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Columbia River PDX Green Living Journal No. 6 Fall 2009
Lorax Redux
by Gary Munkhoff

Reading to your children when they are very young is, in my opinion, one of the essential duties of being a responsible parent. But let’s face it, the material is just not meant to stimulate the adult mind. At least that was this parent’s fate until the kids found the clever and timeless humor of Dr. Seuss. His *Green Eggs and Ham*, *The Cat In The Hat*, and other stories not only helped preserve my sanity, but also tickled me to the point where I actually looked forward our nightly reading. The man was an absolute genius as well as a patron saint for us reading parents.

But somehow we missed *The Lorax*, thereby forever depriving my three offspring of an early introduction to the environmental issues that were racing headlong towards us in the 70’s.

At the time I was involved in the reforestation efforts going on in the clearcuts that were popping up on federal, state and private timberland all over the northwest. *The Lorax* was definitely right up my alley, so to speak.

But thanks to the wonders of computers and the internet I recently discovered the tale of *The Lorax* and would like to offer a short passage from it as food for thought for all of us as we strive to improve our world.

Here’s a quick setting of the stage for those who have not read the story:

The Once-ler, who owns the Thneed factory, is watching the furry little creatures known as the Brown Bar-ba-loots leaving for parts unknown because their local food source has been wiped out by the expanding factory’s need for more and more raw material.

“I, the Once-ler, felt sad as I watched them all go. BUT...business is business! And business must grow regardless of crummies in tummies, you know.

I meant no harm.
I most truly did not.
But I had to grow bigger. So bigger I got.
I biggered my factory.
I biggered my roads.
I biggered my wagons.
I biggered the loads of the Thneeds I shipped out.
I was shipping them forth to the South! To the East! To the West! To the North!
I went right on biggering... selling more Thneeds.
And I biggered my money, which everyone needs.”

Well there you go folks, in a few short lines, Dr. Seuss manages to sum up the efforts of the generation that came of age in the 50’s and who had an outlook on the world that was shaped by the material shortages of WW II and the promise of unlimited growth spawned by the dawn of the nuclear age. And so, we ventured forth and “biggered”
not only our businesses, but our homes, our highways, and, more recently, our appetites and our own bodies. Even though we meant no harm, we certainly “biggered” our footprint and our impact on the world around us in ways and on a scale that were unimaginable 50 years ago.

Published in 1971 during the “Wake Up, America!” era, Dr. Seuss did a clever job of calling attention to industrial pollution and disregard for the environment and kudos are certainly in order. However, almost 40 years later we have to face the reality that pointing fingers at industry and government while demanding changes will not, by themselves, solve our environmental problems nor clean up our world.

The solution lies much more with the millions of you and me’s that everyday consume more goods and services than ever before in the history of civilization. We have to take responsibility for how our daily purchases power those dynamic forces that can either continue the eco-destruction of the last 100 years or strengthen the eco-healing that is just beginning. Doesn’t matter how big or small what you are buying is, make a wise choice by taking the time to do your homework and choose to lessen your impact. Forget what the Joneses are doing.

Buying a house? In addition to price, size, location and such, take a close look at its orientation in relation to the sun for the potential for solar hot water, photovoltaic cells, or passive solar projects in the future. Same holds true if you are going to build new or remodel your present home. Maybe wind power.

Buying a car? With an average of over 2 cars per American household shouldn’t one of them be a hybrid? Or better yet an all electric one. And yes, there are inconveniences, but they will be temporary as technology advances the capabilities of the various components.

Bagels? Paint? Tools? Shoes? Lattes? Whatever. Think about it. We can do better. We have no choice.
Local Notes

Tom Dwyer’s Electric Vehicle Tech Team

If the market for electric cars is in its infancy, then the maintenance of electric cars is just a glimmer in a mechanic’s eye. Standard internal combustion cars have a massive infrastructure to support them: dealers and repair shops to provide service, outlets to supply parts, schools to train technicians, massive books documenting the details of every electrical and mechanical system, even junkyards to supply out-of-production parts. On the other hand, if you buy one of the current electric vehicles you get little more in the way of support than good wishes. Dealers don’t repair their products, parts aren’t readily available, and there are few diagnostic reference materials. EV owners are reduced to finding a mechanic (who usually has little experience with EV’s in the first place) and coming in with armloads of parts kits and Xeroxed instructions they’ve ordered online.

There is at least one team of techs in Portland that works on electrics, and you can find them at Tom Dwyer Automotive Services Inc. Here, they think that electric and alternative-fueled vehicles are the future, and that as their popularity increases the demand for quality service will increase as well. Whether it’s optimizing your current vehicle for emissions and mileage, retrofits to run on ethanol or blended fuel, or upgrading the suspension on your new electric, they’ll be there for you. And, as the technology changes they are committed to keeping up-to-date on it so that they can continue to provide a high level of quality and client service.

“Repairing electric vehicles is a lot like boat repair”, says Tom Dwyer, “The parts aren’t even standardized between models, and it takes someone with a deep understanding of electrical and mechanical systems to diagnose and repair the vehicle.”

Tom Dwyer Automotive Services, Inc. is located at 530 SE Tenino St, Portland, OR, 97202 one block south of the east end of the Sellwood Bridge 503.230.2300 or visit http://www.tomdwyer.com

GoGreen 09 Conference

Social Enterprises, Inc. is thrilled to announce the full-day itinerary and speaker line-up for the second annual Go Green Conference, which will take place in Portland on Wednesday, October 7, 2009 at the Gerding Theater in the Pearl District.

Go Green ’09 will present the regional business community with the unique opportunity to learn from over 40 local business leaders, who will share their expertise on a variety of sustainability topics, aimed at giving business owners and professionals new ideas and strategies for increasing sustainability in all areas of the workplace.

GoGreen ’09 will offer participants concrete steps and solutions for making their business more sustainable through interactive panel-style sessions with valuable Q&A opportunities during each topic. The confirmed conference topics for 2009:

- Portland’s Best Sustainable Business Showcase: Learn from Portland’s 2009 BEST Business + Oregon’s 100 Best Green Companies Award Winners
- Electric Vehicles: Investment, Implications and Economic Opportunities for Business
- Social Media and Your Sustainable Message: Maximize Outreach through Online Forums
- Writing Your Sustainability Plan: Develop a Framework and Process to Advance Sustainable Objectives
- Authentic Storytelling in the Age of Green washing: An Interactive Dialogue and Discovery of Fact, Contradiction and Possibility
- Improve Your Sustainability Credentials: Opportunities for Continuing Education and Certification
- Oregon on the Leading Edge: Public and Private Initiatives Creating Economic Opportunities
- Growing Green Ideas: Develop Solid Business Plans to Increase Funding Opportunities
- Hot Trends: Companies Leading the Way
Featured 2009 speakers include Governor Ted Kulongoski, Kate Brown/Oregon Secretary of State, Jeff Cogen/Multnomah County Commissioner, Susan Anderson/Director, Bureau of Planning & Sustainability, Rob Bennett/Director, Portland+Oregon Sustainability Institute, Scott Marshall/Associate Dean, Portland State University, Nik Blosser/Founder, Celilo Group, Carrie Farrar/The Standard, Marsha Willard/Founder, AXIS, Inc, Ruta Stabina/University of Oregon Sustainability Leadership, Charlie Allcock/Portland General Electric, Mark Perry/Nissan Americas, Anne Weaver/CEO, Elephants Delicatessen, Sarah Hall/Wells Fargo, Scott Davis/From the Rooftops, Mark Brady/Oregon Economic Community Development Department, Josh Skov/Principal, Good Company, Colin Sears/Portland Development Commission, Alison Sokol Blosser/Sokol Blosser Winery, Gary Hirsch/On Your Feet, Mike Mercer/Northwest Earth Institute, Clark Brockman/SERA Architects, Michael Jung/Silver Springs, Chris Enlow/KEEN and Jason Graham-Nye/Founder, gDiapers to name just a portion of the line-up.

Full-Day Registration is $150 for a full day pass, $125 with the purchase two or more. Please visit www.gogreenpdx.com for detailed event information and to purchase tickets online.

Contact: Ericka Dickey
events@gogreenpdx.com | 503.969.7852
Clean Air Lawn Care Of Portland Adds Myles Electric Truck

Clean Air Lawn Care provides clean, quiet and organic lawn care. After a great deal of research into the underutilized technology, the business selected electric mowers, edgers and blowers. This year the owners of the Portland franchise have made the investment in a Myles ZX40ST all electric truck to run their routes in Portland. The electricity to charge the truck is generated with wind power.

