

Fall / Winter 2008

The **FALL/WINTER** issue of our online newsletter, **IN THE NOW** is **COMING SOON!** It has articles in the following categories:



Conscious Sustainability,
Unified Community,
Research from the Heart, *and*
Educating with Humor.

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Instead of Eating Sugar, How About feeding Your Car!

(Sept 2008) Following independent paths of investigation, two research teams are announcing this month that they have successfully converted sugar-potentially derived from agricultural waste and non-food plants-into gasoline, diesel, jet fuel and a range of other valuable chemicals. Chemical engineer, Randy Cortright and his colleagues at Virent Energy Systems of Madison, Wisc., a National Science Foundation (NSF) Small Business Innovation Research awardee, and researchers led by NSF-supported chemical engineer James Dumesic of the University of Wisconsin at Madison are now announcing that sugars and carbohydrates can be processed like petroleum into the full suite of products that drive the fuel, pharmaceutical and chemical industries. For full article from Science Daily, [click here](#).

The Windy City Makes Use of Its Wind



The “[Clean Technology Tower](#)” is a highly efficient building which will be constructed in Chicago. The tower will have wind turbines positioned at the corners of the building, to capture wind at its highest velocity as it accelerates around the tower. At the apex, where wind speeds are at a maximum, a domed double roof cavity directs the wind towards an array of wind turbines. The negative pressure created by the turbines will be used to ventilate interior spaces. The dome itself is shaded by solar cells that capture the southern sun. It was designed by [Adrian Smith and Gordon Gill](#), the same firm who designed the recently featured solar Masdar Headquarters.

The Girl Effect

What happens when a girl in the developing world gets a chance? Here are a few facts when you educate young girls:

- * If she receives seven or more years of education, she marries four years later and has 2.2 fewer children.
- * Educated girls grow into educated women, who are more likely to have healthier and better educated children.
- * An extra year of primary school boosts a girl's future wages by 10 to 20 percent.

Now imagine what happens when you multiply these effects by the 600 million girl children around the globe! You change the world. In fact, research shows that investing in girls is one of the best ways to fight poverty. For a creative video about The Girl Effect, [click here](#). For more information and facts, visit and support The Girl Effect Organization at www.girleffect.org.

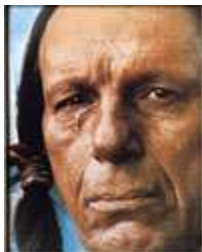
Growing Vertical Skyscraper Farming

For a realistic solution to those who cannot live in the country, but desire to farm, cultivating crops in downtown skyscrapers might save bushels of energy and provide city dwellers with fresh food. For the full article, [click here](#).

Let the Sun Shine In

Mechanical Engineers Create High-Tech Solar Panels: The key breakthrough is the miniaturized concentrator solar cell, which uses a lens with concentric grooves to focus collected light. Even though it is only the size of a postage stamp -- compared to the usual solar collector area that spans 4 x 4 feet -- the cell is much more efficient in collecting and reusing solar energy. The lens focuses incoming sunlight onto the solar cell. Microchannels at the base of the module transfer energy in the form of heat and light to wires contained inside. Each vertical stack of lenses rolls and tilts like a track blind, keeping the surface of the lenses faced to incoming sunlight as the sun changes position in the sky throughout the day. Incorporating these new cells into arrays could make solar energy an option that is competitive with other energy sources, reducing our dependency on fossil fuels. For the full article from Science Daily, [click here](#).

Recycling is a Scam



Excerpt from article written by Lloyd Alter on how recycling is a scam: "Message in a Bottle is a fascinating article by Heather Rogers telling the history of how returnable bottles were supplanted by no deposit- no return bottles, to permit the centralizing of bottlers and brewers. (Did you know that the *Keep America Beautiful Campaign* of the 1970's was founded by the American Can Company, Owens-Illinois Glass, who invented the disposable bottle, along with more than 20 other companies who benefit from disposables? That the entire campaign was paid for by corporations shifting the

responsibility for littering from the manufacturers who should be taking returns, to the public? Or that the crying Indian, was in fact Italian?)” For full article, [click here](#).

Want a Factory in Your Home?

A revolutionary machine, which can make everything from a cup to a clarinet quickly and cheaply could be in all our homes in the next few years. Research by engineers at the University of Bath could transform the manufacture of almost all everyday household objects by allowing people to produce them in their own homes at the cost of a few pounds. The new system is based upon rapid prototype machines, which are now used to produce plastic components for industry such as vehicle parts. The method they use, in which plastic is laid down in designs produced in 3D on computers, could be adapted to make many household items. For the full article on printers that make 3D objects, [click here](#).



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