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the GREEN OBSERVER

YOUR ENVIRONMENTAL PUBLICATION ON CAMPUS

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THE GREEN OBSERVER

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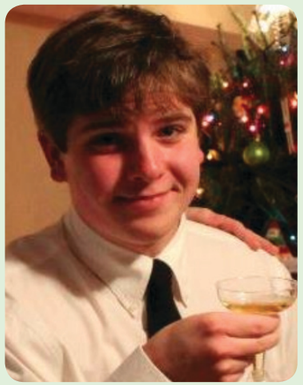
LETTER FROM THE EDITOR andrew nowak



As you are hunkering down in preparation for finals, I'm glad you've taken the time to look at the Green Observer. This issue is filled with some informative articles and great illustrations brought to you by your fellow students.

I've learned a lot just helping put together this issue. The story on permaculture research was something I'd never come across before and was interested to know that it is happening right here on campus. Enjoy finding out about things you'd never heard of before and make sure to get involved!

This is a time of year when people seem to come together. The projects and problems to overcome presented in this issue involve all of us. We constantly hear news on climate change and energy, yet it doesn't seem like enough of a conversation is being had about these real problems. Climate change wasn't even brought up at any of the presidential debates. It would be one thing if all of these problems were just affecting an environment that suffered on its own, but we suffer with it.

Hopefully our stories will keep you informed and interested in issues of sustainability on our campus and beyond. As always, we welcome anyone interested in any aspect of this production to come join us.

Here's to the New Year and your apocalypse preparations,
Andrew Nowak

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EXPLORING THE ILLINOIS ENERGY FARM

by Amanda Sikirica

On October 10th, the Energy Farm, a research plot just south of campus run by the Energy Biosciences Institute (EBI), held their fourth annual open house for anyone interested in taking a look at the research being done on biofuels. Many UIUC faculty and students are involved, including Pat Brown, an Assistant Professor from the Department of Crop Sciences, Rayane Oliveira de Aguiar, a legal researcher from Sao Paulo, Brazil, several professors from the Department of Natural Resources and Environmental Sciences, including Dr. Candice Smith and Dr. Robert Schooley, and visiting professor, Dr. Mir Zaman Hussain.

The Energy Farm has been in place for five years now, and EBI also funds a sister program in Berkley. Thirty percent of the funding for the research comes from British Petroleum (BP), and they have agreed to fund the program for ten years total. The rest of the funding comes from the academic partners; in the case of the Energy Farm, the University of Illinois. The two main focuses of EBI, and by extension the Energy Farm, are cellulosic biofuels (non-food plants) and fossil fuel microbiology. EBI's mission is to "find sustainable, economically viable, environmentally responsible options for the next generations' energy needs", according to their website.

The main plants researched include sorghum, Miscanthus x giganteus, switch grass, 22-species replication prairie, and traditional corn-soybean rotation. They are all being studied for possible ethanol production, including studies on genetic modification to see how to improve the strains already in existence for different purposes.

For example, Pat Brown is focusing on sorghum, a tall-grass plant native to Africa. His research is primarily focused on genetically developing improved varieties, mapping and understanding sorghum genes linked to variations in traits like drought resistance, biomass, and more, and finding out how to use sorghum as a genetic system useful to studying other biofuel plants like Miscanthus.

Especially in light of this past summer with drought conditions that severely affected agricultural yield, Mr. Brown's research in this drought resistant biofuel is extremely relevant. Brown explained that sorghum is considered a transition crop for farmers who would like to grow biofuels that are more profitable than corn. Though all of the grasses mentioned above require similar agricultural practices to traditional corn and soybean, sorghum is closest because it must be planted every year, while Miscanthus will come back every year if some of the plant is left.

Dr. Candice Smith and Dr. Robert Schooley of UIUC, in collaboration with Dr. Mir Zaman Hussain, are studying one acre plots of Miscanthus, prairie, switch grass, and corn soybean rotation, each professor with a different focus.

Dr. Schooley is looking at the vitality of wildlife in each of the plots through many indicators including traps and observation.

Dr. Hussain has set up micrometeorological towers, or small towers measuring air flow and the particles in the air, which specifically measure carbon dioxide and nitrogen fluxes along with precipitation. These measurements help show how much carbon is stored in the plants, and how much water they require.