“This truck is an attention getter, we get thumbs up from people all over town”, says partner Todd Hepp.

Contact: Tom Hepp  
thepp@cleanairlawnncare.com  
503.679.7418

Editor’s Note: Clean Air Lawn Care CEO, Kelly Giard, has been nominated to be Entrepreneur Magazine’s Emerging Entrepreneur of 2009! This is an incredible honor for all of Clean Air Lawn Care and a testament to the changing face of business – a commitment to being green, setting high ethical and environmental standards, and being an example to others.

GreenPDX

GreenPDX is a group of individuals motivated to self-educate on all topics pertaining to sustainable building techniques and technologies. Members of this nonprofit group get together once or twice a month to actually see and touch green homes in person. Rather than just read green home magazines or take formal classes on sustainable building, they enjoy a more casual and social approach to learning.

The group was started in December of 2006 by Amber Turner, a local Portland real estate broker who wanted to give more meaning to her love of home buying and selling, so she combined it with her love of nature by focusing on learning how to make new and old homes more healthy for the environment. Not knowing where to start, and not wanting to wade the new waters alone, she formed GreenPDX as a way to learn with and from others.

Now, two and a half years later, the group has grown to over 415 members. They have had private tours of Solar World to understand the process of growing silicon crystals for use in cells, invited guest speakers to talk on the pros and cons of geothermal heating and cooling, or solar power, and carooled each fall for the Build it Green Tour of Homes.

Varying their focus each month gives each member something to find that suits their learning curve and interests. It allows people a fun opportunity to network, too, as membership is comprised of concerned citizens with varying educational backgrounds, some seeking information, others looking for a contractor with the right set of skills and ethics, and perhaps especially now, some are even seeking work in the sustainability living sector and don’t know where to start. Everyone is welcome!

Contact: Amber Turner  
greenpdx@gmail.com | 503.804.1261  
Website: http://greenpdx.org

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Historically, juniper berries were among the most important herbal remedies used in India, Europe, China, and Native American cultures. Juniper's therapeutic and healing properties have long attributed to its traditional use in teas, tinctures, and salves. The current modes of use include tablets, capsules and more diverse topical products. The list of topical uses includes skin ailments such as minor wounds and insect bites, joint and muscle soreness, inflammation, and tissue fluid retention.

As pointed out by Mr. Cobb (owner of West Coast Juniper Distributing) “The new JUNIPURE™ product line will further illustrate and bring public awareness to the many diverse commercial applications juniper has to offer. This will prove a value added asset to our existing business as well as benefit the statewide development of juniper as a treasured Oregon state resource. As the largest provider of juniper based products we have a special role in the education and promotion of the ecologically sound commercial uses of juniper and the active support of the key initiatives in the Oregon State Western Juniper Commercialization Project.

More Information:
http://www.westcoastjuniper.com
Dept. of Energy Grant Helps Ready Oregon for Zero Emissions

The U.S. Department of Energy has announced a grant for the largest deployment of electric vehicles (EVs) and charging infrastructure ever undertaken. Nissan is supporting the lead grant applicant, Electric Transportation Engineering Corp. (eTec), by pledging to make available up to 1,000 Nissan LEAF zero-emission electric vehicles in each of five major markets. Nissan, through the Renault-Nissan Alliance, is committed to being a global leader in zero-emission vehicles.

The $99.8 million grant to eTec, which will be matched by regional project participants for a project valued at approximately $199.6 million, is for installation of approximately 2,500 charging stations in each of the selected markets – Tennessee, Oregon, San Diego, Seattle and the Phoenix/Tucson region. The project also involves the deployment of up to 1,000 Nissan LEAF zero-emission vehicles in each market.

“This project will enhance America’s leadership role in clean electric transportation and exemplifies the Department of Energy’s strategic foresight and commitment to improving our environment, economy and energy independence,” said Jonathan Read, president and CEO, ECOTality, parent company of eTec. “By developing a rich charge infrastructure in each market, this project will enable a successful consumer experience among early EV adopters and increase market demand for electric transportation.”

Interested in purchasing a Nissan Leaf and participating in the Oregon test program? Go to the Nissan Leaf website: http://www.nissanusa.com/leaf-electric-car

Building

Now, Green Kit Homes, Too
by Greg Pahl

Kit homes offer an inexpensive alternative

Dave Kimball, owner of Shelter-Kit in Tilton, N.H., says, “There are a lot of stories in the news about declines in the homebuilding sector, but we’re doing fine. I think people who might have hired a contractor are now looking to us to save some money. It’s an interesting market right now.”

While not all of the hundreds of kit home manufacturers around the country are experiencing strong demand, many have managed to maintain steady business even in the current economic downturn.
Types of Home Kit Options

Despite the vast array of different packages offered by kit house manufacturers, most kits fall into one of four main categories: domes, timber-frame homes, log homes and panelized houses (plus some hybrid combinations). Steel-frame kit homes are a more recent entrant to the market in a class of their own. But within these broad categories, there is an extremely wide range of products offered, from packages that can be easily assembled without cutting much of anything (a “precut” subcategory), to those that require substantial cutting and trimming on site.

Although there has been a trend in recent years towards larger, customized kit home designs, many in the industry see that trend slowing or even reversing due to the effects of the recession. Kimball says there has been a recent shift toward new “green home” kits.

“A lot of people wanted to know what ‘green’ was, and we realized we needed to formalize the process so they could really understand what was involved,” he says.

Shelter-Kit turned to Rob Pickett of Pickett & Associates of Hartland, Vt., for assistance with that process. Pickett says, “Many kit homes have the potential to provide points towards green building certification as they leave the factory.” According to Pickett, this is because the resource management and efficiency of factory production wastes fewer materials than traditional homes constructed onsite. But in order to receive certification, the home must be assembled and then verified by a third party. Pickett helps companies with that certification process.

Another trend in some kit home packages, especially in panelized homes, is the increasing use of structural insulated panels (SIP) for walls, floors and roofs. The recent inclusion of SIPs in national and international residential building codes has helped to formalize - and encourage - their use. Log homes now have their own standard in those codes as well.

Regardless of the type or style of home, or its main components, it’s important to understand the kit price normally only includes the exterior shell of the house. This is one reason why many kit homes appear to be so much less expensive than a conventional home. Consequently, don’t forget to factor in the cost of finishing the home’s interior (wiring, plumbing, insulation, drywall, trim and fixtures), as well as the cost of land, foundation, utilities, water supply and sewage, which can quickly add a lot to the total project cost.

How to Decide

There are so many choices in the kit home sector that making a decision on which one to buy can be a challenge. In the end, it generally comes down to your personal preference for one style of home. It’s important to evaluate the entire package, the company, the instructions and other documentation as well as the professionalism of the people involved. And don’t forget to ask for references so you can speak with people who have actually lived in a home manufactured by the company you are considering doing business with.

Kit homes offer the opportunity for homeowners to participate in the construction of their own home — and to save money at the same time. If you are handy with tools, self-motivated and well-organized, doing all (or most) of the project yourself might make sense. However, Rob Pickett suggests that in most cases, making use of a trained building professional to ensure the work is done properly will be worth it. “Teaming up with a good builder who is trained in the many different aspects of home construction will ensure more satisfaction in the long run,” he says.

Excerpted from MOTHER EARTH NEWS, the Original Guide to Living Wisely. To read more articles from MOTHER EARTH NEWS, please visit: http://www.MotherEarthNews.com.
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Don’t Paint Your House for 25 Years!
by Dan Chiras

If you’re building a new home, garage, addition, workshop or barn or if it’s time to replace the ancient, weather-beaten siding on your house - consider fiber-cement siding.

Like conventional siding, fiber-cement siding is applied to the exterior of buildings to protect them from the elements. This product comes in a wide range of colors and styles that resemble conventional siding materials, notably stucco, cedar shingles and wood clapboards. It’s made primarily from cement, sand and wood fiber (often a recycled wood-fiber waste product), a combination that results in an extremely durable material.

Fiber-cement siding typically costs a bit more than vinyl siding, but less than stucco. It also outlasts its competitors - often by decades - because it resists many common hazards, including fire, wind, insects and rain. Fiber-cement siding is recommended in all climates, but is ideal for hot, humid regions. No matter how wet it gets, it won’t rot. And because of the cement and sand content, it’s termite-resistant.

