

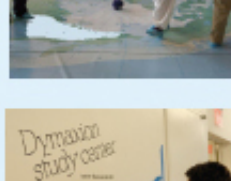


Welcome to Vol. 9 No. 11 of Design Science News, the e-bulletin of the Buckminster Fuller Institute

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.

2009 Membership Drive Underway!

SUPPORT OUR WORK



THE BUCKMINSTER FULLER CHALLENGE — An annual international design Challenge awarding \$100,000 to support the development and implementation of a strategy that has significant potential to solve humanity's most pressing problems.
 >> challenge.bfi.org

IDEA INDEX — The Idea Index features entries to the Buckminster Fuller Challenge, providing the public, international press, investors and donors full access to detailed project summaries; images and contact information.
 >> challenge.bfi.org/ideaindex

DESIGN SCIENCE EDUCATION — Lectures, seminars, workshops, and a rigorous hands-on training in the problem-solving methodology called comprehensive, anticipatory design science pioneered by R. Buckminster Fuller.
 >> designsciencelab.org

BFI.ORG — A fully interactive website utilizing state-of-the-art open source tools now serving thousands of visitors/month. Provides an information clearinghouse of Fuller's life and work, BFI news, online publications, a Community Content section enabling users to post their own images & research, etc.
 >> bfi.org

DYMAXION ARTIFACTS — An online store featuring a unique line of educational tools and resources — maps, books, dvd's, toys — for students, teachers, designers and anyone interested in Bucky and design science.
 >> bfi.easystorecreator.com

BFI NETWORK — A global community of Fuller-inspired practitioners, the network includes leaders in the research and development of comprehensive solutions to humanity's pressing problems. Network members play a critical role in the fulfillment of BFI's mission through volunteerism; program participation and financial support.
 >> bfi.org/the_buckminster_fuller_institute/bfi_network

RESEARCH — Projects include EARTHscope (ES), >> earthscope.com; World Shelters Project, Spaceship Earth — the Game.

FISCAL SPONSORSHIP — Incubation support for select projects and programs closely aligned with our mission.

The Buckminster Fuller Institute is a 501(c)(3) non-profit organization. Your contribution is tax-deductible to the fullest extent of the law.

If you are reading this newsletter, the likelihood is very high that you understand the critical importance of comprehensive, visionary approaches to solving our increasingly complex problems.

This is what BFI is all about. Now as never before, people are re-examining Buckminster Fuller's profound legacy and looking for contemporary examples of what Fuller called comprehensive anticipatory design science to help navigate the unprecedented challenges we face today. From a clearinghouse of information on Fuller's ideas to a high profile international design Challenge, from exhibitions and publications to symposia and hands-on workshops, BFI's

[programs](#) offer the leading edge of visionary design science thinking and application. Our programs are absolutely unique and make a tangible difference in the lives of those who participate. Please visit bfi.org and see for yourself.

The financial support of our network makes our work possible and we vitally need your continued support. We ask you to please join our network as a contributing member of The Buckminster Fuller Institute. Your contribution - especially in these tough times - makes a huge difference, no matter the size.

Your contribution enables you to receive all kinds of great things - most importantly the knowledge that your support ensures the continued success of BFI as we move into the new year.

Please give what you can, today. Many, many thanks!

[Donate](#)

In partnership,
Elizabeth Thompson
Executive Director

**Thank you to everyone who
participated in the 2009 Buckminster
Fuller Challenge!**



THE BUCKMINSTER
FULLER CHALLENGE

Catalyzing the vanguard of a design science revolution

We received hundreds of entries from more than 25 countries this year, thanks to all those who participated.

We will announce the [jury's](#) selections of winner and runners up in early May 2009. Stay tuned for more details, including information about the conferring ceremony and other events taking place from June 13th - 16th 2009 at the

Museum of Contemporary Art in Chicago, IL.

