

Welcome to Vol. 6 No. 10 of BFI\_News, the e-bulletin  
of the Buckminster Fuller Institute

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

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#### BFI UPDATE

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#### BFI BOARD CHALLENGE GRANT

Support our Work...

We invite you to help support this news service by making a  
donation of \$10 to help us meet our Board Challenge Grant!!

The Board of Directors of the Buckminster Fuller Institute  
has committed itself to a \$20,000 Challenge Grant to inspire  
the support of our e-bulletin community, and with a pledge of  
only \$10 from each of our e-bulletin subscribers, we can reach  
our goal.

Every dollar you pledge will be matched dollar-for-dollar by  
our Board, so please consider a pledge of \$10 today!

Take advantage of this opportunity to double the value of your  
pledge and know that your contribution, no matter the size,  
goes a very long way in helping us provide news and information  
services to the global network of Fuller-inspired innovators.

Join us and make a pledge today!

<http://www.bfi.org/membership.html>

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#### DESIGN SCIENCE LAB 2006

Plans are underway for the 2006 Design Science Lab at the  
United Nations International School. For more information or  
if you are interested in participating in next year's program,  
please sign up for the 2006 mailing list using the link below:

<http://www.designsciencelab.org>

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**\*DYMAXION ARTIFACTS STORE SPECIALS\***

**Featured Item: Education Package**

Save on the normal retail price when you buy this package containing Bucky's seminal book on the state of education, Education Automation, a set of 10 Dymaxion postcards, and Spaceship Earth Fold-Up Globe. Members of the Institute receive \$5.00 off with the coupon code in the latest issue of Trintab.

**New Item: Geodesic Math and How to Use it by Hugh Kenner**

Geodesic Math and How to Use It presents a systematic process of design and provides a step-by-step method for producing mathematical specifications for orthodox geodesic domes, as well as for a variety of elliptical, super-elliptical, and other nonspherical contours. Great for the classroom!

<http://bfi.easystorecreator.com/>

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**FOOD FOR THOUGHT**

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I did not set out to design a house on a pole, a three-wheeled car, or geodesic structures. My objective has been humanity's comprehensive welfare in the Universe. I could have ended up with a pair of flying slippers.

-- R. Buckminster Fuller  
"Thinking Out Loud"

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**TRENDS & PERSPECTIVES**

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**Nanotechnology may help treat cancer**

Experiments on mice have shown promise for the future of nanotechnology in treating cancer. The research brings doctors one step closer to being able to inject patients with nanoparticles that bore inside tumors and release powerful doses of cancer-killing drugs while leaving the rest of the body unscathed. After seeing how the mice were cured of human prostate cancer with the technology, cancer specialists gathered at the European Cancer Conference in Paris on Tuesday praised the work as impressive and said they had high hopes for its application to patients.

[http://www.redorbit.com/news/technology/291086/nanotechnology\\_may\\_help\\_treat\\_cancer/index.html](http://www.redorbit.com/news/technology/291086/nanotechnology_may_help_treat_cancer/index.html)

(Source: Red Orbit)

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Will a clock that works flawlessly for 10,000 years become the greatest wonder of the world?

Everything about this clock is deeply unusual. For example, while nearly every mechanical clock made in the last millennium consists of a series of propelled gears, this one uses a stack of mechanical binary computers capable of singling out one moment in 3.65 million days. Like other clocks, this one can track seconds, hours, days, and years. Unlike any other clock, this one is being constructed to keep track of leap centuries, the orbits of the six innermost planets in our solar system, even the ultraslow wobbles of Earth's axis.

<http://www.discover.com/issues/nov-05/cover/>

(Source: Discover Magazine)

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Scientists design tiny brake to quicken communications

To speed up communications, I.B.M. proposes slowing down light. Writing in today's issue of the journal Nature, I.B.M. scientists at the T. J. Watson Research Center in Yorktown Heights, N.Y., describe a tiny silicon device that can pull the reins on pulses of light, slowing them from their usual clip of 186,000 miles a second to a more leisurely 600 miles a second.

The slowing, by itself, is an unremarkable achievement. In 1999, researchers at Harvard reported that they were able to slow light much more drastically, to 38 miles per hour, and two years later, they and other scientists were able to bring a light pulse to a halt before releasing it back on its way.

Those experiments, shining the light through clouds of ultracold atoms, required a roomful of equipment.

The I.B.M. device, by contrast, is less than one-thousandth of an inch across. It was made of silicon using conventional chip manufacturing processes.

<http://www.nytimes.com/2005/11/03/science/03light.html>

(Source: The New York Times)

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### Chemistry Nobel laureate Smalley dies

Nobel laureate Richard Smalley, a Rice University professor who helped discover buckyballs, the soccer ball-shaped form of carbon, and championed the field of nanotechnology, has died at the age of 62.

He shared the 1996 Nobel Prize in chemistry with fellow Rice chemist Robert Curl and British chemist Sir Harold Kroto for the discovery of the new form of carbon, which they dubbed buckminsterfullerene - buckyballs for short - because of its resemblance to the geodesic domes designed by Buckminster Fuller.

