BUCKMINSTER FULLER INSTITUTE
BFI.ORG

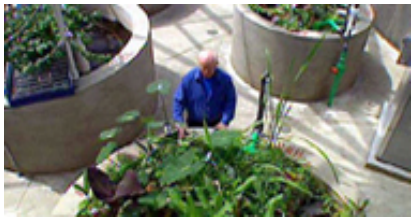
DESIGN SCIENCE NEWS

Welcome to Vol. 9 No. 4 of Design Science News, the e-bulletin of the Buckminster Fuller Institute

Design Science News brings you news from around the world related to humanity's option for success and comprehensive design science. It also features updates from BFI and periodic special offers for our members.

First annual Buckminster Fuller Challenge winner announced!

THE BUCKMINSTER FULLER CHALLENGE

The Buckminster Fuller Institute is pleased to announce that Comprehensive Design for a Carbon Neutral World: The Challenge of Appalachia submitted by Dr. John Todd has been selected as the winner of the 2008 Buckminster Fuller Challenge.

"Dr. John Todd's comprehensive design strategy to bring about a carbon neutral world, in the opinion of this jury, best embodies the bold, visionary approach to large scale societal transformation pioneered by Buckminster Fuller. Dr. Todd's proposal sets forth a profound vision to heal the environmental and economic scars of the Appalachian region and a detailed strategy to build a dynamic sustainable economic basis for lasting renewal," said the Buckminster Fuller Challenge jurors in a statement about their decision.

"Dr. Todd's vision sets forth a new theory of ecological design weaving together a set of processes - from restoration of land to geo-sequestration of carbon, to community involvement, to long-term economic vitality - to create a blueprint for a future for Appalachia that envisions a harmonious self-sustaining community. This is one of the only true whole systems projects that is place based but widely applicable." Click here to download the full statement from the jury [pdf].

Click here to download the winning proposal, read Dr. Todd's extensive research paper detailing this project, explore his new theory of ecological design, and much more.

Buckminster Fuller: "Starting With the Universe" opens at the Whitney Museum of American Art on June 26, 2008

Buckminster Fuller: Starting with the Universe
on view June 26, 2008-September 21, 2008

R. Buckminster Fuller (1895-1983) was one of the great American visionaries of the 20th century. Best-known as the inventor of the geodesic dome, Fuller devoted much of his life to resolving the gap between the sciences and the humanities, which he believed was preventing society from taking a comprehensive view of the world. His theories and innovations traversed the worlds of architecture, visual art, literature, mathematics, molecular biology, and environmental science and have had a deep impact on all of those fields.

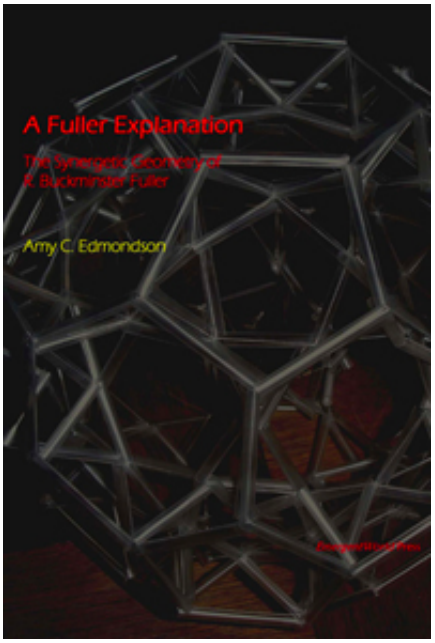
In addition to the Whitney Museum show, there will be a number of exciting events throughout June in New York City. We will announce the details as they become available.

For more information about the Whitney show, please visit:
http://www.whitney.org/www/exhibition/upcoming.jsp

To download the Whitney Museum's press release about the show, click here [pdf]

NEW IN OUR ONLINE STORE: A Fuller Explanation: The Synergetic Geometry of R.

Buckminster Fuller by Amy C. Edmondson



This new edition revives an indispensable classic, originally described as “the long-awaited and outstanding new book that explains Buckminster Fuller’s Synergetics. The author, who worked closely with Fuller the last three years of his life, realized that the 1400 pages of dense prose in Fuller’s Synergetics can be explained in clear terms.”

