

cradle + to cradle

BOOK

Cradle to Cradle: Remaking the Way We Make Things

William McDonough
Michael Braungart
2002

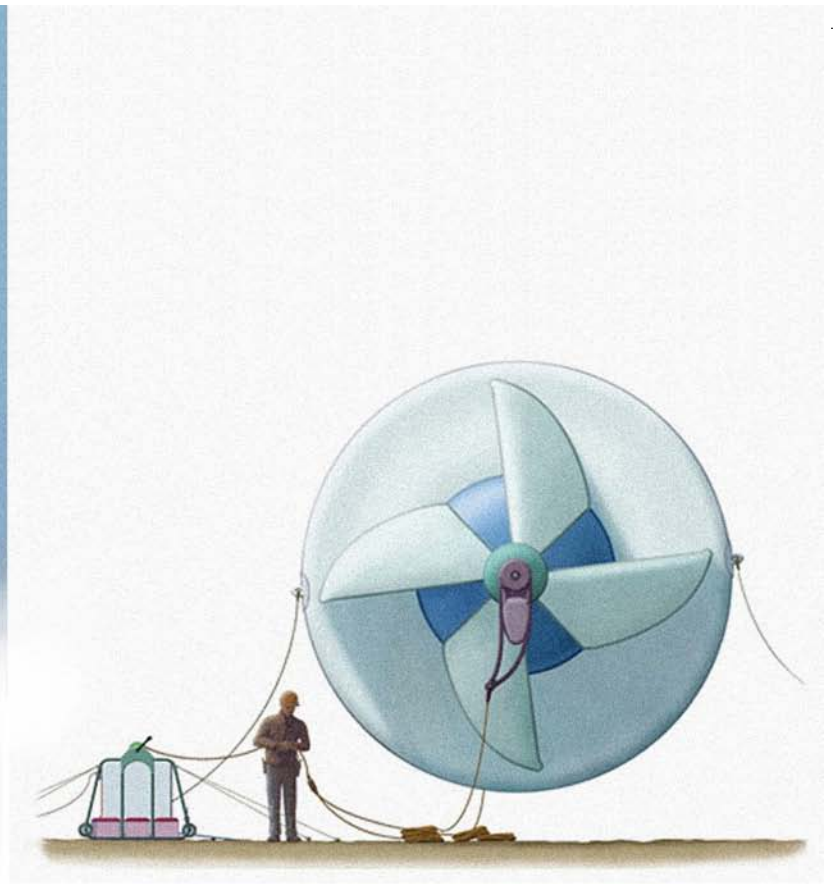
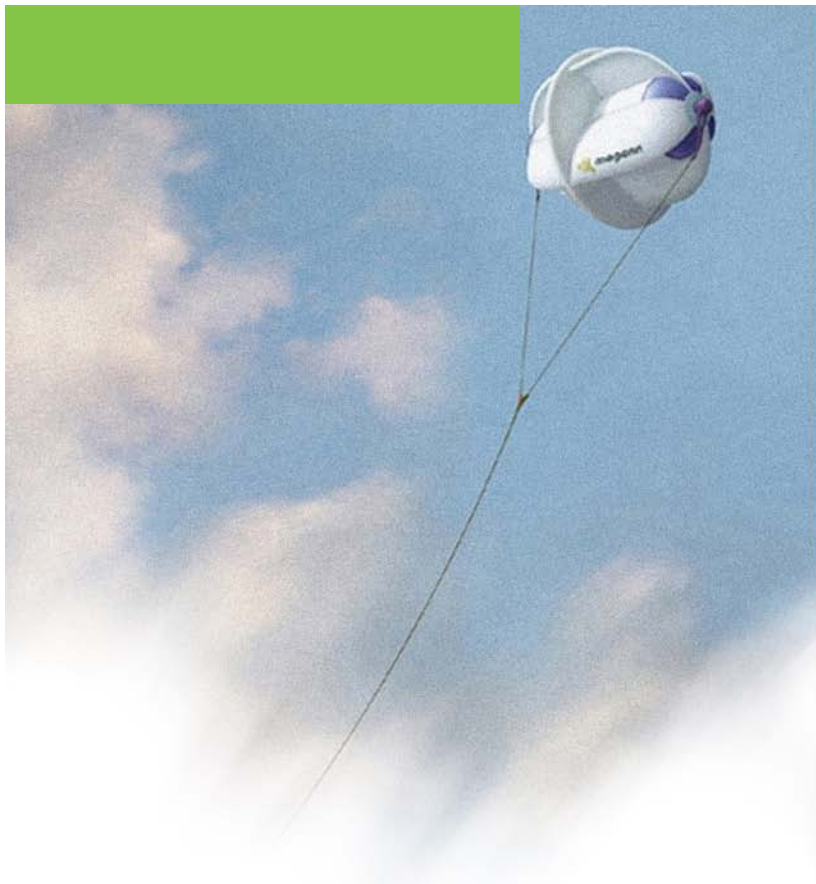
North Point Press