Above: various types of cellulosic biofuels are on display at the Energy Farm research site. Photos by Amanda Sikirica

Dr. Smith focuses on the nitrogen, carbon, and water cycles related to each of the plots in order to gage each plant's need and to see which nutrients it uses most efficiently.

On the more humanitarian side of biofuel and sustainability research, Rayane Oliveira de Aguiar is studying sustainable biofuels policies in Brazil, specifically the largest state of Sao Paulo in the south. Brazil is a world leader in ethanol production and innovation, so it is fitting that a study like this is located there. The issue that is driving Ms. Aguiar is the gap in political power between the small farmers, who grow 70% of the sugarcane used as biofuel, and the industrial-scale producers of ethanol, who control 80% of the production of ethanol. This gap provides for the possibility of corrupt policy leaning towards those with a louder monetary voice, which are the producers. Aguiar's goal is the develop an analysis from which Brazilian government can address regulatory shortfalls and foster more sustainable practices, as well as increase the amount of legal research in the field of sustainability in Brazil.

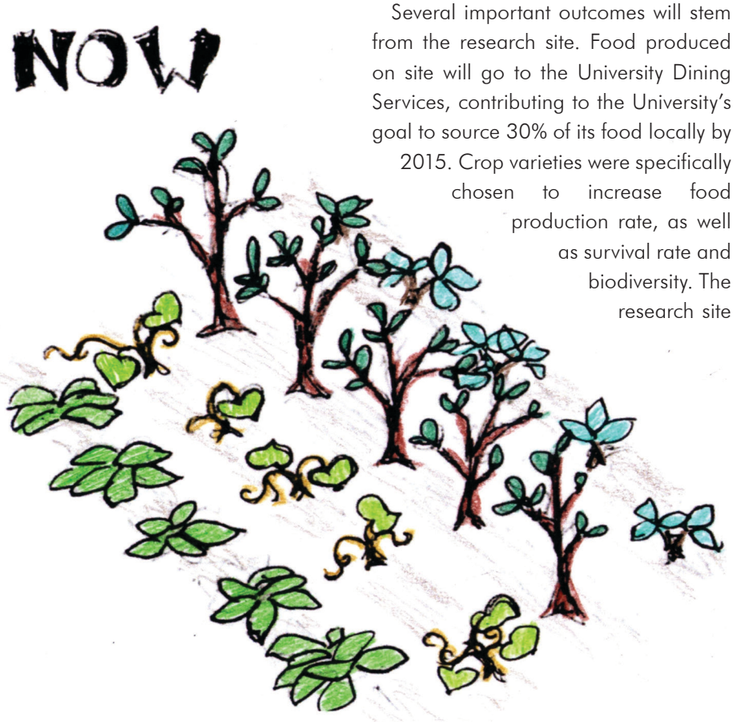
For more information on these research projects, search for EBI and UIUC's Energy Farm, or visit the fifth floor of Turner Hall on the South Quad to read information on UIUC's research there or talk to one of the above professors in person.

PERMACULTURE RESEARCH COMES TO ILLINOIS

by Abigail McEwen

Late last spring, University students and faculty planted hundreds of crops in the area directly east of the Student Sustainable Farm (SSF), marking the beginning of the Restoration Agriculture study.

While small sections of this young and ambitious research site resemble the standard Midwestern landscape of corn and soybean, this vision of monoculture is interrupted by the addition of woody perennial plants. Rows of apple trees grow above hazelnut bushes, while raspberry plants crawl in their shade. Currant bushes grow underneath young chestnut trees, while grape vines crawl up the apple and chestnut trees throughout the site.



Although they seem exotic against our current backdrop, these plants are actually a recreation of the Oak Savanna, the native ecosystem that once thrived across the Midwest. More importantly, these plants are part of an alternative system of agriculture known as perennial polyculture, or permaculture.

In this system, multiple varieties of plants, each coming back every year, grow in harmony with each other. While it may seem inharmonious to have these two different systems in such close proximity, they are both integral parts of the Restoration Agriculture study.

