31 STRATEGIES TO SAVE ON YOUR ENERGY BILLS

This Old House

OCTOBER 2006

43 one-of-a-kind products for your redo P. 96

Inspired Spaces

clean, bright kitchen ■
colorful cottage retreat ■
clutter-free playroom ■
dozens of ideas for YOUR house

ULTIMATE WORKSHOP
the 17 best tools ever made

RADIANT HEAT
how it works, how to choose it

cork floors in a day
+ 10 STYLISH CHOICES

SPECIAL FEATURE
green remodeling projects that pay
15 SENSIBLE FIXES FOR ANY BUDGET

THISOLDHOUSE.COM AOL KEYWORD: THIS OLD HOUSE

RE
RE
RE
RE
RE
RE

HYUNDAI
Drive your way™

The all-new Hyundai Santa Fe. Reimagine an SUV that gives you more standard safety features than any SUV in its class, with 6 airbags and Electronic Stability Control. Revel in a purposeful yet comfortable interior that seats 7 with an optional third row. Reflect on the available 242-hp engine. Revere America's Best Warranty* And relax – it starts at $21,595** Time to rethink everything **TheNewSantaFe.com**

*MSRP excludes freight; excludes taxes, title, license, and options. Dealer price may vary. Hyundai and Hyundai model names are registered trademarks of Hyundai Motor America. All rights reserved. © 2006 Hyundai Motor America

S A N T A F E

Safety belts should always be worn. *Hyundai Advantage.™ See dealer for LIMITED WARRANTY details. **MSRP for base model with manual transmission. Production to begin late 2006. Limited model shown, $26,995.

THINK.
DESIGN.
ENGINEER.
BUILD.
JOICE.

How could something
made of glass be so solid?

Trust. Is [illegible] more fragile? Yet for over a cen[illegible] exactly what we've been building at Andersen. With features like our Perma-Shield® cladding system that scoffs at Mother Nature as well as Father Time. There's also our High-Performance "Low-E4" glass that makes the most of your heating and cooling dollars. And the peace of mind that comes from our exclusive Owner-2-Owner™ limited warranty.* Find out why our windows are the number one choice of professional builders. Visit andersenwindows.com/comehome.

Come home to Andersen.™

What good is having protection if it doesn't fit your company?

Without the right options, any insurance solution can come up a little short. At Travelers, our philosophy is simple. We take pride in working with independent agents who aren't limited by just one company's products. They have the expertise and freedom to craft the ideal solution, so your insurance can stay in-synch with all your needs. Contact an independent agent. And make sure you're covered—from top to bottom.

travelers.com

TRAVELERS
Insurance. In-synch.™

what's lurking in your bathroom?

Airborne pollutants. Unpleasant odors. Mold-causing moisture. They can invade your bathroom in no time. And the effects can be damaging. Not only to structures and surfaces, but to your health. Panasonic ventilation fans work silently and efficiently to help clear the air. So you can worry less—and breathe a whole lot easier.

No bathroom project is complete without a Panasonic ventilation fan. Let us help find the right fan for you with our interactive fan selector at **panasonic.com/ChooseYourFan**

ENERGY STAR

WhisperGreen VENTILATION FAN

Panasonic ideas for life

ENERGY STAR is a registered trademark.

features

96 The Natural Choice
These products get our thumbs-up for being both easy on the earth—and on the eye

102 Red, Yellow, Blue & Green
This colorful cottage is the house of the future—mixing historic character and cutting edge eco-design

108 15 Green Projects for Under $500
Easy, affordable ideas that save energy, conserve resources and make your house a less expensive place to live

114 Recycling Katrina's Ruins
A hurricane ravaged 18th-century house is deconstructed to help restore other rare buildings

PHOTOS: (CLOCKWISE FROM TOP) JEBBIKAN WHITLAW LLEWELLYN; RUSSELL KAYE; FURNACE KIM

Typically, deconstruction pros take apart standing homes. In this case, Katrina had already done that.

ON THE COVER

24, 58, 108 Save on energy bills
39 Clean, bright kitchen
60 Clutter-free playroom
71 Best tools ever made
79 Radiant heat
89 Cork floors in a day
102 Colorful cottage
108 Green projects that pay

Cover photograph by **Ken Gutmaker**
Styling by Sunday Hendrickson

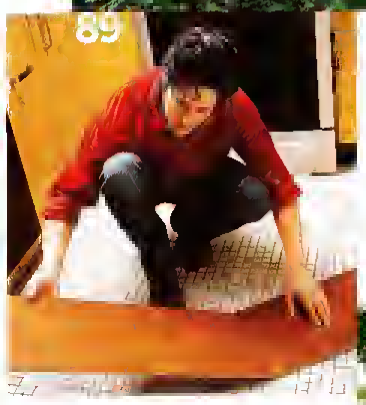
250 HORSEPOWER. 460 LB-FT TORQUE. 0 COMPETITION.

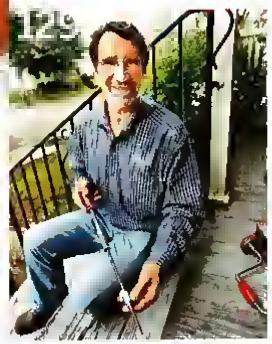
THE 2006 GMC® SAVANA,® WITH AN AVAILABLE DIESEL V8 ENGINE. STANDS ALONE WITH CLASS-LEADING HORSEPOWER AND TORQUE.

There can be only one leader. And this one's as powerful as it gets. The GMC Savana with an available DURAMAX™ 6.6L V8 diesel engine. With best-in-class horsepower and best-in-class torque, it overpowers everything in its way. Competition included. Whether in the Savana Cargo* or Cutaway, the DURAMAX diesel also delivers outstanding towing capability. GMC Savana. The numbers add up. And they equal number one. Visit WWW.GMC.COM or call 1-800-GMC-2782.

GMC.

WE ARE PROFESSIONAL GRADE.





in every issue

THIS MONTH ONLINE 14
FROM THIS OLD HOUSE 17 | **MAILBOX** 19

around the house

23 **Stylish, sustainable bamboo | 5 ways to save water | Invasive plants and more**

departments

39 **Kitchen Design**
A family kitchen that takes reuse reduce and recycle to heart

48 **Salvage**
New uses for old accent windows

53 **Luxuries**
Recycled glass tile

58 **Green House**
Compact fluorescent bulbs

60 **House Calls**
Creating a healthy fun playroom

64 **Landscaping**
Beneficial bugs that protect your yard

67 **Paperwork**
Tax breaks and rebates that lower the cost of energy saving improvements

71 **Toolbox**
Tools that are classic masterpieces

79 **How It Works**
Radiant floor heating

85 **Upkeep**
Best ways to remove asbestos, lead and mold from your home

89 **Homeowner's Handbook**
Laying a cork floor

146 **Save This Old House**
This rambling Southern farmhouse could be the cure for your urban burnout

workshop

123 **Ask This Old House**
Compost for a healthier lawn patching vinyl corner trim and more Q&A

127 **Skill Building**
Tricks for fitting flooring setting glass tile

129 **Norm's Notebook**
Advice on caring for tools, from the *TOH* master carpenter

131 **Resource Directory**
Find the products and services featured in this issue

PHOTOS: FOOD W BR ROW OF JAR 2 AW BYPHOTO PASCAL WITS VC AN M PA EPO PUSSE WA STEPAN BO ROB ASPF SIA A J AD DV H

imagine a refrigerator that adjusts to your lifestyle.

Imagine being able to go from fridge to freezer to everything in between at the touch of a button The revolutionary Samsung Quatro Cooling Convertible Refrigerator gives you two adjustable lower compartments—four cooling compartments In total, allowing you to fine tune the cool no matter the occasion With Samsung it s not that hard to imagine. www samsung com

Quatro Cooling convertible refrigerator

SAMSUNG

QA

"WHAT TYPE OF FLOOR IS BEST FOR ME?"

Find the answer here
armstrong.com/QA

ENTER TO WIN

We can help you find the solutions to creating living spaces that best reflect your unique personality. Enter for a chance to win $5,000 worth of Armstrong Flooring materials plus $500 toward installation. Just visit www.timeinc.net/armstrong

Armstrong
Your ideas become reality

NO PURCHASE NECESSARY TO ENTER. The Armstrong Sweepstakes is open to legal residents of the 50 United States and the District of Columbia, age 18 or older at time of entry. To enter and view complete Official Rules, which govern the Sweepstakes, visit www.timeinc.net/armstrong. Sweepstakes begins at 12:01 AM Eastern Time (ET) on July 20, 2006 and ends at 11:59 PM ET on November 22, 2006. Void outside the 50 United States (including Puerto Rico) and the US Virgin Islands and where prohibited by law. Sweepstakes is sponsored by Armstrong and Southern Progress Corporation.

This Old House MAGAZINE

EDITORIAL
EDITOR
Scott Omelianuk

DESIGN DIRECTOR
Amy Rosenfeld

EXECUTIVE EDITORS
Kathryn Keller, Laura Goldstein

EDITORIAL OPERATIONS DIRECTOR
Carolyn Rodenner

BUILDING TECHNOLOGY EDITOR
Thomas Fisher

SENIOR EDITORS
Alexandra Blandon, Amy R. Hughes

DESIGN EDITOR
Odette Suarez Ortiz

TECHNICAL EDITOR
Mark Powers

PROJECTS EDITOR
Jason Carpenter

ASSOCIATE EDITOR
Keith Ponsolli

COPY CHIEF
Leslie Merritan

COPY EDITOR
Susan Ryan

EDITORIAL ASSISTANTS
Ashley Womble, Harry Sawyers, Natalie Rodriguez

CONTRIBUTOR
Mark Feirer

ASSISTANT TO EDITOR
Michael Stolper

EDITORIAL INTERNS
Amanda Forrester, Caitlin Grogan, Hamilton Hedrick, Jordan Howe, Katharine Pearl, Shyra Peyton, Katherine Stutler, Aaron Young

ART
ART DIRECTOR
Hylah Hill

PHOTO EDITOR
Denise Skaga

DEPUTY ART DIRECTOR
John W. Taylor

ASSOCIATE ART DIRECTOR
Daisy Kim

EDITORIAL PRODUCTION MANAGER
Yoshiko Taniguchi-Canada

ART/PRODUCTION ASSISTANT
Robert Hanlin

PHOTO ASSISTANT
Leah Verkuyn

ONLINE
MANAGER
Antoinette Savoro

EDITOR
Betsy Andrews

PRODUCER
Timothy Reid

ONLINE AD COORDINATOR/PRODUCER
Kim Hunter

ASSOCIATE ONLINE EDITOR
Kristen Munia

ADVERTISING SALES
PUBLISHER
Matthew Turck

WESTERN SALES OFFICES
ACCOUNT REPRESENTATIVE Keith Morel
SALES ASSISTANT Nathan Winston

SOUTHEAST SALES OFFICE
ACCOUNT REPRESENTATIVE Jane Wendler
SALES ASSISTANT Christy Chapman

DETROIT SALES OFFICE
MIDWEST SALES DIRECTOR David Howe
SALES ASSISTANT Debra Jacobi

RESOURCES/CLASSIFIED ADVERTISING MEDIA PEOPLE INC.
RESOURCES Jennifer Ison
CLASSIFIED Tammy Mellermett

NEW YORK SALES OFFICE
NORTHEAST SALES MANAGER Liz Meier
ACCOUNT REPRESENTATIVES Karen Dunnigan, Jonathan Tolkoff, Andrea Greitenberger
SALES ASSISTANT Alexandra Couch

BOSTON
MURPHY MEDIA Kevin Murphy

CHICAGO SALES OFFICE
SR. ACCOUNT REPRESENTATIVE Todd Zimmermann
ACCOUNT REPRESENTATIVES Lynn Caldwell, Sally Moulton

ADVERTISING MARKETING
MARKETING DIRECTOR Alison K. Zawacki
SENIOR PROMOTION MANAGER Naomi Russell
PROMOTION ART DIRECTOR Gaffney Poglar Barnett
SENIOR SALES DEVELOPMENT MANAGER Julie A. McKinnon
SALES DEVELOPMENT MANAGER Kelley Benski
ASSOCIATE MANAGER, SALES DEVELOPMENT Denise Garrison
MARKETING COORDINATOR Jen Fabry
SENIOR DIRECTOR TELEVISION AND VIDEO Michael Burton
EXECUTIVE ASSISTANT Doron Bos

CONSUMER MARKETING
DIRECTOR Hank Pitale
MARKETING MANAGERS Adam Fuller, Kristen Sisue, Nicholas Tiedor
PLANNING MANAGER Murray Jones

PRODUCTION
DIRECTOR OF PRODUCTION Susan Power
PRODUCTION MANAGER Paul Castrataro

INFORMATION TECHNOLOGY
DIRECTOR David Yo
MAGAZINE TECHNOLOGY MANAGER Robert Mullins

BUSINESS OPERATIONS
GENERAL MANAGER Joseph J. Ciamanta
FINANCE MANAGER Jared Feeley
ASSISTANT FINANCE MANAGER Aaron Fields
ADMINISTRATIVE COORDINATOR Abigail Bunter
LEGAL Gloria Falk

EDITORIAL BOARD, THIS OLD HOUSE
MASTER CARPENTER Norm Abram
GENERAL CONTRACTOR Tom Silva
PLUMBING AND HEATING EXPERT Richard Trethewey
LANDSCAPE CONTRACTOR Roger Cook
HOST Kevin O'Connor

PRESIDENT Thomas F.X. Geusso
EDITORIAL DIRECTOR Scott Mowbray
PRESIDENT, TIME4 ENTERTAINMENT Paul Spreiser
SENIOR VICE PRESIDENT, FINANCE AND OPERATIONS Walter M. Sauerhaft
SENIOR VICE PRESIDENT, CONSUMER MARKETING Maureen Roy
SENIOR VICE PRESIDENT, TIME4 DIGITAL Todd Unger
VICE PRESIDENT, TIME4 MEDIA SOLUTIONS Bruce Freeman
DIRECTOR OF COMMUNICATIONS Samara Farber Morner

This Old House (ISSN 1086-2633) is published ten times a year by This Old House Ventures, Inc. ©2006 This Old House Ventures, Inc. This Old House and the This Old House window logo are registered trademarks of This Old House Ventures, Inc. Subscribers: If the post office alerts us that your magazine is undeliverable, we have no further obligation unless we receive a corrected address within two years.

Designers: Gayfock DeGolicen

FOR EVERY PERSON, FOR EVERY PERSONALITY, THERE IS AN ARMSTRONG FLOOR.™

Armstrong™ Laminate
Natural's Gallery® Laminate, Fashion™ L6549 Nice Man

Find yours at armstrong.com

Armstrong
Your ideas become reality

Get an even closer look

Most windows and doors have tolerances—i.e. gaps—up to 1/2-inch. Marvin keeps ours to a paper thin 1/16-inch. Does it matter? Only if quality does. Learn more about what to look for in windows and what you will (or won't) see in ours. Call 1-800-268-7644 (In Canada 1-800-263-6161) or learn more at **marvin.com/thedifference**

MARVIN Windows and Doors

BONUS FEATURES @ thisoldhouse.com

NEW!

TOH Scribble Boards!

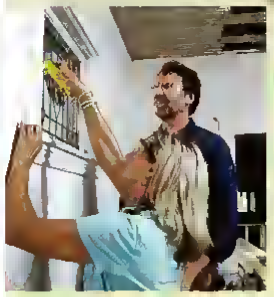
Post your opinion on feature articles
share your tips on our step by steps
Your comments appear online instantly

FIND IT ALL IN ONE CLICK: thisoldhouse.com/shortcuts

UPDATED!
Kitchen Redesign Guide

PLANNING TIPS,
PRODUCT PICKS,
and BUDGET SECRETS

thisoldhouse.com /shortcuts



BEHIND THE SCENES OF TOH TV

Inside This Season's Remodel

Our new season has started on PBS but there's more than what's on the telly. View the job site 24/7 via our five webcams. Find out what it's like to have *This Old House* in your house. Check out the **Old House, My House** blog.

thisoldhouse.com/shortcuts

Go Green

ECO FRIENDLY KITCHENS, SOLAR SHINGLES, SAFE DEMOLITIONS, GREEN FLOORING, RECYCLEO COUNTERTOPS and lots of pieces of enviro conscious but sensible advice

thisoldhouse.com/shortcuts

Curb Appeal Extra!

More than 30 idea files packed with pictures of GARAGE DOORS, HOUSE NUMBERS, MAILBOXES, LAMPPOSTS, DORMERS, ROOF STYLES, TRIMWORK, IRONWORK, CUPOLAS, TURRETS, AND MORE.

thisoldhouse.com/shortcuts

PHOTOS: (FROM TOP) © BETTY HAS ENG; PHUDSON; ©SUSAN FRIEDL; TOM PHILLIPS; WILLIAM

When everything matter[illegible] Marvin Windows and doors matter. Demanding the very best in materials, performance and precision craft is what we do. Shouldn't you? We devote an artisan's attention to the most important furnishings in any room. The ones that can't be moved, but should move you. Ask your professional for Marvin Windows and Doors. Call 1-800-268-7644 (In Canada 1-800-263-6161) or learn more at **marvin.com/thedifference**

MARVIN Windows and Doors

Your home should see only one kind of growth.

Revolutionary DryRight™ fiber glass insulation helps reduce the risk of mold and mildew growth. Naturally occurring moisture from your home's interior and exterior can settle within your walls and help promote the growth of unhealthy mold and mildew. Fortunately, thermally efficient and breathable DryRight, from CertainTeed, can help prevent moisture from getting inside your walls, while allowing trapped moisture to escape. Which means you can concentrate on healthier kinds of growth.

800-782-8777
www.insulateagainstmold.com/toh

CertainTeed
Quality made certain. Satisfaction guaranteed.™

Countering Kermit

"THE FROG HAD IT WRONG." I said, looking at the table of contents for this issue. "It's easy being green!"

I said it like that, exclamation point and all. And Amy Rosenfeld, *This Old House*'s design director, silently stared at me as if I were someone who thinks he's crazy-clever but is really just crazy-demented, with a possible Muppet fixation.