Fiber-cement siding reduces maintenance costs because it’s so durable, and it’s less likely than conventional siding to end up in landfills. However, it is an inert material that, if ultimately sent to a landfill, should not endanger the environment.

Although many builders and homeowners are just discovering the benefits of fiber-cement siding, this material has been around for quite some time - nearly 100 years - so you won’t be experimenting with a new product.

Fiber-cement planks made with a wood-grained or a smooth finish are popular. These come in widths of 4 to 12 inches, so you can match existing siding if you’re building an addition or garage. Fiber-cement siding also comes in wall panels with vertical grooves and soffit panels for the underside of overhangs.

Fiber-cement siding can be primed and painted at the factory or on the building site. (Some manufacturers prime all of their products.) Factory-primed and painted siding often carries a warranty of up to 25 years. For those who want to do the priming and painting themselves, manufacturers typically recommend an alkaline-resistant primer and a 100-percent-acrylic topcoat.

If you want to change the color at a later date, no problem. Water-based acrylic paints adhere well. And fiber-cement siding does not expand and contract as much as wood siding, so paint stays in place better. It rarely peels or blisters, reducing maintenance time and cost.

Fiber-cement siding is widely available and can be purchased at home improvement centers and lumberyards. Perhaps the best-known manufacturer is James Hardie. Other manufacturers include CertainTeed, Cemplank and Maxitile.

Installation

Before installing new fiber-cement siding, you’ll probably need to remove all the old siding — a time-consuming, demanding job. You’ll also need to rent a dumpster to haul the waste away. You may be able to recycle old siding or burn it in a woodstove if it’s not painted or treated with chemical preservatives or lead paint.

Applying new siding is relatively simple as long as you have basic construction skills, time and patience. If you don’t have the necessary skills, hire a professional. A good contractor will do the job right and in a fraction of the time it would take a do-it-yourselfer. For those who want to take on this project, start by reading the manufacturer’s instructions and follow them closely. Manufacturers of-
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fer detailed information on their Web sites. If the siding is installed incorrectly, you may end up creating costly problems and voiding the warranty.

Like conventional wood siding, fiber-cement siding can be applied to both wood and steel studs, but it’s normally attached to exterior wall sheathing (oriented strand board or plywood) on top of an appropriate weather-resistant barrier, such as Tyvek. Some fiber-cement products can be applied over rigid foam insulation. You’ll need to install vertical wood furring strips to which the siding will be attached before installing the siding over concrete or concrete block walls. Check the manufacturer’s recommendations for spacing of the furring strips.

Check the manufacturer’s recommendations for placement of fasteners (nails or screws) in relation to the ends and top edge of the plank. Consult wind tables provided by manufacturers for recommendations on fastener spacing, stud spacing and other factors for your area.

What to Watch Out For

Use a circular saw with a special blade that minimizes dust when cutting fiber-cement siding. You also may be able to cut these products with snapper shears or a guillotine-type cutter.

Cut these materials outdoors, in an area away from other people and pets. Anyone in the area should wear a dust mask whenever planks or other fiber-cement materials are being cut or sawn.

When applying new fiber-cement siding, consider installing additional insulation in the wall cavity or over the exterior sheathing. If you add rigid insulation over the exterior sheathing, you’ll have to build out the window and door trim as well.

Check local building codes to determine whether you need a permit to install new siding — and to be sure the job, as planned, meets the requirements. Local building codes may exempt fiber-cement siding from the usual requirement of a water-resistant layer between exterior sheathing and the siding, but it’s a good idea to install building paper.

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The Future of the Home
Assembled by Eric Corey Freed for Natural Home magazine
A few visionaries predict what will happen in green building over the next decade. Their insights are surprisingly full of optimism, creativity and hope.

Panelists:
GIL FRIEND, President and Chief Executive Officer, Natural Logic
PLINY FISK, Fellow, Center for Housing and Urban Development; Fellow, Sustainable Urbanism Center for Healthy Systems Design; Co-director, Center for Maximum Potential Building Systems
DAVID W. ORR, Paul Sears Distinguished Professor of Environmental Studies and Politics and Senior Adviser to the President, Oberlin College; Author of five books, including Design on the Edge: The Making of a High-Performance Building (The MIT Press, 2006)
MICHELLE KAUFMANN, Founder and Chairman, Michelle Kaufmann Designs; Author, PreFab Green (Gibbs Smith, 2009)
SERGIO PALLERONI, Professor and Fellow, Center for Sustainable Processes and Practices, Portland State University; Author, Studio at Large: Architecture in Service of Global Communities (University of Washington Press, 2004)

Natural Home: How do you think housing will change in the next 10 years?

DAVID ORR: There are going to be two major revolutions in the next 10 years. One is that the quality of construction is going to change because of rising fuel costs and an influx of better technology for housing. Building a net-zero house is now a reality.

The second thing is the layout and design of communities. Fuel costs are going to drive people back into inner city areas, and I think suburban sprawl will be a thing of the past. We’re seeing that now.

SARAH SUSANKA: What we now call “green” or “sustainable” design will automatically be part of the mix. Putting in a good furnace or additional insulation will be basics.

SERGIO PALLERONI: Housing will get more regionalized. Too much of housing is driven by prototypes that are supposed to apply nationwide. Increasingly, sustainability is driving us to understand local issues and opportunities, both in how buildings perform and with changing economics.

GIL FRIEND: Housing size will probably shrink, and housing will get more efficient. There’s going to be significant growth in energy-efficient, water-efficient and resource-efficient housing – the markets are going to demand it. We’re already seeing a call for zero net energy footprint homes, and even zero net water homes.

One of the really potentially interesting things happening now is a growth in thinking about how buildings are...
living systems. And not just as boxes plopped on the landscape, but as living systems participating in living systems. Housing not just to zero out its’ impact, but see housing as regenerative element on the landscape. A net producer of value: energy, water, food and enjoying well being.

MICHELLE KAUFMANN: Over the past 15 to 20 years, so many people have been thinking about homes as quick investments, with two-year flips. People have been buying homes, doing the quick remodel (mainly with the priorities of low cost materials that will look good for open house day), and then selling them. We have almost been thinking of homes as disposable. Those days are over (and thank goodness for that!)

People are now thinking about homes as long-term dwellings. This inherently leads to more sustainable choices that are based on long-term costs versus upfront costs, choosing materials and systems that are long-lasting, timeless in beauty, and smart in design.

Natural Home: How should it change?

SERGIO PALLERONI: Housing should focus on local conditions and economies. We're beginning to realize that in some climates certain ideas don't work - and don't necessarily need to work.

GIL FRIEND: Housing should be appropriate to place and tailored to ambient flows of energy, water and air. We need to shift from minimizing damage to how we grow regenerative capacity, resilience and beauty. How do we enrich the experience of people living in the housing? Houses should come alive: living houses and living cities.

MICHELLE KAUFMANN: Some good that can come out of this housing crisis is that what we, as sustainable designers, have been wanting to happen, actually will happen, out of necessity. People are feeling the financial end of the reality that we do not have endless resources (money, energy, water). And that is now going to translate to people wanting green homes out of financial necessity.

PLINY FISK: Housing needs to become adaptive to the region and place, and resilient to diversity of culture and particular family needs. From an industry standpoint it needs to be Designed for Manufacturing (DFM), and industry protocol that forces you to think from the start about how you are going to make something—what the tools are, the manufacturing technique. In the past, this has been very intuitive (i.e. a chisel does this, and a bandsaw that), but because we're faced with such a large housing crisis all over the world, we really have to develop a low-cost, high-performance method of meeting demand. Hopefully, in a truly eco-industrial environment, we will build homes that are understood as much by the users as the designers/engineers. We can no longer afford to one off, popcorn-style a bunch of cool ideas that go nowhere.

Excerpted from Natural Home, a national magazine that provides practical ideas, inspiring examples and expert opinions about healthy, ecologically sound, beautiful homes. To read more articles from Natural Home magazine, please visit: http://www.naturalhomemagazine.com.
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More on the Future of the Home
Interviewed by Stephen Morris

I was at a dinner party Sunday night. The group asked me what will this economic crisis do to future housing trends. In turn, I asked what they think of when they drive by one of those mega-mansions. The response was unanimous: “We used to wonder what they did to make all that money. Now we wonder how long before the foreclosure”

There is a paradigm shift occurring in our culture where modesty, fiscal, and environmental responsibility will be the new status symbols. - Timothy Buckley

Not to be outdone by Natural Home, we asked our own group of visionaries from the extended Green Living family about the Future of the Home:

PATRICK SUGHRUE, Sustainable Building Advisor
Structures Northwest, Vancouver, WA
http://structuresnw.com

“We will be doing deep energy retrofits on the existing housing stock adding windows that provide double the current R-value along with NailBase to the exteriors walls. New construction will need to move up to Passive House, Net zero standards very quickly, we have wasted too much time on half measures.”

