



# CRC's GREEN SCENE

*A bimonthly newsletter of the Sustainability Committee at Cosumnes River College*

## Photography Department Enjoying New Quarters in Winn Center

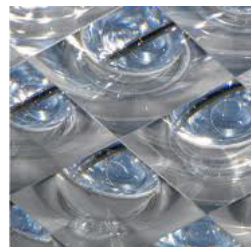
*Jim West reports...*

Wow, what an opportunity of a lifetime for the photo department!

After years of planning, one of the worst economies since the great depression, countless meetings, and many, many, many hours of hard work, the photography department is enjoying its new quarters in the Winn Center in a number of ways.

During my 25 years in a '70s-era building, we struggled to keep up with daily changes in the photographic industry. Now, it is wonderful to be in what may be one of the greatest photographic facilities in the state, especially with its focus on sustainable practices.

Here, we have been able to cut back on the amount of chemistry involved because we have moved to a primarily digital environment. The department does still have a traditional black and white darkroom because both the UC and Cal State systems require knowledge of the traditional processes for transfer. Now, however, chemicals are recycled or, in the case of our photographic fixer, passed through a silver recovery unit, which removes almost all the silver from the fixer to meet State of California standards. (In the old lab, used fixer was picked up by a recycler.)



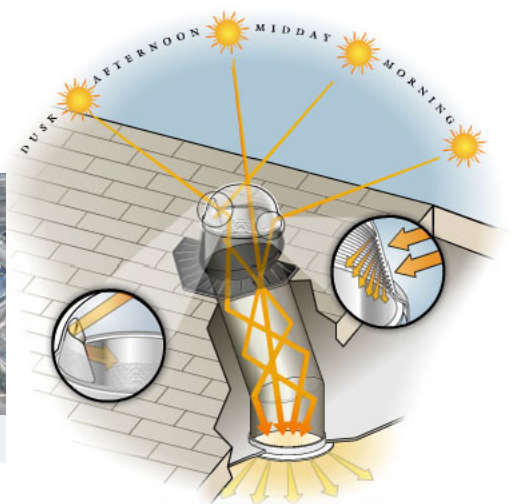
*Solar tube diffuser*

Our water consumption and hot water usage are down, too. Digital photography is simply much better for the environment.

The Winn Center also has the most beautiful natural lighting. In fact, I did not realize how much I had missed having windows until we moved. Now, we hardly ever turn on the overhead lights, but rely on sunlight in the classroom and lab. Solar tubes in the ceiling were designed to light the interior space and are louvered so they can open or close, which is great for teaching lighting techniques. The large windows work well for natural light photography as well.

For me personally, having a window in my office has made a huge difference

*(See Sustainable, Page 2)*



*In a solar tube, reflective material refracts sunlight for maximum illumination throughout the day.*

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## Sustainable Features Suit Photography Department

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in how I feel when I'm there. I now never turn on my office lights unless it is dark outside. And here is something else cool: my colleagues' offices have curtains that shut automatically when the sun hits the building at a certain angle. Thanks to the natural light, the solar tubes, and the motion sensors on the light switches, I know we are using a lot less electricity than before the move.

The color scheme of the rooms is really nice too, calming to students and teachers alike. I have always thought of photography as a way to show how beautiful our natural world is, and the room colors and natural light feel much more

aligned with our sensibilities toward the natural world.

And then there's the exterior. The green landscape around the building is not only comfortable but is also

proving to be a great place for students to photograph and discuss outdoor photography.

The photography labs and classrooms are state-of-the-art, but I also try to remember that we teach our students so much more than just our discipline. The Winn Center enables me to teach life skills with a slant on our natural world. Working in this facility feels like we are helping our planet and our community as well.

Yes, the Winn Center is an amazing building. My thanks go out to all who have worked to make it a signature building for the CRC campus. ♦



*These photos demonstrate different lighting effects: from a solar tube (left) and from one of the Winn Center's large windows (right).*

## Winn Center's Wonder Wheel: A Heating and Cooling Innovation

John Ellis reports...

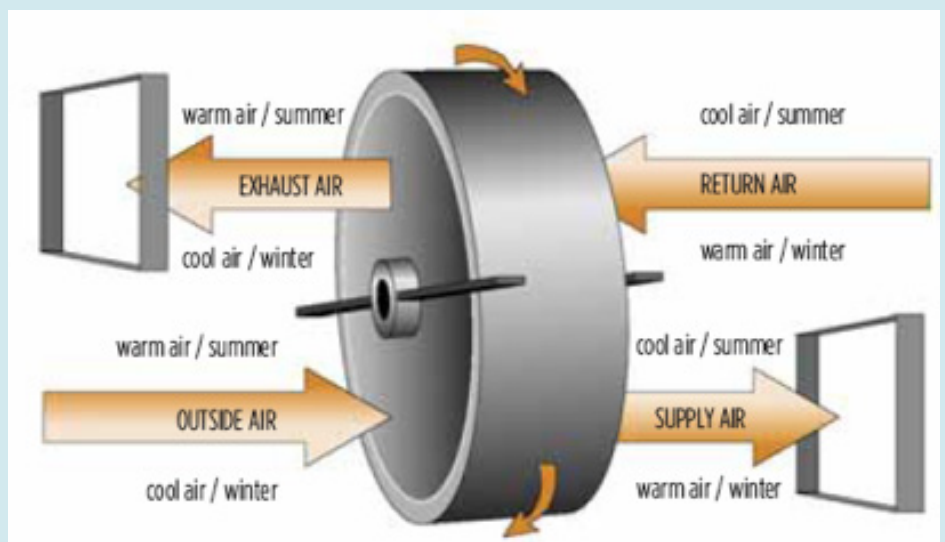
Have you been among the crowds gathered around the Winn Center Enthalpy Wheel, in front of the Careers and Technology Area Office, wondering what this curious rotating disk does?