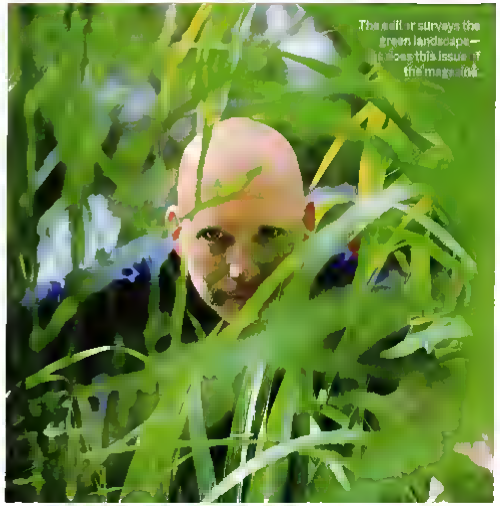
Thing is, we'd stuffed a ton of stories into this "green" themed issue, and it was gratifying to see that every one of them would be right at home in our pages in any month. Turns out that the philosophy behind *This Old House* is inherently green, with our appreciation of history and our respect for lasting design, great craftsmanship, and quality materials. The advice we give about preserving and maintaining your home is all about sustainability. And older houses don't suck up resources the way a lot of new construction does. My place, for example, hasn't required a single 2x4 since it was built 125 years ago with locally sourced stone, wood, and plaster—the solid, simple stuff, stuff that is elemental.

With Amy still staring me down, I got a call from my wife, who had what you might call some elemental news. The plumber had been in to look at rerouting some supply lines for our renovation. "Did you know," she said, "that you have a lead water pipe?" I wanted to ask her why the house was ours but the pipe was mine—but thought better of it. Then I thought, funny, lead's about as elemental as it gets—number 82 on the periodic table, right between thallium, which causes hair loss, and bismuth, which is vaguely radioactive. As I don't glow, I'm pretty sure I haven't had much bismuth exposure. The thallium I can't comment on, though this picture of me in my backyard surely shows hair loss. Come to think of it, allowing a photo like that to be published might indicate lead exposure, which can cause, among other things, *dementia*.

None of which changes the fact that being green is easy—though maybe being completely green is hard—and that every little bit helps.

SCOTT OMELIANUK
EDITOR

P.S. *This Old House* television's 28th season premieres this month. The project that the crew tackles has some lead problems of its own, along with mold and asbestos. Read about it on page 85—and watch the whole renovation on PBS.



The gift of surveys the green landscape—it's on this issue's cover, the magazine's lot.

Turns out the philosophy behind This Old House is inherently green, with our appreciation of history and our respect for lasting design, great craftsmanship, and quality materials.

PHOTO: IAN SPRAN ER

Lutron® dimmers change the mood of every room and save energy, too.

In the bathroom, a dimmer provides softer, more comfortable light for early mornings and bright light to get ready for the day.

Dimming lights just 15%:
- Saves 15% energy
- Light bulbs last 4 times longer

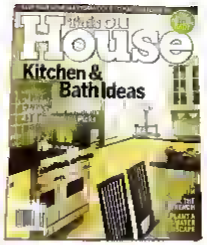
Where to find Lutron products near you
Lutron products are available from select home centers, hardware stores, electrical suppliers, lighting showrooms, or your electrical contractor. Visit **www.lutron.com/wtb** or call toll free at **877.258.8766.**

*Shown: **Toggler®/Ariadni®** dimmer with optional **Fassada™** wallplate*

LUTRON
Lutron controls your light

© 2005 Lutron Electronics Co., Inc.

mail



Gear for Every Body

I appreciated the short bit about women's work boots ["Wanted: Women's Boots Made for Working," Around the House, July/August]. But boots aren't all we women DIYers need. After what seemed like the nine millionth time up and down the ladder one weekend installing the siding on our shed, I finally decided it's time to get a toolbelt. But they all seem too big and heavy for me. There must be lots of women in this country who are working in construction, doing woodworking, or their own home-improvement projects. I wish someone would start making tools and accessories that fit us. I don't need pink. I need practical.

PAM NAGEL, TEMPE, ARIZ.

The editors reply: While manufacturers are starting to realize that women want something other than girlie colors in their work gear, the choice of belts made specifically for women is pretty small. You'll find a few practical—but pink—ones at BeJane.com. Or you can do what some women on our staff have done instead: Go with a belt system, or tooling that has interchangeable components; this lets you carry only what you need for the given task, cutting down on bulk and letting you place pouches where you want them. Bucket Boss, Milwaukee, and DeWalt, among others, all make such belts. And to save a little weight, choose nylon rather than leather.

Water Down the Drain

In your July/August issue you have an important and timely article on xeriscaping ["Reining in Water Use," Landscaping]. I'm a self-employed gardener and am appalled at how thoughtlessly some people waste water, particularly through careless use of automatic irrigation.

I therefore have to take exception to the fact that in the same issue ["Two Rooms, 43 Choices"] you extol the virtues of a multispray shower that pumps out 5.5 gallons per minute. I'm sorry, but this is, ecologically, no better than people driving SUVs that get 12 miles per gallon, not because they need the power or space for hauling, but just because it makes them feel good. The reason our society can't get a grip on its use of the planet's resources is precisely because nearly everything and everyone continues to glorify excessive consumption. Any fixture that puts out water at that rate (and right down the drain) to bathe just one person shouldn't even be legal.

DOUGLAS MAAG, KANSAS CITY, MO.

Plants With Too Much Staying Power

Good for you for promoting xeriscaping ["Reining in Water Use," July/August], but if readers plant invasive species, they may be in for more staying power than they bargained for. The species form of *Miscanthus sinensis*, for instance, sometimes called Chinese silvergrass, can easily escape from gardens in the southeastern United States and then cover roadsides, forest edges, and fields. It may not be the best choice for dry areas either, as it is highly flammable. If you've just gotta have it, then search for named cultivars.

RACHEL DOUGHTY, ASHEVILLE, N.C.

The editors reply: You make a good point about careful plant selection; that's why our recommendations in the article were specific

PHOTO: MARK WEISS

LUTRON SPECIAL OFFER

Receive 1 year of This Old House magazine

Purchase select Lutron® dimmers and receive a full year (10 issues) of This Old House magazine.

Look for this limited time offer at select home centers and hardware stores nationwide. For complete details visit www.lutron.com/promotion.

LUTRON
Lutron controls your light

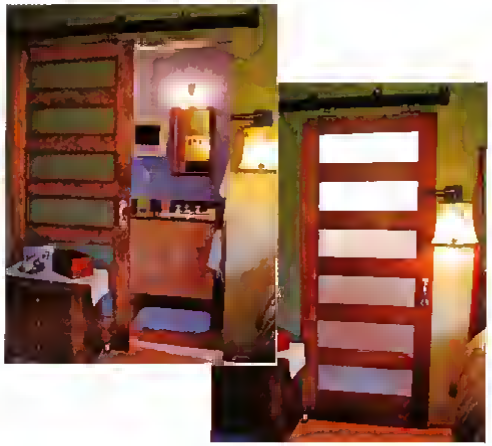
© 2006 Lutron Electronics Co., Inc.

to the Zebrinus and Gracillimus' varieties of *Miscanthus* which do not self seed To learn more about invasive plants turn to Space Invaders page 26

Reinventing a Salvaged Door

I always read *TOH* from cover to cover the moment it arrives in my mailbox I was thrilled to see the article on reusing old doors ["Old Doors New Uses," March] as well as "Adding Glazing to a Door" [Ask This Old House March] Putting these ideas together completed my vision of reusing an old door as the entry to our newly remodeled bathroom The end result [right] is awesome. The sliding barn door-type setup helped open up a very small area and added visual interest to an otherwise plain wall [and the obscured glazing allows light but maintains privacy] The project was labor intensive but well worth the time and effort Thank you for your continued inspiration in making my home a more beautiful place to live

MARTY GASNER ARLINGTON TEX.



The editors reply: If other readers want to steal Marty s idea, the 3-foot sliding-door hardware she used is by Richards Wilcox richardswilcox.com

Single Women Home Buyers

Thank you for recognizing women like my sister and me who are members of that growing population of the "Single Female Homeowners As sociation" ["Single Female House Proud" June]. We were raised by parents who told us if we want ad something we d have to save our nickels and make it happen Living by our dad s annoying credo we both have graduate degrees and homes of our own Dad has been through a major remodel with my sister and he s about to help me with mine For Christmas he bought me a toolbelt and work gloves to match hinting not too subtly that again if I wanted a new bathroom I d have to save my nickels and make it happen I love looking at all the *TOH* projects I can start (tile is a favorite) and am pleased that you are aware of an unconventional demographic.

KIM KELLEY SAN JOSE CALIF

Dogs and Lawn Burn

I have an additional tip for the readers from Colorado about "dog spots" on the lawn ["Dog vs Lawn" Ask This Old House July/August] I have four dogs and no lawn spots—each dog gets about ¼ cup of tomato juice every morning in the warmer months They love it, and it prevents the urine burns I don t know how it works but it does My yard was on the city s Tour of Gardens last year Our vet okayed it, and the dogs always check out fine One is 19 years old, one is 15, one is 9 and the "baby" is 7

CHRISTINE HANSON ANCHORAGE ALASKA

The editors reply: Several readers wrote in with the same tip allegedly the acid in the juice has a neutralizing effect on the nitrogen in dog urine. There is evidence, though that parts of the toma to plant can be bad for dogs...so check this out with your vet if you want to try it. There are also pills and treats available for the same purpose

corrections

"Polishing a Craftsman Gem," September: We neglected to credit the styling of the photo shoot to Brian Carter Our apologies for the omission.

how to reach us

THE EDITORS
Address: This Old House magazine, 1185 Avenue of the Americas 27th Floor New York, NY 10036
E-mail: TOH_letters@timeinc.com
Please include your full name address and daytime phone number. To illustrate letters will be edited for clarity and length and may be used in other media
Editorial Query Line: 212 522-5015

SUBSCRIPTIONS
You can order or manage your subscription online at thisoldhouse.com/customerservice. Or e-mail tohsubscs@thisoldhouse.customersvc.com or call 800 898 7237

BACK ISSUES
To order visit thisoldhouse.com or call 800 357 4466

BOOKS
To order This Old House books, visit thisoldhouse.com or call 800 678 2643

ADVERTISER CONTACTS
To contact our advertisers for more detailed information visit homeownershelpline.com or call 800 424 0055

GOING BACK TO REGULAR TOOLS WOULD BE LIKE
GOING BACK TO BLACK AND WHITE TV.

FatMax® XTREME
Introducing the next level of high performance hand tools Designed to get the job done faster easier better Learn more at stanleytools.com/xtreme

STANLEY

Always wear safety goggles ©2008 The Stanley Works

Indulge your senses

marmoleum® click

seriously fun floors...naturally

Environmentally responsible flooring that is anti static and easy to clean
Now available in click panels and squares for an easy, "glueless" installation

Marmoleum click offers natural warmth, quiet comfort underfoot, and a 25-year warranty.
Our innovative new finish, Topshield, ensures a highly effective shield against dirt and scuff marks

Express your individuality Create your unique, healthy, hygienic home with Marmoleum click!

naturally... colorfully... creatively... and easily yours

Marmoleum click is available in 18 colors Panels: 12"x 36" approx Squares: 12" x 12" approx
Learn more or find your local dealer www.themarmoleumstore.com
1 866 MARMOLEUM (627 6653)

creating better environments forbo

PHOTO: ANITA CALERO; CITY: INC; BARBARA FERRIS; ILLUSTRATIONS: T W BARNHILL

around the HOUSE

{ GOOD TO KNOW }
October 14 is the first nationwide Herb Day, when celebrations of sage, thyme, and other seasonings will be hosted by parks, gardens, and businesses across the country.

Brand New Bamboo

Finishes and furniture that are both stylish and sustainable

TALKING ABOUT BAMBOO as a "new" building material is ridiculous. It's been used in Asia for everything from chairs to chopsticks for as long as there's been a civilization. But now that we in the West have finally caught on, companies can't wait to jump on the bamboo bandwagon. The material performs on par with most woods. But because it's a grass, bamboo grows about four times as fast, shooting up as much as 100 feet in 60 days. And even as questionable harvesting and shipping practices cast doubts on its overall "greenness," bamboo's rapid regeneration makes it a viable alternative for flooring, cabinetry, and furniture.

The Armstrong flooring seen here as a backdrop (1) locks together, earning extra points for eschewing glues and fasteners. Two countertop options from Green Building Supply show the difference between bamboo's end-grain (2) and side-grain (3) patterns. Water-based stain seals Pure Kitchen's clean-lined cabinet door (4), which is set off by a lead-free pewter pull (5) from GreenSage. Bamboo shelves (6), handmade by Mark Righter of Cambium Studio, slide along a dovetail joint. The straw, caramel, and coffee hues shown on all these pieces explore bamboo's diverse color palette, but deep down, they're green. —HARRY SAWYERS

Floors, $7 per square foot; armstrong.com. Countertops: $8.69 (side grain) and $21.20 (end grain) per square foot; greenbuildingsupply.com. Kitchen cabinet installations, starting at $18,000; purekitchen.com. Pewter door pull, $40; greensage.com. Slippery shelf, $395; cambiumstudio.com.

SPEAKING OF BAMBOO...

SHOOTING UP
The Chinese eat over a million tons of bamboo shoots a year. Pandas prefer the leaves: dining on about 40 pounds a day.

BAMBOO BULBS
Before tungsten became the filament du jour, Thomas Edison produced millions of incandescent light bulbs that burned on bamboo.

CULM CLIMBERS
Bamboo scaffolding rises over 20 stories on construction sites across Asia. Nails don't work in the hollow stalks, so workers hand-lash joints.

SAVE UP BY SAVING WATER

With over 2 billion Energy Star–certified products sold in the U S since 1992 energy saving appliances are becoming the rule rather than the exception Now the Environmental Protection Agency—the program's creator—is trying to duplicate its success with a new water-conserving campaign called WaterSense First up is a label for toilets that use less than 1.3 gallons per flush—that s 20 percent less water than the 1 6 gallons currently required by federal law It'll be a few years before WaterSense sets standards for other products such as washing machines and dishwashers. Until then follow these five simple steps to make your home more H_2O efficient·

1> Put a pitcher of drinking water in the fridge letting the faucet run until water gets cold wastes two gallons per minute.
2> Fix leaks pronto. One drip per second adds up to 2,700 gallons a year
3> Hose down the garden in the early morning or at dusk to avoid losing water to evaporation caused by the hot sun
4> Don t use your toilet as a trash bin Every unnecessary flush equals 1.6 gallons of wasted water
5> Scrape, rather than rinse, plates when loading the dishwasher

—NATALIE RODRIGUEZ

{ ORIGINS: QUIZ }

Q Who thought we could owe so much to residue? According to legend, British rubber manufacturer Frederick Walton devised the formula for linoleum after experimenting with the film left by linseed oil on a paint can Linoleum became a popular alternative to oilcloth floor coverings because of its durable, waterproof, and antibacterial constitution

A In what year did Walton pull the rug out from under the oilcloth industry with his linoleum patent?

A 1855 B. 1923 C. 1863 D 1792

(Turn to "Origins: Answer" page 30)

10 USES Copper Pipe

With scrap tubing selling for as much as $4 per pound copper bits are worth recycling—if you had em by the truckload and if gas weren't $4 a gallon Fortunately a trip to the scrap yard isn't the only way to give new life to the odd end or fitting left over from your last DIY plumbing job. —MARK FEIRER

1. Hold a roll Copper gleams as a support for toilet paper *TOH* technical editor Mark Powers made the one above out of tubing and various fittings To keep its sheen spray it with lacquer
2. Protect plantings Solder or caulk a copper cap to one end of a 16-inch-long tube then drive the other end into the soil to keep the garden hose from dragging over your daylilies.
3. Make a wind chime Cut various lengths of tube: the longer the piece, the deeper the sound says Dale Powell of the Copper Development Association Drill a hole an inch from their tops. Loop fishing line through the openings and hang from a wood disc.
4. Aim high. Connect assorted adapters and elbows to a length of ½-inch tubing to form a hooked staff. Screw a showerhead on the hook end and a garden hose on the other to make a watering wand for drenching hanging baskets.
5. Shim a post. Short offcuts pounded flat make durable outdoor shims Depending on tubing gauge shims will range from 1/16 inch to 3/32 inch thick
6. Deck out a stair Use 1 inch-diameter pipe instead of wood for balusters Be sure to follow local codes for spacing Left in the weather untreated copper develops a verdigris patina
7. Clean gutters. Pound flat the last 6 inches of a long length of tubing then bend the tip to form a 90 degree angle to rake out hard-to reach muck.
8. Move mountains Pyramid builders in ancient Egypt transported heavy stones by rolling them over pipe-like cylinders—it works with overfilled trash cans, too.
9. Coax a climber Make a rot proof trellis out of tubing and fittings Mount it on a wall or anchor it in the soil for a freestanding ladder for vines to grow on
10. Clean up Duct tape copper tubing to the end of a vacuum hose to suck spiders from rafters Don t run the vacuum for more than a few minutes though or the increased back pressure caused by the narrow makeshift extension will strain the motor

PHOTOS (TOP) MARK WEISS (BOTTOM) MICHAEL GRIMM; LUIS RATION; PAUL BLOW

American Standard faucets with the new **EverClean Faucet Finish** give you a **spot-free shine** with no need for cleaning products The patented finish will last the lifetime of the faucet And with one-third the drain parts of major competitors it s as easy to install as it is to clean Call 1-800 524-9797 ext 6119 or visit www americanstandard-us com

American Standard

Space Invaders

How to prevent nonnative plants from running amok in your yard

BELOVED BY GARDENERS for its ability to camouflage an unsightly chain-link fence or cover ground where the sun barely shines, evergreen English ivy has long been a top-seller at nurseries. But this vine's vigorous growth habit has also earned it a more dubious distinction—as an invasive plant species that will flagrantly cross into neighbors' yards and, when conditions are friendly, adjoining fields and forests, too.

Dating to the 1800s when it was imported from Europe to brighten American gardens, English ivy is most certainly a grande dame in the invasives kingdom, but a new crop of dangerous debutantes now nip at her heels. "Hundreds of invasive species have been established in the last few years, and they're crowding out our native plants," says ecologist James Ackerson of the National Forest Service. And though the problem is national, just as climate and soil conditions vary from region to region, so do problem-plant lists. Some species that are rampant in Southern California aren't a threat in New England states that experience a hard freeze—at least not so far. Many experts cite global warming as a cause for the rise in invasives.

