:45

Special Award Presentations

Chace Center — RISD Museum

P.M.

1:15 – 3:15



Concurrent Workshops (Full info: designscience.risd.edu)

Pneuhhaus: Matthew Muller, August Lehrecke, Levi Bedall
Soft Packing Moore Terrace
Thomas T.K. Zung, Joe Clinton
ORCoD: Saving the Ocean Environment Using a Small Dome for a Big Problem Nature Lab Rm. 11
Tetteh Tawiah
Deconstructing the Platonic Solids Nature Lab Rm. 12
Dennis Dreher, Nick Tomlin
Happy Campers: Octabug Workshop Prov/Wash Rm. 215
Stephanie Smelser, Stephanie Johnson
A Look at the Moon & Beyond: Curriculum Ideas for STEAM Teaching PS-8th Waterman Building Rm. 43
Melita Morales
Motion Compositions: Exploring Simple Mechanisms Through STEAM CoWorks Studio (212 Union Street)

3:30 – 5:30



Concurrent Workshops (Full info: designscience.risd.edu)

Pneuhhaus: Matthew Muller, August Lehrecke, Levi Bedall
Soft Packing Moore Terrace
Don Briddell
Field Structure Workshop Prov/Wash Rm. 215
Vanessa DeNino, Katie Gui
Natural Dyes: Fact and Fiction Nature Lab Rm. 11
Stephen Metcalf, Carl Fasano
Six-Strut Tensegrity Moore Terrace
Joe Clinton, Amy Leidtke
A Kaleidoscope of “A Chiral Transformations of the Icosahedron” Nature Lab Rm. 12
Ann Kaiser
Nature and the NGSS: Engineering Bio-Inspired Systems and Materials Waterman Building Rm. 43

5:45 – 6:30



Pneuhhaus Event

Moore Terrace (outside of RISD Museum)
Symposium participants are invited to co-create a large outdoor inflatable sculpture with the Pneuhhaus design collective.

Sunday, April 17th 2016

A.M.

8:00 – 10:00

REGISTRATION

Chace Center — RISD Museum

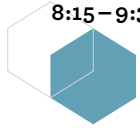
8:00 – 8:15

Welcome and Introductory Remarks

John Belt, SNEC President

Chace Center — RISD Museum

8:15 – 9:30



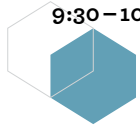
Keynote Presentation: John Warner

Considerations of Entropy in the Design of Sustainable Materials

Chace Center — RISD Museum

John Warner, Ph.D., is a leader in the field of Green Chemistry and in 2007 founded the Warner Babcock Institute for Green Chemistry, LLC.

9:30 – 10:00



Keynote Roundtable

Chace Center — RISD Museum

Join us for a lively and stimulating roundtable discussion with the keynote speakers of the symposium.

10:10 – 10:15

Break

10:15 – 10:45



Feature Presentation: Anthony Peer, Adam Tilove, and Sofya Zeylikman

Partners in Education: RISD KinderSTEAM & JCDSRI

Chace Center — RISD Museum

10:45 – 11:15



Feature Presentation: Carl Fasano

Interdisciplinary Teaching of Visual Perception Through Art and Science

Chace Center — RISD Museum

11:15 – 12:00



Feature Presentation: Michael Burt

Uniform 3D Space Networks

Chace Center — RISD Museum

P.M.

12:00 – 12:15

Student Award Presentations

12:15 – 1:30

Lunch on your own

Nature Lab

Room 12

1:30 – 3:00



3:00 – 3:15

General Concurrent Share & Tell Sessions

Lucia Monge *Plantón Móvil*

Ana Rewakowicz *Mist Collector*

Waldemar Bober *Constructional Space from Simple Bar Structures*

Lisa Maione *Optics and Typography: Visual Experiments in Graphic Design*

Andrew Wager, Max McBride, Derek Shaw, & Chris Pallay *Buckminster Fuller: Sustainability*

Break

Nature Lab

Room 12

3:15 – 4:00

Paula Gaetano-Adi *Mestizo Robotics*

Russell Kramer *The Genesis Field: Further Explorations and Perspectives into Nature's Coordinate Systems*

Nature Lab

Room 11

1:30 – 3:00



3:00 – 3:15

Educator Concurrent Share & Tell Sessions

Linda Vasu *STEAM + Humanities: Hacking the Essay in the Makerspace!*

Michael Maida *It's Getting Hot In Here!*

Lorna LaRiviere, Elizabeth Fernandez, Annette Greuterich *Bus Stops Here: Industrial Design Intro for Middle Schoolers*

Alex Wolf *The Pattern Alphabet: A STEAM Tool for Preschool and K-12 Education*

Mistral Dodson *Nature Designs, STEM, and NGSS in the Classroom*

Bonnie Epstein *Science & Design: How to Make Environmental Science "STEAM-y"*

Break

Nature Lab

Room 11

3:15 – 4:00

Crystal Woodward *The 'Excitement of Discovery'*

Dimitri Kozlov *Architectural Bionics: From Living Nature to Architecture*

Louis Fazzina *The Natural Geometry of Crystals*



Programming takes place in the following locations:

Metcalf Auditorium at the Chace Center (20 N. Main Street)
The Edna Lawrence Nature Lab (13 Waterman Street)
Prov/Wash on the RISD Campus (20 Washington Place)
Moore Terrace (Between the RISD Museum & Memorial Hall)
Co-Works Studio (212 Union Street)

designscience.risd.edu