“Reduce, reuse, recycle” urge environmentalists; in other words, do more with less in order to minimize damage. As William McDonough and Michael Braungart argue in their provocative, visionary book, however, this approach perpetuates a one-way, “cradle to grave” manufacturing model that dates to the Industrial Revolution and casts off as much as 90 percent of the materials it uses as waste, much of it toxic. Why not challenge the notion that human industry must inevitably damage the natural world, they ask.

In fact, why not take nature itself as our model? A tree produces thousands of blossoms in order to create another tree, yet we do not consider its abundance wasteful but safe, beautiful, and highly effective; hence, “waste equals food” is the first principle the book sets forth. Products might be designed so that, after their useful life, they provide nourishment for something new—either as “biological nutrients” that safely re-enter the environment or as “technical nutrients” that circulate within closed-loop industrial cycles, without being “downcycled” into low-grade uses (as most “recyclables” now are).

Elaborating their principles from experience (re)designing everything from carpeting to corporate campuses, the authors make an exciting and viable case for change”.

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DEVICE

MARS **The Magenn Power Air** **Rotor System**

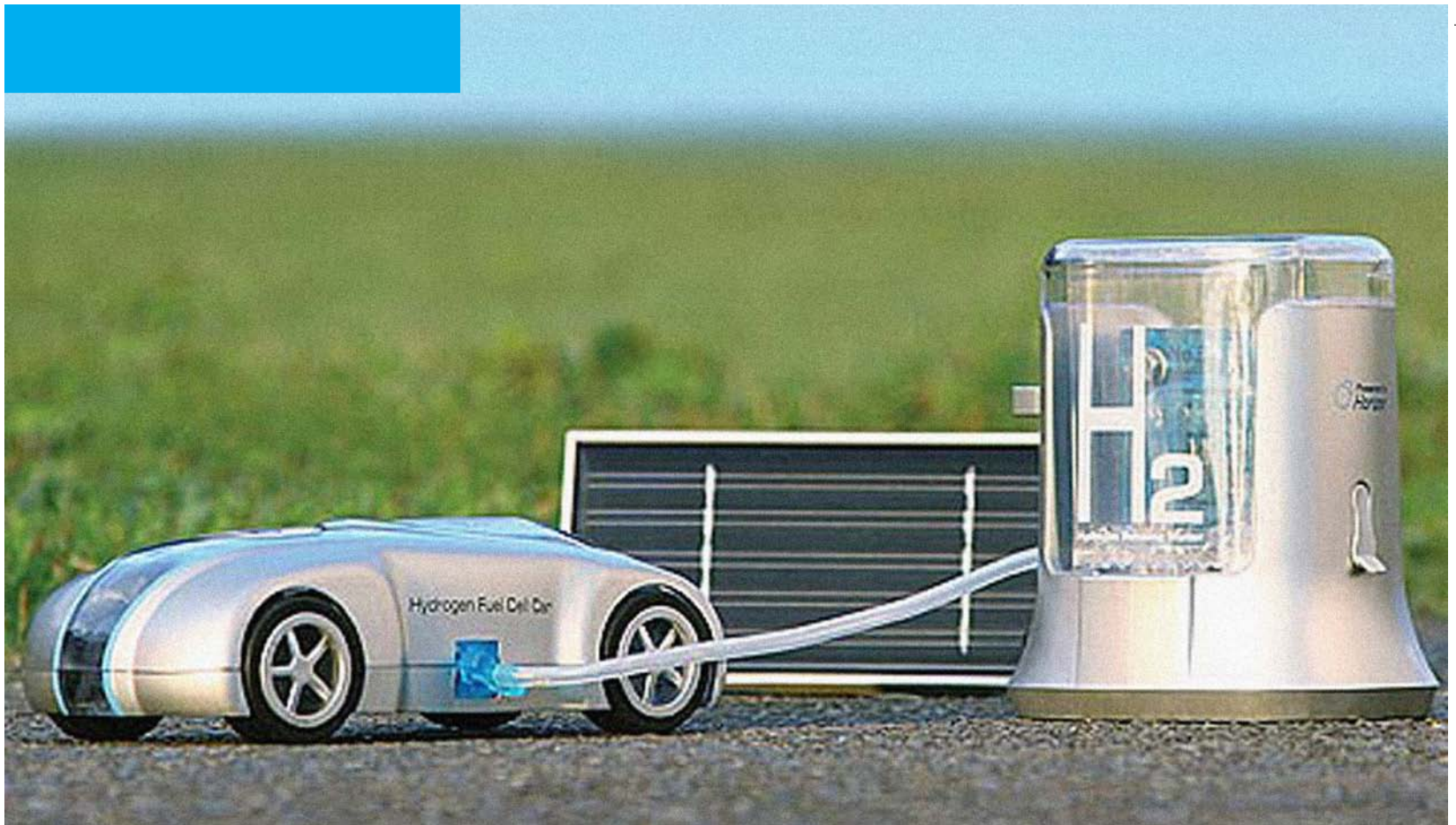
Magenn
2008

www.magenn.com

“Magenn Power’s MARS is a Wind Power Anywhere™ solution with distinct advantages over existing Conventional Wind Turbines and Diesel Generating Systems including: global deployment, lower costs, better operational performance, and greater environmental advantages.(...) The Magenn Power Air Rotor System (MARS) is an innovative lighter-than-air tethered device that rotates about a horizontal axis in response to wind, efficiently generating clean renewable electrical energy at a lower cost than all competing systems. This electrical energy is transferred down the tether to a transformer at a ground station and then transferred to the electricity power grid. Helium (an inert non-reactive lighter than air gas) sustains the Air Rotor which ascends to an altitude for best winds and its rotation also causes the Magnus effect. This provides additional lift, keeps the device stabilized, keeps it positioned within a very controlled and restricted location, and causes it to pull up overhead rather than drift downwind on its tether. All competing wind generators use bladed two-dimensional disk-like structures and rigid towers.

The Magenn Power Air Rotor system is a closed three-dimensional structure (cylinder). It offers high torque, low starting speeds, and superior overall efficiency thanks to its ability to deploy higher. The closed structure allows Magenn Power to produce wind rotors from very small to very large sizes at a fraction of the cost of current wind generators. (...).”