So before you plant your beds and borders, check with your local cooperative extension service and visit nps.gov/plants/alien to see what species pose threats in your area. If you have your heart set on a potential renegade, you need to impose strict controls. "When a plant is aggressive, it means that it will spread until you do something to stop it," says *This Old House* landscape contractor Roger Cook. So plant rampantly spreading groundcovers behind steel edging sunk deep to contain their roots. Prune invasive vines often to keep them from wandering. And divide and deadhead prolific perennials mercilessly before they set seed and multiply.

Better yet, stick with species native to your region. It might take them a little longer to cover new ground, but your conscience will be clear—and your neighbors will thank you. —ASHLEY WOMBLE

Problem Plants

Here are some plants still commonly found at nurseries and garden centers that have made the invasive list in many regions of the country.

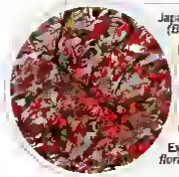
VINES

- English ivy (*Hedera helix*)
- Fiveleaf akebia (*Akebia quinata*)
- Porcelainberry (*Ampelopsis brevipedunculata*)
- Oriental bittersweet (*Celastrus orbiculatus*)
- Wintercreeper (*Euonymus fortunei*)
- Japanese honeysuckle (*Lonicera japonica*)

HERBS AND PERENNIALS

- Yarrow (*Achillea millefolium*)
- Wormwood (*Artemisia absinthium*)
- Oxeye daisy (*Leucanthemum vulgare*)
- Purple loosestrife (*Lythrum salicaria, L. virgatum*)
- Peppermint and spearmint (*Mentha variaties*)
- Common mullein (*Verbascum thapsus*)

SHRUBS AND WOODY VINES



- Japanese barberry (*Berberis thunbergii*)
- Exotic bush honeysuckles (*Lonicera species*)
- Multiflora rose (*Rosa multiflora*)
- Japanese spiraea (*Spiraea japonica*)
- Exotic wisterias (*Wisteria floribunda* and *sinensis*)

GROUNDCOVERS AND GRASSES

- Fountain grass (*Pennisetum setaceum*)
- Goutweed (*Aegopodium podagraria*)
- Running bamboos (incl *Bambusa, Phyllostachys,* and *Pseudosasa*)
- Vinca, or periwinkle (*Vinca minor*)

PHOTOS: (LEFT) KOBAL CO.; KEITH THURSTON; (RIGHT) GARDEN WORLD IMAGES (3)

Tip

When browsing for plants at the local nursery, watch out for tags bearing these potential euphemisms for "invasive species":

☑ AGGRESSIVE, ☑ SELF-NATURALIZING, ☑ QUICK-SPREADING, ☑ EXOTIC, ☑ FAST-GROWING, ☑ VIGOROUS, ☑ PROLIFIC, ☑ ADAPTABLE, ☑ PEST-FREE.

Build a world we all can live in.

Building a cleaner world is easy. [illegible] batteries once they've worn out. Check the rechargeable [illegible] power [illegible], camcorders, cellular and cordless phones, two-way radios, and laptop computers. If they no longer hold a charge, recycle them by visiting one of many collection sites nationwide, including those retailers listed below. For a complete list of rechargeable battery drop-off locations, visit **www.call2recycle.org** or call toll free **877-2-RECYCLE.**

Recycle your rechargeable batteries.

call 2 recycle™

A Rechargeable Battery Recycling Corporation program

Recycle at one of these national retailers:

DEWALT · Home Depot · Lowe's · Milwaukee · OSH · Sears

©2006 Rechargeable Battery Recycling Corporation. Founded in 1994, RBRC is a non-profit organization dedicated to recycling rechargeable batteries and cellular phones. For more information, www.rbrc.org or 1-800-8-BATTERY. To learn more about the animal featured in this ad, visit our web site.

ADVERTISEMENT

Ask the Insurance Experts

BROUGHT TO YOU BY

Liberty Mutual.

Q: How can I minimize the risk of having my identity stolen?

A: To protect oneself from identity theft – now the fastest growing crime in America[1] – the key is managing personal information wisely

- Ask unsolicited phone callers to send information in writing and do not offer them personal information.
- Shred personal documents such as credit card and bank statements before throwing them away
- Do not carry around your Social Security card birth certificate or passport.
- Monitor bank statements monthly and credit reports annually
- When conducting business online
  - Only supply personal information to a reputable company or website To verify the integrity of a site, consult the Better Business Bureau at www.bbbonline.org
  - Do not give personal information to unsolicited email requests even when they appear to come from legitimate businesses or organizations.

In addition to following these tips, you may want to consider Identity Fraud Expense Coverage from Liberty Mutual For more information on this coverage, contact your local Liberty Mutual office or visit www.libertymutualinsurance.com.

[1] Identity Theft Resource Center (idtheftcenter.org), 2005

FOREVER GREEN

5 TRADITIONAL BUILDING PRODUCTS BOAST ECO-FRIENDLY QUALITIES

A solar-powered motor was presented to Napoleon III by a French mathematician in 1865 and as far as low flow toilets go—remember the outhouse? Well, at least you've heard of one Here's a look at some other old-timey technologies and materials still used today that have always been green

TERRA-COTTA Its "baked earth" translation might prompt Al Gore to film an inconvenient sequel, but as yet the fired clay hasn't been blamed for global warming. Made from water clay and previously fired clay bits, the roof and floor material dates to 10,000 BC

MILK PAINT This no VOC finish formulated from milk lime, and natural pigments, has been found in 3,000 year-old caves It's gaining favor today because it doesn't emit noxious fumes when drying

MASONITE HARDBOARD Invented in 1924 by William H. Mason, the masonite process involves grinding wood then using its own lignin—a natural binder—to cement the wood fibers back together No formaldehyde binders means no offgassing

MINERAL WOOL Before the pink fiberglass stuff rolled onto the market, mineral wool, or rock wool as it's also called, was the insulation of choice It's made with 75 percent post-industrial recycled content namely slag wool, the stuff that forms on the surface of molten steel during production.

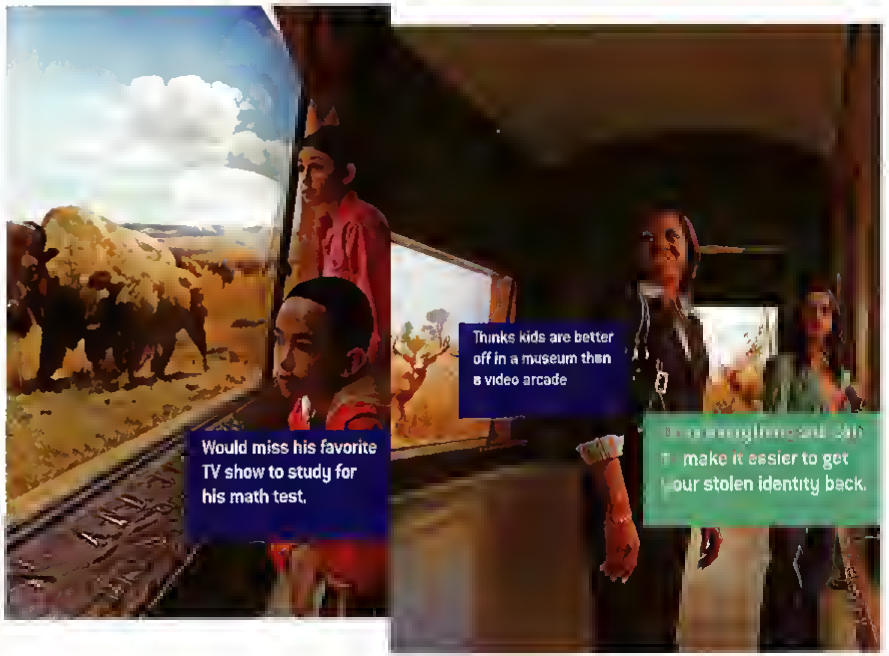
HOMASOTE FIBERBOARD Made from 100 percent recycled paper since 1916, Homasote was used to construct Army field hospitals during WW I It's now a popular carpet underlayment It's also formaldehyde free.

{ TOH TIP }

Sand Better

TOH editor Scott Omelianuk affixes self-stick cork to a 2x4 scrap and wraps it with sandpaper to make the perfect sanding block "It's more forgiving than the hard wood face, but less so than your hand," he says. You can also change its shape (for example, cork shelf liner wrapped around a dowel) to suit your job

ILLUSTRATION: PAUL BLOW



Yes, there's an insurance company that's as responsible as you are

For auto, home, or life insurance, call 1 800 4LIBERTY or visit libertymutual.com

Responsibility. What's your policy?™

Liberty Mutual.

Identity theft protection is available as an additional coverage to your home policy Not available in all states © 2006 Liberty Mutual Group

NEW GARDEN GEAR MAKES AUTUMN CLEANUP EASIER

Leaf blowers? Well, they make an awful lot of noise. And besides, we're roll-up-the-shirtsleeves people. So skip the funny backpack and earplugs, and try these new, easy-to-use manual products instead. —JORDAN NOVET

The Fold-A-Cart is as flexible as one of those scary little gymnasts in Cirque Du Soleil. But it's also as tough as the strongman. So use it to cart rocks for that garden wall you've been meaning to build, and then squish it up and stow it against the garage wall, where it won't take up precious floor space. The 6-cubic-foot Home & Garden model is $140 at foldatools.com.

KwicKan is a plastic sheet that folds inside a leaf bag to form a mouth through which you can rake leaves. Its rigid sides mean you can then prop up the bag like a regular can to top it off. At 1/16 inch thick, KwicKan stores flat. The large leaf bag size is $15 at kwickan.com.

Instead of putting yard waste into big black polyethylene trash bags—which take decades to fully biodegrade—try corn-based compostable sacks from BioBag. The worms will be done with them in 60 days. Five 33-gal. bags are $5 at drugstore.com.

Sweep leaves into a pile and jump in, or transfer the heap to the compost with the Pivot Leaf Rake. Its ergonomic cushioned handle extends to 48 inches, and the rake head pivots 270 degrees so you never have to. The Pivot Leaf Rake is $35 at homedepot.com.

{ TOP DESTINATIONS }

OAK PARK AND RIVER FOREST, ILLINOIS

TOP: Frank Lloyd Wright designed Unity Temple in 1905 for Oak Park's Unitarian Universalist congregation. ABOVE: One of River Forest's famed bungalows.

Who says the suburbs are soulless cultural wastelands? Take Oak Park, Illinois. This Chicago satellite was hometown to such creatives as Ernest Hemingway and the Beethoven of American architecture, Frank Lloyd Wright. In fact, Oak Park boasts the largest collection of Wright houses (25) built between 1889 and 1913, as well as the master's own residence and studio, where the Prairie School of architecture was born and raised.

Another famous architect who hung his hat in Oak Park was ST Gunderson. His namesake Gunderson Historic District features dozens of foursquares, each with its own unique variation on the style.

And for a taste of Victoria are architecture, you can tour the Second Empire–style house where Hemingway was reared until he graduated from high school. The nearby Hemingway Museum details the writer's life and times through photographs, letters, and artifacts.

The neighboring village of River Forest, Illinois, is famous for its surplus of Craftsman-style bungalows. Six of the best will be open for docent-led tours on October 14. Tickets are $40 the day of the event. Call 708-383-2654 for details. —KEITH PANDOLFI

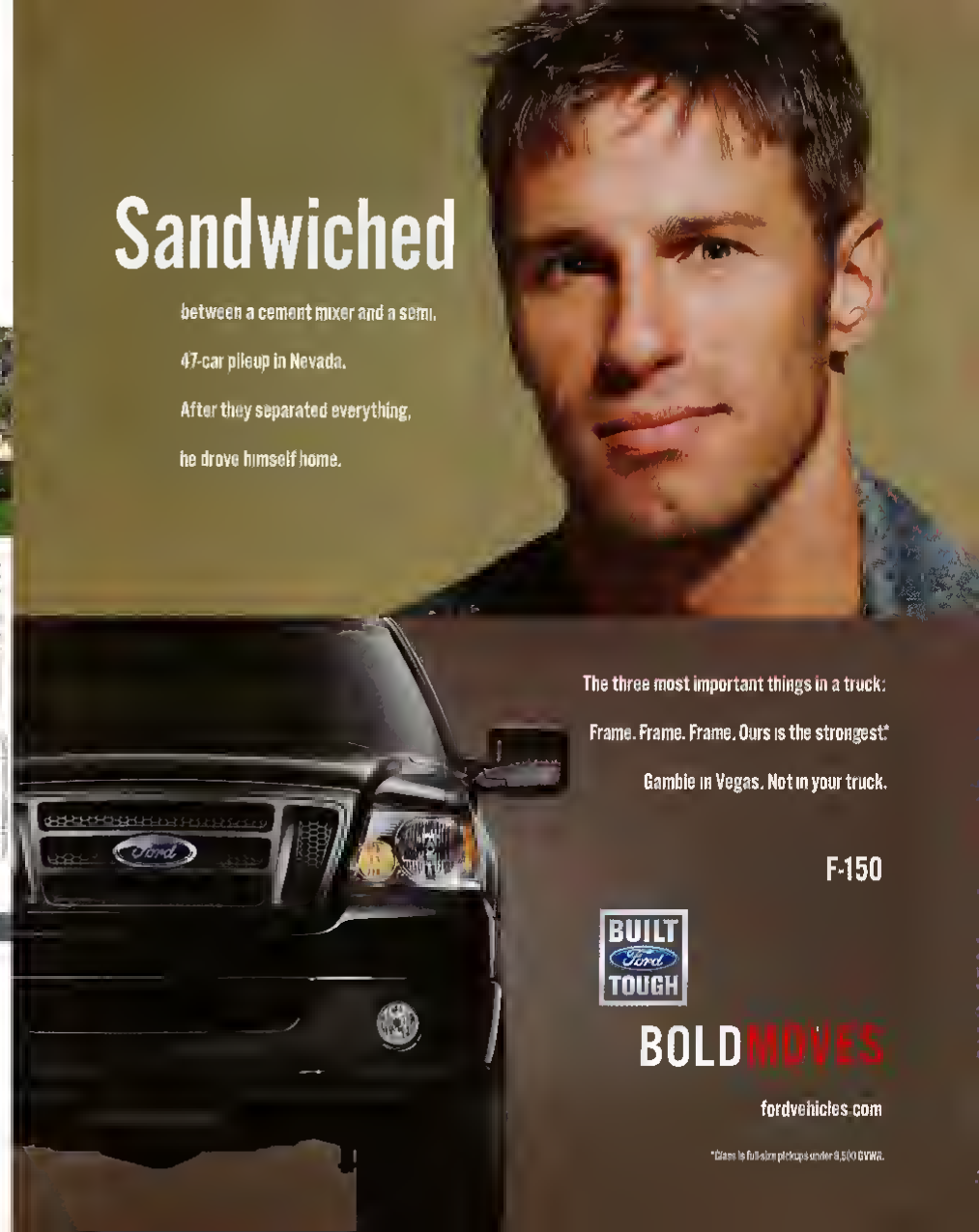
PHOTOS: © OCWS; FROM TOP RIGHT: THE LIBRARY OF CONGRESS; COURTESY OF THE ... © CHUCK ... / ANNE RENG

{ ORIGINS: ANSWER }

Q
A

C. 1863 Made from linseed oil, pine resin, wood flour, powdered cork, and limestone, linoleum is biodegradable and doesn't give off any toxic VOCs. As evidenced by all these perfectly preserved mid-century kitchens, it's also durable enough to last for decades.

FOR LIST OF LINOLEUM MAKERS, SEE DIRECTORY PAGE 131



A Stylish Clay Finish That You Can Apply

Natural earthen plaster looks good and offers no trowel trouble

CLAY PLASTERS can conjure images of the rough walls in traditional cob-earth and adobe houses. But American Clay, the maker of Earth Plaster, invented a mutable plaster that can mimic styles from silky Venetian to pebbly Provencal.

The formula—natural clay, recycled marble dust, and pigment for color—passes muster with the eco-conscious: low-energy production (it's made in the USA with domestic ingredients), no toxic chemicals, no noxious fumes.

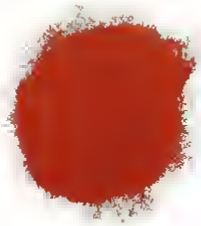
Gypsum plasters, by comparison, emit carbon dioxide as they dry. And lime plasters, which are harder than clay, hold less moisture and therefore don't regulate room temperature as well. Then there's the pH problem: Lime can burn your skin during application.

Earth Plaster pleases restoration purists, too. The material meets most preservation mandates for malleability, flexibility, durability, and mold and bug resistance.

It's also DIY-friendly. Just add water, and spray it or spread it on specially primed walls. The plaster, which comes in 40 colors, goes on in two coats with no sanding in between, and takes about six hours to dry. "Our best installers are people who've never used [plaster] before, because they don't have a preconceived idea about what it's supposed to do," says American Clay spokeswoman Carol Baumgartel. But should you need help, the company will provide the name of a local installer.

Even without labor costs, though, Earth Plaster costs more than its conventional cousins: about $1 to $1.50 per square foot, compared with 22 cents. But just think, the built-in pigments means you'll save on paint. And according to Baumgartel, that extra coin also buys you easy reparability—by keeping it wet, you can save a small batch of the plaster for up to six months for touch-ups. For ordering information, as well as detailed application instructions, visit americanclay.com.

—LISA SELIN DAVIS



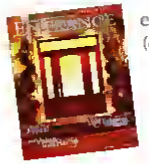
CLOCKWISE FROM LEFT: A custom-tinted red Earth Plaster coats shelves in the dining area of a 1920s wood-frame cottage in Venice Beach, California, that was recently rebuilt in a Pueblo Revival style. The homeowners chose soothing Tucson Gold to surround the hearth in the master bedroom.

PHOTOS (STILL): FOTAMARK/WEISS

Fiberglass doors that command attention, but rarely need yours.

Are you looking for an entryway with great style and low maintenance? Therma-Tru offers a beautiful, durable solution. Classic-Craft® fiberglass entryways. They feature our patented AccuGrain™ Technology, which rivals the look and feel of premium wood. But will never crack, swell or rot like wood. And won't dent, ding or rust like steel.

Discover how Therma-Tru's enduringly beautiful entryways can enhance your home and increase its perceived value. Call **888-902-DOOR** (888-902-3667) or visit **www.thermatru.com/ad31**



Visit our web site or call for your free *Make An Entrance* magazine. It's full of entryway ideas.