“As Fuller’s personal engineer, Edmondson gained an intimate understanding of synergetics and its potential for making humans a success on Earth. Her clear narrative translates the Synergetics books into familiar language. Read alone the book is the clearest available introduction to energetic-synergetic geometry.” - J. Baldwin. Order your copy today!

TRENDS & PERSPECTIVES

The world needs a farming revolution! Declares U.N. report

Oil is setting record high prices. People are rioting over the price of food in Haiti, Egypt, parts of West Africa and the Philippines. Since March 2007 the price of soybeans is up 87%, and the price of wheat has risen 130%. Global grain stores are at the lowest levels on record. Amid this turmoil the International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) released its report this week on the state of agriculture. Not surprisingly the take home message is - “business as usual is no longer an option.”

From the report: “Many of the challenges facing agriculture over the next 50 years will require more integrated application of existing science and technology development (formal, traditional and community- based) as well as new approaches for agricultural and natural resource management.”

“By integrating expertise from other sectors there is more potential to develop solutions that increase productivity, protect natural resources and livelihoods and minimize agriculture’s negative impact on the environment. Knowledge and technology from sectors such as communication, energy and health, as well as culture and arts can enhance the capacity of agriculture to contribute to reaching development and sustainability goals. Farmers need a choice of options to respond to challenges, given their diverse needs and resources, and to address the increasing complexity of stresses under which they operate.” (Source: Treehugger)

http://www.treehugger.com/files/2008/04/world-farming-revolution.php

Science 2.0 - is open access science the future?

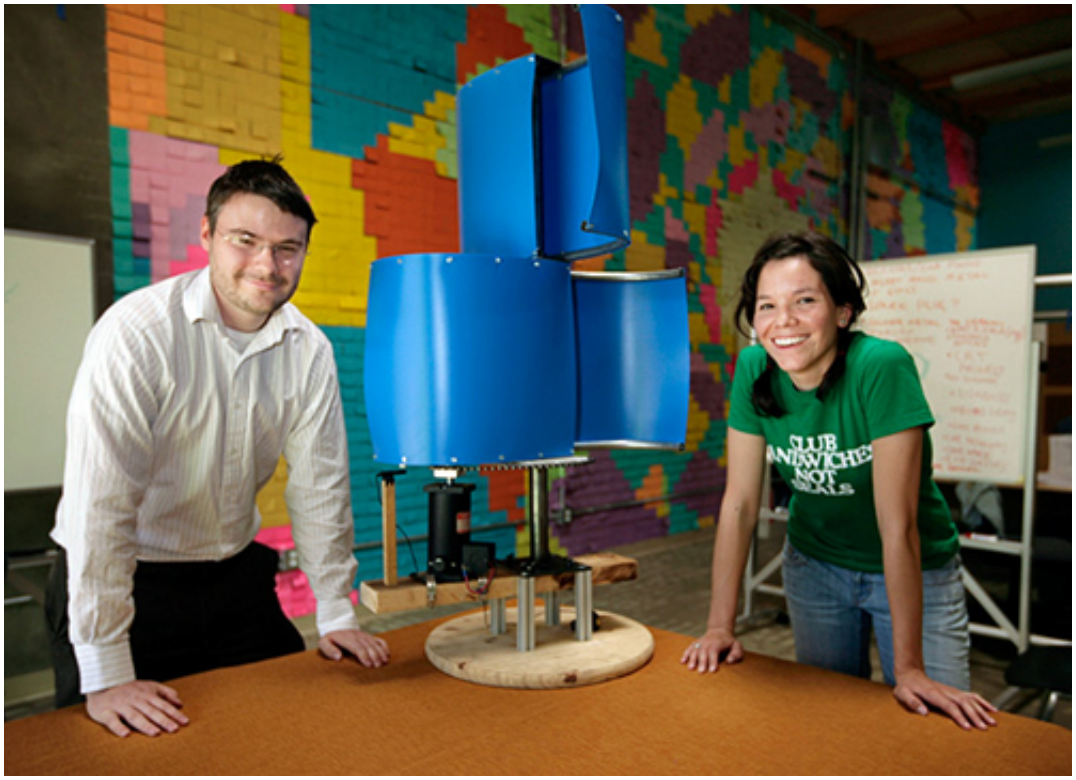
The first generation of World Wide Web capabilities rapidly transformed retailing and information search. More recent attributes such as blogging, tagging and social networking, dubbed Web 2.0, have just as quickly expanded people’s ability not just to consume online information but to publish it, edit it and collaborate about it - forcing such old-line institutions as journalism, marketing and even politicking to adopt whole new ways of thinking and operating.