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NEWS

Hydrogen refuel station unveiled

BBC news
2008.07.09

news.bbc.co.uk

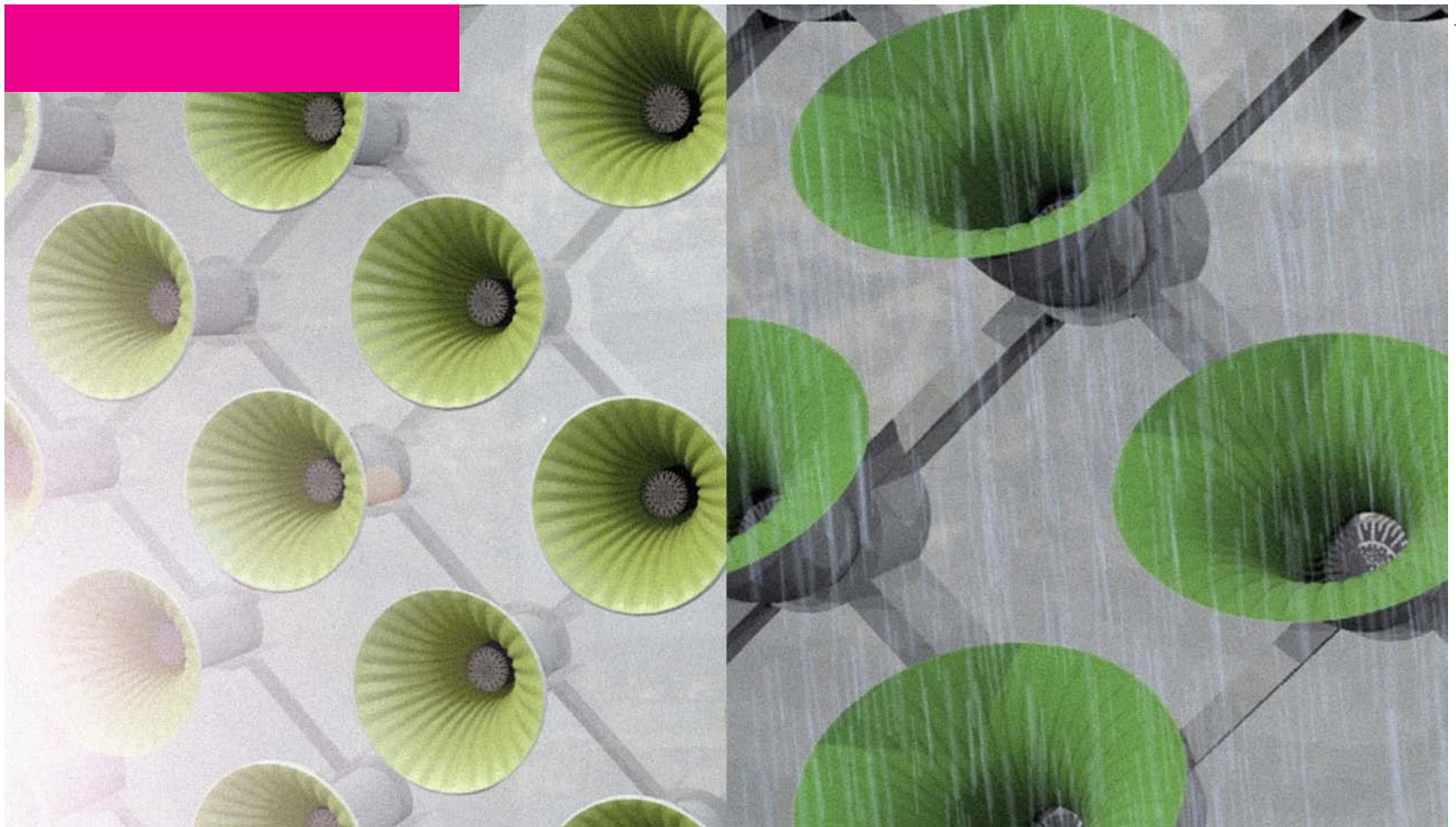
“A hydrogen refuelling station which could be installed in the home as an alternative to visiting a petrol station has been unveiled. Users will need a hydrogen-powered car to go with it although the system can also be used for heating and cooking.

Hydrogen has long been touted as an alternative energy source to carbon-hungry fossil fuels. One of the biggest obstacles to wider adoption of fuel-cell vehicles is the lack of hydrogen fuelling stations. To be used as a fuel, hydrogen must first be produced using another energy source.

While some scientists are hopeful of the fuel uses of hydrogen, many others are sceptical because it is inefficient to produce, expensive to transport and to convert into electricity. A home refuelling station could provide much needed infrastructure to kick-start a hydrogen-based economy, thinks Sheffield-based ITM Power, the firm behind the system.“

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PROJECT

Off the Grid: Sustainable Habitat 2020

Design Probes Philips
2008

www.design.philips.com

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“Today, our habitat is very dependent on the international grid of energy & water. Energy crisis, clean water shortage, global warming and environmental pollution are worldwide problems. Understanding cities as dynamic and ever-evolving eco-systems can help us to formulate strategies for a sustainable urban future.

The whole project is based on the the brief to develop sustainable housing for urban megalopolis in China in 2020.