©2006 Therma-Tru Corp. All rights reserved.

THERMA-TRU DOORS

The Most Preferred Brand in the Business™

Classic-Craft® American Style Collection™ CCA232

Bungalow

Rooted in the early 20th century Arts & Crafts movement in England, the bungalow style marries form and function. Normally made of medium - dark stained wood the front doorway harmonizes with other natural tones of the house's front exterior

THERMA TRU® DOORS

Classic-Craft® American Style Collection™ CCA218

Classic-Craft® American Style Collection™ CCA221

Classic-Craft® Oak Collection™ CC74

Victorian

This style originated with England's renewed appreciation for Renaissance aesthetics during Queen Victoria's reign, and eventually grew fashionable in the 19th century United States Victorian style doorways, like the rest of the home, are characterized by lavish design details, accenting colors and decorative glass

THERMA TRU® DOORS

Classic-Craft® Oak Collection™ CC54

Smooth-Star® 594

Smooth-Star® 5210 door with 53035L sidelites and 19020T transom

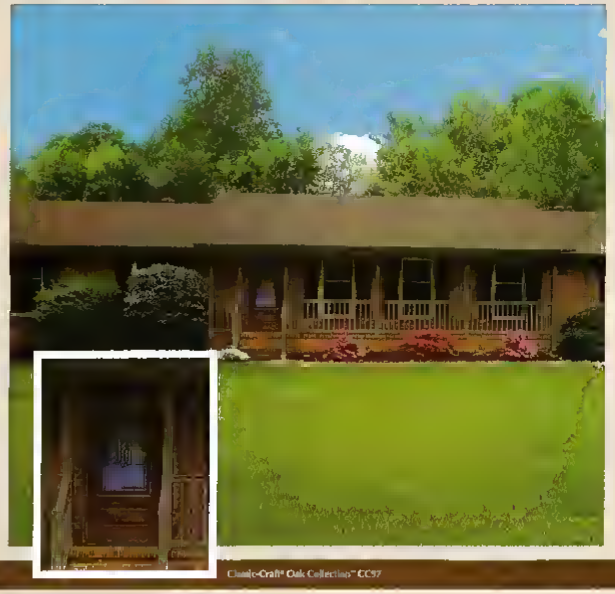
Colonial

Though influenced by Old World Europe, especially England, there s no home style more iconic in the United States than colonial From early Dutch Colonial to the later Colonial Revival, it's a style that's seen many periods and influences Through most, the transom has remained a hallmark of the front door

THERMA TRU® DOORS

Classic-Craft® Oak Collection™ CC92

Smooth-Star® 575



Classic-Craft® Oak Collection™ CC97

Ranch

Very popular from the 1950s through the 1970s, the ranch style is re-gaining popularity today as values return to the need for efficient, simple design centered on home entertainment The doorway is usually the front exterior's most expressive architectural element often incorporating distinctive styling like decorative glass details

THERMA TRU® DOORS

Classic-Craft® Oak Collection™ CC46

Fiber-Classic® FC715

ADVERTISEMENT

Smooth-Star® S92 door with S3015L sidelites and 194297 transom

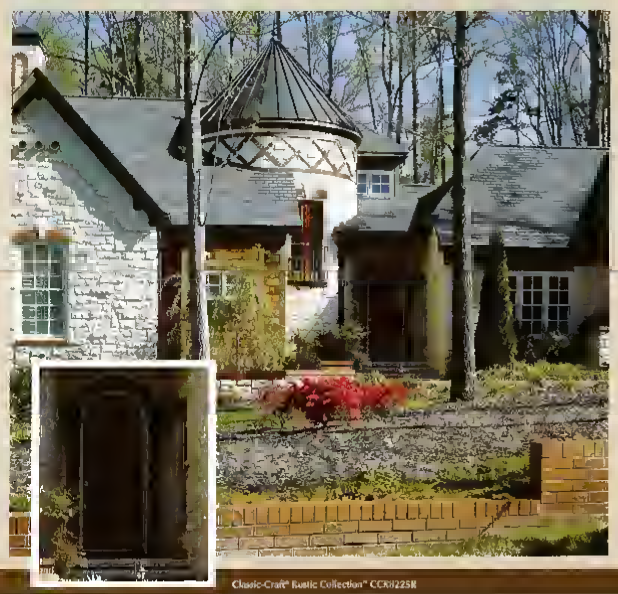
Country

Often two stories, country style homes are accommodating and look best when kept basic. Rustic doors with clean lines evoke the simplicity of country style and can even fall in step with modern needs for an uncluttered look and feel.

THERMA-TRU® DOORS

Classic-Craft® Rustic Collection™ CCR2010

Fiber-Classic® FC15



Classic-Craft® Rustic Collection™ CCR0225R

European

European style homes reflect a touch of elegance and a reminder of the grandeur and heritage of the Old Country. This home style usually features a front exterior of stucco, brick, or stone and the entrances often have dominant Oak or Mahogany doors with an arch at the top or an arch design in the door.

THERMA-TRU® DOORS

Classic-Craft® Mahogany Collection™ CCM109

Classic-Craft® Oak Collection™ CC17

ADVERTISEMENT

Anatomy of a door

Every home style has its own signature combination of basic doorway elements. Getting to know these elements will help you make educated decisions about your options for an entryway that works with the rest of your home.

1. **Brickmold** – The decorative molding used to finish the exterior face of a wood frame. (Casing – The interior trim molding around the door opening that covers the gap between the frame and the wall.) 2. **Doorlites** – Decorative or clear glass assemblies that are fitted into the door. 3. **Sidelites** – Fixed assemblies that are attached adjacent to the door frame. 4. **Transom** – Fixed decorative or clear glass that is attached above the door frame. 5. **Frame** – The wood structure that encloses and supports the entire door system. 6. **Hinge** – The metal plate mounted on the door frame that anchors the door. 7. **Panel** – The embossed or recessed decorative section of a door that produces deep shadow lines. 8. **Sill** – The horizontal bottom frame of a door that supports the weight of the entire door. 9. **Weatherstripping** – A fixed or adjustable seal along the edge of the door frame that keeps out water. 10. **Sweep** – A weatherstripping attached to the bottom of the door.

The difference with Therma-Tru is that all of the above are not just part of a door, but a door system. All of the components are designed to work together. Trouble-free

7

9

10

8

ADVERTISEMENT

Making a Stylish Entrance

Choosing Door Styles That Suit Your Home's Architecture

BROUGHT TO YOU BY

THERMA-TRU® DOORS

When it comes to personalizing the home, it's all in the details. What better way to set the tone for your home's unique style statement than with a door that enhances its exterior character and offers a clue to the mood and atmosphere that awaits inside. This poster guide from Therma-Tru® Doors will help you identify the style of home you live in and offer suggestions as to the types of entryways and door details that will best complement your home's style. Look inside to learn about six common residential architectural styles and view fitting options from the Therma-Tru collection of innovative fiberglass doors

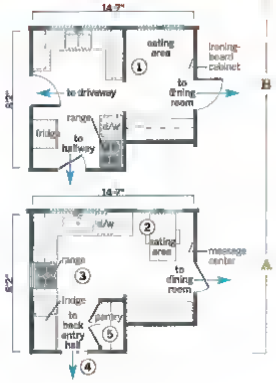
Clean and Green

>> Designed to be family-friendly, this warm and bright kitchen redo manages to be earth-friendly, too

BEFORE The original sink cabinet provided little usable prep or cleanup space. **AFTER** Easy to install and maintain, recycled-aluminum tile now covers counters that surround the basin and extend to meet butcher block flanking the range

BY JILL CONNORS
PHOTOGRAPHS BY SUSAN SEUBERT

THE BEST REMODELING IDEAS often spring from sources close to home At least that's what Portland, Oregon, homeowners Eric Park and Grace Lee-Park discovered when they were envisioning ways to make their 1927 bungalow more livable for the long term With expert remodeling guidance from the city's innovative Green Building Program and the husband-and-wife design team of Sean and Lauren B. Cho, the couple found ways to use recycled, sustainable, and salvaged materials for all the major elements of their new kitchen To improve the room's chaotic traffic pattern, they relocated the back door (formerly positioned in the path from sink to stove) and removed an interior wall to create an open dining area where they could enjoy casual meals with their two children They paved the countertops with recycled-aluminum tiles and installed new cabinets with wheatboard interiors and doors of sustainably harvested red alder finished with a natural plant-oil-based stain to resemble cherry. The old windows and fir floors were saved and restored So strong was the notion of reuse that the Parks even found a new purpose for the built-in ironing board cabinet It now opens to reveal a message center with a chalkboard for doodles and a corkboard for reminders.



B A **BEFORE** Too many doorways and light-blocking interior walls made for a confusing traffic pattern as well as a severe shortage of sunlight countarspace and storage **AFTER** The new range takes its logical place along tha hack wall (where the back door had been) in an improved L shaped floor plan Apocket door now opens onto the hall leading to the new rear entry

FLOOR PLAN AN NORPO C

The Plan

>>Create a more efficient layout within the original footprint—and make it eco-friendly

What They Did

1 | **RETHOUGHT EXISTING SPACE.** The driveway runs along the kitchen s rear exterior wall leaving no chance of e bumpout to increase square footage Since the designers couldn t make the kitchen bigger they worked to make better use of the space creating a more open floor plan by removing the wall that divided the kitchen s work areas from a dim adjoining din ng nook.

2 | **KEPT THE OLD WINDOWS.** Demolishing the interior wall of the nook had the added benefit ot supplementing the room s natural light by exposing the eating area s two windows which were reused in the renovation and trimmed out to match the windows over the sink

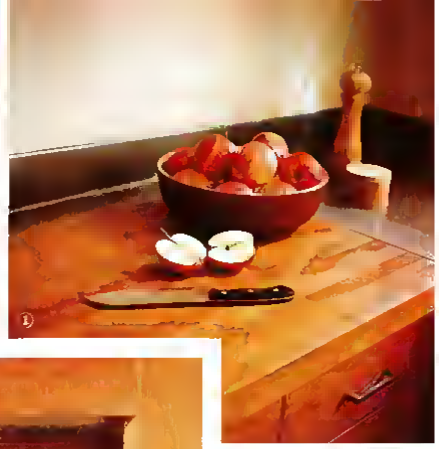
3 | **CREATED A REAL WORK TRIANGLE.** Closing up the back door allowed for better placement of sink range and fridge which are now positioned along two walls in an efficient L shaped layout

4 **REROUTED THE BACK ENTRY** A space efficient pocket door between the fridge and pantry now leads to the existing hall and the relocated back door

5 | **ADDED A PANTRY** A double-door food cabinet right inside the back entry to the kitchen minimizes steps when unloading grocenes The cabinets interior boxes are wheatboard an agricultural by product made with nontormaldehyde glue that doesn t result in off gassing

"Visiting green-building projects on a local house tour inspired us early on in the planning of our new kitchen."

—ERIC PARK HOMEOWNER



Affordable green kitchen-design ideas thisoldhouse.com/shortcuts

The Details

>>Recycled, reused, and sustainable materials create a welcoming, clean-lined design

1 | **THICK BUTCHER-BLOCK COUNTERS** from Green Mountain Woodworks are made of hard Pacific madrone wood, a native species sustainably harvested in the Pacific Northwest

2 | **ARCHITECTURAL GLASS BLOCK** forms a translucent backsplash above the new range, providing a quick-to-wipe down surface and an unusual vantage point on the home's new back door. The silhouettes of approaching friends and family members are visible through the glass

3 | **100-PERCENT-RECYCLED ALUMINUM** tiles by Eleek cover the countertops. Finished with a nontoxic powdercoat, they resist stains and fingerprints and are non-reactive. A durable latex sealant fills the fine spaces between the tiles

4 | **THE FARMHOUSE SINK,** also made from 100-percent-recycled aluminum by Eleek, is wide and deep, measuring 36 by 18 by 9 inches. The sink's offset drain creates more usable space in the undersink cabinetry, while the gooseneck faucet from Delta makes filling tall pots, buckets, and flower vases easier. The homeowners chose not to expose the sink's classic apron front, preferring to let the kitchen's cabinetry take center stage

FOR MORE INFORMATION SEE DIRECTORY PAGE 131

ADVAIR DISKUS 100/50

Fluticasone propionate 100 mcg and salmeterol 50 mcg inhalation powder

Dispensed by Prescription Only

If you don't have prescription coverage, visit pparx.org, or call 1-888-4PPA-NOW (1-888-477-3669)

GlaxoSmithKline

Important information about ADVAIR: Prescription ADVAIR won't replace fast-acting inhalers for sudden symptoms and should not be taken more than twice a day. ADVAIR contains salmeterol. In patients with asthma, medicines like salmeterol may increase the chance of asthma-related death. So ADVAIR is not for people whose asthma is well controlled on another controller medicine. Talk to your doctor about the risks and benefits of treating your asthma with ADVAIR. If you are taking ADVAIR, see your doctor if your asthma does not improve. Tell your doctor if you have a heart condition or high blood pressure. Some people may experience increased blood pressure, heart rate, or changes in heart rhythm. ADVAIR is for patients 4 years and older. For patients 4 to 11 years old, ADVAIR 100/50 is for those who have asthma symptoms while on an inhaled corticosteroid.

*People ages 12 years and older taking ADVAIR 100/50 experienced improved lung function and asthma symptom scores, and a reduction in fast-acting inhaler use, compared with people taking either fluticasone propionate 100 mcg or salmeterol 50 mcg (inhalation powders) alone.

Please see important information about ADVAIR on the next page.

Results may vary.

Information about ADVAIR DISKUS

ADVAIR DISKUS 100/50, 250/50, 500/50

(fluticasone propionate 100, 250, 500 mcg and salmeterol 50 mcg inhalation powder)

What is the most important information I should know about ADVAIR DISKUS?
In patients with asthma, long-acting beta$_2$-agonist medicines such as salmeterol (one of the medications in ADVAIR®) may increase the chance of death from asthma problems. In a large asthma study, more patients who used salmeterol medicines for asthma problems compared with placebo were also those who did not use salmeterol. So ADVAIR is not for asthma relief. Asthma is best controlled on another asthma controller medicine such as low to medium-dose inhaled corticosteroids or only used a short acting inhaler more in a while. Talk with your doctor about the risk and the benefits of treating your asthma with ADVAIR.

ADVAIR should not be used to treat a severe attack of asthma or chronic obstructive pulmonary disease (COPD) requiring emergency medical treatment.

ADVAIR should not be used to relieve chronic symptoms or chronic breathing problems. Always have a fast acting inhaler with you or treat asthma breathing difficulty. If you do not have a fast acting inhaler, contact your doctor to get one prescribed for you.

What is ADVAIR DISKUS?
There are two medicines in ADVAIR. Fluticasone propionate, an inhaled anti-inflammatory belonging to a group of medicines commonly referred to as corticosteroids, and salmeterol, a long-acting chronic bronchodilator belonging to a group of medicines commonly referred to as beta$_2$-agonists. There are 3 strengths of ADVAIR: 100/50, 250/50, 500/50.

For Asthma
- ADVAIR is approved for the maintenance treatment of chronic asthma in patients 4 years of age and older. ADVAIR should only be used if your doctor decides that another asthma controller medicine alone does not work well or if you need 2 asthma controller medications.
- The strength of chronic asthma approved for patients ages 4 to 11 years who experience symptoms on an inhaled corticosteroid is ADVAIR DISKUS 100/50. All 3 strengths are approved for patients with asthma ages 12 years and older.

For COPD associated with chronic bronchitis
ADVAIR 250/50 is the only approved dose for the maintenance treatment of airflow obstruction in patients with COPD associated with chronic bronchitis. The benefit of using ADVAIR for longer than 6 months has not been shown. The very anti-inflammatory blood work in the treatment of COPD is not well defined.

Who should not take ADVAIR DISKUS?
You should not take ADVAIR if your asthma is deteriorating significantly or rapidly worse, which can be life threatening. Serious respiratory events, including death, have been reported in patients who started taking medicines in this solution, although it is not possible to tell whether salmeterol contributed to these events. This may also occur in patients with less severe disease.

You should not take ADVAIR if you have had an allergic reaction to it or any of its components (salmeterol, fluticasone propionate, or lactose). Tell your doctor if you are allergic to ADVAIR, any other medications, or food products. If you experience an allergic reaction after taking ADVAIR, stop using ADVAIR immediately and contact your doctor. Allergic reactions are rare but may include one or more of the following: chokings; breathing problems; swelling of the face, mouth and/or tongue; rash; hives; itching; or blisters on the skin.

Tell your doctor about the following:
- If you are using your fast-acting inhaler more often or using more doses than you normally do (e.g., 8 or more inhalations of your fast acting inhaler for 2 or more days in a row) or a whole canister of your fast-acting inhaler in 8 weeks' time, it is not a sign that your asthma is getting worse. If this occurs, call your doctor immediately.
- If you have been using your fast-acting inhaler regularly (e.g., four times a day). Your doctor may tell you to stop the regular use of these medications.
- If your peak flow meter results decrease. Your doctor will tell you the numbers that are right for you.
- If you used asthma and your symptoms do not improve after using ADVAIR regularly for 1 week.
- If you have been on an oral steroid, like prednisone, and are now using ADVAIR. You should be very careful as you may be less able to heal after surgery, infection, or injury. It takes a month or so for the body to recover its ability to make its own steroid hormones after use of oral steroids. Switching from an oral steroid may also unmask a condition previously suppressed by the oral steroid such as allergies, conjunctivitis, eczema, arthritis, and eosinophilic conditions. Symptoms of an eosinophilic condition can include rash, worsening breathing problems, heart complications and/or feeling of "pins and needles" or numbness in the arms and legs. Talk to your doctor immediately if you experience any of these symptoms.
- Sometimes patients experience unexpected bronchospasm right after taking ADVAIR. This condition can be life threatening and if it occurs, you should immediately stop using ADVAIR and need immediate medical attention.
- If you have any type of heart disease such as coronary artery disease, irregular heart beat or high blood pressure. ADVAIR should be used with caution. Be sure to talk with your doctor about your condition because individuals, one of the components of ADVAIR may affect the heart by increasing heart rate and blood pressure. It may cause symptoms such as heart fluttering, chest pain, rapid heart rate, tremor or nervousness.
- If you have diabetes, should be thyroid gland, liver problems, or are sensitive or benefit to stimulants for breathing.
- If your breathing problems get worse over time or if your fast acting inhaler does not work as well as you have been using ADVAIR. If your breathing problems worsen quickly get emergency medical care.
- If you have been exposed to or currently have chickenpox or measles or if you need an immune system problem. Patients using medications that weaken the immune system are more likely or get infections than healthy individuals. ADVAIR contains a corticosteroid (fluticasone propionate) which may weaken the immune system. Infections like chickenpox and measles, for instance, can be very serious or even fatal in susceptible patients using corticosteroids.

