Sustainable Destinations: Tahoe Center for Environmental Sciences

Debra Sharkey reports...

Recently, I organized the field trips for the Association of Pacific Coast Geographer’s 76th annual conference at Squaw Valley. One trip included a visit to the Tahoe Center for Environmental Sciences (TCES) in Incline Village, NV. I was pleasantly surprised by both its sustainable design and its environmental education displays.

Built in 2006, the building is one of only five LEED platinum laboratories in the world—and the first in Nevada. It’s extremely energy efficient, consuming about 50% of the energy used by a conventional building of its size. The LEED design added an extra $2 million to the building costs, with initial projected payback from energy savings expected in 15 years. The actual payback, however, occurred this year, in only seven years.

The building’s roof is a water catchment basin, which routes rain and snow melt to a cistern in the basement. This water provides 80% of the water used for flushing toilets and other non-consumption uses, saving 60% of the water used in conventional buildings. Most of the building was constructed from recycled or local materials. Trees cut on site provided baseboards and wainscoting; recycled steel from autos furnished structural support. Its concrete incorporated flyash, a by-product of coal-fired electric generating plants that would otherwise end up in a landfill. Its carpets were made from recycled...
soda bottles, its acoustic ceiling tiles from recycled newspaper, and its wall insulation from recycled denim.

Inside TCES, the HVAC system's airflow is provided by 100% fresh air from outdoors (most buildings circulate 80% recycled air, which can spread colds, flu, and the like). All the paints and stains used inside are either zero- or low-VOC products, virtually eliminating toxic fumes. The landscaping outside the facility features only drought-tolerant native plants, reducing the need for irrigation. The building’s location near a public bus stop and its ample bike racks are intended to encourage the use of sustainable transportation modes by visitors and staff alike.

The TCES houses on its first floor the UC Davis Thomas J. Long Foundation Education Center, a place I recommend visiting next time you’re in the Tahoe Basin on a weekday afternoon. The many fun, interactive educational displays teach about Tahoe’s ecology and environmental challenges.

Don’t miss the newest interactive exhibit, a 3D watershed sandbox (one of only three such sandboxes in the U.S.), where you can dig in the sand while a digital projector mounted above instantly redraws contour lines with colored shading to reveal the shape of your newly created landscape. Dig downward in the sand and create a lake basin, pile the sand up to create a mountain, hold your hand over the sandbox to simulate a cloud and blue ‘water’ (surface runoff) flows down the landscape filling depressions, such as the lake basin you just created. This exhibit fascinates adults as much as kids—trust me, it’s difficult to pull yourself away!◆

To view the sandbox in action, watch this 3-minute video: http://www.youtube.com/watch?v=8Wnz_g3QA1A&feature=youtu.be

The TCES is open Tuesday through Friday, from 1-5 pm, with volunteer docents available for guided tours. For driving directions from Sacramento, visit http://terc.ucdavis.edu/directions_incline.html

If you can’t visit TERC’s education center in person, you can take an online virtual tour of its John Le Conte research vessel display, virtual laboratory, and Otellini 3D Visualization Theater at http://vtour.govtour.com/vtour.php?tid=893#
In *The Omnivore's Dilemma*, Michael Pollan introduces numerous issues facing us as food consumers. He encourages us to think deeply about the ethical implications of growing, harvesting, processing, subsidizing, marketing, and consuming food.

Each section of the book addresses a different food ‘delivery’ system: industrial, organic, wild. In the first section, Pollan shows us the ways in which the fundamental relationship between food’s primary source (earth, air, soil, sun) and the consumer has been manipulated and entangled in such a way that a Chicken McNugget, for example, is no longer created primarily from the flesh of a chicken; such food has become, to paraphrase a quote from Pollan, a type of “Frankenfood”—horribly unhealthy for the average consumer but monstrously profitable for business.

Along this vein, we learn of the discomfiting presence of processed corn in a large range of food and consumer products, the pollution of the environment by factory farms, the hidden costs of “cheaper” non-organic foods, and the industrialization of the organic food market. In the second and third sections of the book, Pollan shares the benefits of a (non-industrial) organic diet, introduces us to grass farming and other sustainable artisanal farming practices, and explores the possibilities of hunting and gathering food in the wild. Presented thus with an array of food choices, Pollan invites us to seriously consider what we regard as ‘food’ as well as what the ethical implications are of food production and consumption in general—what, when, where, how, and why we eat what we do.

The book closes with the final preparations for Pollan’s “Omnivore’s Thanksgiving.” As he ponders the process involved in creating the meal, he contrasts it with a happy meal at McDonalds: “The pleasures of one are based on nearly perfect knowledge; the pleasures of the other on an equally perfect ignorance.”

*Thanks to Sherie Coelho and her ENGWR 302 students for their contributions to this article.*

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**Sustainable CRC!**

Gordon Smith, Welding/Horticulture Lab Technician, fully embraced CRC’s sustainability philosophy of Reduce, Reuse, and Recycle last summer. With help from CRC students Crystal McCafferty and Michael Hines, Smith fabricated new welding equipment stations out of scrap metal from the welding program.

Kudos to Gordon, Crystal, and Michael!
In an effort to give something back after the tour, CRC students help weed a bed of Russian red kale at Soil Born Farms.