This is exploring the integration of electronics and bio chemical functionalities into the inert material of the built environment. The design of the concept fundamentally changes the current approach to buildings and habitat. This future habitat shifts from the current state where the building surfaces are benign inert ‘dumb’ materials only used for construction and shielding purposes to sensitive functional skins that are ‘alive’ and act as membranes to harness energy.

A membrane creates a strong link between the exterior and interior of the habitat and used as a transporter collecting and channeling the elements of air water and light - from the outside feeding into the inside space. This will supply the habitat with all necessary sources to be able to live off the grid.”

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the dictionary of sustainable management

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

About

Credits

SUSTAINABILITY

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

This definition was created in 1987 at the World Commission on Environment and Development (the Brundtland Commission). It is enshrined in the Swiss federal constitution. It is similar to the "seventh generation" philosophy of the Native American Iroquois Confederacy, mandating that chiefs always consider the effects of their actions on their

a project of:



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WEBSITE

www.sustainabilitydictionary.com

“This Dictionary of Sustainable Management is an open dictionary for business leaders and students of sustainability and business-related terms. It is a project of the Presidio School of Management. The purpose of this effort is to help people better understand how sustainability concepts are creating new understandings in the worlds of business, government, and society.

The dictionary is open in that anyone can comment on any definition. Periodically, the creators of the dictionary may compound comments into new editions. (...).”

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