DAVE KIMBALL, President
Shelter-Kit Inc., Tilton, NH
http://shelter-kit.com

“Energy costs and availability will play a large role in the housing market for the foreseeable future. House size, materials, location etc will be driven by energy factors, as we become ever more responsible.

The trend, however, will have its starts and stops. We are driven and motivated by the most recent news and outlook. In the recent past, the move towards alternative home energy sources and the purchase of fuel efficient vehicles were driven by then current prices, but when prices go down, and supplies increase, we go back to our old wasteful habits and choices.”

ERICH KRUGER, Executive Director
ReNew Building Materials & Salvage, Inc., Brattleboro, VT

“What are the major trends that will affect the home in America in coming years? An acknowledgment that there are many reusable materials in existing buildings that can have a second life. As builders divert these materials from the land-
fill, and homeowners re-purpose and re-use them, we have closed one of the major loops in the custody of materials, and conserved money and energy in the process. Used building materials stores will become a necessity in each community as a resource in harder economic times.”

JULIE LINEBERGER Owner, LineSync Architecture. Board Chair, Vermont Businesses for Social Responsibility.

JOSEPH CINCOTTA, AIA, LEED Architect, LineSync Architecture

“The future of the house is, ironically, rooted in the past. In an increasingly fast paced world the home has a heightened need to serve as a refuge and provide rejuvenation. Gardens, conservatories and indoor green spaces are again part of home design, providing sustenance for mind, body and spirit. Bulk size is completely out of favor, a sad reminder of the economic woes large houses helped bring on; there is no need to heat or cool so much unused space. Smaller rooms feel more gracious when proportions are balanced with higher ceilings allowing for more light and healthy air circulation. PV panels on residential roofs are less desirable due to increased roofing maintenance and replacement costs. Decreased costs for solar trackers ($2-3K for 6 - 8 panels) provide better solar optimization. High performance is the norm with cost effective 40 - 50 - 60 R-values in the foundation, walls and roof respectively. “

LANCE FLETCHER, AIA, LEED AP, Director of Sustainable Design, Boston Architectural College, Boston, MA  http://the-bac.edu

“The home of the future should be a net contributor to the health of the natural environment. This should be true not just in terms of energy, but also in terms of water, materials choices, waste and even location. And, of course, the house of the future should be a healthy place for the people who make it home.”

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TIMOTHY BUCKLEY, AIA, LEED AP
Greenstone Architecture, PLLC, Vancouver, WA
http://greenstonearchitecture.com

Energy Efficiency:

“I look for trends in new construction to begin following increased demand for higher energy performance in homes and demand will be coming from both the prospective buyers, and in regulation. In Washington State we now have State Law stepping up the energy efficiency requirements over time to be in compliance with Architecture 2030 (approaching net zero carbon mandate by the year 2030).”

Smaller Homes, and low maintenance features:

“I see market demand increasing for smaller homes for several reasons (and am already hearing seeing this with my clients). Part of it has to do with energy efficiency, part economics, and large part demographics. Our recent fuel cost spikes and economic roller coaster has perhaps begun a new paradigm in the American psyche. Driving a Hummer is no longer a status symbol, but is in fact now becoming a social liability and embarrassment. The demand for smaller homes will not just due to long term energy efficiency and savings, but of first-cost affordability. With boomers downsizing, and with increas-
ing wariness about dwindling nest egg investments I see them looking for smaller high quality and low-maintenance places to thrive.”

**Accessibility:**

“Also following the demographic trend of boomers, awareness and demand for universal access in design will become far more relevant. Especially as they begin to become more aware of issues of long term mobility and functionality, and will begin demanding barrier-free features to assist them to aging in place.”

JAY LAWRENCE PURCELL, AIA, LEED AP, J L Purcell Architects, Peterborough NH 03458
http://www.jlpurcellarchitects.com

“Houses for the New England region will need to be smaller, tighter, and much more thoughtfully designed as they respond to the value system of sustainability. House siting, window design, and glazing types will receive serious attention & analysis; R 3 glazing alone (the current energy efficient standard) will soon be considered inadequate. Large window areas, where important for light and view, will find their way to the south façade; north facing windows will be minimized. Eventually, all new houses will receive blower door tests to verify they meet code standards for infiltration, and reasonably priced energy recovery ventilation will become standard practice.”

“Other trends will be a greater use of resource efficient materials, and a greater recycling of construction waste. Construction details for durability will also receive more emphasis.”

DAVE BONTA, Founder, USA Solar Stores

“Solar will be ubiquitous fifty years in the future. We will wonder why we ever did anything else.”

“People who installed solar will have long since had their payback and will also reap the rewards of cleaner air, drinkable water, and good and steady employment. There will be a sense of ‘back to the future.’ The home of the future will more resemble ‘Little House on the Prairie’ than the ‘Jetsons.’ If we had known it would be this good, we would not have waited so long to get it done.”

What Detroit Can Learn From Silicon Valley

By Andrew S. Grove

Our government has made heavy investments in the U.S. automobile industry. How should it use its influence? It is a difficult question to answer because it appears that the automobile industry is in the middle of a fundamental transformation. History shows that most companies do not deal well with transformation. One reason has to do with senior managers. They usually "don't get it." They have a difficult time accepting that the future will be vastly different from the present because they rose to power in the old business environment. They excelled in the old environ-
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ment and didn’t acquire skills necessary to operate in the new.

It is also hard for managers to distinguish between an erosion in a
compny’s competitive position and a change in the fundamental nature
of an industry. Knowing the difference is one of the most difficult things to
do, even though it is among the most
important.

The transformation of an entire industry does not
happen very often. It only occurs when a number of fac-
tors align, such as a change in consumer demand, a shift
of parts of the major supply chain from one country to
another, and the emergence of key technological changes.

This is what happened in the computer industry in
the 1980s and ‘90s. Previously, each company produced
its own mainframe computers using proprietary hard-
ware and software. The company’s sales force then sold
these complex and expensive products.

The PC changed this. In a period of just a few years,
the industry was pulled apart and reassembled. The
entire industry began to rely on common hardware ele-
ments (microprocessors) and packaged software; selling
was handed off to third parties. In business we call this
moving from a “vertical” structure (where a company
handles its own development, manufacturing and distri-
bution) to a “horizontal” structure (where some com-
panies specialize in building components while others
integrate them and handle distribution tasks).

The result was that the computer industry became
more dynamic as old participants (such as Burroughs
and Digital Equipment) faded away and new types of
companies (such as Compaq and Dell) emerged.

Typically, a single company cannot call the shots that
transform an industry. But when a government gets as
involved as ours has in the U.S. automobile industry, it
can end up making transformational decisions.

Imagine if in the middle of the computer transforma-
tion the Reagan administration worried about the up-
heaval and tried to rescue this vital industry by making
huge investments in leading mainframe companies. The
purpose of such investments would have been to protect
the viability of these companies. The effect, however,
would have been to put the brakes on transformation and
all but ensure that the U.S. would lose its leadership role.

The government’s investment in General Motors
might be directly helpful if the auto industry only had the
recession to contend with. But that is not the case. The
industry faces the confluence of a world-wide recession,
rising fuel prices, environmental demands, globalization
of manufacturing, and, most importantly, technological
change involving the very nature of the automobile.

Electric cars have become viable and will likely only
become more capable in the future. Components critical
to their performance -- batteries and electronic control
systems -- are on a rapidly rising technology curve. These
technologies are new and therefore capable of improv-
ing quickly with incremental investments. By contrast,
technologies that have been around a long time, such as
the internal combustion engine and the fuel and drive
systems built around it, have enjoyed the benefits of
decades of development and have limited potential for
further improvement.
The result is that there are several factors aligning to bring about a change in the structure of the automobile industry. Electric cars may match the needs of our time better and become more desirable than cars relying on the internal combustion engine. The car industry today is as vertical as the computer industry was before the PC. However, the simplicity of the electric car combined with the standardization of certain components may cause the automobile industry to shift to a horizontal structure. The Internet is already emerging as a key marketing medium for automobiles and is easily adaptable to a horizontal structure.