Several important outcomes will stem from the research site. Food produced on site will go to the University Dining Services, contributing to the University's goal to source 30% of its food locally by 2015. Crop varieties were specifically chosen to increase food production rate, as well as survival rate and biodiversity. The research site will also provide education and outreach opportunities for the University of Illinois and the greater community, integrating university classes and research, and providing established farmers with field days and extension services.

The site also has the potential to change our greater university culture. Kevin Wolz, the undergraduate researcher leading the Restoration Agriculture project, says that even though the University of Illinois is a land grant institute with an agricultural core, issues of agro-ecology and sustainability have been largely ignored in favor of research on corn and soybean crops.

"Not only do we hope that the site will provide new opportunities for professors and students, but will also help shift the culture of the university towards a more progressive and proactive approach to agriculture," said Wolz.

This project also represents the first attempt to conduct a large-scale, quantitative study of the ecological impacts of woody perennial polyculture, providing crucial scientific data for researchers and policy makers. The alternate system offers many environmental and economic benefits, and Wolz seeks to add to the shortage of current existing research. Woody perennial polyculture mimics native ecosystems, thus recreating a system of plants that are adapted to thrive and flourish without extensive amounts of external support. Seven layers of different plants work together to create a sustainable and productive ecosystem. Over time, it is hypothesized that these systems can produce a higher edible yield, sequester greater amounts of carbon, improve soil quality, foster higher levels of biodiversity, and generate greater profits for farmers.

Dr. Bruce Branham, advisor for the study and faculty coordinator of the SSF, explained the many environmental advantages of permaculture.

"With our climate system changing rapidly, the advantages of permaculture are more pronounced," said Branham. "Permaculture will require lower energy inputs while sequestering significant amounts of carbon."

Branham, whose research includes pesticide fate, also believes that the increased diversity of a permaculture system may lead to a decreased use of pesticides, noting that "hundreds of acres of a single plant leads to disease, insect, and weed problems that are often treated with pesticides."

This summer, they worked to keep the plants alive throughout the extreme drought. Remarkably, over 90% of the plants survived.

On a chilly October afternoon, I had the opportunity to tour the research site. Against the backdrop of a bleak and dreary day, these plants seemed impossibly small and young, with the largest barely reaching my waist. Despite this, I could only see what the site might look like in the future. Chestnut trees will tower over the site while grape vines crawl up their sides. Thick hazelnut bushes loaded with nuts and raspberry patches will cluster along the canopy floor. Bees and other pollinators will buzz through the site. Meanwhile, in the campus dining halls, happy students will feast on food from the green and lush ecosystem.

images by Ana Beiriger

ELECTRIC VEHICLES HIT THE ROAD

by Olivia Harris

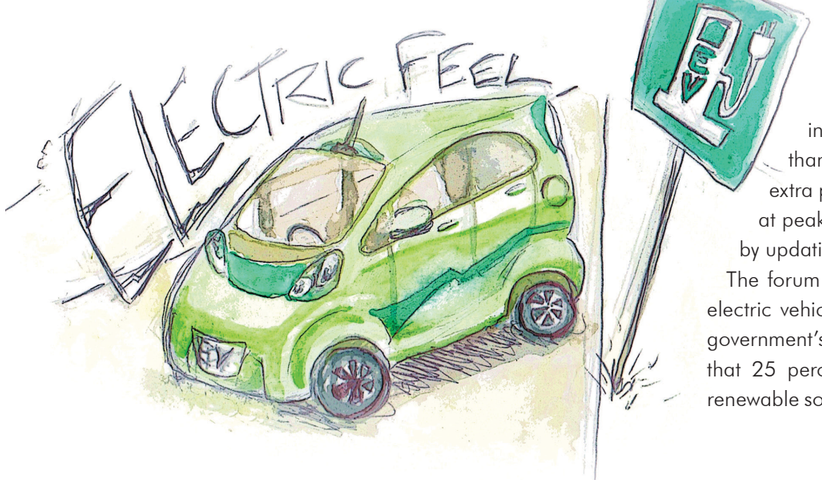
When was the last time you filled up your car with gas? Yesterday? A few days ago? Last week? Last month? For an increasing number of drivers, the last answer is becoming common. Why? These drivers are the owners of electric vehicles.