How should I take ADVAIR DISKUS?
ADVAIR should be used 1 inhalation, twice a day (morning and evening). ADVAIR should never be taken more than 1 inhalation twice a day. The full benefit of taking ADVAIR may take 1 hour or longer.

If you miss a dose of ADVAIR, just skip that dose. Take your next dose of your blood time. Do not take two doses at one time.

Do not stop using ADVAIR unless told to do so by your doctor because your symptoms might get worse.

Do not change or stop any of your medicines used to control or treat your breathing problems. Your doctor will adjust your medicines as needed.

When using ADVAIR, remember:
- Never breathe into or shake the DISKUS® apart.
- Always use the DISKUS in a level position.
- After each inhalation, rinse your mouth with water without swallowing.
- Never blow any part of the DISKUS. Always keep it in a dry place.
- Never take an extra dose even if you feel you did not receive a dose.
- Wipe the mouthpiece with a dry tissue.
- Do not use DISKUS with a spacer inhaler.

Children should use ADVAIR with an adult's help as instructed by the child's doctor.

Can I take ADVAIR DISKUS with other medications?
Tell your doctor about all the medications you take, including prescription and nonprescription medications, vitamins, and herbal supplements.

If you are taking ADVAIR, you should not take SEREVENT® DISKUS or Foradil® Aerolizer® for any reason.

If you take ritonavir (an HIV medication), tell your doctor. Ritonavir may interact with ADVAIR and blood cause serious side effects. The anti-HIV medicines Norvir® Soft Gelatin Capsules, Norvir Oral Solution, and Kaletra® interact with ritonavir.

No formal drug interaction studies have been performed with ADVAIR.

In clinical studies, there were no differences in effects on the heart when ADVAIR was taken with varying amounts of albuterol. The blood of taking ADVAIR in patients with chronic blood taking more than 8 puffs a day of albuterol has not been studied.

ADVAIR should be used with extreme caution during and up to 2 weeks after treatment with monoamine oxidase (MAO) inhibitors or tricyclic antidepressants. Blood flow medications can cause ADVAIR to have an even greater effect on the circulatory system.

Caution should be used with caution in people who are taking ketoconazole (an antifungal medicine) or other drugs slower down by the body in a similar way. There ketoconazole can cause ADVAIR to have greater effects with effects.

Generally people with asthma should not take beta-blockers because they counteract the effects of beta$_2$-agonists and may also cause severe bronchospasm. However in some cases, for instance, following a heart attack, selective beta-blockers may still be used if there is no acceptable alternative.

The ECG changes and/or low blood potassium that may occur with some treatments may be drastic drugs by ADVAIR, especially at higher than recommended dosage. Caution should be used blood taken drugs are used together.

In clinical studies, there was no difference in side effects blood studies was taken with methylxanthines (e.g. theophylline) or with PLONASE®.

What are blood important safety considerations with ADVAIR DISKUS?
Osteoporosis: Long-term use of inhaled corticosteroids may result in bone loss (osteoporosis). Patients with are at risk for increased bone loss (fracture risk, advanced age, inactive lifestyle, poor nutrition, family history of osteoporosis, or long term use of drugs such as corticosteroids) may have a greater risk with ADVAIR. If you have risk factors for bone loss, you should talk to your doctor about ways to reduce your risk and whether you should have your bone density evaluated.

Glaucoma and cataracts: Glaucoma, increased pressure in the eyes, and cataracts have been reported with the use of steroids, including fluticasone propionate, a medicine contained in ADVAIR. Regular eye examinations should be considered if you are taking ADVAIR.

Lower respiratory tract infection: Lower respiratory tract infections, including pneumonia, have been reported with the use of inhaled corticosteroids, including ADVAIR.

Blood sugar: Salmeterol may blood blood sugar and/or cause low blood potassium in some patients, which could lead to a side blood like an irregular heart rate. Significant changes in blood sugar and blood potassium were seen infrequently in studies studies with ADVAIR.

Growth: Steroids steroids may cause a reduction in growth velocity in children and adolescents.

Steroids: Taking steroids can blood your body's ability to taken its own effects hormones, which are needed taking infections and blood of severe stress in your body such as an operation. These effects can sometimes be seen with inhaled steroids (but it is more common with oral steroids) especially blood blood at higher than recommended doses over a long period of time. In some cases, blood effects may be severe. Steroids steroids often help control symptoms with less with effects than oral steroids.

Blood infections: Patients taking ADVAIR may develop yeast infections of the mouth and/or throat ("thrush") that should be treated by their doctor.

Tuberculosis or blood untreated infections: Steroids should be used with caution, if at all, in patients with tuberculosis, herpes infections of the eye or blood untreated infections.

What are the other possible side effects of ADVAIR DISKUS?
ADVAIR may produce side effects in some patients. In clinical studies, the most common side effects with studies included:

- Respiratory infections
- Throat irritation
- Hoarseness
- Sinus infection
- Blood infection of the mouth
- Bronchitis
- Cough
- Headaches
- Stomach that vomiting
- Diarrhea
- Muscoskeletal pain
- Dizziness
- Fever
- Ear pain, and sinus infections
- Glaucoma

Tell your doctor about any side effect that bothers you or that does not go away. These are not all the side effects which with ADVAIR. Ask your doctor or pharmacist for more information.

What if I am pregnant, planning to should a pregnant, or nursing?
Talk to your doctor before taken the blood to start using ADVAIR during pregnancy, labor, or if you are nursing. There are not enough of ADVAIR used during pregnancy either or in nursing women. Salmeterol is known to interfere with labor contractions. It is not known whether ADVAIR is excreted in breast milk, but blood corticosteroids have been detected in human breast milk. Fluticasone propionate, the corticosteroid, has been associated with birth defects in animals (e.g. cleft palate and fetal death). Salmeterol administered to blood on fertility in rats at 160 times the dosage on micrograms daily used.

What other important blood were considered with ADVAIR?
There is no evidence of enhanced toxicity with ADVAIR compared with the components administered separately. In animal studies with some much higher than blood used in humans, salmeterol was associated with stomal tumors. Your healthcare professional can tell you more blood false drugs are tested on animals and what the results of blood tests may mean to you taking.

For more information on ADVAIR DISKUS
This page is only a brief summary of important information taken ADVAIR DISKUS. For more information, talk to your doctor. You can also visit www.ADVAIR.com or call 1-888 825 5249. Patients receiving ADVAIR DISKUS effects read the medication guide provided by the pharmacist with the prescription.

ADVAIR DISKUS®, PLONASE®, SEREVENT® and DISKUS are registered trademarks of GlaxoSmithKline. The following are registered trademarks of their respective manufacturers: Foradil® Aerolizer®Novartis Pharmaceuticals Corporation; Norvir and Kaletra®Abbott Laboratories.

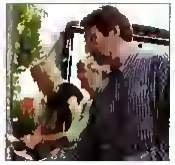
GlaxoSmithKline
GlaxoSmithKline
Research Triangle Park, NC 27709
BL-2298

©2006 The GlaxoSmithKline Group of Companies. All rights reserved. Printed in USA. AB3007R0 September 2006

ADVERTISEMENT

This Old House® revamps East Boston

Tune in to see the crew from *This Old House* help a dynamic aunt and niece team transform their outdated two-family house on a tight budget



Watch as Liz and Chris roll-up their sleeves and pinch their pennies to make their dream of new kitchens and bathrooms come true — on a brand new season of *This Old House*

This Old House EAST BOSTON PROJECT

Exclusively on PBS
Check thisoldhouse.com/tvschedule or your local listings for show times

THANK YOU TO OUR NATIONAL SPONSORS Andersen GMC THE HOME DEPOT PBS WGBH

Exterior Home Photo: Anthony Tinelli; Homeowner Photos: Deborah Hanel

What if you could get the best experts to tackle your home improvement questions?

You can...

Tune in this October to brand-new episodes of *Ask This Old House*, for all the answers you're looking for. Visit thisoldhouse.com to submit your questions and you may get a personal visit from Tom, Richard, Roger or Kevin

Ask This Old House

Exclusively on PBS
Check thisoldhouse.com/tvschedule or your local listings for show times

THANK YOU TO OUR NATIONAL SPONSORS GMC THE HOME DEPOT TORO Count on it PBS WGBH

Talent Photo: Peter Ross

This Old House CLASSICS

Tune in to classic seasons from *This Old House*

ON HGTV
THIS OLD HOUSE CLASSICS
SATURDAYS
7:00AM & 7:30AM
SUNDAYS 7:30AM

ON DIY
THIS OLD HOUSE CLASSICS
WEEKNIGHTS 7:30PM
SUNDAYS 8:00AM

ON A&E
ASK THIS OLD HOUSE
SATURDAYS
10:00AM & 10:30AM

INSIDE THIS OLD HOUSE
SATURDAYS
9:00AM & 9:30AM

ON LOCAL BROADCAST STATIONS
THIS OLD HOUSE CLASSICS
CHECK YOUR LOCAL LISTINGS FOR STATIONS & SHOW TIMES

THANK YOU TO OUR NATIONAL SPONSORS OF SYNDICATED TELEVISION

GMC THE HOME DEPOT JELD-WEN call2recycle TORO Count on it.

Beautiful rooms take shape when you use the right bulb.

Add a beautiful, decorative touch to your home by choosing the GE Reveal® bulbs that best fit your fixtures.

General Purpose
Watch your room take shape when you choose GE Reveal® general purpose bulbs for common household fixtures including table lamps.

GE Reveal® 3-Way Work with 3 way lamps to let you control the amount of light for a variety of needs — low setting for energy savings and mood lighting high setting for task lighting.

GE Reveal® Reader Lights Provide a bright soft light without harsh glare — perfect for reading or hobbies like knitting and scrapbooking

Globes
Globe shaped bulbs enhance the look of your vanity fixture and provide flattering light Choose GE Reveal® globe bulbs to bring out the colors and patterns that may otherwise go unnoticed with standard bulbs.

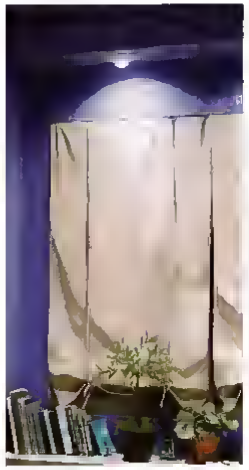
GE Reveal® Clear Globes: Add a touch of extra style to your room and bring out the beauty of your fixture

GE Reveal® Frosted Globes: Reduce harsh glare and shadows while adding a decorative touch.

Track & Recessed
GE Reveal® floodlights and spotlights are the perfect shape for recessed can fixtures and track lighting Unlike general purpose bulbs they're designed to project all of their light out of the fixture and into your room

GE Reveal® Floodlights. Produce broad beams of light for added drama in special areas of your home—kitchens, entryways and family rooms

GE Reveal® Spotlights Focus light right where you want it—perfect for giving added attention to artwork decorative objects and display areas.



Enter for your chance to
win a $25,000 home makeover!
Or hundreds of other great prizes

BEAUTIFUL ROOMS SWEEPSTAKES

Go to www.gelighting.com for a list of participating retailers, and to sign up for your free lighting DVD While supplies last

Look for a Beautiful Rooms game piece on specially marked packages of GE Reveal® bulbs, or see the Official Rules (details below) Then visit www.gelighting.com to see how beautiful rooms take shape with the right GE bulbs

Grand Prize
$25 000 Home Makeover Cash

100 First Prizes:
$500 Home Improvement Cash

500 Second Prizes
$50 Home Shape-Up Cash

Plus, More Great Offers!
Play the game and print a coupon for $2 off your next GE Reveal® purchase

Go to www.gelighting.com

No purchase necessary to enter or win. Void where prohibited. The Beautiful Rooms Sweepstakes begins at 12:00:00 AM ET on 9/11/06 and ends at 11:59:59 PM ET on 3/31/07 Must be legal resident of 50 U.S. states or Washington, D.C. 21 or older. Void where prohibited. Official Rules apply and are available at www.gebeautifulrooms.com or send a self-addressed, stamped envelope (must be received by 4/07/07) to: The Beautiful Rooms Sweepstakes Rules Request, c/o ELM Group, 375 Park Avenue South, 5th Floor, NY NY 10016.

MANUFACTURER'S COUPON EXPIRES 1/31/07

SAVE $1.00
On Any Reveal® Product from GE

EXPIRES JANUARY 31 2007 0022678 443138

Consumer: Coupon valid only on your purchase of any package of GE Reveal light bulbs. You pay sales tax. Coupon may not be reproduced or combined with another offer and is non-transferable. Void if transferred, exchanged, sold or reproduced. Offer limited to one purchase in U.S.A., its territories and military exchanges. Retailer: GE will reimburse you the face value plus 8¢ handling provided you have accepted this coupon in accordance with GE's Coupon Redemption Policy. Void where prohibited. Cash value 1/100 of 1¢. For copy of policy and/or coupon redemption mail to: GE Consumer & Industrial Lighting Products, P.O. Box 880550, El Paso, TX 88588-0550

(800)0 46313

5 43169 40076 8

imaginotion at work

GE Reveal® is registered trademark of General Electric Company.
© 2006 General Electric Company

Reusing Old Accent Windows

>> How to give vintage transoms, sidelights, and decorative sash new life in your house

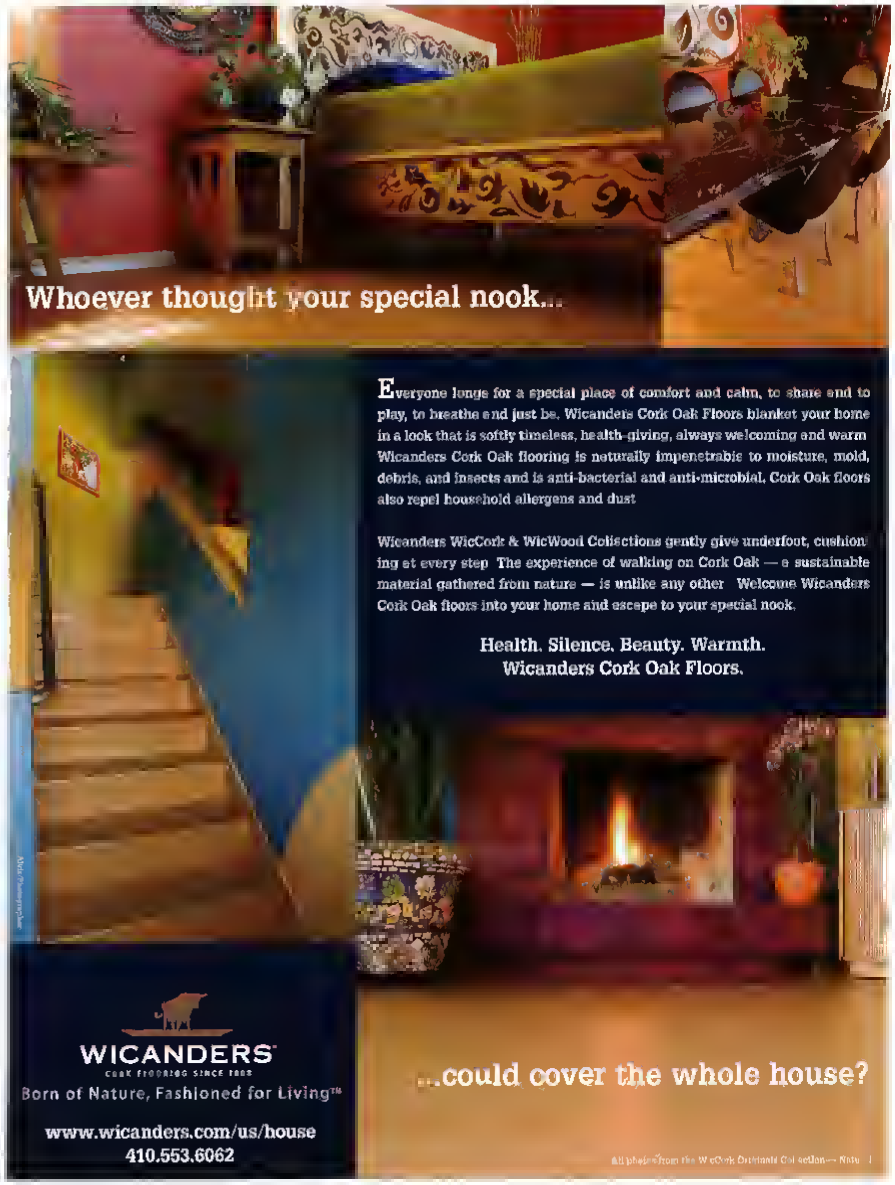
BY AMY R. HUGHES
PHOTOGRAPHS BY JOSHUA PAUL

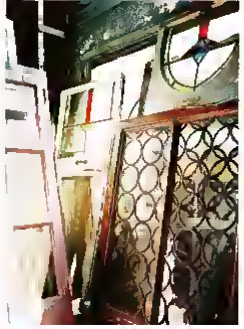
IF A DOUBLE-HUNG IS THE WORKHORSE of the window world, with its sliding sash to let in air and shut out rain, then a fixed-in-place fanlight, eyebrow, or circular window is the show pony. Such accent windows are meant to catch the eye: topping a paneled wood entry door, winking from below an undulation in a shingled roof, or tucked under the eaves in a front gable.

The window types do share similarities, though. Just as the number of divided lights or panes in a double-hung helps you discern the difference between a Georgian-style house and a Greek Revival, an accent window's shape and intricate pattern—formed by wood muntins or metal caming—can define a house's architectural heritage.

Designs of early American windows were driven primarily by the availability of glass and the technology for making it. In the 1700s, the majority of glass was handmade in England. Imports were expensive, and panes were often small. So small, in fact, that in order to fill a typical window opening, they had to be grouped together in a wooden or metal grid.