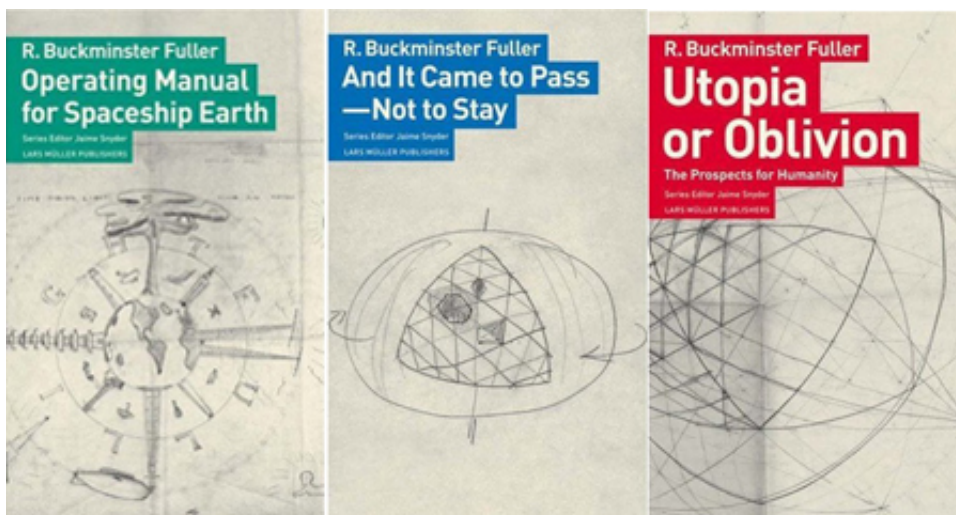
Design Science Framework, an online dialogue with Dr. Michael Ben-Eli

The Buckminster Fuller Institute is delighted to invite you to respond to a new publication on the subject of design science written by Fuller's former student and colleague Dr. Michael Ben-Eli. BFI is committed to continued research into the practice and fundamental principles of comprehensive anticipatory design science and its relevance to contemporary global issues and design practice.

[Design Science: A Framework for Change](#) is the result of a year of intensive research into Fuller's conceptions and practice of design science as well as wide-ranging interviews with some of its key practitioners.

To view or download the document and learn how to participate in the dialogue, [visit our website](#)

DYMAXION ARTIFACTS STORE: New editions of three of Fuller's classic books now available



Three of Fuller's most celebrated books – [Operating Manual for Spaceship Earth](#), [And it Came to Pass...Not to Stay](#), and [Utopia or Oblivion: The Prospects for Humanity](#) – have been brought back into print by Fuller's grandson Jaime Snyder and Lars Müller Publishers. These new editions have been beautifully redesigned and include introductions and updated footnotes by Snyder.

Order by December 15th to ensure delivery before the holidays.