Electric vehicles were once exclusively the rides of hardcore environmentalists and technology nerds, but they are gaining popularity with mainstream consumers in recent years as the American public becomes savvier about limited energy sources and sustainability and as rising gas prices place pressure on Americans' budgets.

The benefits of electric vehicles seem endless; they provide excellent gas mileage and decreased vehicle maintenance costs for the driver and reduced dependence on foreign oil and lower carbon dioxide emissions for the nation.

Before American's flock to dealerships to buy electric vehicles, however, they must answer some important questions: What is the best type of electric vehicle for me and my lifestyle? How far can I drive on a single battery charge? Where can I recharge my vehicle? Will my increased electricity consumption affect others?

In order to answer these and other questions consumers in the state of Illinois have about owning an electric vehicle, the American Lung Association sponsors the Drive Electric Illinois initiative, which hosts informational forums throughout the state about the opportunities and obstacles associated with electric vehicles. On October 23, the Electric Vehicle Forum came to the IHotel in Champaign, just in time for sustainability week. At the forum, speakers from vehichle testing fascilities, car manufacturers, energy companies, and the Illinois Transportation Department came together to share their knowledge about electric vehicles and visions for the future of electric motoring.



Henning Lohse-Bushe, principal research engineer at the Argonne National Laboratory, spoke about history of electric vehicles. "Thanks to laptops, cell phones, and super devices, new technology has come about, the lithium ion battery technology, naturally kind of allowing the breakthrough. There was a wave in the early 90's… and resurgence in the late 2000's with lithium ion technology allowing higher energy density so you're really reaching ranges [and performance levels] that are quite respectable" He said.

Representatives from Ford and GM were present at the forum to share how their companies are building upon the latest developments to create a competitive car. "The Chevrolet Volt tries to feel like a 'normal' car, not an 'eco-box.'" Said GM representative Rich Moore, "[Consumers] don't want to learn to use a new operating system." In order to feel like any other car, when electric vehicles are plugged in to charge, the motion is just like filling a car with gas. A panel opens on the side of the car to expose a plug where the cord is attached.

To provide more information about charging electric vehicles, Norman Reed of Ameren Illinois was on hand at the Forum. According to Reed, there are three levels of charging: 110 volt and 208-240 volt chargers for in-home garage use, and the DC Fast Charge, which can be found in public places to charge vehicles in less than an hour. Reed confirmed that all this extra power can be taxing for the electricity grid at peak times, but that relief can be easily found by updating and upgrading local energy systems.

The forum closed with remarks about the future of electric vehicle adoption in Illinois. The Illinois state government's Renewable Portfolio Standard states that 25 percent of Illinois' energy must come from renewable sources by 2025. Recognizing the important role electric vehicles can play in reaching that goal, Governor Quinn created the Illinois Electric Vehicle Advisory Council in July 2011. This council meets monthly and makes suggestions for action to aid the adoption of electric vehicles.

The University of Illinois at Urbana-Champaign also recognizes the importance of electric vehicles in the future of driving, and is prepared not only meet Illinois' standards for cleaner energy, but to surpass them. The university's 2010 Climate Action Plan states that transportation emissions on campus will be reduced 50 percent by 2025, electric vehicles playing a great role. Even before this goal was outlined, Illinois has been working to reduce its emissions and fuel use. In 2008, eight electric cars formed the beginning of the University of Illinois' "green fleet." Today, the UI Fleet has more than 30 hybrid vehicles, two of which are Chevrolet Volt EVs. "The University is pursuing several efforts to encourage the use of low-emission vehicles on campus, both with the University's fleet of vehicles, and in the personal vehicles of students, employees, and visitors." says Morgan Johnston, transportation and sustainability coordinator for University Facilities and Services.

Electric vehicles are growing in numbers in garages from coast to coast as well as in commercial fleets of taxis, company cars, and service vehicles. Electric vehicles are clearly a trend that is here to stay.

image by Allie Mendelson

ENVIRONMENTAL PSYCHOLOGY CLASS GROUP HELP RESIDENTS TERRACYCLE

by Emily Cross

We all know that it is good for the planet to recycle, but it is extremely difficult to actually get people to do so. In Professor Ming Kuo's course called Environmental Psychology, students were taught principles on how to get people to do the right thing, and were put into a semester-long group project during which students applied these techniques to the real world.