The wheel is actually a rotary heat exchanger, with high thermal capacity. Air entering and exiting the building through two separate ducts causes the wheel to continuously rotate, as in the diagram.

In the winter, the building's somewhat warm exhaust air is used to preheat the disk so that it can add heat to the cold outside air (to minimize the additional energy needed to achieve a comfortable temperature).

In the summer, it does just the reverse,

using the somewhat cool exhaust air to take the heat out of the disk so that it can temper the hot outside air before it enters the building. You might even call this free heating and cooling. Stop by sometime and see for yourself! ♦



## Water Bottle Filling Stations Prove Popular

Have you seen the new water fountain setup in the Winn Center?

Electrical engineering student Dario Ernest Rodriguez regularly fills his water bottle with cool, filtered water from one of three filling stations located there. (See photo.) While Dario does not have any classes in the Winn Center, he said, "I come for the water. It tastes really good!"

Jim West, photography professor, agrees. "I really like that they have a water bottle refill feature, and when I fill up my two water bottles per

day, the display on the drinking fountain tells me how much I am saving our landfills by refilling the bottles." In fact, as of October 1, according to the volume counter display, the three stations had saved 3500 plastic bottles from going into landfill. ♦



## Going Green to save some Gr\$\$n

*Howard Lewis reports...*

After learning how much money can be saved with the lease of an electric vehicle, my wife and I decided to investigate. My two other vehicles, a '97 Jeep and a 2006 Diesel pickup, were costing us about \$70 and \$120 a week respectively—that's \$760 a month. Ouch! Add to that \$150 dollars a shot for oil changes on the truck, as well as transmission and brake fluids, and the numbers continue to increase.

I checked several sites comparing vehicles and decided that a Nissan Leaf was the best option for us. The lease for the Leaf is roughly \$250 per month, and the maintenance runs about \$200 per year, depending on what they talk you into in the finance department. Insurance wasn't a factor because, no matter the vehicle, it would be a similar cost.

But the Leaf has no fuel costs - nor oil or transmission changes.

While it does require brake fluid and some other mandatory maintenance checks and servicing at 7500 miles, that all costs just \$200, prepaid.

With at least 14 charging stations to select from in the new parking structure and a 48-mile round trip commute, the Leaf works for me and my family. Most of my drive is on the freeway, and when I need to pick my kids up at their school, I have plenty of battery to get there. And if I have errands, downtown Lodi has about six charging stations that are free as of today.

I have charged the vehicle only twice at home since the end of August to make sure I can get to work. And Nissan will come and charge me up if I happen to run out of juice on the freeway, much like AAA will bring a gallon of gas.

I have not even mentioned the incentives being offered, depending on your residence. But going green and saving gr\$\$n are certainly working for my family and me. ♦



*Howard Lewis recharges his Nissan Leaf at one of the free charging stations in the new CRC parking garage.*



## Mexico City – Some Lessons for Sacramento?

*Thomasina Turner reports...*

Mexico City, a metropolis of 21 million inhabitants that generates more than 12,600 cubic tons of trash per day, has instigated three innovative measures to help diminish pollution and waste in the center of the city.

“El Mercado del Trueque” is a barter program held at Chapultepec, the city’s largest park. On the first Sunday of every month, people can exchange recyclables for points, which they use to buy fresh, locally-grown produce at a farmer’s market next door. At least 2,000 people line up every month starting at 6:00AM, and the food is usually sold out by noon.

In six months, the market exchanged 140 cubic tons of garbage for 60 cubic tons of produce. Each month the project sells the recycling it collects to a range of paper manufacturers, glassmakers, and other firms. The market does not break even—the government picks up part of the tab—but it has widely encouraged recycling.

In a second program, VerdMX, a non-profit cosponsored by the government and corporate financing, has created three lush tapestries of vertical gardens in order to help eliminate some of the obstinate pollution created by the five million vehicles that pass through the densely populated city on a daily basis. One garden is planted on the high wall of the patio of a downtown building and another—with 50,000 plants—on a large arch over the most traffic-clogged part of the city. The third

is a four-story-high oxygenating sculpture that stands in the middle of a traffic artery. The gardens are works of art designed to filter greenhouse gasses and capture heavy metals. As well as operating as ingenious air filters, the gardens are also a surprising and aesthetically pleasing addition to the city center’s miles of steel and concrete.