Science could be next. A small but growing number of researchers (and not just the younger ones) have begun to carry out their work via the wide-open tools of Web 2.0. And although their efforts are still too scattered to be called a movement - yet - their experiences to date suggest that this kind of Web-based “Science 2.0” is not only more collegial than traditional science but considerably more productive.

“Science happens not just because of people doing experiments but because they’re discussing those experiments,” explains Christopher Surridge, managing editor of the Web-based journal Public Library of Science On-Line Edition (www.plosone.org). Critiquing, suggesting, sharing ideas and data - this communication is the heart of science, the most powerful tool ever invented for correcting errors, building on colleagues’ work and fashioning new knowledge. Although the classic peer-reviewed paper is important, says Surridge, who publishes a lot of them, “they’re effectively just snapshots of what the authors have done and thought at this moment in time. They are not collaborative beyond that, except for rudimentary mechanisms such as citations and letters to the editor.” (Source: Scientific American)

http://www.sciam.com/article.cfm?id=science-2-point-0

Engineers Without Borders bring tech to villages without power



A group of volunteer engineers are finishing the design for a home-brewed wind turbine that will bring electricity to off-the-grid Guatemalan villages by this summer.

After the U.S. engineers finish the design, local workers in the town of Quetzaltenango will manufacture the small-scale turbine. It will produce 10-15 watts of electricity, enough to charge a 12-volt battery that can power simple

devices like LED lights.

“They're replacing kerosene lamps, if anything at all,” said Matt McLean, a mechanical engineer by day and leader of the wind-turbine project by night. “The biggest driver is just keeping the cost way down. We’re shooting for under $100, which is a challenge, but we’re in that range.”

The effort comes amidst recent efforts to bring new light and power to small towns in the developing world. An estimated 1.6 billion people worldwide are without electricity, and many of them are forced to light their homes with kerosene. Using one of these lamps is like smoking two packs of cigarettes a day, says the World Bank, and the lamps present a significant fire risk. That’s why many startup companies, such as d.Light, are trying to bring cheaper LED lights to homes, but they still need a solution for producing power locally.

That’s where organizations like Engineers Without Borders come in. Founded in 2002 by Bernard Amadie, a professor at the University of Colorado-Boulder, it has grown to more than 10,000 members in over 250 chapters. According to Cathy Leslie, the executive director of the U.S. organization, 340 projects are underway.