One of these projects, comprised of graduate students John Jurevis and Nori Washitake and undergraduates Julie Carlson and Nick Musso, involved kicking recycling up a notch through a process called TerraCycling. The group worked with Resident Advisor Sarah Vorreiter of the Sustainability Living Learning Community (SLLC) in Lincoln Avenue Residence (LAR) to expand the floor's TerraCycle Program.

TerraCycle is a New Jersey company aimed at making consumer products from materials that cannot be recycled. RA Sarah Vorreiter explained that TerraCycle is better than traditional recycling programs. "The TerraCycle Program offers a valuable opportunity for students to rethink the concept of waste and allows them to go beyond the traditional 'reduce, reuse, and recycle' mentality," said Vorreiter. "It is programs like these that have the potential to shape students' habits going forward."

To make the TerraCycle Program on the floor more effective, the group recommended that the SLLC supply each room with their own individual TerraCycle bin, because studies have shown that without bins people are significantly less likely to recycle. But instead of purchasing these cardboard bins, the group turned to the LAR Dining Services right next door.

Rhonda Hughes, a clerk with the Housing Division, volunteered her time to collect cardboard boxes from shipments they received, saying that "It feels great to be able to help students beyond the dining hall -- it is an extra bonus to make an environmental difference." The distribution of the bins took place in early November and the group predicts a substantial increase in TerraCycling within the SLLC. Word has spread to other RAs in LAR and plans are under way to implement TerraCycling on other floors.

The steps taken by this group shows it is easy and rewarding to use basic psychological principles in order to be a catalyst for environmental change.

SUSTAINABILITY IN NEW ZEALAND

by Chloe Mattia

Studying abroad is one of the greatest opportunities for a college student to go out and experience life in another country. Spring of 2012 I traveled to just about the farthest location possible from home: New Zealand. As an environmental science major, it was New Zealand's amazingly diverse landscape that made me want to study abroad there. New Zealanders, AKA Kiwis, have a special appreciation of the value of their land. I set out to learn as much as possible about how another country manages its resources, and how the culture influences environmental policy.

My travels started from Lincoln University, where I lived and took classes for the semester. It was the perfect location to travel from. A two hour drive in whichever direction could take me skiing, hiking, surfing, or swimming in hot springs. The mountains and lakes are truly breathtaking, and hiking was my favorite thing to do while I was there. What really made the experience memorable were the people I was able to make the journey with. I loved meeting students from all over the US, Europe, and South America. I am so grateful to the Kiwi friends I made while abroad. The local atmosphere was relaxed and friendly, with great quirky culture- a culture that showed me another way to study the environment.

Environmental and cultural differences that I noticed:

- There are no huge food processing plants. Local food is easier to find.
- All of their eggs are brown with almost orange yolks. They weren't refrigerated in the grocery stores.
- Each room typically has just one outlet. Each outlet has an ON/OFF switch.
- Every toilet is the low-water use type.
- All the light switches on campus have "save energy" reminders.
- Reusable containers are more popular.
- Most cars are manual and compact.

Reflecting on the difference between New Zealand and the United States, size is an important factor and I grasped that size influences our resource management. There are different levels of organization such as state and federal, and resources have separate agencies. In New Zealand the Resource Management Act is an all-encompassing piece of legislation that governs nearly all aspects of New Zealand's environment such as land, water, waste, and even tourism. This unified and hierarchal system starts with set national environmental standards that regions and districts must meet. All new activities, whether for agriculture, waste, energy, or transportation are denied until given consent. Any current activities are regulated by monitoring programs. State of the Environment reports are also done by each regional district. Overall I felt this system was simple, very effective, and relatively easy to understand. In the States, I can't say I have as clear an understanding of what, why, and how we manage our natural resources.

Traveling to New Zealand has altered my perspective of the world to encompass more. The culture of New Zealand is very connected to its land and resources, and I can understand more fully the concept that everything is related and interconnected. I am also more open minded and outgoing; qualities that can have helped me be more inventive academically and seek out new opportunities.

photo by Chloe Mattia

BRING YOUR OWN BOTTLE?

by Eric Green

Ever meet that person that remembers the day when kids used to collect bottles? They often like to mention how they would collect enough, and get a return, to buy more soda or candy. These days, there is a familiar *klink* associated with another bottle being thrown into the trash at the bar. So what changed that a glass bottle is viewed as a disposable item rather than a container to be reused?