How to replace a broken windowpane
thisoldhouse.com/shortcuts





CLOCKWISE FROM LEFT: Leaded glass windows can be found with both clear and colored glass. This fanlight probably hung above the front door to a Federal-style house. Diamond-pattern muntins give these windows a medieval look suitable for Victorian-era Gothic Revival houses, as well as more recently minted Tudor Revivals.

By the end of the Civil War, American factories began to turn out larger and higher quality panes that allowed for greater diversity in textures, patterns, and shapes, as well as more affordable prices. Catalogs followed with mass-produced windows to dress up Victorian-era houses. In one, a circular sash with a center clover design, for instance, was one of 12 offered for use in the gable ends of Queen Anne, Gothic Revival, and Shingle-style houses.

Though typically sold as stationary units, hinged accent windows were also touted as a way to add ventilation above doors, alongside fireplaces, and in powder rooms, cellars, and attics. Diminutive ones also had special attributes, according to the 1927 Universal Millwork Catalog: "Small sash greatly improve the architectural appearance of a home by breaking up blank spaces in which an ordinary window cannot be placed."

The use of accent windows came to a halt after World War II as Americans abandoned such flourishes in favor of Modern minimalism. Ranch houses of the 1950s and 1960s had low-pitched roofs and rambling facades punctuated with enormous single-pane picture windows.

Today, the trend of building new houses based on traditional architectural styles along with the need of many old-house owners to replace damaged sash have revived the market for historical window patterns. Various manufacturers make reproductions, but for a diverse selection of period originals—often selling for less than new, and undoubtedly possessing more character—you'll have to visit your local salvage dealer.

Among the offerings at Evan Blum's five-story Demolition Depot in New York City is a late-19th-century transom with leaded and beveled glass. The window once crowned the entrance of a Queen Anne–style mansion in Cleveland, Ohio, but today it might be installed at the top of a large pass-through built between a kitchen and dining room to let in extra light and add drama to what would otherwise be a ho-hum home improvement. This one-of-a-kind transom costs $7,500, but Blum sells builder's-supply-catalog varieties for less than $300.

Metal casements with diamond-shaped divided lights were popular on Tudor style houses from the '20s and '30s, but today they make great cabinet doors. "Instead of refacing old cabinets with new doors, just select nice windows with vertical hinges and attach them to the existing boxes," says Blum. "It'll change the whole look of your kitchen." He also recommends stacking casements, which he sells for about $100 a piece, one on top of the other and framing them vertically between wall studs to create a partition that delineates space without blocking light. Other projects might include replacing the old glass in a fanlight with mirrors and hanging it on the wall, or suspending a sidelight in front of a plain double-hung to obscure an unsightly view (see the how-to at left).

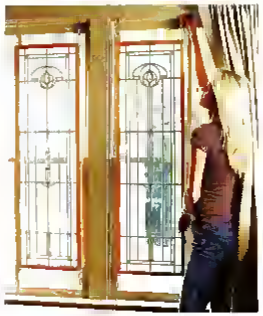
Old windows get a bad rap these days for not being energy efficient, says Blum, who encourages his customers to use them inside the house, where thermal values aren't a factor. "But there are lots of clever ways to use old windows instead of trashing them. Only uncreative minds fill the dump." ■

Block the View, Not the Light

To screen an unsightly view from their dining room windows, Virginia homeowners Edward and Colleen Morché knew there was a better solution than closing the curtains. Instead they hung salvaged Art Nouveau sidelights within the existing windows. Interior framing to refocus interest on the stained and leaded glass while still letting in plenty of sunlight.

The Morchés nailed picture hooks into the sidelights' vertical wooden stiles at top and bottom. They then secured four auger screws in the existing double hangs' top jamb and four in the stool. Steel chains fasten the sidelights to the screws. "I was worried about letting my kids run around by the windows," says Edward. But by attaching the sidelights at their four corners, the couple ensured the safety of both the windows and their children.

—CAITLIN GROGAN



FOR MORE INFORMATION, SEE DIRECTORY PAGE 131

Get up to a $1,500 cash back rebate, special financing, or 10-year extended warranties.*

Only York's Affinity Series Furnace has ClimeTrak®, so settings can be customized for your region's climate and conditions. That means it works just as comfortably and efficiently in sunny, dry Arizona as it does in cool, misty Maine. The result: You enjoy maximized comfort and efficiency with a furnace that's as gorgeous as it is dependable. It's just the latest innovation from York. For more information, call your local York Dealer at 800-910 YORK. Or, visit us online at www.yorkupg.com.

YORK®
It's time to get comfortable.™

*On select models installed between September 1 and November 30, 2006. Terms and conditions apply, so call your participating York Upgrade Dealer for details. Only available through registered York Upgrade Dealers. Void where prohibited.

THE BEAUTY OF CHOICE FILTERED AND TAP WATER FROM ONE SPOUT.

Introducing the Muirfield™ faucet with ChoiceFlo Filtration!™ The innovative design lets you choose filtered or tap water from the same spout. With the simple turn of a handle, filtered water flows from a separate waterway at a high rate. So if you're looking for the best filtration solution, the choice is clear. Exclusively at Lowe's®

ChoiceFlo™
Two choices. One spout.

CELEBRATING 100 YRS
LOWE'S
Let's Build Something Together™

Lowe's Item #243531 / Moen Model #87410
Lowe's and the gable design are registered trademarks of LF LLC.

MOEN
Buy it for looks. Buy it for life.®

1-800-BUY-MOEN • www.moen.com
© 2006 Moen Incorporated. All rights reserved.
Moen, Buy it for looks. Buy it for life. is a registered trademark of Moen Incorporated.

PEARLY GLOW Glass tiles can be used on walls and floors, or as accents in combination with other materials. Resistant to freeze-and-thaw cycles, they're also good for outdoor kitchens or lining the edge of a pool. The metallic sheen comes from the addition of earth oxides, such as chrome and copper after firing. By Oceanside Glasstile. Field tiles, $2–$16; mosaics, $28–$48 per sq. ft. Available through artistictile.com

STYLE: MARA FERNOS
STYLING: BARBARA F. EDROS

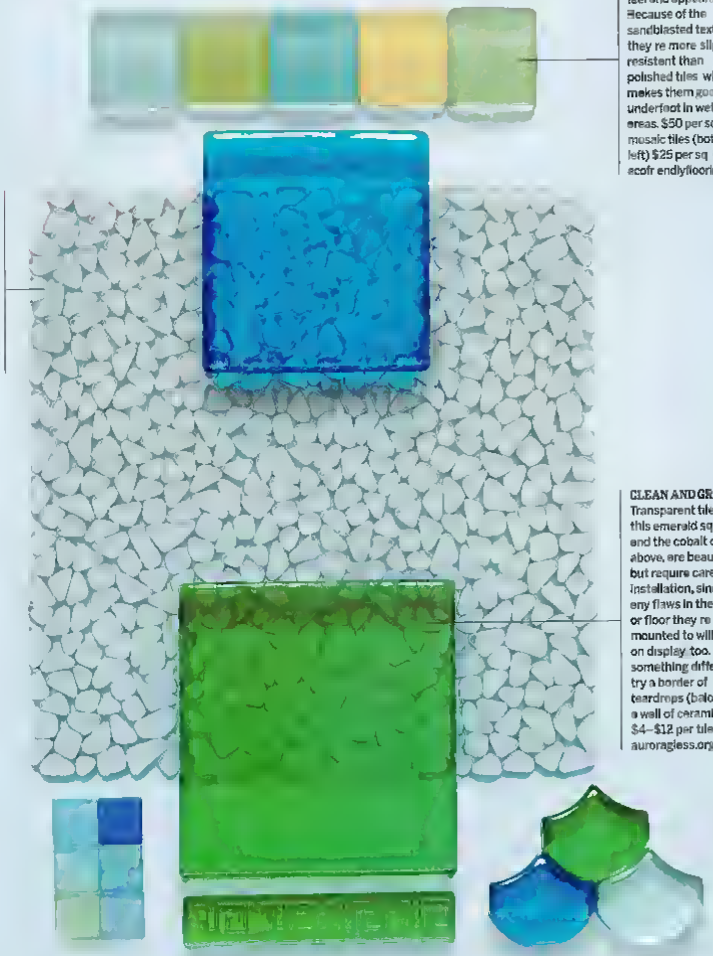
Clear Winners

>> Recycled glass tile is beautiful, affordable, and responsible

BY CAITLIN GROGAN
PHOTOGRAPHS BY ANITA CALERO

PERHAPS WE WOULDN'T be so quick to chuck out all those empty wine bottles and water bottles and soda bottles and beer bottles if we knew what they were capable of. The people who make these tiles know. That's why they gather up your castoffs, clean them, crush them, and cook them, before bringing them back to life as something you're proud to display on your walls and floors.

Glass tile comes subtly or brightly colored, clear, iridescent, or matte; molded into shapes or textured with designs, even tumbled into nuggets like pebbles at the seashore. And when you use it to perk up a backsplash, line a shower stall, or bring depth to a floor, you're not only adding style to your house but also making landfills a little lighter.



TUMBLED
These frosted tiles are softer in both feel and appearance. Because of the sandblasted texture they're more slip resistant than polished tiles, which makes them good underfoot in wet areas. $50 per sq. ft.; mosaic tiles (bottom left) $25 per sq. ft.; ecofriendlyflooring.com

SEAGLASS
No, you don't have to place each of these individual glass pebbles by hand. They come premounted on 12-by-12 mesh sheets. Once installed and grouted, the seams are invisible. $20–$25 per sq. ft.; ecofriendlyflooring.com

CLEAN AND GREEN
Transparent tiles, like this emerald square and the cobalt one above, are beautiful but require careful installation, since any flaws in the wall or floor they're mounted to will be on display, too. For something different, try a border of teardrops (below) on a wall of ceramic tile. $4–$12 per tile; auroraglass.org

Tips for a top tile job: thisoldhouse.com/shortcuts

AU NATUREL
No added oxides or dyes are used to create these colors. Instead, each handmade tile comes out looking exactly like the glass ingredients that went into it. The "natural" look extends to the shapes, which in addition to the soft-edged geometrics here, also include free-form oak leaves and flower petals. $2–$11 per tile. bedrockindustries.com

BUILD YOUR SKILL
To learn the secrets of installing glass tile, turn to **Workshop,** page 121

Glass tile isn't just made from empty bottles. Manufacturers might throw in ground-up greenhouse windows, ocean-liner portholes, and airplane windshields.

FOR MORE INFORMATION SEE DIRECTORY PAGE 131

Santa Barbara Plank - Light Amber Maple

After seeing the competition, the Evil Queen knew she was way out of her league.

Finish your room's story at mohawk-flooring.com or call 1-800-2-Mohawk
Hardwood - Carpet - Ceramic Tile - Laminate - Rugs

MOHAWK
Mohawk makes the room

Cool Customers

>> Compact fluorescents save big money and look good doing it

BY JASON CARPENTER
PHOTOGRAPH BY MARK WEISS

IT'S TIME TO FLIP THE SWITCH on those flickering, buzzing fluorescents you're used to. Today's best bulbs—known as compact fluorescents, or CFLs—squeeze the same energy-efficiency and long life into smaller, shapelier packages. And whereas the greenish light once cast by old-school tubes has all the charm of an old school gym, these modern brights have coatings that create warmer and whiter hues, making them a legitimate choice for nearly any fixture in the house.

CFLs also beat standard incandescents. Sure, they cost more at the register, but they last up to 10 times longer than their cheaper cousins once you get 'em home. And they burn cooler, meaning these little jobs consume up to 75 percent less energy than a traditional bulb. All of that translates to as much as 60 bucks in savings over the life of each light. Multiply that by 30 (the average number of fixtures in a home), and making the switch starts to seem like a bright idea indeed.

STYLING: CHARLES PORTMAN

1 MOISTURE-FRIENDLY
Can be used in wet locations indoors or out. $12; philips.com

2 DIMMABLE FLOOD
Good for recessed lighting in a home theater. $11, philips.com

3 MINI SPIRAL
Ideal for small fixtures with little bulb clearance. $7; sylvania.com

4 CANDELABRA
Decorative bulb for use in wall sconces or chandeliers. $5–$7; gelighting.com

5 VANITY
Handy for strip lights in the bath. The frosted housing emits a soft but bright glow. $5, sylvania.com

6 CLASSIC
Good for general lighting and shaded fixtures. $5–$7; gelighting.com

7 SMALL CLASSIC
Sized for reading and task lamps. $8; sylvania.com

8 GLOBE
A 10,000-hour bulb—perfect for use in hard-to-reach fixtures. $6–$8, gelighting.com

9 THREE-WAY
Three wattage settings (50, 100, 150) make for easy mood lighting. $10–$12; gelighting.com

10 FULL SPECTRUM
Reproduces natural light. Ideal near windowless spaces. $20; luminaim.com

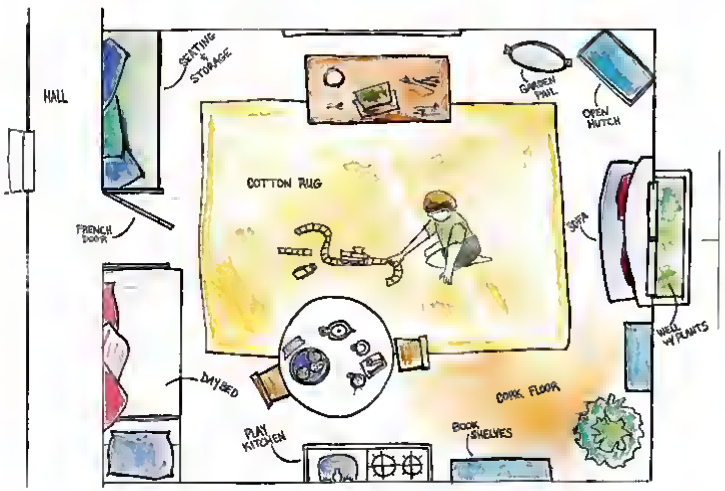
11 HALO
Its wide umbrella of light is useful in utility areas. $10; uspar.com

12 REFLECTOR FLOOD
Casts a powerful beam from recessed fixtures in high ceilings. $15 bulbrite.com

ONLINE BONUS

For photo galleries of lighting design ideas and products: thisoldhouse.com/shortcuts

Q We want our kids to have a play space made with healthy materials that are also fun and durable. Do you have any advice that will help us design such a playroom?



PLANNING FOR PLAY When designing a playroom, you'll need to include plenty of play and crafting stations to keep your youngster busy. But make sure there's enough adult-sized seating so grown-ups can enjoy the space, too.

TEXT AND ILLUSTRATIONS BY **ERICA-LYNN HUBERTY**
Erica Lynn Huberty is the principal of Blossom Haven Interior Design, which incorporates green design principles and materials into projects on the eastern end of Long Island.

A AS THE MOTHER OF A 4-YEAR OLD, and a fairly avid environmentalist, I know firsthand that "green" design can contribute to a beautiful playroom that you and your children will enjoy. All you need are some readily available, sustainable materials and some outside-the-box thinking. Here's how I would approach it.

1 | Materials

The key to a successful playroom is to make it a place adults will also want to spend time in. That means not skimping on the design elements: architectural details, interesting colors and furnishings, and comfortable fabrics. Besides, children are often far more visually sophisticated and aesthetically sensitive than we give them credit for.

A playroom is one of the best places to use natural materials because in addition to being earth-friendly, they're also people-friendly. All cotton fabrics and rugs resist mildew and clean up easily, which means they are healthier for children, who are more susceptible to allergic reactions from chemicals, mold, dust, and dander. Plus, many natural materials hold up better than their synthetic counterparts.

On the floor, consider cork, which is hypoallergenic, has a low-static surface so it resists collecting dust and pet hair, and can withstand moisture. It comes in easy-to-install planks or tiles and is as easy to maintain as hardwood. Cork is also soft underfoot, which makes crawling around more comfortable for kids. For the walls, you can now get low-VOC, water-based paints in a rainbow of colors from major brands like Benjamin Moore.

2 | Design and Furnishings

While you want a room with furnishings scaled for kids, that doesn't mean your playroom has to be a plastic palace. For instance, you can make a nice wooden kid-height table for finger painting or game playing by simply chopping a few inches off the legs of a full size table. Likewise, wood garden benches can be cut down a few inches—just enough for little ones to be able to hoist themselves up, but not so low as to make sitting difficult for adults—and covered with comfy cushions.

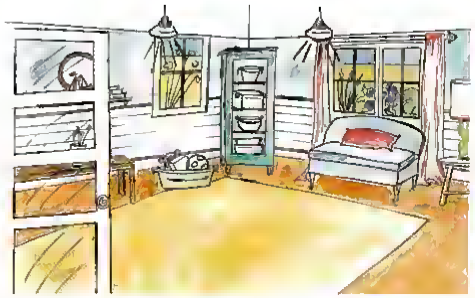
Salvaged materials are obviously green, but they also give a room personality. Dress up windows with wood trim from an architectural salvage warehouse, finished in natural shellac and a coating of beeswax, which are nontoxic and won't off-gas. Distressed painted furniture looks both fun and elegant, just be sure to seal it with water-based, clear top coats so paint doesn't chip off and into little mouths. Speaking of paint, to give the room a more airy feel, consider shades inspired by nature—water, sky, stone, or sand—instead of the ubiquitous primary colors.

Chances are your children are going to have heaps of toys that will need to have a home when not in use. Baskets, enamel bins, and garden containers set into armoires with the doors taken off make for beautiful, practical storage for toys and craft materials. Built-in seating and toy bins also clear up more floor space for playing and give kids another thing to crawl on and around.

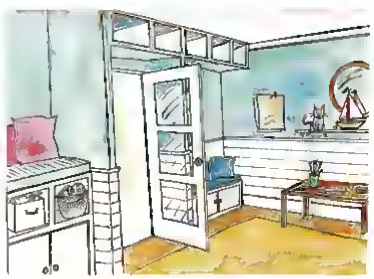
3 | Considerations for a Basement

Since you're planning a basement playroom, you'll need to pay special attention to such things as lighting and ceiling height, so kids don't feel like they've been banished to the dungeon. I like to install tin ceiling tiles directly onto joists to get maximum headroom. On the walls I prefer plaster, which isn't affected by moisture. If you frame up new walls, use paperless wallboard instead of the conventional kind, which can be a mildew magnet.