<http://www.washingtonpost.com/wp-dyn/content/article/2005/10/29/AR2005102900607.html>

(Source: The Washington Post)

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### RESOURCES

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### Biomimicry for green design, a how-to

It's easy to talk about how exciting biomimicry is, and how we'll see more of it in the future, but it's another thing to actually design and built things that are biomimetic. Most designers, engineers, architects, and other people who build things just don't know that much about biology and the natural world; and even when they do, there's often a gap of capability in available materials, manufacturing methods, and economic systems. Some of these obstacles are out of the designer's hands, and you just have to move on to things that are more feasible. (But don't forget your ideas; maybe ten years from now the technology will be there.) Even with existing technology, however, an enormous realm of possibilities is feasible, it just requires the right approach. Here is my attempt to describe the biomimetic approach, with a comprehensive list of principles. It combines lessons from Janine Benyus, Kevin Kelly, Steven Vogel, D'Arcy Thompson, Buckminster Fuller, Julian Vincent, and my own limited experience. I also mention at the end where biomimicry will not help you, a subject often glossed over, as well as further resources (books and schools).

<http://www.worldchanging.com/archives/003680.html>

(Source: Worldchanging.com)

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SAFE: Design Takes on Risk  
October 16, 2005 - January 2, 2006  
New York City MoMA

SAFE: Design Takes On Risk, the first major design exhibition at the New York MoMA since its reopening in November 2004, presents more than 300 contemporary products and prototypes designed to protect body and mind from dangerous or stressful circumstances, respond to emergencies, ensure clarity of information, and provide a sense of comfort and security. These objects address the spectrum of human fears and worries, from the most mundane to the most exceptional, from the dread of darkness and loneliness to the threat of earthquakes and terrorist attacks.

The exhibition covers all forms of design, from manufactured products to information architecture. Featured products include refugee shelters, demining equipment, baby strollers, and protective sports gear. Designers are trained to balance risk with protection and to mediate between disruptive change and normalcy; good design goes hand in hand with personal needs, providing protection and security without sacrificing innovation and invention. SAFE redirects the pursuit of beauty toward the appreciation of economy of function and technology.

For more information, please visit:

<http://www.moma.org/exhibitions/2005/safe.html>

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EVENTS

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SPOONBILL BOOKS AND THE BUCKMINSTER FULLER INSTITUTE PRESENT:

A READING BY NANCY JACK TODD of her recent book:  
"A SAFE AND SUSTAINABLE WORLD: THE PROMISE OF ECOLOGICAL DESIGN",  
Island press, 2005.

The reading will be followed by a discussion and reception with Nancy and her husband, JOHN TODD, visionary ecological designer, founder of the New Alchemy Institute and author of numerous books including, "From Eco-Cities to Living Machines, Principles of Ecological Design".

WHEN: FRIDAY, NOVEMBER 11 TH at 6:30 PM  
WHERE: SPOONBILL & SUGARTOWN, BOOKSELLERS  
218 BEDFORD AVENUE  
BROOKLYN NY 11211  
718-387-7322

[sugar@spoonbillbooks.com](mailto:sugar@spoonbillbooks.com)

For more information please contact:  
The Buckminster Fuller Institute  
718 290 9290  
[www.bfi.org](http://www.bfi.org)

Please join us!

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Eco-Metropolis 2005: Toward a Green, Just, Sustainable Greater NYC

At the CUNY Graduate Center (365 5th Ave, at 34th St.)  
Friday and Saturday, Nov 11/12

Come join many of Greater New York's most accomplished grassroots environmental justice, neighborhood, water, air, food and transportation activists; "green" architects and designers; urban planners; social entrepreneurs; scientists; artists; engineers; educators; civil servants; and social leaders at our city's most diverse and dynamic eco conclave.

Note: One special focus this year will be on activist students and youth and helping to nurture tomorrow's eco leaders (admission will be free for youth and students).

For more information and a full program schedule, see:  
[www.ecometropolis.org](http://www.ecometropolis.org)

BFI's Panel:  
Design Science Youth Program -a collaborative effort aimed at developing and disseminating strategies for achieving the UN Millennium Development Goals, including reducing global poverty, hunger, and other unmet human needs in environmentally sustainable programs (co-sponsored by the Buckminster Fuller Institute, with thanks to the UN International School) hosted by co-founder of the World Game Institute, Medard Gabel and BFI Executive Director Elizabeth Thompson, with prize-winning young designers and others tba

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Synergetics Fall 2005 Symposium "Synergetics in the Arts"  
Noguchi Museum  
32-37 Vernon Blvd.  
Long Island City, New York 11106  
Saturday, November 19 2005, 10AM - 6PM  
Sunday, November 20 2005, 10AM - 6PM

SNEC will be holding a juried art show and symposium focused on the relationship of Buckminster Fuller's Synergetics to the arts. Representative projects include literature, poetry, music, painting, film, photography, sculpture, theater, dance, architecture and virtual arts with a central relationship to Synergetics.

For more information including directions and registration info. please visit:

<http://www.cjfeanley.com/snec/snec.announce.meeting.2005.11.html>

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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:  
[mbarron@bfi.org](mailto:mbarron@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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