The economist in me would suggest that the cost to manufacture a bottle became less than the cost of a program to clean and reuse the bottles. However, a part of me believes that the bottle has become a marketing tool. Most bottles have a distinct label, but bottles have even begun to incorporate specialty features. Miller has a swirl effect to their bottle. Sam Adams and New Belgium often have their company name embossed on the bottle. I couldn't tell you which came first, the bottle becoming a marketing tool or being thought of as disposable, but I find it hard to believe that a brewery would accept an old bottle and fill it with their beer if it had another company name on it. So their only choice is to recycle it.

What most people don't know is that recycling haulers actually don't make money on glass, so most glass waste is trashed (some haulers will recycle it but will not make money on it). The reason they don't make money on the glass is because most recycling has become combined use. This means you can throw all of your recycling in one bin and the hauler will sort through it for you. The problem with glass is that it shatters. Because clear, green, and brown glass are prevalent, the colors become mixed and there isn't any market for mixed color glass.

Since I'm not about to reduce my beer consumption any time soon, I've got to figure out a way to allow my beer-lover and environmentalist to get along. Homebrewing offers the unique position of crafting one's own beers, sourcing the inputs, and using any container. When I first started brewing, I bottle fermented my beer. I would save all of the bottles and go through a process of cleaning them to eventually use them as my own. A few things to keep in mind when doing this: failure to clean can mean death, removing old labels is a pain, and twist off bottles should not be reused. I've since moved onto kegging because the process of cleaning the old bottles (particularly removing the labels) was so time consuming. I've read that a non-toxic, cheap, natural adhesive remover is cooking oil, but I've not tried this.

I'd like to see a movement happen. Let's only drink beer from brown bottles! Bottle color can alter the flavor of beer (and I know a few people who actually enjoy the "skunky" flavor from green bottles), but is that flavor really worth all the waste it can create? That's not going to stop all the clear vodka bottles from mixing in, but it might be enough of a start to send a message to brewing companies. It's not the embossed lettering on the bottle or the fancy label, but what's in the container that's important.

NEW URBANISM EXPLAINED

by Catherine Kemp

The current characterization of suburban America could probably be summed up with one word: sprawl. This development of land that reaches far beyond traditional city cores is evident in Champaign and Urbana in the single-use subdivisions and big-box stores on the outer fringes of the communities. Some of the problems associated with sprawl include the destruction of undeveloped land, economic decline of cities, and the promotion of a car culture that in turn promotes obesity and that releases millions of tons of carbon dioxide into the atmosphere every year.

Various urban planning movements have objectives to combat sprawl. One such movement is New Urbanism, which emerged in the 1970s and 80s. The Congress for the New Urbanism, the leading voice for the movement, was founded in 1993 by a group of architects who wanted to improve neighborhoods while working against the conventional methods of development that fostered spread-out, inconvenient, low-density living.

According to the charter of the Congress for the New Urbanism (CNU), the key characteristics of New Urbanist communities are livable streets arranged in compact, walkable blocks; a variety of housing choices to suit all income levels; schools and stores within walking, bicycling, or transit service; and architecture and landscape design that celebrate local history and ecology. It is a holistic approach to solving many of society's problems such as poverty, health, and the environment.

These characteristics all support one of the core values of the founders of New Urbanism: sustainable design. Communities designed by New Urbanist planners are compact and public-transit oriented, meaning that schools, shopping centers, and other destinations are within walking distance or easily accessible by a reliable network of buses. The main objective of this design is to decrease car usage and the amount of greenhouse gases emitted by a community.

Sustainable design also includes location of the community. New development is preferably located on already urbanized land and the boundaries of the town are determined by geographic characteristics such as farmland, watersheds, and topography. New Urbanist planners also protect sensitive forests and wetlands and avoid development in locations that induce heat islands, which describe urban areas that are hotter than their surroundings.

Multiple other environmentally friendly initiatives have been implemented in New Urbanist communities across the country. Renewable energy sources are utilized; building materials are chosen for their durability and are mostly locally obtained, recycled, or salvaged; light and noise pollution are minimized.