The Center for Entrepreneurship & Technology (CET) at the University of California, Berkley has released a Technical Brief: Electric Vehicles in the United States A New Model with Forecasts to 2030.

IF you have an interest in the future of the EV in America, check it out on their website: http://cet.berkeley.edu

If such a shift occurs, the success of a producer will depend on how well it takes advantage of the new structure -- whether it can use the mass-producibility and falling cost of batteries and other components better than its competitors.

The U.S. government is investing in the automobile industry with the intention of preventing jobs from being lost. This may improve GM’s ability to operate within today’s structure. But there is no comparably large investment being made to develop the capabilities that could serve the company in a new era of electric cars.

China appears to be making a different bet. It’s not clear precisely how the Chinese government influences industrial strategy. But China is putting a great deal of effort into developing and manufacturing batteries. Essentially, it is betting that it can take the lead in creating the foundation technology of what will likely be the new structure of the auto industry.

Which is the better investment strategy? It is too early to say. In the short term, the U.S. strategy will likely save jobs. The long term is much more problematic. We do not yet know when and if the automobile industry will shift into a horizontal structure. The stakes, however, are very high. The strategic bets being placed by each country may determine which one will end up as the world’s leader in automotive technology and manufacturing.

Mr. Grove is the former CEO of Intel Corp., This article appeared online in the Wall Street Journal, June 13, 2990 and is reprinted here with the author’s permission.
http://online.wsj.com/article/SB124744046341629787.html

Global Exchange has been instrumental in raising awareness and advocating for fair trade in key areas such as coffee, chocolate, and manufacturing. The organization stands against unfair labor practices, human rights violations, and environmental destruction. It stands up for humanity-centric trade, treaty, and business practices; and advocates and facilitates local, rights-based, grassroots action.

The Rose City can take pride in the fact that Global Exchange’s Fair Trade Offices were relocated from San Francisco to the Brooklyn neighborhood of Portland in June of this year. The offices accommodate the company’s Fair Trade Online Store and Wholesale Division.

Global Exchange’s Fair Trade Program Directors, Shel Reinwald and Dana Geffner, were kind enough to offer some insight into their decision to make Portland their home:

“One of the largest factors in moving the Global Exchange Fair Trade program to Portland was the strength of the progressive movement. We have found the residents of Portland to be some of the most aware and conscience people,” Geffner said. “They are fully supportive of the Fair Trade movement and we felt it would be a perfect fit for our Fair Trade program. We are proud to be part of a city that is on the cutting edge of such important grassroots movements,” she added.

Reinwald affirmed, “Portland is friendly, it’s easy to get around, and,” she confided, “I’m originally from here. We love that Portland is considerate of bicyclers and pedestrians. Dana and I can easily ride or walk to work, and we find that the greener political attitudes here fit well with our mission.”

According to Reinwald, the welcoming Portland atmosphere comes with a financial bonus, “I love San Francisco. I lived there for 24 years, but we have four times the space in Portland that we had in San Francisco for the same cost. Access is much easier and it’s a better fit all around, business-wise and personally.”

The newly relocated administrative center is integral to the company’s five retail brick and mortar stores, one of which has been located in Portland at 3508 SE Hawthorne, since 2003.

Global Exchange celebrated 20 years of advocacy in 2008 and works with artisans and farmer cooperatives throughout the world to bring fairly traded products to market. Global Exchange’s Fair Trade program provides alternatives to goods made with sweatshop production.
As an international human rights organization, it is dedicated to promoting economic, political, and social justice.

Contact: Dana Geffner or Shel Reinwald, Fair Trade Program Directors, Global Exchange - 503.236.8900
Get Involved or Get Information: http://www.globalexchange.org/getInvolved/index.html
Purchase fair trade goods online: http://www.globalexchangestore.org

Gardening
Beyond Organic
By Kellie Gordon

Biodynamic* farming is receiving more attention every day and for good reason. As a sustainable practice with the smallest carbon footprint of any agricultural method, this farming method is also producing lush, robust, nutrient-rich plants whose health and vitality are surprising even the farmers growing them.

“It's really remarkable,” says Randy Buersh, founder of Oregon’s Wild Harvest in Sandy, Oregon. “We've been certified organic for more than fifteen years, but it's only in the process of becoming Certified Biodynamic* that I've seen plants the size of these. The roots are strong; the soil is richer than ever, and crops are easily 20% bigger than ever before. It's amazing.”

The term “biodynamic” is a combination of “bio” meaning life and “dyn” meaning force. It can be understood as “biological dynamic” agriculture practices. “Biological” practices include a series of well-known organic farming techniques that improve soil health. “Dynamic” practices are intended to influence biological as well as metaphysical aspects of the farm (such as increasing vital life force), or to adapt the farm to natural rhythms (such as planting seeds during certain lunar phases). The entire farm is a life force, and every part of it, from the animals to the soil, to the farmer, represents a segment of a closed-loop eco-system that operates optimally when the seasons and other natural forces guide the day to day operations.

Like organic farming, Biodynamic* farms stress biological methods in regard to humane treatment of animals, soil health, and food quality. The use of green manures, cover crops and composting are all essential. But many organic farms have incorporated industrialized methods to keep up with demand, such as importing fertilizers and other materials. The philosophy of Biodynamic farming emphasizes a holistic approach to farming – where the soil and the quality of the produce and farm are the goal, rather than the quantities they produce.

A guiding principle of Biodynamic* farming is that the key to good health for people and for the planet is total sustainability in agriculture. Nutrient-rich soil is the foundation for this sustainability and for the superlative quality of the produce. These nutrients, like everything else needed to sustain the plants, come from the farm itself. Nowhere else.

Another distinguishing feature of biodynamic farming is the use of nine biodynamic preparations for the purpose of enhancing soil quality and stimulating plant life. They consist of mineral, plant, or animal manure extracts, usually fermented and applied in small proportions to compost, manures, the soil, or directly onto plants, after dilution and stirring procedures called dynamizations. These preparations are intended to help moderate and regulate biological processes as well as enhance and strengthen the life (etheric) forces on the farm. The preparations are used in homeopathic quantities, meaning they produce an effect in extremely diluted amounts. As an example, just 1/16th ounce—a level teaspoon—of each compost preparation is added to seven- to ten-ton piles of compost.

Becoming Certified

Biodynamic* certification is offered through the Demeter* Association and the process is similar to becoming certified organic. After being certified organic, the farmer submits an application for Biodynamic*
certification and the farm is inspected and evaluated. Based on the evaluation, a farm may be certified as Demeter® Certified Biodynamic, In-conversion to Demeter® Biodynamic®, Aurora Certified Organic and/or Stellar NOP Organic (for when a farm is on its way toward becoming Biodynamic*).

On a yearly basis the farm must file a lengthy report, describing all of their farming practices. They document and show all seed sources, soil additives, mixes used in the greenhouse, BD sprays and dates of application, planting times, harvest times, and fields harvested. Soil and water tests must also be provided. They must be able to track plant material back to the seed, and the field that it was harvested from including the people involved in that process.

Record keeping is very much the same as what is expected for an organic certification, through the Oregon Tilth. All aspects of the farm are looked at---planting methods, cultivation, and, in the case of biodynamic farming, making sure that at least 10% of the farm is left to and for natural habitat.

**What does all this mean to the consumer?**

Nutrient-rich soil means nutrient-rich plants, which translates to higher quality produce for the people who are buying and consuming the products. The food that results is very true to its essence and provides deeply penetrating nutrition that is medicinal as well as delicious. (Demeter® Association)

Research at Washington State University (WSU) by Dr. Lynn Carpenter-Boggs and Dr. John Reaganold found that Biodynamic® compost preparations have a significant effect on compost and the composting process. The treated composts had higher temperatures, matured faster, and had higher nitrates than control compost piles inoculated with field soil instead of the preparations.

The WSU research is unique for two reasons: it was the first Biodynamic® compost research undertaken at a land-grant university, and it demonstrated that Biodynamic® preparations are not only effective, but also effective in homeopathic quantities.

In a day and age when the term “organic” has become rather diluted, it’s reassuring to know that there is an alternative – one that will ensure, by mere definition, that the produce is pure, nutritious, and ecologically sustainable.