Bucky play wins a prestigious Ovation award



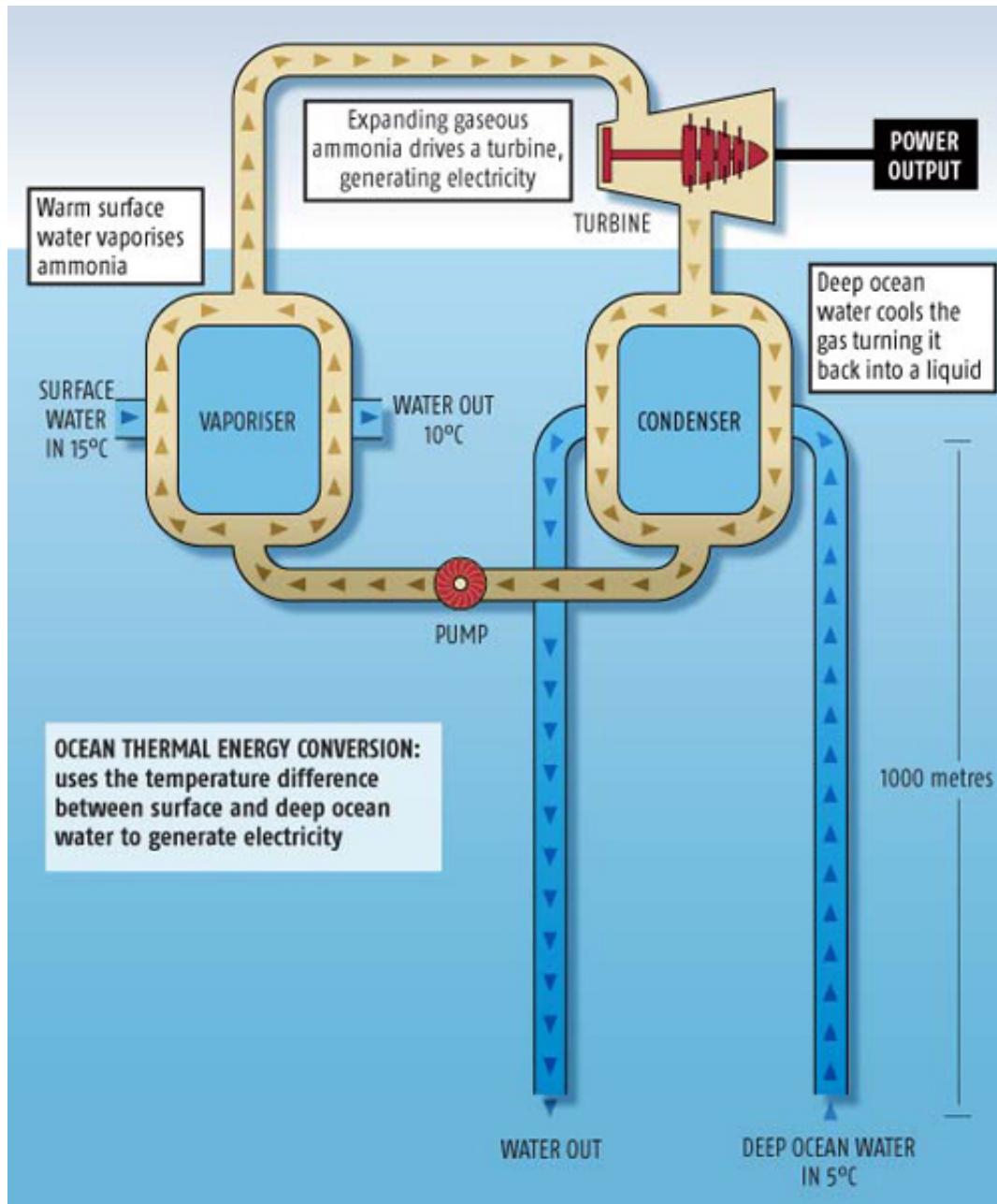
photo: Owen Carey

R. Buckminster Fuller: The History (and Mystery) of the Universe, presented by Rubicon Theatre Company, won a prestigious [Ovation Award](#) for Best Large Play.

Congratulations to the writers, director, the Rubicon Theatre Company and the cast and crew of the play!

TRENDS & PERSPECTIVES

Plumbing the oceans could bring limitless clean energy



For a company whose business is rocket science Lockheed Martin has been paying unusual attention to plumbing of late. The aerospace giant has kept its engineers occupied

for the past 12 months poring over designs for what amounts to a very long fibreglass pipe.

It is, of course, no ordinary pipe but an integral part of the technology behind Ocean Thermal Energy Conversion (OTEC), a clean, renewable energy source that has the potential to free many economies from their dependence on oil.

“This has the potential to become the biggest source of renewable energy in the world,” says Robert Cohen, who headed the US federal ocean thermal energy programme in the early 1970s.

As the price of fossil fuels soars, private companies from Hawaii to Japan are racing to build commercial OTEC plants. The trick is to exploit the difference in temperature between seawater near the surface and deep down (see diagram).

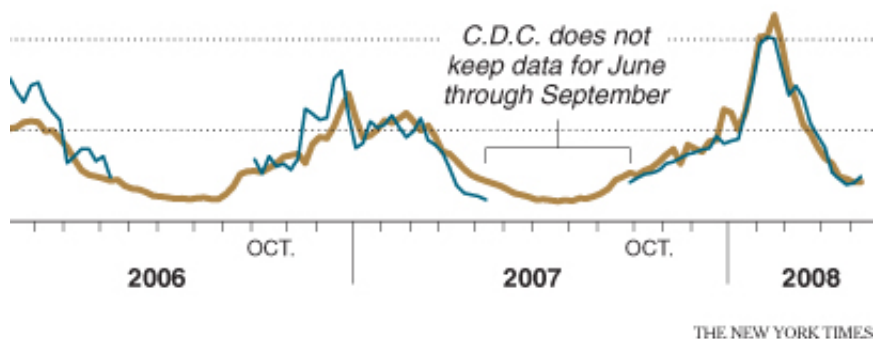
First, warm surface water heats a fluid with a low boiling point, such as ammonia or a mixture of ammonia and water. When this “working fluid” boils, the resulting gas creates enough pressure to drive a turbine that generates power. The gas is then cooled by passing it through cold water pumped up from the ocean depths via massive fibreglass tubes, perhaps 1000 metres long and 27 metres in diameter, that suck up cold water at a rate of 1000 tonnes per second. While the gas condenses back into a liquid that can be used again, the water is returned to the deep ocean. “It’s just like a conventional power plant where you burn a fuel like coal to create steam,” says Cohen. (Source: [New Scientist](http://www.newscientist.com/article/mg20026836.000-plumbing-the-oceans-could-bring-limitless-clean-energy.html))

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Google uses searches to track flu's spread

Using Google to Monitor the Flu

Google Flu Trends can estimate the spread of the disease by measuring the frequency of certain search terms. Its findings closely track actual C.D.C. data and can, at times, anticipate the government reports.



