



design science

STEM to STEAM thru Synergy

Bridging Morphology, Biomimicry, Sustainability, and Synergetics

Fourth Biennial Design Science Symposium

31 January – 2 February 2014

Rhode Island School of Design, Providence, RI



STEAM: integrative, interdisciplinary or transdisciplinary studies working together with the result being greater than individual parts (**synergy**) - The study of a structure's interconnected parts (**morphology**) leading to inspiration through nature (**biomimicry**) producing harmony, fulfilling the social, economic and environmental requirements of present and future generations (**sustainability**) results in cooperation for an enhanced effect (**synergetics**) and supports interdisciplinary or transdisciplinary study of multiple disciplines —
Science, Technology, Engineering, Art, Mathematics.

Presenters:

Rosanne Somerson, Furniture Maker & Interim President, Rhode Island School of Design
Deborah A. Gist, EdD, Commissioner of Elementary and Secondary Education, Rhode Island Department of Education
Dayna Baumeister, PhD, Biomimic & Co-founder of Biomimicry 3.8
Dennis M. Bartels, PhD, Executive Director, San Francisco Exploratorium
Kavita Ramanan, PhD, Mathematician & Professor, Brown University
Lefteris Pavlides, PhD, Architect & Professor, Roger Williams University
Chris Zelov, Filmmaker, Author & Founder of Knossus Project
Don Briddell, Artist & Design Scientist
Richard Bresnahan, Master Ceramicist & Artist in Residence, St. John's University
Eric Goetz, Marine Transportation Designer & CTO, Goetz Composites
Thomas T. K. Zung, Architect & Design Science Historian, Buckminster Fuller, Sadao, & Zung

Design Science Workshop Facilitators:

George Hart, Bob Sanderson, Leftheris Pavlides, Chris Kitrick, Joe Clinton, Ed Popko, Dick Esterle & Gary Doskas

Exhibition: *Investigating the Lab Relationships between Art, Design, & Science*, Waterman Gallery

Professional Development Report for K-G12 Educators

Event co-sponsored by: Synergetics Collaborative, Inc. (SNEC) & Edna Lawrence Nature Lab at RISD