**As good for the earth as it is for the body.**

**Key differences between NOP (National Organic Program) Organic and Biodynamic™ Certified**

1. **Fertilizer:**
   - NOP permits imported organic fertilizers.
   - Biodynamic™ relies almost entirely on nutrient rich soil components created on the farm.

2. **Pesticides:**
   - NOP permits imported organic pesticides.
   - Biodynamic™ depends on the creation of biologically diverse habitat on the farm which encourages balanced predator prey relationships and on humus development to build insect and disease resistance.

3. **Livestock feed source:**
   - NOP allows organic feed imported from anywhere in the world.
   - Biodynamic™ requires 80% of feed be grown on the farm.

4. **Biodiversity:**
   - NOP has no specific requirements.
   - Biodynamic™ requires a biodiversity set-aside of 10% of total farm acreage.

5. **Certification:**
   - NOP is crop focused and allows for a designated parcel to be certified.
   - Biodynamic™ is farm focused and requires that the whole farm be certified.

**Kellie Gordon** is a writer, mother of two, user of herbs, and lives in the Pacific Northwest.

**Oregon’s Wild Harvest** recently completed the second full growing season using Biodynamic® methods, and the results are quite convincing: crops of Ashwagandha, Echinacea, and Astragalus harvests were the most plentiful and healthy ever! Plants were bigger, had stronger roots, and the flowers and seeds were much more bountiful than they’ve ever been before. “If our goal is to produce the highest degree of quality, purity, and efficacy available with our herbs, it just makes sense to grow them using...
John Patterson

Editor’s Note: This is the first in a series of articles by individuals who have, for the last 30 years or more, been actively engaged in building a more sustainable lifestyle for themselves and for their community.

John Patterson, founder and owner of Mr. Sun Solar, has stepped up to the plate and volunteered to be our first “Pioneer” and share some of his thoughts with us.

In 1979, I put a solar water heating system on my home and was very impressed with how well it worked. I thought solar made good investment sense.

I started Mr. Sun Solar in 1980, and since then we have installed over 2000 solar systems. In 1999 Oregon implemented a net metering law that allowed customers with solar electric systems to receive a credit for the excess electricity they generated during the summer. They could apply that credit toward their electric bills during rainy periods. Zero net energy occurs when the credits are enough to cover a customer’s electric bills over a year’s time. I burned to have a zero net business.

In August 2007 my company became the first zero net business west of the Cascades. It was the greatest accomplishment of my career. I achieved my goal by making the building super energy efficient using insulation, weather stripping, tubular skylights, and solar attic fans. Then I installed a Sol-Reliant solar water heater, a maintenance-free system I invented a few years ago, and a 7 kW photovoltaic (PV) system. The $70,000 price of the PV system was reduced to $25,000 after state, federal, and local tax credits and incentives.

When the first annual reconciling came from the utility, we had produced more energy than we used. What a thrill that was!

Over the years, my focus has shifted from saving money to saving the planet. As I research the book I’m writing, called Footprint, I realize that global warming is a clear and present danger to human life. Fossil fuels and rampant consumerism are two things we must give up if we hope to derail the runaway train of global warming and climate change.

Fortunately, Oregon has fashioned legislation that promotes alternative energy sources. Oregon tax credits for individuals and businesses, plus Energy Trust of Oregon incentives, can offset up to 50% or more of the...
As much as I recycle and reuse, there are times that I go to the “sprawling, smelly dump”, and I’m always amazed at the number of recyclables people send needlessly to the landfills. Now visualize what that same “dump” would look like if we recycled, reused, and reinvented ourselves.

For many of us more environmentally friendly souls, we want to reduce our carbon footprints by sending less and less to landfills. Well, guess what? Here is how to save tons of something that we send to the landfills: feed your dog or cat a better food. This is great news. It’s simple: so simple that many people don’t grasp its magnitude, and it doesn’t cost any more money than what most people are already spending! Drum roll? Trumpets?

Simply put, the “Feeding Guide” of most of the better quality dog foods recommends one cup of dry food for every 25 pounds of body weight of the dog. Low cost (poor quality) dog foods recommend 2 cups, 3 cups, or even 4 or more cups of food per 25 pounds of body weight. Why is that, you ask, while already knowing the answer? It’s because most dog food is full of lower commodity cereal
grains, aka, cheap fillers, which pass right through their digestive tracts without being assimilated. The end result, literally, is 2 or 3 or 4 times more feces. And where does that go when you pick it up to dispose of it? Yes, most of the time, to the landfill which, by the way, is still Metro's recommended method of disposal of pet waste.

The beauty of great quality dog and cat food is that, because of its bioavailability, it gets broken down and assimilated into a valuable source of building blocks and energy for our beloved companion pets. And there is little waste. If you feed twice, or up to four times, as much of a not-so-good dog food, you will end up with at least twice to four times as much feces in your yard. So by doing the math accordingly, it means that if you are feeding a good dog food, your pet waste to the landfill would be only a quarter, third, or half as much. Also, on the practical side, one bag of quality dog food would last as long as 2 or 3 or 4 bags of a cheaper dog food.

One of the most amazing things about good dog food is that the cost per day is about the same as the cheap stuff because you feed less of the good stuff. It's like eating oatmeal instead of corn flakes. Do you want to save refuse from going to the landfills? Feed a better dog or cat food."

Chip Sammons is both the owner and the janitor at the Holistic Pet Center located at 15599 SE 82nd Dr, Clackamas, OR (503) 656-5342
http://www.holisticpetcenter.com

Chip also hosts a live radio show on KKPZ 1330 AM in Portland, Oregon on Saturdays from 10:00 – 11.00 am

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**Money Matters**

**Tax Incentives for Energy Efficiency**
by Dick Pirozzolo

**Bailout for the Homeowner?**

The 2009 stimulus package, signed into law last spring, extends generous federal tax credits for a number of eco-friendly home improvements: alternative energy systems; efficient hot water and heating and air conditioning systems; energy-efficient windows and doors; insulation; and reflective roofing. Installing any of these items by December 31, 2010, entitles you to a tax credit of up to $1,500. Geothermal heat pumps, photovoltaic electric and water-heating systems, and wind-power installations qualify for a 30 percent tax credit with no dollar limit. Fuel cells, which convert hydrogen into electricity without combustion, get a 30 percent discount, too, with limits based on the amount of electricity produced. The new law covers these products through 2016.

Tax credits — not to be confused with tax deductions that lower your taxable income — come right off your federal income tax liability as long as the products are installed during the time period required. In short, a $1,500 tax credit puts $1,500 in your pocket!

Here’s how the tax credits work. Let’s say you would owe $10,000 in federal income taxes for 2009. But in August, you replace old drafty doors with new, energy-efficient ones that cost $5,000. You can then take 30 percent of $5,000, or $1,500, off your taxes when you file your income tax return for 2009. Instead of paying $10,000 in income taxes that year, you will pay $8,500. The paperwork is simple. Save receipts and fill out IRS Form 5695. The $1,500 limit is cumulative — you cannot install a new roof and new windows and get $3,000 off your taxes for a single year.

Homebuilders are also eligible for tax credits of up to $2,000 for constructing highly energy-efficient homes, and manufacturers of modular and other types of “system-built” homes qualify for a $1,000 tax credit when they substantially reduce energy requirements.

**Get Money Back Now!**

You can get a 30% tax credit of up to $1,500 or more for making these fixes:

**Replace Your Roof**

Look for Energy Star roofing materials such as specially treated asphalt or reflective metal. Highly reflective roof surfaces reduce air-conditioning costs. Over time, a reflective roof can reduce peak cooling demand by 15 percent, so you can buy a smaller, cheaper-to-run cooling system.

**Install Skylights**

Conventional and tubular skylights qualify. Low-emissivity (low-E) glass is particularly valuable on skylights fully exposed to the sun.
Beef Up Insulation

Adding an additional layer of R-19 to R-30 insulation in the attic could save 20 percent or more on heating and cooling bills — in addition to the tax credit you’ll get. “Considering that the U.S. Department of Energy estimates 80 million homes in America to be under insulated, many homeowners have the opportunity to insulate and save,” says Gary Nieman, vice president of government policy initiatives for building materials systems corporation Owens Corning.

Improve Your A/C

Energy-efficient central air conditioning, which Energy Star calls a package system, gets a tax credit. Split systems and mini split systems, which have a compressor outside and condenser coil and fan indoors, also qualify. Split systems are quiet, remote controlled and don’t require ductwork. They’ve been popular in Asia and Europe for decades. The Consortium for Energy Efficiency (CEE) ranks air-conditioner efficiency; the rating “Residential Advanced Tier 3” is required for split systems; and “Residential Tier 2” for package systems.