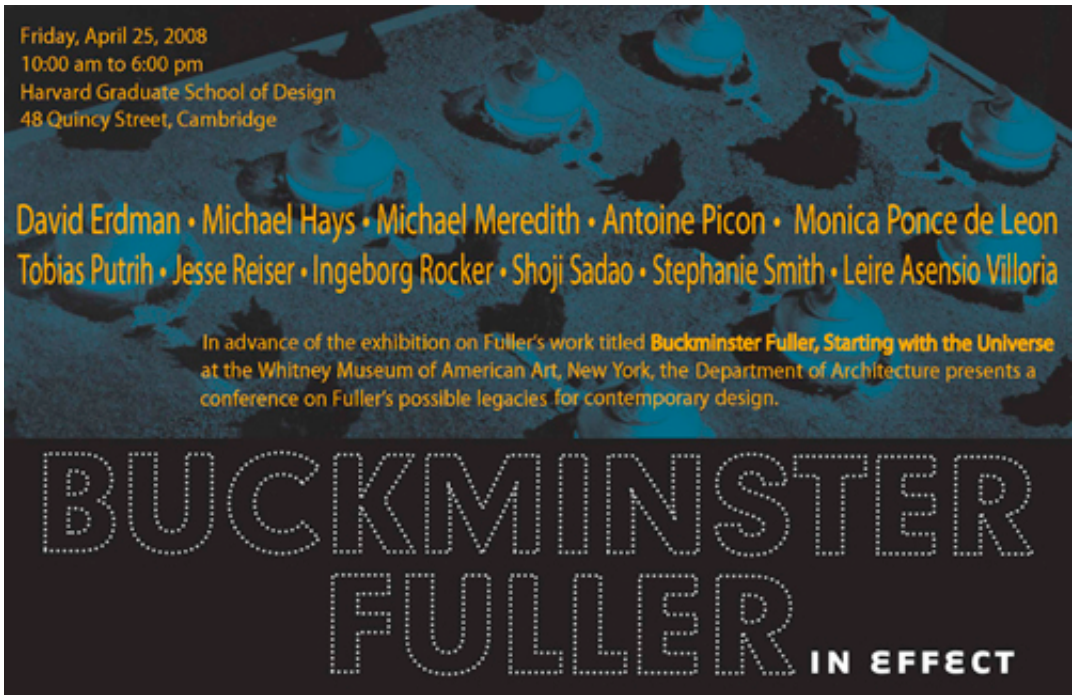
The turbine was created by the Appropriate Technology Design Team of EWB’s San Francisco chapter. Team members like Malcolm Knapp and Heather Fleming spend their nights and weekends inside D2M’s design shop trying to perfect low-tech gadgets for people 2,500 miles away. D2M, which is Knapp and Fleming’s employer, donates the lab space for after-hours use by the EWB team.

Unlike the large-scale assemblies found in wind farms, the roughly two-foot-wide and three-foot-tall turbine has a vertical axis. McLean said that orientation worked better in the choppy conditions likely to meet the turbine out in the field, where it’ll be bolted on to buildings, towers or even trees. (Source: Wired Magazine)

http://www.wired.com/science/planetearth/news/2008/03/wind_turbine#

RESOURCES

Buckminster Fuller In Effect: Webcast



Webcasts from the Harvard Graduate School of Design symposium "Buckminster Fuller: In Effect" which took place April 25, 2008.

Session I: 10am - 12pm

- Shoji Sadao, “Working with Fuller”
- Michael Hays, “Fuller’s Geo-logic”
- Antoine Picon, “Fuller’s Digital and Utopian Avatars”