Finally, Mexico City has recently initiated an Ecobici public city bicycle system, with more than 1,000 bikes and plans for more than

100 miles of bike paths. The bikes make easy connections to public transportation and are free after a \$15 deposit that is refunded when the bike is returned.

Sacramento would benefit from considering these ingenious ideas that have proven beneficial to Mexico City. ♦

To see additional photos of the vertical gardens, check out Heather Hutcheson’s blog at <http://shewhodareshothing.wordpress.com/2013/06/05/vertical-garden/>.



*This Mexico City vertical garden comes complete with lawn, shrubs, and even bicycles.*

## Sustainable Destinations: Davis Farmer's Market

*Editors' note: In this continuing series, we spotlight local outings, hikes, or bike rides with a sustainable theme.*

*Christina Ocrant reports...*

Start off your weekend outdoors with fresh air, sunshine, and local produce at the Davis Farmer's Market. This is a destination that a lone shopper or the entire family can enjoy. Rain or shine, the market takes place every Saturday from 8 am – 1 pm, and on Wednesday afternoons from 4:30 – 8:30 pm, in Davis Central Park.

One of the best ways to practice sustainability without breaking a sweat is to contribute to our local economy by supporting our own farmers and sellers. Walking down the aisle of the market, filled to the brim with fresh, seasonal

produce, gives shoppers a sense of community and connectedness. Stop to taste, admire, shop, or ask the grower any questions you may have about their agricultural practices.

When my family and I visited the market, I learned that Yolo Land & Cattle Inc., which sells incredibly delicious grass-fed beef, graze their

cows in the pasture for two full years until they reach full weight, as opposed to feedlot cows that reach weight in six months eating corn, sometimes without ever seeing a blade of grass. I can attest to the quality of the beef, which my family enjoyed later that night with onions and a variety of roasted peppers that cannot be found in a supermarket.

Not to be distracted by the frivolity of shopping, my daughters can firmly testify to the convenience of two playgrounds just steps away from the hustle and bustle of the market. Their radar also spotted a bicycle-powered merry-go-round on the other side of the park. In this platinum bicycle city, where 17% of residents commute to work by bike, a \$1-ride on a human-powered carousel is completely in tune. ♦



## New Greenhouse for Horticulture

*Dave Andrews reports...*

In August 2012, the Horticulture department moved into a new production greenhouse and outdoor area, kicking off the first phase in the development of a state-of-the-art laboratory facility that teaches and showcases sustainable nursery and landscape practices. This first phase of development is expected to take four to five years and will focus

*(See Students, Page 6)*



*In the south bay of the new greenhouse, students practice and experiment with plant growth and production.*



Cosumnes River College Sustainability Committee

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- Julie Elliott
- John Ellis
- Cindy Erickson
- Cath Hooper
- Bob Johnson
- Christina Ocrant
- Julie Oliver
- Andrea Salmi
- Debra Sharkey
- Thomasina Turner
- Linn Violet

Student Members:

- Cesar Aguirre
- Katelynn Rodriguez

Newsletter:

- Cindy Erickson
- Cath Hooper
- Christina Ocrant



We're on the web!

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Students Contribute to New Greenhouse Facility

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Students recycled concrete walkways to create a retaining wall for the bio-swale. The bio-swale and demonstration landscape are slated for completion in Spring 2014.

on installing greenhouse irrigation, tuning the environmental systems, and developing the outdoor laboratory and storage space.

The 5,800 sq ft greenhouse uses a myriad of efficient heating, cooling, ventilation, and shading systems to provide two climate-controlled environments for plant propagation and production. At nearly six times the size of the old greenhouse, the new facility provides the ideal space and environmental capacity for students to learn, practice, and experiment with the science and art of plant propagation, plant growth and production, and integrated pest management. Students are currently working with various greenhouse irrigation systems to establish water-efficient production practices both inside and outside the greenhouse.

Once developed, the outdoor lab area will provide 10,000 sq ft of plant production space, a 3,600 sq ft nursery retailing space, and a specialized area for landscape construction and equipment training. The entire facility is surrounded by

a swale designed to catch and divert water runoff. Students recycled the concrete walkways from the old greenhouse facility to create a dry-staked retaining wall for the main bio-swale in front of the greenhouse.

They will also be developing systems that use natural materials and plants to filter and process contaminants as well as any excess nutrients emanating from the greenhouse and production areas. Over the next few years, students will use 'river-friendly' landscape practices to design, install, and maintain demonstration gardens and landscaping in and around the new facility. (To learn more about river-friendly landscaping see <http://www.msa.saccounty.net/sactostormwater/RFL/>)

Later phases of site development will include the creation of a vegetable/herb production area, a demonstration vineyard and orchard, a green-waste composting site, and possibly a campus community garden area. ♦