Update Windows & Doors

Replacement windows, storm windows and new energy-efficient doors get a tax credit. Energy-efficient windows feature low-E glass that traps infrared heat inside the home in winter and keeps it out in summer. Look for inert gas between double panes and spacers to keep panes separate. Frames made of vinyl, vinyl-clad wood, wood and fiberglass qualify for the credit. (Natural Home doesn’t recommend vinyl because of its environmental impact and potential toxicity in house fires. Ideally, look for wood frames that have been certified by the Forest Stewardship Council.) Energy-efficient doors have insulating core materials and better weather-stripping. Installing storm doors counts for a tax credit too.

Heat Water Differently

Hot water accounts for about 20 percent of home-energy consumption. Replacing an outdated water heater with an efficient gas, propane or oil model garners a tax credit. Choose an efficient tank or “storage” model — with a thermal efficiency of 90 percent — or any Energy Star, on-demand “tankless” system.

Tankless systems eliminate the need for keeping 40 to 80 gallons of water warm around the clock. Natural gas and propane on-demand units have to be vented through a flue or outside wall. (Where freezing is not an issue, a gas tankless heater can be mounted outside on an exterior wall.) Electric systems can be installed just about anywhere, but they don’t qualify for the federal tax credit. Electric heat pump water heaters do.

A solar hot-water system runs between $6,000 and $7,500 to provide for a family of four. In warmer climates, the sun can heat water directly, making for a much simpler setup.

Install A Wind Turbine

Have more grandiose dreams? You could spend up to $22,000 for a residential wind turbine and mast — and get $6,600 back from the federal government. There’s no cap on wind energy credits. Most small turbines have very few moving parts and require little maintenance.

Go Solar

Solar-powered photovoltaic systems are entitled to a 30 percent tax credit with no limit. (That’s a lot of dough.)

Excerpted from Natural Home, a national magazine that provides practical ideas, inspiring examples and expert opinions about healthy, ecologically sound, beautiful homes. To read more articles from Natural Home, please visit www.NaturalHomeMagazine.com or call 800-340-5846 to subscribe. Copyright 2009 by Ogden Publications Inc.

Bicycle Recycling Program

by Geoff Thomas

Thinking globally while trash-picking locally!

Do you follow the environmental motto of “reduce, reuse, recycle”? Would you also like to help someone in Sierra Leone, Guatemala, Nicaragua, Uganda, Ghana, or Moldova experience that thrill of personal freedom that your first bike gave you? It’s easy. Just recycle bicycles.

One of the great things about bicycling through upscale neighborhoods is the amazing treasures you find in the trash. Some people have more money than time, so it seems perfectly reasonable to them to put expensive, usable items out with the trash. Over the past few years,
we have diverted several nice pieces of furniture, a perfectly usable set of bicycle rollers, and a rowing ergometer from the landfill. We have also saved many, many bikes.

There are many different reasons why perfectly serviceable bikes end up at the curb. Maybe the bike needed a small adjustment or a flat repair, or maybe it got displaced by a new bike. Maybe its rider grew up and moved away. What does not vary is the fact that one person’s trash remains another’s treasure.

To reduce the number of bicycles going to landfills, I rescue them from the trash. After about six months, the rescued bicycles really start to clutter up my garage. Once I have about four to six of them (a carload), I donate them to a worthy charity called Pedals for Progress.

Pedals for Progress teams up with local volunteer groups who are trained to arrange and publicize and staff a collection day, partially disassemble the bikes for shipping (remove pedals and turn handlebars), and provide transport back to their home location in High Bridge, New Jersey. There, the people at Pedals for Progress evaluate the bicycle and fix minor problems. The bikes are cleaned up and lubed, and reshoed with new tubes and tires as needed. Some of them are converted to a single speed. Then the bikes are held for the next ocean container shipment. To date, Pedals for Progress has shipped over 117,892 bikes to 32 countries.

The container of bicycles is then shipped to a local receiver organization, who reassembles them and may modify them further, as needed. They are then resold into the local market, which may only have had access to prohibitively expensive new imported bicycles.

Do you remember how liberating your bicycle was to you as a kid? In many areas of the world, a simple bicycle provides that kind of liberation to adults, as well. Suddenly, the person who could previously travel only on foot can find work in neighboring villages and towns, start a small business, or travel to see family or friends in areas where no public transit exists. In short, that bicycle can transform a person’s life.

Over the past few years, I’ve collected quite a menagerie of makes and styles. Sometimes, there seems to be a theme to a particular collection. I called my most recent donation “A Salute to American Bicycles”: with a Columbia from Massachusetts, the ever-present Schwinn from Illinois, and a nice 24-inch girl’s Ross from Allentown, Pennsylvania. I don’t know where the Sears brand bike was made, but it did say “Made in USA.” The only foreign-made bikes in the group were a Mongoose (see photo) that looked brand-new except for an out-of-true rear wheel and a vintage Fuji. Sometimes, you can trace the date a bike was sold by the bike shop stickers. Some bikes have stickers showing what college its owner attended. Oh, the tales these bikes tell. Sometimes they reveal that your local bike shops once sold all sorts of brands that you never knew they carried. It’s also fun to see the evolution of bikes, from antique 3-speed Sturmey-Archer hubs to occasionally very current Shimano gear. (I’m still hoping to rescue something equipped with Campagnolo!). You can also see how bikes have gotten lighter and more durable.

The most common curbside find is usually a 5 to 20-year-old road bike, typically with a thick coating of garage dust, two flat tires, and a very rusty chain. But then, there was also a nice older Trek mountain bike that needed only a new tube, or the Dutch ladies’ multispeed
city bike complete with fenders, internal drum brakes and generators. Judging from its size, Dutch Ladies must be mighty tall! Kid’s bikes and now BMX bikes are increasingly common too.

What Does Pedals for Progress Want?

Pedals for Progress wants nearly all bicycles. According to David Schweidenback, President of Pedals for Progress, “No bicycle is too good to ship overseas.” He notes that bicycle racing has taken off in the developing world, and as a result demand is rising for the high-end bicycles. Better quality bikes sell for higher prices in the destination countries, which helps to pay the shipping bills. Pedals for Progress ships higher end racing bikes regularly…and I learned from David that” For years, the national champion of Nicaragua rode a recycled Cannon-dale!” While Pedals for Progress can use just about any sort of bicycle, the best find is a sturdy adult-sized mountain bike. The frames are strong, and the fat tires are well suited to poorly paved roads and rural paths. Pedals for Progress prefers “men’s” bikes since as David says: “The bar that differentiates a man’s from a woman’s bike is a (potential) seat. These bicycles become the family vehicle. Every possible seat is needed.” Do not think a kid’s bike is not desirable abroad—bikes with 20 or 24 inch wheels are viewed as full size and BMX bikes are especially sought.

The bottom line is this. Whenever I see a bike put out for the trash, I look it over. If it is durable and fixable, I sling it into the car. If I see a good bike in the trash while I’m walking the dog, I’ll walk the bike and the dog home together. That bike then joins the herd in my garage until the next collection day.

For further information and details, please visit Pedals for Progress at www.p4p.org While donations of bicycles or money are tax-deductible, bike donors must pay a minimum $10 fee per bike to offset handling costs, which average $35 per bicycle. If you can’t find a collection site close to you, consider holding a drive of your own. It’s a nice Eagle Scout project or town ‘greenfair/environmental day project or an Earth Day activity for a bike club!

Geoff Thomas is an avid cyclist and recycler in the process of relocating to Vermont. He writes for American Bicyclist- Journal of the League of American Bicyclists. This article is used by permission

Editor’s note: Our research failed to find any sort of similar program in our area. Here’s what we did find: Community Cycling Center, 1700 NE Albert. Check their website for upcoming collection dates and for more info on their donation program: http://www.communitycyclingcenter.org

Events

Eighth Annual Build it Green! Homes Tour

Organization: City of Portland Bureau of Planning and Sustainability (BPS)

Date: 09/19/09 Location: Portland Metro Area Registration: 503.823.5431 & Website: http://www.portlandonline.com/bps/index.cfm?c=41893

Tickets: $15.00 for tour book ticket & map. Discounted tickets available for students, seniors & bicycle tourists.