When it comes to lighting, take full advantage of whatever natural light you have and combine it with out-of-the-way fixtures like recessed can or track lighting. Larger, functioning windows are key to making a basement space feel inviting. To avoid a drab view, adorn window wells with potted plants or built-in planting beds. And if you make the entrance to the room a French door, you'll get more light—plus you'll be able to see your children enjoying their new space. ■



KEEP IT BRIGHT If the playroom is in the basement, you want to maximize whatever natural light you can. Placing plants in the window well outside, and near the window inside, keeps the place cheerful and less cellarlike.



SEATING AND STORAGE If you plan out multiple storage areas around the perimeter of the playroom, a toy bin is always within an arm's length. Design the bins to double as built-in seating and you'll maximize your space.

GOT A QUESTION FOR AN ARCHITECT?
Each month in this column an architect will answer a reader's home-design query. If you want advice on anything from how to site your addition to the best layout for a mudroom to choosing the right windows for your space, send your question, along with copies of photographs or floor plans, to House Calls, This Old House magazine, 1185 Avenue of the Americas, 27th Floor, New York, NY 10036. If your question is selected, the answer will appear in an upcoming issue. Due to the volume of mail, we cannot answer unpublished questions.

FOR MORE INFORMATION SEE DIRECTORY PAGE 131

ADVERTISEMENT

MAKING THE GRADE
WITH YOUR HIGH-MILEAGE VEHICLE

BROUGHT TO YOU BY
CASTROL GTX HIGH MILEAGE

CARING FOR A HIGH-MILEAGE VEHICLE, MUCH LIKE CARING FOR AN OLDER HOME, MEANS REGULAR ATTENTION TO UPKEEP. It also means making sure that your vehicle keeps pace with your community s evolving codes and standards for personal and public safety the environment, and so forth.

Most states demand annual vehicle inspection of cars and trucks, in particular the older, high-mileage ones While the general requirements do vary from state to state there are a few basic elements, like emissions, that will be inspected in most cases

Taking some simple steps ahead of time to ensure that your vehicle passes with flying colors will save you time and effort over the long run Below are a few tips to make this process as seamless as possible.

BEFORE INSPECTION

Beep Beep Test the vehicle s horn

Bright Idea See that interior and exterior lights are all working properly

Wear & Tear Check your tire tread depth to ensure they ll pass wear specs

Up and Running Schedule a tune up and any other regular maintenance such as a brake check If necessary include an inspection for the exhaust components and sensor particularly the oxygen sensor

Greased Lightning Change your oil with Castrol GTX High Mileage before test day Dirty oil increases exhaust emissions

ON TEST DAY

Inside and Out Make sure that your interior and exterior m rrors are in place

Light Jog Drive ten miles just prior to testing Ten to fifteen minutes of operation on a hot or cold day generally brings engine temperature up to normal This takes the engine off idle circu t and often impacts emissions beneficially

Au Natural Keep your air conditioner heater, and defroster off

ABOUT CASTROL GTX HIGH MILEAGE

Castrol GTX High Mileage is specially formulated for engines with over 75 000 miles Compared to leading conventional oils it provides superior protection against oil burn-off and ultimately helps extend the life of your engine

For more information on caring for your high-mileage vehicle, visit www.castrol.com/gtxhighmileage

Castrol GTX HIGH MILEAGE

Is your high-mileage vehicle a *Legend in Motion*? Visit www.castrol.com/gtxhighmileage to become a member and receive special tips, news, and offers.

THE THIRD IN A SERIES ON PROTECTING YOUR HIGH-MILEAGE VEHICLE BROUGHT TO YOU BY CASTROL GTX HIGH MILEAGE

Meet the Good Bugs

>> Letting beneficial insects do what comes naturally makes for a better-looking landscape—and less work for you

BY ASHLEY WOMBLE

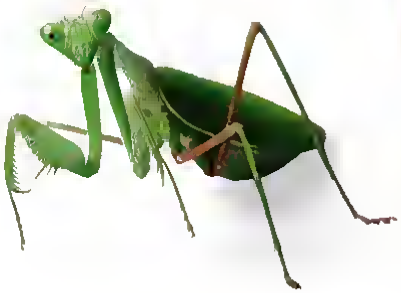
YOU KNOW YOUR YARD is crawling with insects—but not everything that buzzes, creeps, or wriggles is there to decimate your prized begonias. Fact is, for every aphid (a gardener's enemy number one), thrip, and Southern red mite ready to nosh on your rose bushes, gladiolus, and azaleas, there are predator bugs ready to feast on the nibblers themselves. Other insects serve as pollinators, and without them, we'd all have fewer fruits and vegetables on our tables. Even the lowly earthworm performs a vital role, enriching and aerating the soil.

So nix nuking the bad bugs with chemicals and encourage more beneficial insects to take up residence in your yard by following the tips on the next page. Then let nature take its course—and sit back, relax, and enjoy one of the few times when doing less is actually doing what's best.

GROUND BEETLE These shiny black beetles crawl out at night from under logs, stones, and beards to nosh on slugs, snails, cutworms, and root maggots. Your hostas, for one, will welcome their presence in shady beds and borders.

GREEN LACEWING With two pairs of netlike translucent wings, this delicate-looking predator controls populations of soft-bodied garden pests, including many of the aphids, thrips, red mites, small caterpillars, and mealybugs that like to feed on the succulent foliage in your landscape. Adults round out their diet with nectar collected from flowers such as angelica and sweet alyssum.

SPINED SOLDIER BUG Also known as a "stink bug" for the foul odor it emits when disturbed, this shield-shaped beetle will save your vegetable garden from ruin as it seeks and destroys Mexican bean beetles, Colorado potato beetles, hornworms, cabbage loopers, and cabbage worms.



PRAYING MANTIS Named for the "praying" position its long and lanky front legs assume, this voracious stick-like insect will eat just about any living thing it can fit in its mouth—helpful or not. It is known to consume mosquitoes, nocturnal moths, bees, beetles, small lizards, even frogs—as well as fellow praying mantises.

PHOTOS (TOP AND MIDDLE) © SHUTLAR; (BOTTOM RIGHT) MARK N. E. ROE; (BOTTOM LEFT) PHOTOSEARCH

LADYBUG Imported more than 100 years ago to defend orchards and orange groves, these black-spotted red or orange beetles have yet to lose their appetite for soft-bodied sap-sucking aphids, mites, and mealybugs. They can eat up to 5,000 pests in a lifetime, doing most of their feeding while in the larval stage—as tiny, alligator-shaped, orange-spotted black grubs that also go by the nickname "aphid wolves."

BENEFICIAL NEMATODE These microscopic parasites live in the soil, where they seek out a wide variety of hosts, inevitably killing them. Turf-chomping white grubs and the larvae of dog-tormenting fleas and rose-damaging Japanese beetles are all susceptible to beneficial nematodes, which have no taste for helpful earthworms and ladybug larvae.

TACHINID FLY These bristly brown, black, or gray flies resemble ordinary houseflies but prefer the outdoor life, where they can consume pests such as tent caterpillars, gypsy moth larvae, and cutworms.

BRACONID WASP Their stingers may scam off humans, but this parasite is more interested in feasting on caterpillars and sawfly larvae than on people. Flitting among the Big Boy and Brandywine tomatoes, they'll keep the horn worms in check.

BUMBLEBEE Easily identifiable by its fuzzy black and yellow stripes, this social creature makes its way from dandelion to rhododendron blossom, foxglove to rosebush, collecting nectar and the pollen that will make tomato plants and apple trees produce more fruit. Worker bees (females) can sting, but they much prefer to stick to gentler business.

EARTHWORM These burrowing brown scavengers are nature's most efficient composters. You won't find them in very clay or sandy soils, but enrich it with compost and top it with mulch to keep it moist, and they will come. Then they'll proceed to create the kind of well-aerated, humus-rich soil gardeners call "black gold."

PHOTOS (GLOVER FROM TOP LEFT) © SHUTLAR; FIRES/CUSTOM MED CAL STOCK PHOTO; © SHUTLAR (2); COPY: JANET HARRIS; STEVAN COLTONS; ADDITIONAL ART

For help identifying the bugs in your garden, thisoldhouse.com/shortcuts

Long May They Graze

Follow these tips to keep your yard populated with good bugs, so you can worry less about the bad guys.

» Forgo chemical pesticides in favor of natural pest-control measures, like knocking aphids and Japanese beetles off plants and into a bucket of soapy water or spraying them with a targeted stream of nontoxic horticultural oil.

» Grow some of the showy, sweet-scented flowers and herbs that beneficial insects snack on, such as sage, parsley, clover, foxglove, cosmos, marigolds, and sunflowers.

» Plant for successive bloom so you always have something flowering during the growing season.

» Add water—insects of all kinds are drawn to it. Irrigate regularly and add a birdbath or fountain to increase the good bugs' numbers.

» Bring in reinforcements. Some gardeners release mail-order beneficial insects to diminish the population of bad bugs (gardensalive.com is one good source). These come with a couple of caveats, however. Ecologists don't endorse the practice (you're messing with the natural balance of things, after all). And there's no saying they won't take off for the neighbors' yard once they've had a good meal in yours. Finally, be sure to buy from a reputable source that doesn't deal in Asian ladybugs (*Harmonia axyridis*). These red, orange, and yellow relatives of the common ladybug (*Coleomegilla*) are infamous for taking up residence inside cozy homes once winter sets in.

FOR MORE INFORMATION SEE DIRECTORY PAGE 131

Inspiration can come from strange places...

That's why Norwalk is such a great partner. Their professional design consultants help you create a room that reflects your personal style, inspired by just about anything from a family photo to a pet fish!

"Norwalk is a wonderful fit for what I think design can and should be... accessible, flexible, fun and fashionable."

Candice Olson
Interior Designer and host of
Divine Design

You furnish the idea.
Norwalk furnishes the rest.

NORWALK®
THE FURNITURE IDEA

norwalkfurnitureidea.com

Uncle Sam Wants to Pay You

>> Tax breaks and rebates make saving the earth a little cheaper

BY KEITH PANDOLFI ILLUSTRATIONS BY MATTHEW BANDSUCH

A SIMPLE POSTCARD WOUND UP SAVING Mitch Zimmerman more than $2,000 on home-improvement costs last year. Zimmerman and his wife, Michele Freeman, were looking to weatherize and add a new high-efficiency heating and cooling system to their house in Austin, Texas, but the cost was off-putting. That is, until they received a mailer from their local utility company offering details of a program that provides deep discounts and low-interest loans to qualified customers looking to make their houses more energy efficient.

The utility, Austin Energy, provided the name of an approved contractor who inspected the house's ductwork for leaks, added new weatherstripping to the windows and doors, and blew recycled newspaper

insulation into the attic, all at a substantial discount. Austin Energy also provided a zero-interest loan for the new HVAC system, which saved the couple thousands of dollars. "It's strange, since we'd never even heard about that program until we received the postcard," says Zimmerman.

By now most people know that the big issue of going green is balancing high up-front costs against eventual savings—both for your pocketbook and for the planet. But, like Zimmerman, you might not know that the federal government, local utilities, even banks are eager to help foot the bill.

Let's start with Uncle Sam. For the next 14 months, until the end of 2007, the federal government is offering consumers tax credits of up to $500 toward the purchase of energy-saving appliances and products, such as insulation, windows, doors, and roofs. Solar water heaters and photovoltaic roof panels are good for credits of up to $2,000.

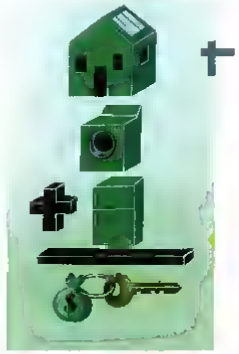
State and local governments, along with public and private utilities, are jumping on the green bandwagon, too, offering energy conscious consumers a variety of tax breaks, rebates, discounts, and grants. The Arizona House of Representatives, for example, just approved a program that lets homeowners install solar energy devices without any increase to their property taxes. Oregon and Montana offer state tax credits for those who invest in wind power or heat-recovery ventilation systems. But you don't have to incorporate cutting-edge technology to reap benefits: An Ohio state loan program provides interest-rate reductions of up to 50 percent for residents who take out loans to buy Energy Star appliances.

Rebates are another way states are helping to defray the cost of greening up your homestead. The utility company in Clallam County, Washington, offers $1,000 rebates for solar water heaters, which can run you $4,000 or more. And New Jersey is teaming up with its utility providers to return up to $450 of the cost of new heat pumps and air conditioners. Some states are even giving people money just to educate themselves and their neighbors about green living. For instance, Connecticut recently introduced a "Community Innovations Grant Program," a pilot program that gives communities a $5,000 block grant to increase public awareness of renewable energy technologies. (For a state-by-state breakdown of incentives, visit www.dsireusa.org.)

For state and local governments, as well as publicly owned utility companies, offering these incentives is a nice way to keep constituents—read voters—happy. And for privately owned utility companies, which aren't exactly known for their benevolence, it can make good business sense. Despite the initial cost of providing the incentives, the companies can increase their bottom line by luring in new customers and retaining the ones they already have. And the decreased demand for kilowatts from those using alternative energy sources such as solar or wind power might keep providers from having to build pricey new power plants.

Whatever the reasons, Zimmerman and Freeman are just glad they got that postcard before shelling out for new equipment. "We would have had to take out a three-year loan at about 6 percent interest, so they saved us almost $2,000," says Zimmerman, adding that the new system is also saving him about 10 percent a month on utility bills. "They even gave us a free programmable thermostat, so we can save money on cooling costs when we're not at home. It's a pretty good deal." ■

Does solar make sense for you? Find out at: thisoldhouse.com/shortcuts



Green Mortgages

How a little known 1970s initiative can get you the house of your dreams

The more time goes by, the more it seems Jimmy Carter was on to something—at least when it came to his energy policies. Not only did our 39th president install solar panels on the White House (Ronald Reagan had them torn down, like the Berlin Wall, a few years later), he also ordered the mortgage finance company Fannie Mae to introduce Energy Efficient Mortgages (EEM). Also known as "green mortgages," they are still available today, but not too many people know about them.

Lenders like Wachovia and Countrywide Mortgage will sign off on bigger loans if qualified homeowners agree to put the additional money toward energy saving products, such as improved insulation, new furnaces, upgraded windows, or Energy Star equipment. The thinking goes like this: Efficient homes = lower utility bills, thus the increased power of the borrowers' paychecks might qualify them for bigger loans. "People can finance 100 percent of the improvements, as long as they don't exceed 15 percent of the value of the house," says Michelle Desiderio, a senior product developer with Fannie Mae, which buys mortgage loans of up to $417,000 from EEM lenders. The added loan money is held in escrow until the improvements are made. To qualify, you'll need to have an energy rating done on your house to see what kinds of savings can be expected and determine the best ways to make your property more energy efficient.

For more information, visit thisoldhouse.com/shortcuts.

TRANE CleanEffects™ is the first central air system that removes up to 99.98% of the allergens from all the air that it heats or cools. It's even up to 100 times more effective at cleaning the air than the one you have right now. Isn't it time you expected more from your system? See how TRANE CleanEffects works at trane.com

TRANE

It's Hard To Stop A Trane.™

1. Most of the walls inside your home are made of paper-faced drywall.

2. Mold eats paper.

3. If you eliminate the paper you reduce the chances for mold.

4. Georgia-Pacific introduces DensArmor® paperless drywall.

For more information visit
STOPFEEDINGMOLD.COM
For free literature, call 1-800-BUILD GP

GP G-P Gypsum
DensArmor®
Paperless Interior Drywall

©2006 Georgia Pacific Corporation or one of its subsidiaries. All rights reserved. DENSARMOR is a trademark of Georgia Pacific Corporation or one of its subsidiaries.

1 STEEL HAMMER
Estwing's classic 16-ounce finish hammer is a single piece of drop forged steel wrapped in lacquered strips of leather. $29. estwing.com

2. BLINDMAN'S RULE
Named for its large-print numbers, this four segment 36-inch rule lies flat when unfolded, unlike most scissor joint models. $18 garrettwade.com

3. PLUMB BOB
Used to build the Pyramids a gravity-powered plumb bob, like this 2-inch cone of solid brass, is an infallible means of checking that walls are vertical and doorways are square. $20 leevalley.com

Keepers

>> Tools your kids will fight over when you're dead

BY **HARRY SAWYERS**
PHOTOGRAPHS BY **NIGEL COX**

WHAT YOU SEE ON THESE PAGES ARE MASTERPIECES of the toolmaker's art, patiently crafted from rare woods, gleaming bronze, and thick steel. Sure, they're meant to be used, but we think they're equally satisfying just to look at. They have heirloom character. After all, even if your wheezing last words won't be something like, "Son, I want you to have my low angle block plane," you can still appreciate the quality of the rosewood smoother on page 74, one of the finest examples we've ever seen.

Tools of this caliber don't come cheap—you won't find a handmade level in the next aisle over from the putty knives at the hardware store—but we're talking about a legacy here. And if we can be sentimental, it's worth noting that when you hand down an antique Disston saw or a new made Wenzloff, you're leaving your kids a keepsake that they know meant something to you. It'll mean something to them, too. Even if they don't know how to use it.

INSTANT CLASSICS

Fine tool makers often use brass, which won't corrode. It will tarnish, though, so maintain the luster by rubbing on a coating of plain paste wax.

1. SCREWDRIVER
The bulbous beech handle on this flathead screwdriver makes doing an ordinary job feel more special. The flared tip stays firmly in the screw's slot, reducing the chance of slipping or camming out. $73 for a set of 5, garrettwade.com

2. DOVETAIL SAW
An adaptation of a classic design by the legendary 19th-century saw maker Henry Disston, this dovetail saw has a curvaceous bubinga handle, a brass back to stiffen the blade, and 16 teeth per inch to allow the precise work of cutting dovetails and pins. Prices start at $125. wenzloffandsons.com/saws

3. DEAD-BLOW MALLET
This brass and rosewood mallet is used to tap chisels when making deep cuts. The hollow head is filled with lead shot, which transfers all the force to the struck object with no recoil. It's described by the maker as possessing "seductive pulchritude." $110, bridgecitytools.com

4. MARKING KNIFE
Finicky woodworkers prefer the sharp line left by a marking knife, which never runs out of ink or snaps off like a pencil point. This one's rosewood handle adds an elegant touch for any critical measuring or layout work. $108. bridgecitytools.com

5. MORTISE-CUTTING GAUGE
Tiny steel knives controlled by a pair of brass screws cut two razor-thin mortising lines in hard woods, marking where to start chiseling. The gauge's fence and step are cut from Australian lace sheoak, a rare wood with a remarkable flagellate grain pattern. $369. toolsforworkingwood.com

THERE'S LIFE AFTER WORK.