Session II: 1 - 3pm

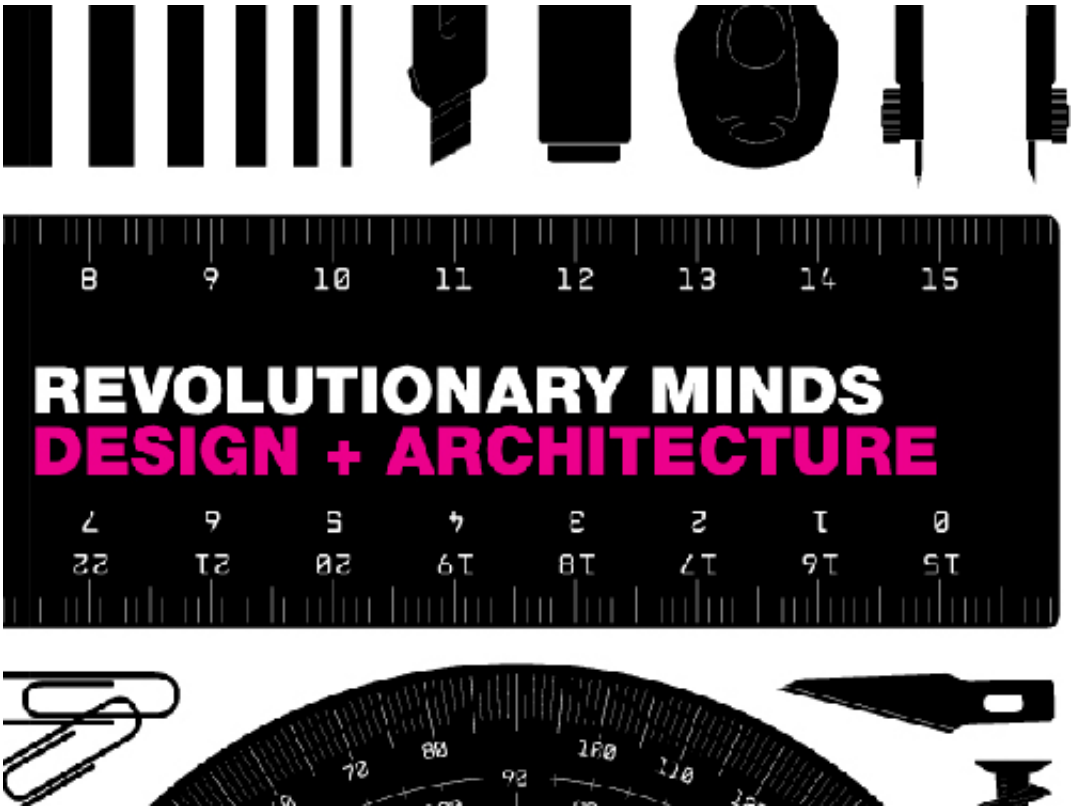
- Jesse Reiser, “Non-linear Geodesics”
- Tobias Putrih, “Holism and Entropy”
- Leire Asensio Villoria, “Transformations”
- Monica Ponce de Leon, “Fabrications”

Session III: 3:30 - 5pm

- Stephanie Smith, “Green Entrepreneurship”
- David Erdman, “Jitterbug”
- Michael Meredith, “Natural Growth Algorithms”

Watch the webcasts (scroll down to find the webcasts of the Fuller Symposium)

Revolutionary Minds: Design + Architecture



Design and architecture translate ideas into objects we can hold, touch, or occupy, or into visuals we can interpret and understand. At its best, design takes on our most inspiring and troubling questions and forces us to confront implications we might otherwise not have imagined. Increasingly, science and technology are driving this dialogue.

The Revolutionary Minds featured here are at the vanguard of this new movement, with their work firmly rooted in science. The drawings, structures, renderings, and sculptures of these designers and architects expand and clarify our knowledge of the world around us, demonstrating that design is an integral step in the scientific method.

Read the feature at Seed Magazine

The Designers Accord: A conversation with Valerie Casey

The Designers Accord is a grassroots movement aiming to integrate sustainable thinking into design practice. This month, Core77 will integrate the list of design firm adopters of Designers Accord into the Design Directory - the

global database of design firms, providing a platform for adoption of the accord, and a forum to be featured as an adoptor. Core77's Allan Chochinov invited Valerie Casey, founder of the Accord, to discuss the initiative, how it got started, and how it all might end. (Well, in a good way.)

Read the interview at Core77

EVENTS

Games for Change Fifth Annual Festival

The 2008 5th Annual Games for Change Festival is taking place on June 2 - 4, 2008 and is being hosted by Parsons, The New School for Design in New York City.

Parsons The New School for Design
Theresa Lang Student Center, 2nd Floor
55 West 13th St.
New York, NY

This year's festival will bring together non-profits, game designers, foundations and academics from across the U.S. and overseas to explore best practices for social issue gaming, successful distribution models, and more. It will be a chance to discuss industry partnership opportunities, with ample networking and resource sharing possibilities.

The highlight of the festival is the Expo Night on Tuesday June 3, from 6 - 8pm, sponsored exclusively by Microsoft, where we will play games, meet each other, and enjoy food and drink in a lively and informal atmosphere.

For more details, visit the festival website

Have you come across interesting Design Science news articles, resources, or events?

We invite you to forward them so we can consider them for inclusion in future e-bulletins. Send them to: designsciencenews (at) bfi.org

If we use your suggestion for future e-bulletins and you would like to be credited by name, please indicate it in your e-mail.

Thank You!

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