One of the main initiatives of the CNU regarding sustainability is LEED for Neighborhood Development, or LEED-ND. LEED stands for Leadership in Energy and Environmental Design. A program of the USGBC, LEED provides third-party verification of green buildings that have low operating costs, reduce waste sent to landfills, conserve energy and water, reduce greenhouse gas emissions, and are healthier for occupants. For the LEED-ND program, these standards are applied on a larger scale.

The CNU partnered with the U.S. Green Building Council (USGBC) and the Natural Resource Defense Council (NRDC) to devise strategies for sustainable communities through this program. According to the website of the CNU, "LEED-ND integrates the principles of New Urbanism, green building, and smart growth into the first national standard for neighborhood design, expanding LEED's scope beyond individual buildings to a more holistic concern about the context of those buildings."

At the moment, Champaign and Urbana would not be considered to be completely New Urbanist communities. However, the New Urbanism school of thought extends beyond merely planning entire communities. According to its charter, existing towns can adopt New Urbanist methods to become more sustainable.

The city planning department of the city of Champaign has implemented various measures that are in line with New Urbanist principles. The "Champaign Tomorrow" plan, found on the City of Champaign website, outlines some of these new measures. Bike lanes have been created on Curtis Street, State Street, Randolph Street, Logan Street, and Fourth Street. In addition, the Safe Routes to School program will create a safe walking and biking environment for schoolchildren that will reduce the need for cars. Infill development is promoted to decrease sprawl and development on the outskirts of Champaign, and sustainable buildings are encouraged through incentives that allow for higher density if the building meets LEED standards.

image by Madeline Schuette

Sustainable New Urbanism initiatives such as these have the ability to fight sprawl, decrease greenhouse gas emissions, and create healthier communities when they are implemented in Champaign and other cities across the country.

BILL MCKIBBEN TOUR REACHES CHICAGO

by Andrew Nowak

Bill McKibben brought his "350: Do The Math" tour to Chicago the last Tuesday of November. Students for Environmental Concerns and Green Observer were in attendance at the presentation that included groups from other colleges, from Loyola and DePaul to IU and Notre Dame. McKibben called attention to a new campaign that climate activists are launching in order to end the fossil fuel industry and ensure the vitality of our planet.

The divestment campaign calls for colleges, churches, and other institutions to begin ending their relationships with the fossil fuel industry. He framed climate change as a moral issue, with the potential to drastically alter the way humans can survive on the planet.

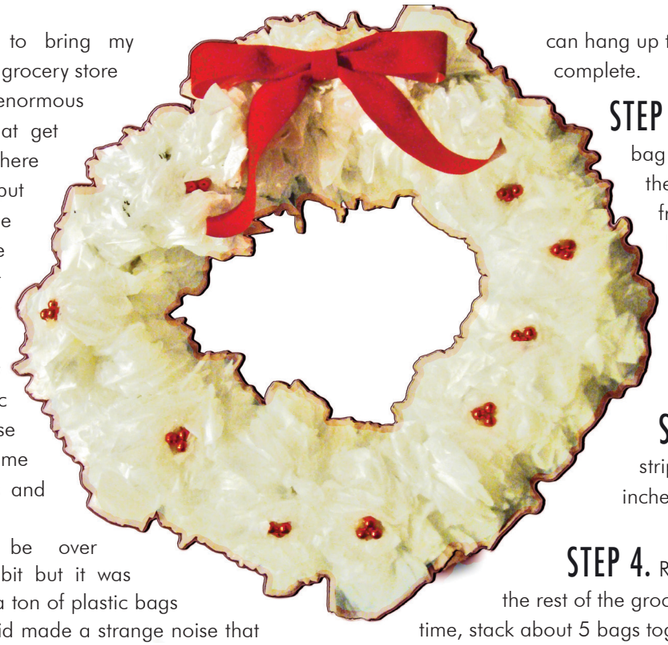
The strategy mirrors the 1980s campaign to divest from the apartheid South Africa, which had a resounding success. A video message from Desmond Tutu drew parallels between the two campaigns.

UIUC currently doesn't have direct investments in fossil fuels, but it is imperative that the University of Illinois consider placing all of its endowment money in morally sustainable investments. Check out SECS's Divestment committee Wednesday nights at 6:30 pm at the University YMCA to get involved.