There is a new common symptom of the flu, in addition to the usual aches, coughs, fevers and sore throats. Turns out a lot of ailing Americans enter phrases like “flu symptoms” into Google and other search engines before they call their doctors.

That simple act, multiplied across millions of keyboards in homes around the country, has given rise to a new early

warning system for fast-spreading flu outbreaks, called Google Flu Trends.

Tests of the new Web tool from Google.org, the company's philanthropic unit, suggest that it may be able to detect regional outbreaks of the flu a week to 10 days before they are reported by the Centers for Disease Control and Prevention.

In early February, for example, the C.D.C. reported that the flu cases had recently spiked in the mid-Atlantic states. But Google says its search data show a spike in queries about flu symptoms two weeks before that report was released. Its new service at google.org/flutrends analyzes those searches as they come in, creating graphs and maps of the country that, ideally, will show where the flu is spreading.

The C.D.C. reports are slower because they rely on data collected and compiled from thousands of health care providers, labs and other sources. Some public health experts say the Google data could help accelerate the response of doctors, hospitals and public health officials to a nasty flu season, reducing the spread of the disease and, potentially, saving lives. (Source: [The New York Times](#))

<http://tinyurl.com/5soerl>

Farmer in chief



Dear Mr. President-Elect,

It may surprise you to learn that among the issues that will occupy much of your time in the coming years is one you barely mentioned during the campaign: food. Food policy is not something American presidents have had to give much thought to, at least since the Nixon administration - the last time high food prices presented a serious political peril. Since then, federal policies to promote maximum production of the commodity crops (corn, soybeans, wheat and rice) from which most of our supermarket foods are derived have succeeded impressively in keeping prices low and food more or less off the national political agenda. But with a suddenness that has taken us all by surprise, the era of cheap and abundant food appears to be drawing to a close. What this means is that you, like so many other leaders through history, will find yourself confronting the fact - so easy to overlook these past few years - that the health of a nation's food system is a critical issue of national security. Food is about to demand your attention.

Complicating matters is the fact that the price and abundance of food are not the only problems we face; if they were, you could simply follow Nixon's example, appoint a latter-day Earl Butz as your secretary of agriculture and instruct him or her to do whatever it takes to boost production. But there are reasons to think that the old approach won't work this time around; for one thing, it depends on cheap energy that we can no longer count on. For another, expanding production of industrial agriculture today would require you to sacrifice important values on which you did campaign. Which brings me to the deeper reason you will need not simply to address food prices but to make the reform of the entire food system one of the highest priorities of your administration: unless you do, you will not be able to make significant progress on the health care crisis, energy independence or climate change. Unlike food, these are issues you did campaign on - but as you try to address them you will quickly discover that the way we currently grow, process and eat food in America goes to the heart of all three problems and will have to change if we hope to solve them. (Source: [The New York Times](#))

<http://tinyurl.com/5en84y>

[Watch Michael Pollan's recent interview on Bill Moyer's Journal](#)