Students tour a portion of about two miles of underground tunnels at the wastewater treatment plant.

...and Wastewater Treatment Plant

Photographs by Debra Sharkey

CRC’s Green Scene

Geography Class Visits Local Organic Farm...

Students from Debra Sharkey’s Geography 302 class (Environmental Studies & Sustainability) took a field trip to Soil Born Farms in Rancho Cordova in October to learn about sustainable agriculture practices. In November, the class toured the Sacramento Wastewater Treatment Plant.

In an effort to give something back after the tour, CRC students help weed a bed of Russian red kale at Soil Born Farms.

Students learn about various methods of composting from Soil Born Farms Education Coordinator Sarah Barnes.

Photograph by Krystal Bowling

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Geography students Matt Witbeck (standing in the truck), Ben Miller, and Jonathan Delatorre assist Soil Born Farms workers (in hats) by providing the muscle to load hay bales into a farm truck.

From the top of a building at the Sacramento Wastewater Treatment Plant, students get a view of the entire facility.
Editor’s note: Retired English Prof. Ann Rothschild shares tips for living sustainably, originally printed in her church’s e-newsletter. TREE, Trinity Respecting Earth and Environment, is Trinity Episcopal Cathedral’s environmental ministry group.

The following is adapted from a TREE Tip published in October 2012—shortly before the defeat of Proposition 37, the California ballot measure that would have required labeling of genetically engineered foods.

“Vote for the Dinner Party,” by UC Berkeley journalism professor Michael Pollan (New York Times Magazine, October 14, 2012), describes the “food movement” in America and our growing interest in healthy food and in knowing more about its production. He hopes this movement will grow enough to influence both food policies and large agri-businesses. Public trust has been betrayed by industrial food production: chemicals flavoring food, pharmaceuticals used in meat production, concentrated animal feeding operations, and genetically modified food—all requiring investigative reporting to expose the practices food conglomerates do not tell us about. Some salient points Pollan makes:

- genetically modified foods “don’t offer the eater any benefits whatsoever—only a potential, as yet undetermined, risk.”
- In 1992 Monsanto and others “persuaded the Food and Drug Administration—over the objection of its own scientists—that the new crops were ‘substantially equivalent’ to the old and so did not need to be labeled, much less regulated.” So the new crops were revolutionary, needed patents and government support, but did not need to be labeled?

• More than 60 other countries label their GMOs, including China, Japan, European Union, and Russia.
• Monsanto and Dupont spent $12 million to defeat Proposition 37. (It was defeated by a narrow margin of 53.1 to 46.9 percent in November 2012.)
• Prop. 37 was about more than GMOs: the fight was really “about the power of Big Food,” their “corporate control of regulation; lack of transparency (for consumers) and lack of choice (for farmers); an intensifying rain of pesticides on ever-expanding monocultures; and the monopolization of seeds...the genetic resources on which all of humanity depends.”
• Although flawed, Prop. 37 was intended to give consumers more information about the food we eat and a voice to all people, not just the elite.

Other points to note:
• Children and infants are especially vulnerable to the dangers of GMOs.
• Tests found GM soy in four popular soy-based infant formulas (Similac Soy, Enfamil Pro Soybee, Walmart Soy, and Gerber Good Start Soy).
• The US Government’s WIC (Women, Infants, and Children) program, distributing infant formula to over 2 million moms in 50 states, offers only GM brands.

Source: www.ResponsibleTechnology.org
**Film Encourages Students to Vote With Their Forks**

Steven Coughran reports...

On November 6, CRC’s Social Responsibility Committee screened and discussed *nourish* as part of our monthly film series in partnership with CRC’s OneBook. In the film, Michael Pollan and Anna Lappé, amongst others, gently encourage viewers to seek out more locally grown, organic, Fair Trade certified foods whenever possible. Pollan’s notion that our government might serve us better by subsidizing the growing of tomatoes rather than corn is presented in a light, tongue-in-cheek fashion. However, the film clearly substantiates the negative impact that maintaining the status quo has on the health of our land, water, and bodies.

*nourish* addresses the loss of diversity among species as well as the environmental damage caused by mono-crop farming practices, issues of which some students had not previously been aware. However, most students readily empathized with the plight of common people around the world who try to make a living growing and picking food for others. Many of the students in attendance seemed inspired to consider their food choices more thoughtfully, and we all enjoyed celebrating the atmosphere of a local farmer’s market and conjuring up the deliciousness of a freshly picked, organic peach, pear, or tomato! ♦

For more information, check out www.nourishlife.org

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**News In Brief**

**Innovate 2014 Coming to CRC**

*Innovate 2014*, Los Rios Colleges’ 3rd Annual Educational Technology Conference, will be held on Thursday and Friday, May 22nd and 23rd, in CRC’s Winn Center. The Sustainability Committee will be working with Innovate chair, Gregory Beyrer, to make this a zero-waste event.

**Green Resolution**

The Sustainability Committee and Classified Senate are partnering to craft a ‘green’ resolution. We will be working to promote sustainable practices from within. If you have an idea of how to improve the CRC campus, we want to hear it. Together we can effect change.