GIY: GREEN IT YOURSELF

PLASTIC BAG WREATH

by Anna Franco *Photo by Anna Franco*



Sometimes I forget to bring my reusable bags to the grocery store and I am left with an enormous pile of plastic bags that get shoved under my sink (where else are you going to put those things?). One day, whilst doing the dishes, I grabbed for a sponge from under the sink only to be literally bombarded by flying monstrous plastic bags! The force of these synthetic fiends made me topple over backwards and call out in fear! Arrrgh!

Okay….. I may be over exaggerating a liiiittle bit but it was quite shocking to have a ton of plastic bags pop out at you, and I did made a strange noise that evoked a look of concern on my roommate's face. Something had to been done (about the plastic bags, not the roommate relationship). This chilly weather is great for staying indoors and doing crafts, and you know what is great for crafts? PLASTIC BAGS! It was a perfect solution. I was able to use up most of my plastic bags to create a festive holiday wreath. Reduce, reuse, recycle! Here are instructions on how to make your very own plastic bag wreath.

WHAT YOU WILL NEED:

- About 50 white plastic grocery bags
- 1 wire hanger
- Scissors
- Ruler

STEP 1. Bend the hanger into a circular shape by pulling the bottom edge of the coat hanger. Leave the hook so you can hang up the wreath when you are complete.

STEP 2. Flatten out one plastic bag and cut off the bottom of the bag about ¼ to ½ inches from the bottom. Cut off the handles of the bad to make a rectangle. Cut out the logo so that your wreath does not contain other coloring.

STEP 3. Cut the bag into strips approximately 1 ½ inches wide.

STEP 4. Repeat steps 2 and 3 with the rest of the grocery bags. To reduce cutting time, stack about 5 bags together when cutting the rectangular bags into strips.

STEP 5. To assemble, tie 2 strips at a time around the wreath form and double knot. Center the knot on the coat hanger so that an equal amount of the plastic bag strip extends from either side of the coat hanger. Push the strips to one side of the hanger as you continue to add more strips. Add strips to the coat hanger until hanger is no longer visible beneath the strips and the wreath is as full as you would like it.

STEP 6. Decorate! Add plastic berries, bows, and other accessories to your wreath to give it your own style!

STEP 7. Use the curved hook at the top of the hanger to hang the wreath on your door or within your home!

GREEN QUESTION? ASK CAIT!

Dear Cait,
I want to wrap my holiday gifts with something festive but I hate all the paper waste! Any ideas on how I can be green with my gifting this season?
Sincerely,
Wannabe Green Gifter

Dear Wannabe Green Gifter,

Going green with your wrapping is a cinch. It's easy to be eco-friendly without sacrificing the pizzazz and pop of conventional wrapping techniques!

First, head to your recycling bin and grab a handful of newspaper. Look for pages that are full of text, with minimal pictures. If you want, add some festive drawings to the newspaper pre-wrapping. Use these sections to fully wrap your gift. Use a strip of newspaper to fashion a bow to place on the top of the gift.

Want something with a little more pop? Use old, outdated maps for an interesting wrapping paper substitute. Don't forget to add a bow!

No maps lying around? Use a spare piece of fabric to wrap your gift. If you don't have any spare fabric lying around, head to the fabric store and buy some fabric with a wild, fun print. This has the added bonus of an extra gift for the gift receiver, which they might use again down the road for wrapping some of their presents.

Not interested in using fabric? Use those brown paper bags you've been storing for years to wrap your gift (plain side facing out). Embellish with drawings and shapes, or wrap yarn or ribbon around the present a few times. Garnish the present with a cutout star from a spare piece of cardboard for a nice decorative touch.

If tape and wrapping frightens you, why not use those gift bags you've been hoarding all year from birthdays and other holidays? Cut up old seasonal cards and use these to decorate these bags. Add a garnish of newspaper to poke out the top of the bag and, voila! A beautiful, green wrapped gift.

When it comes time for present opening, be sure to recycle the leftover paper by throwing it in the recycling bin, or save it for next year. Who knows, maybe that used wrapping paper could make a great addition to a craft later in the year!

Enjoying greening your holidays this season,
Cait

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