RESOURCES

The Presidential Climate Action Plan



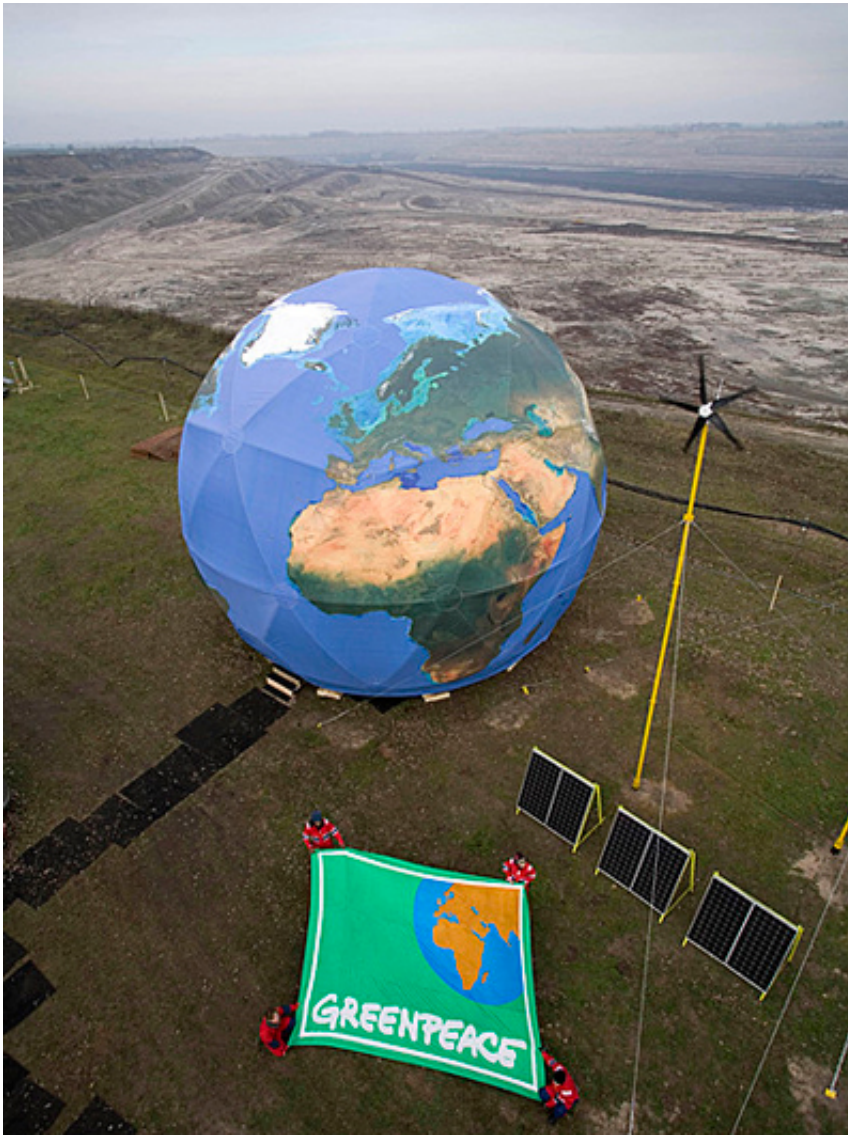
From the moment the 44th President of the United States takes office, the American people and the world community will watch closely for indications of how our new leader addresses Global Climate Change. The Presidential Climate Action Project has developed a bold, comprehensive and

non-partisan plan for presidential leadership rooted in climate science and designed to ignite innovation at every level of the American economy.

PCAP is an initiative of the University of Colorado School of Public Affairs. Its objective is to provide presidential candidates and the President-elect with background information and educational materials on global warming, including a broad menu of diverse policy and program options for national leadership. The project does not advocate on behalf of specific climate policies, programs, spending or other actions by the President or the Federal government.

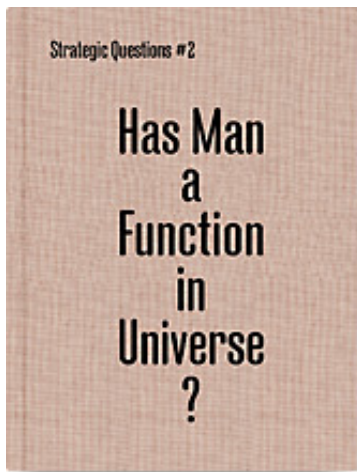
[Visit the website](#) to download the plan and learn more.

Greenpeace installs a geodesic climate rescue station in Poland to combat coal



[Visit the website for more information about coal and the prospects for alternative energy sources](#)

Has man a function in universe? Strategic questions #2



Has Man A Function In Universe? is part of an ongoing project to develop forty projects related to forty questions written by R. Buckminster Fuller. Each project is an artwork or a combination of artworks, developed in response to one of the questions. Of all the questions 'Has Man A Function In Universe?' may be the key that binds and directs all of the other questions. Gavin Wade has commissioned artists and writers to respond to this question using a combination of text and image.

The publication will reflect the process of the project-an 'exquisite corpse' involving collaboration, dissemination and the combining of works.

Contributions from: Neil Chapman, Shezad Dawood, Per Hüttner, Juneau Projects, Karin Kihlberg & Reuben Henry, Kerry James Marshall, Jessica Spanyol, Lisa Strömbeck, Mark Titchner, Sue Tompkins, Hayley Tompkins, Gavin Wade and Carey Young.

For more information and to purchase a copy, visit [Bookworks](#)

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 \(dot\) org](mailto:designsciencenews(at)bfi(dot)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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