

WENTWORTH  
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TECHNOLOGY

SUMMER 2011

[wit]



THE EARTH ISSUE

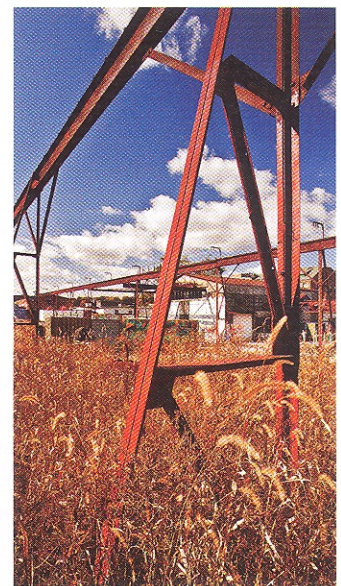
- The Sultan of Solar
- 5 Ways to Green Up Your Home
- The Case for Hydrogen Cars

THE  
OPTIMIST  
To Maria Aiolova, The  
Future Is Bright Green



# Not Just Another Pretty Facade

“Landscape architecture” isn’t just about creating pristine parks or botanical gardens. **Mark Klopfer**, associate professor of architecture and partner at Klopfer Martin Design Group, explains that landscape architecture can do more than offer a passive backdrop—it can create active environmental solutions. —JB



Hear Klopfer detail his Steel Yard project at [www.wit.edu/magazine](http://www.wit.edu/magazine)

The Steel Yard, Providence, R.I.: Klopfer’s firm turned a contaminated steel yard into a usable, multipurpose public space

**How is landscape architecture more than just planting trees?** It’s *how* we plant the trees. For instance, [my firm] has been working with this new system that places a high density plastic matrix under sidewalks to allow roots to spread while keeping the sidewalk from heaving.

**How can a landscape architect respond to environmental concerns?** One way is by reducing the urban “heat island” effect by more carefully designing the pavement and planting more trees along the streets to produce a larger shade canopy. And storm water runoff—which can cause flooding and impact water quality—can be slowed with things like permeable sidewalks,

**DEFINITION:** Pavement can absorb and retain heat, eventually releasing it back into the environment. This is especially true for pavement-heavy areas like urban centers.

rain gardens, and bioswales (vegetation that stalls and filters the runoff).

**How do you address areas that are already polluted?** Our office is trying to specialize in environmental remediation—taking a site that has toxic soil issues and making it usable. Rather than exporting contaminated material and just transferring the problem somewhere else, we find ways to keep it onsite by mixing the contaminated soil with a binder so it can be put back into the ground. Then everything is capped with either pavement or a foot of clean fill on top of a noticeable covering, so if someone in the future were to dig there they would see the barrier.

Photo: Christian Phillips



## BY THE NUMBERS

### MOST-VIEWED STORY

**9.66%** The cover story on **Maria Aiolova, AET '94, ARC '96**, was responsible for nearly **10 percent** of all magazine page views this summer.

### MOST "LIKES"

**56** "likes" on Facebook for our extended memorial of longtime electronic engineering professor **Frank Spada**, and some additional thoughts and memories from the professor's children:



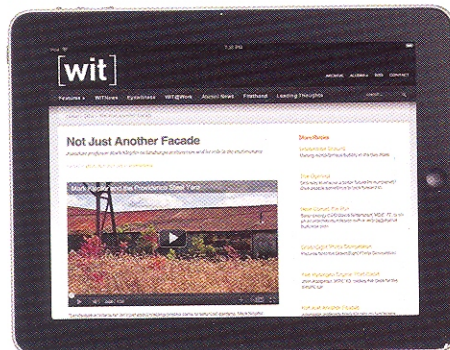
56 people like this

I will never forget a particular moment back in January when he was hospitalized due to his illness. The doctor came in late that evening and told my father that the prognosis was not good. He tried to convince my father that he should do some things such as travel. My father quietly thought for a few moments—as he always did—and looked at the doctor and said, "When can I go back to work?" This demonstrated his true passion to Wentworth and teaching. —**FRANK SPADA JR.**

You touched our hearts and brought tears to our eyes with your words. Teaching was my father's passion and it is very comforting to know that my dad lives on in other people through his teaching. We have heard countless stories from many people about what a great teacher he was, and your article summed up his 30 years of teaching and love of my mother so beautifully. —**PAUL M. SPADA**

### MOST-VIEWED VIDEO

**611** views for our video slide show detailing architecture professor **Mark Klopfer's Providence Steel Yard Project**.



## GREEN GIG

**Doug Halchak, BCMT '04**, saw the Earth issue and wrote to us about his "green" job: construction coordinator for the State of Massachusetts, where he has spent the last year installing solar photovoltaic (PV) panels on state facilities as part of a \$5.7 million project. "Once complete, our goal is to have these panels produce an estimated 1.5 million kW of electricity annually, which should save the state approximately \$180,000 annually," says Halchak.

## H<sub>2</sub>GO

"It would have been nice for you to include the energy exchange data (energy in vs. energy out), including the energy that went into generating the electricity used to split the water into hydrogen and oxygen. Everything I've read so far indicates that this process takes more energy in than out ... like so many other alternative fuels (like corn-based ethanol)."

—**TONY BALSAMO, EES '81, EE '83**

## JOLLY GREEN

"The summer 2011 issue was fantastic. With a number of "green" happenings in and around Massachusetts, let alone the country, it was just simply a great read. Kudos to Dan Morrell for 'Here Comes the Sun' with **David Blittersdorf, MDE '77**. Great article."

—**JEFF CABRAL, EES '91, EEC '93**, board member at MassRecycle

**Al Blakley, AET '67**, read the feature on David Blittersdorf and sent along info about his own residential solar project at his home in Vermont, which has been producing power since July 2010. So far, Blakley figures he has saved the environment from almost two tons of CO<sub>2</sub>.



*Editorial response: Tony brings up a good point. The most common way of generating hydrogen requires burning fossil fuels, creating energy waste. Proton Onsite's primary way of producing hydrogen, however, is through solar power. **John Koopman, MPE '83**, responded to Tony, pointing out, "A photovoltaic array provides the power to make the hydrogen. As long as the sun is out, the power to make the hydrogen is off the grid. But yes, on cloudy days it does revert to the grid."*

Check out all the magazine web extras at [www.wit.edu/magazine](http://www.wit.edu/magazine)