Eighteen remodels and new homes will be open from 11am - 5pm, Saturday, September 19, 2009 in the Portland Metro Area. Chat with homeowners and contractors about solar panels, rainwater harvesting, affordability, small footprints, natural landscaping, eco-friendly building materials, co-housing, energy efficiency, alternative construction techniques, salvaged materials, healthy indoor air quality and pick up some great ideas for YOUR home. A FREE Info Fair with green vendors, demonstrations and music will follow from 3pm -7pm at ecohaus, 819 SE Taylor,
Portland, OR 97214. We will raffle off a custom-designed salvaged wood chicken coop from Modern Coop.

This Tour’s Local Sponsors: City of Portland Bureaus of Environmental Services (BES), Water, Development Services (BDS), Metro, Energy Trust of Oregon, Solar Oregon, ecohau, Oregon Home Magazine.

The National Climate Seminar at Bard Center for Environmental Policy

The National Climate Seminar is a bi-weekly, national phone conversation featuring top climate scientists, political leaders, and policy analysts. Hosted by the Bard Center for Environmental Policy, the seminars are available live to educators, students and citizens, by telephone at no charge.**

The half-hour seminars will be held the first and third Wednesday of each month, at 3:00 p.m. Eastern, Noon Pacific. Please join with us for these critical conversations. Questions for the presenters can be submitted on-line prior to the seminar, and all conversations will be available in podcast.

Conference Call Instructions:

Check their website for instructions on placing a call to the conference conversation. http://www.bard.edu/cep/ncs

Sept 9: Dallas Burtraw - Resources for the Future - U.S. Policy Strong Enough?
Sept 23: Stephen Schneider, Stanford University - Meaning of Business as Usual
Oct 7: Bill McKibben, 350.org - Climate Citizens
Oct 21: Hunter Lovins, Natural Capitalism - Business on Board
Nov 4: Andrew Revkin, New York Times - Copenhagen Prospects
Nov 18: Mohan Monasinghe, IPCC Vice Chair - China, India, and the U.S.
Dec 2: David Orr, Oberlin College - Educators, Citizens, Copenhagen and Beyond
Dec 16: essy Tolkan, Energy Action - Spring 2010: The Youth Voice

Hands-On Workshops at The ReBuilding Center

The ReBuilding Center’s - North America’s largest non-profit center for used building materials - fall lineup of hands-on reuse workshops

Found Object Printmaking

Exploration of fundamental, non-traditional and invented print-making techniques to create prints from found materials. Print from the inventory of found objects available at The ReBuilding Center. Students will seek out existing patterns, fabricated textures, interesting shapes or materials and learn how to pull a print by hand. For all skill levels.

Wed Sept 30, 6-9pm &
Sat Oct 3 10am-3:30pm
Tuition: $65 plus $10 material fee made payable to the instructor the first day of class
Instructor: Ken Walker

Table Building Techniques

Build a small side table from
Classifieds

Eco-friendly Flooring • Countertops
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360-455-8729

Events

Gorge Enviro-House Tour

Oct 3, 2009 Hood River, OR

The environmental home tour showcases local sustainable homes in hopes of inspiring others in the region to build more sustainably.

Introduction to Traditional Joinery

In this 5 week class, students will learn to build a small solid wood table from scratch. Milling, joinery and other woodworking techniques will be demonstrated as well as the safe and proper use of power and shop tools including the jointer, tablesaw and router. Prior shop tool/power tool experience strongly recommended.

Tuition: $225
5 wk class Oct 24-Nov 21, Saturdays 10am-4pm
Instructor: Dan Anderson

To register, and for more information, see: http://www.rebuilding-center.org/classes.htm

The ReBuilding Center offers reuse workshops and classes year-round that inspire students to transform discarded building materials into new furniture, household objects, and art.

The workshops take place in the ReFind Furniture woodshop located inside The ReBuilding Center at 3625 North Mississippi Ave.

Students have access to a variety of woodworking tools and learn valuable tool and construction skills they can apply to projects at home. Most importantly, students learn how to see new reuse possibilities in old building materials and are empowered to realize their ideas in new creative forms.

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This Tour’s Local Sponsors:
  Columbia Gorge Earth Center
Tickets: $20 per car, buys you a
guidebook and map on the day
of the Tour at Gorge Rebuild-it
Center.
Contact: Tom Reid
tom@greenhome-construction.com
541.370.5261

Commercial Basics of Going Solar
When: Tues, Oct 6 (10am - 12pm)
Where: Vernier Software &
Technology, 13979 SW Millikan
Way, Beaverton, OR 97005-2886,
in the classroom

This free Solar Oregon (non-
profit) workshop covers the basics of
why solar is a smart choice for busi-
nesses in Oregon. Businesses can use
current financial incentives to cover
up to 90% or more of a project’s first
costs. Oregon’s incentive programs
are among the best in the nation.

We will show you:
  • How well solar works in Oregon’s
cclimate
  • Profiles of local businesses that
  have invested in solar
  • Available solar technologies
  • Financial incentives, tax credits,
  and ownership models

Participants will come away with
basic knowledge about solar energy
systems and will be prepared for any
of our 3 hour workshops, or to do
more focused research on their own
and start working with a contractor.

For more info & to register:
http://solarorgegon.org/workshops

Business Owners Get Their Green
On at GoGreen ’09

40 Business Leaders Share
Secrets and Value to Building a
Sustainable Business

Social Enterprises, Inc. is thrilled
to announce the full-day itinerary
and speaker line-up for the sec-
ond annual Go Green Conference,
which will take place in Portland on
Wednesday, October 7, 2009 at the
Gerding Theater in the Pearl District.
Go Green ’09 will present the regional
business community with the unique
opportunity to learn from over 40
local business leaders, who will share
their expertise on a variety of sustain-
ability topics, aimed at giving business
owners and professionals new ideas
and strategies for increasing sustain-
ability in all areas of the workplace.

GoGreen ’09 will offer participants
concrete steps and solutions for mak-
ing their business more sustainable
through interactive panel-style ses-
sions with valuable Q&A opportuni-
ties during each topic

NAAEE Conference

The 2009 North American Asso-
ciation of Environmental Educators’
Conference, October 7-10, 2009 at the
Doubltree Hotel in Portland, Oregon
offers the theme, The Power of Partners-
ships – Creative Leadership in Environ-
mental Education. There will be twelve
conference strands and a two-day
Research Symposium. The conference
schedule is now available on the web-
site: http://www.naaee.org/conference/

Cascadia Region Green Building
Council - LEED Workshops

October 14: LEED Core Concepts
and Strategies - Portland, OR

This workshop provides essential
knowledge of the LEED Rating Sys-
tems and sustainable building con-
cepts for those seeking a better under-
standing of LEED or pursuing GBCI’s
LEED Green Associate (Tier I) cre-
dential. By presenting LEED concepts
at the credit category level – across
building types and rating systems –
and basics on the building certification
process, this workshop provides the
foundation required for any 300-level
LEED education offering. Real project
examples help demonstrate and rein-
force learning.

When: Wednesday, October 14;
8:30am - 5:00pm
Where: Jean Vollum Natural Capital
Center (Ecotrust), 721 NW Ninth
Ave, Ste. 280, Portland, OR 97209
Cost: Before 10/7 USGBC Member
$345; Non-member $445; Full-time
Student $150 After 10/8 USGBC
Member $375; Non-member $495;
Full-time Student $150

For more information on LEED
workshops, contact: 800-795-1747
or email: workshop@usgbc.org

Keep Portland Weird! A
Community Festival

Saturday, November 14, 2009
Where: Central Library 801 S.W.
10th Ave., Portland
Phone: 503.988.5123

Portland is a place of passion-
ate people pursuing interesting, and
sometimes strange, pastimes. Join us
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do and why they do it.
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gogreen’09
cultivating sustainable business

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TED KULONGOSKI/Governor of Oregon
KATE BROWN/Oregon Secretary of State
SUSAN ANDERSON/Director, City of Portland Bureau of Planning and Sustainability
JEFF COGEN/Multnomah County Commissioner
ROB BENNETT/Executive Director of Portland + Oregon Sustainability Institute
AND MANY MORE!

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Portland, Oregon

OCT. 7, 2009 | 8:30 A.M.–4:30 P.M.
Networking Cocktail Reception at 4:30 P.M.

GOGREEN’09 is an all-day educational conference that will inspire, motivate and educate aspiring and established business owners like you to “go green”.

WWW.GOGREENPDX.COM

GOGREEN ‘09 SOLD OUT EARLY. REGISTER TODAY!