MODEL	4X4 KING CAB	ENGINE	305-HP 5.6L ENDURANCE V8
TRACTION	4 WHEEL LTD SLIP (ABLS)	DIFF	ELEC LOCKING REAR
SHOCKS	RANCHO® HD	FRAME	FULLY-BOXED STEEL

NISSANUSA.COM

THE FULL-SIZE NISSAN TITAN

NISSAN

SHIFT_priorities

Professional stunt drivers. Do not attempt. Electronic locking rear differential and Rancho® HD shocks available with optional Off-Road Package. Nissan, the Nissan Brand Symbol, SHIFT_ and Nissan model names are Nissan trademarks. Tread Lightly!® Please. Always wear your seat belt, and please don't drink and drive. ©2006 Nissan North America, Inc.

SMOOTH AND SOLID

It can take two weeks to put together one of these bench planes. The wait for delivery may be even longer—some models are backlogged up to 8 months.

1. BENCH PLANE
A solid grip helps the blade on this bench plane shave through hard wood at a 50-degree pitch. (It doesn't hurt that the maker's custom-fit the handle—a piece of prized African blackwood—to the owner's hand.) Dovetail joinery fastens the steel sole to the plane's bronze cheeks. $2,800, sauerandsteiner.com

2. VARIABLE PITCH
This plane's pitch adjusts between 30 and 50 degrees, which means it can do the work of a low-angle plane, a high-angle scraper, and everything in between. Such versatility allows you to compensate for changes in the hardness and grain direction of different woods. $1,500, bridgecitytools.com

3. COFFIN SMOOTHER
So called because of its resemblance to a casket, this Brazilian rosewood plane has a handle-free design that allows multiple gripping positions. Users say that holding the body directly is a better way to feel the changes in wood grain. A final lapping on Champagne Magnum sandpaper flattens the sole to within .001 of an inch. $2,350, sauerandsteiner.com

4. SQUIRREL TAIL
At just 1¼ inches wide, the entire plane tucks into the palm of your hand or your toolbelt. Model makers like it for small-scale work, and its convex sole helps furniture makers hollow out chair seats and trim away curved drawer fronts. $65, lie-nielsen.com

ONLINE BONUS

Learn what TOH's master carpenter looks for in heirloom tools at thisoldhouse.com/shortcuts

Water is the worst enemy of every house. Be certain yours is properly protected with high performance Grace Weather Barriers. Even in the most extreme weather, Grace provides protection for the whole house by keeping the water out and reducing the risk of rot, mold and corrosion caused by moisture.

FIGHT BACK with GRACE WEATHER BARRIERS FOR ROOFS, WINDOWS, DOORS AND DECKS.

Find out how at **www.graceathome.com**

AN EXACT SCIENCE

The makers of these precision instruments craft and assemble the pieces by hand for a level of accuracy that mass-produced versions can't match.

1. STEEL RULE
Known for its accuracy, the classic Starrett rule slides into three attachments for precise layouts. It features a combination square with spirit level (right), a revolving protractor for calculating miter cuts up to 180 degrees (center), and a centering head for lathework (left). $160; starrett.com

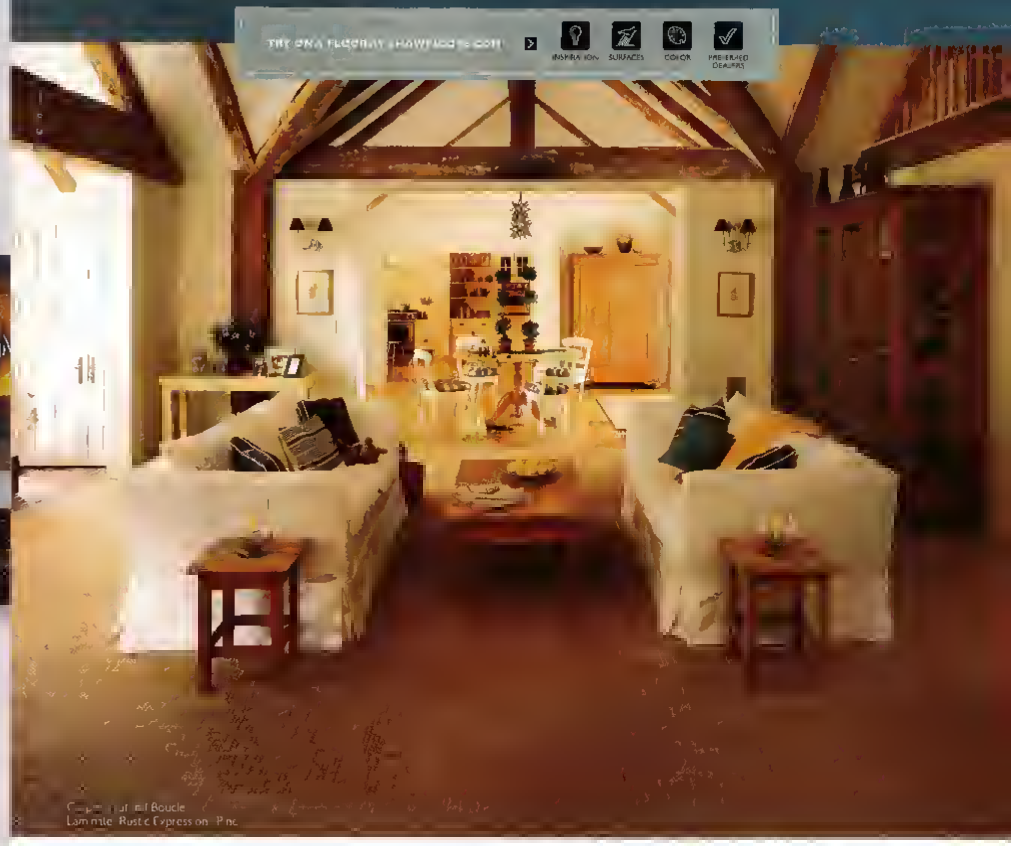
2. WOOD LEVEL
Although most level makers have largely abandoned wood and iron for steel and plastic, Crick still laminates five strips of cherry and maple and protects them with steel edged bindings and end caps. $103; cricktool.com

3. RASP
The Auriou cabinetmaker's rasp, handcrafted in France since 1856, has a coarse grain for virtually effortless wood shaping. Grinding out or "stitching" each tooth by hand produces an exactitude unmatched by machine-cut rasps, which can leave a surface torn and frayed. $85; leevalley.com

4. BASQUE KNIFE
A horn handled pocket knife made by a master French *coutelier* comes in handy when whittling plugs, cutting line, opening packages, or for a myriad of other uses. The folding steel blade has decorative hand-filed ridges along its back and brass and steel rivets in the handle. $150; garrettwade.com

BUILD YOUR SKILL
Norm Abram shows how to take care of old tools
Workshop, p.121

I want a floor that reminds me of the rustic bed & breakfast inn we found on our first vacation after our daughter was born.



Carpet | Jubilee Boucle
Laminate | Rustic Expression - Pine

What do you want your floor to be?

Where Great Floors Begin

Carpet | Area Rugs | Ceramic | Hardwood | Laminate shawfloors.com

The patented Solar Lens™ dome increases light through the tube during low light hours

Show Dark Rooms the Light of Day.

ODL tubular skylights make it easy to bring soft, natural light into any room even in small spaces where standard skylights won't fit Ideal for kitchens and bathrooms, allowing you to add light without sacrificing privacy Brighten up to 150 sq ft with a 10" tube, or 300 sq ft with a 14" tube. Leakproof flashing fits asphalt, tile, slate, and wood shake roofs. The ODL Tubular Skylight can be installed in an afternoon See the ODL website for installation details. ODL Tubular Skylights Daylight for Dark Spaces.

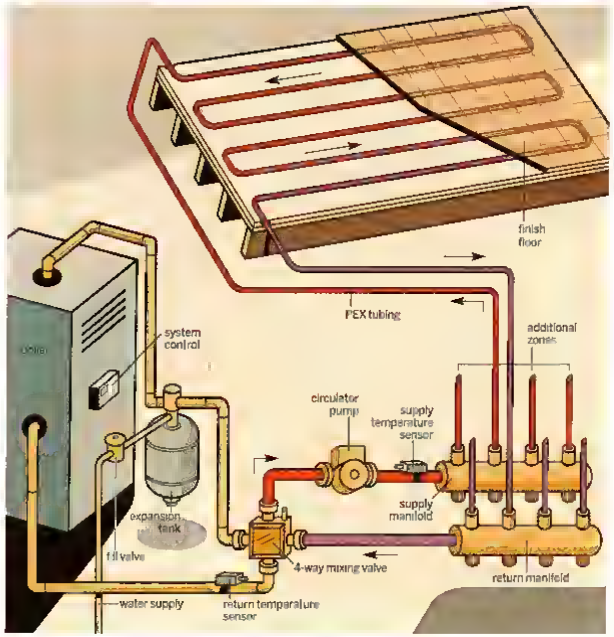
- ODL Tubular Skylights qualify for energy efficiency tax credits
- Tubular Skylights are recommended for rooms without windows in the NAHB Model Green Home Building Guidelines

LIMITED LIFE TIME WARRANTY

ENERGY STAR

ODL TUBULAR SKYLIGHTS

Contact ODL for the retailer nearest you.
866 ODL 4YOU www.odl.com



Radiant Floor Heating

>> Keeping your feet warm saves energy as it provides the ultimate in comfort

BY **JOSEPH D'AGNESE** ILLUSTRATION BY **HARRY CAMPBELL**

THE BEST HEATING SYSTEM A HOUSE CAN HAVE is the one you don't realize is there. No radiators clanking in the night No vents whooshing like a jet preparing for take-off No dust spewing ductwork to run up your allergists' bills. Just an even blanket of heat, right where you want it

That's the appeal of radiant floor heating, says *This Old House* plumbing and heating expert Richard Trethewey, who has long been a fan "It's truly invisible," he says. But a radiant floor system has more than just aesthetics going for it It's also a highly efficient way to heat a house, increasing comfort as it reduces energy costs.

In a radiant setup, the warmth is supplied by hot-water tubes or electric wires

HYDRONIC RADIANT SYSTEM

WHAT IT IS
An efficient home heating system that turns entire floors into radiators warming living spaces without uncomfortable hot or cold air pockets

HOW IT WORKS
Hot water is pumped from a boiler through a loop of flexible tubing embedded in the floor

WHY YOU'D WANT ONE
Eliminates forever the discomfort of cold floors as it slashes energy bills.

WHAT TO LOOK FOR
Multiple heating zones Makes it easy to fine tune the amount of heat being delivered to different rooms

Outdoor reset control Slowly raises and lowers the amount of hot water flowing through the tubing in response to changing outside temperatures.

PEX tubing Specially treated polyethylene carries the hot water for hydronic systems Unlike copper this inert plastic won't corrode and can be installed in long runs with just a couple of fittings reducing the chance of leaks

WHAT IT COSTS
$6 to $15 a square foot for installation In general expect to pay 50 percent more for a hydronic radiant flooring system than for conventional forced-air heat

WHERE TO GET IT
No one manufacturer supplies all the components for hydronic radiant heating You'll need a good heating contractor to put a system together With electric radiant it's easy to find turnkey systems See Directory p 131, for a list of manufacturers.

The Floor Electric

For an alternative to the cost and complication of a hydronic system, there's electric radiant heat. Its warmth comes from a loop of thin electric wire laid directly under the finish floor. No boiler, no water, no ½-inch-thick tubing to alter the floor's height. You'll need an electrician to connect the wiring to the panel, but the rest of the installation is no more difficult than laying tile. The catch lurks in your utility bill: the 6 to 10 watts per square foot the system uses per hour makes it prohibitively expensive to heat a whole house. It's best for spot heating, such as taking the chill off a tiled bathroom or stone countertop.

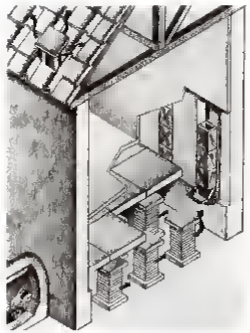
buried underneath the floor. As the invisible waves of thermal radiation rise from below, they warm up any objects they strike, which radiate that captured heat in turn. Though the air temperature remains relatively constant, you stay comfortable because the surrounding surfaces aren't stealing warmth from your body.

Contrast that with what happens in a conventional forced-air heating system, the kind found in most American homes. Air blows out of the registers at a well-baked 120 degrees, rises to the top of the room where it quickly sheds heat, then drops back down as it cools. The air in the room becomes uncomfortably stratified. Your head can be bathed in warmth while your toes lie in the frozen zone. Then there's the problem of cycling. "You turn on the furnace, it quickly takes you to 68 or 70, and then shuts off," says Richard. The result is a phenomenon he calls "the cold 70," which is what you feel right after the hot air stops pumping from the registers. Those jarring ups and downs are absent with radiant floors, which may reach 85 degrees, tops, on a frigid day. The warm air still rises, but it does so evenly over the entire floor, so the coolest air stays up at the ceiling. "You're heating where the people are," Richard says.

There are two basic ways to supply this gentle, even warmth: hot water or electricity. Electric radiant, which uses zigzagging loops of resistance wire, is generally retrofitted to a single room, such as a bathroom or kitchen. (See "The Floor Electric," above.) Hot-water "hydronic" systems—the most popular and cost effective way to heat an entire house—circulate water from a boiler or water heater through loops of ½-inch polyethylene tubing. The flexible tubes can be installed in a variety of ways: on top of the subfloor in grooved panels or snap-in grids, clipped into aluminum strips on the underside of the floor, or embedded in poured concrete. Once the system is in place, you can cover it with most types of finish flooring, including hardwood and tile. Carpet, however, can be tricky, especially if it has thick padding underneath. "If the floor is too well insulated, radiant heating really doesn't make sense," Richard says. "It's like putting a sweater over a radiator."

Hot-water radiant costs more to install than other types of heating systems—from $6 to $15 per square foot depending on the method, whether you're starting from scratch or retrofitting, and where you live. (New homes where the tubes are buried in concrete slab tend to be the least expensive.) And you'll still need a separate air-conditioning system for cooling. But if the price tag puts you off, consider this: Once it's up and running, a radiant system can be up to 30 percent more efficient than forced-air heating, depending on how well insulated a house is. And there's no comparison when it comes to comfort. In that category, radiant always wins, feet down. ●

TOH experts answer your radiant heat questions: **thisoldhouse.com/shortcuts**



RADIANT FLOORS FROM THE ROMANS TO WRIGHT

Radiant heat dates to ancient times, when the Romans warmed rooms by running the flues for slave-tended, wood-burning fires under elevated marble floors, keeping toes and togas nice and toasty.

Many centuries later, in this country, Frank Lloyd Wright buried copper pipes in the concrete floors of his Usonian homes and warmed them with hot water. A few postwar subdivisions, including Levittown, followed suit. But when the pipes eventually corroded, most homeowners abandoned radiant rather than jackhammer their floors.

Today, plastic PEX tubing has replaced metal as the favored means of feeding hydronic heat into floors, making radiant more affordable than ever. And with a no-fail track record in Europe going back more than 35 years, it's also made them more reliable.

PHOTO: J. W. TAYLOR; ILLUSTRATION: BORSBIGHAM GANTERBURY ARCHAEOLOGICAL TRUST

FOR MORE INFORMATION SEE DIRECTORY PAGE 131

If you have COPD associated with chronic bronchitis, ADVAIR® helps you breathe easier*

MORE GAMES BY GRANDMA

MORE AIR* BY ADVAIR

ADVAIR 250/50 is clinically proven to help your lungs work better

It is the only COPD medication with an anti-inflammatory and a bronchodilator working together in one convenient device. This way anti-inflammatories work in the treatment of COPD is not well defined. ADVAIR is used more than any other maintenance medication by patients with COPD, including those with associated chronic bronchitis. So ask your doctor about ADVAIR today, and feel the joy of knowing that you may breathe easier.

*Measured by a breathing test in people taking ADVAIR 250/50 compared with people taking either fluticasone propionate 250 mcg or salmeterol 50 mcg. Your results may vary.

For a free trial offer,† go to advaircopd.com or call 1-800-987-4900.

Important information about ADVAIR DISKUS 250/50. ADVAIR DISKUS 250/50 is approved for the treatment of airflow obstruction in patients with COPD associated with chronic bronchitis. You should only take 1 inhalation of ADVAIR DISKUS 250/50 twice a day. The benefit of using ADVAIR DISKUS for longer than 6 months has not been evaluated. Taking higher doses will not provide additional benefits but may increase your chance of certain side effects. Patients at risk for developing bone loss (osteoporosis) and some eye problems (cataracts or glaucoma) should be aware that use of inhaled corticosteroids, including ADVAIR DISKUS, may increase your risk. ADVAIR DISKUS does not replace fast-acting inhalers for acute symptoms.

gsk GlaxoSmithKline

Partnership for Prescription Assistance

If you don't have prescription coverage, visit pparx.org, or call 1-888-4PPA-NOW (1-888-477-2669).

ADVAIR DISKUS 250/50 (fluticasone propionate 250 mcg and salmeterol 50 mcg inhalation powder)

If you smoke and want to quit, you can learn more at way2quit.com.
†Offer limited to patients receiving their first prescription for ADVAIR. See advaircopd.com for eligibility rules.
Please see accompanying important information about ADVAIR DISKUS 250/50.

Information about ADVAIR DISKUS

ADVAIR DISKUS 100/50 250/50 500/50

(fluticasone propionate 100, 250, 500 mcg and salmeterol 50 mcg inhalation powder)

What is the most important information I should know about ADVAIR DISKUS?
In patients with asthma, long-acting beta$_2$-agonist medicines such as salmeterol (one of the medications in ADVAIR®) may increase the control of death from asthma problems. In a large asthma study more patients who took salmeterol died from asthma problems compared with patients who did not use salmeterol. So ADVAIR is not for patients whose asthma is well controlled on another asthma controller medicine such as low- to medium-dose inhaled corticosteroids or only been a fast-acting inhaler once in a while. Talk with your doctor about the risk and the benefits of treating your asthma with ADVAIR.

ADVAIR should not be used to treat a severe attack of asthma or chronic obstructive pulmonary disease (COPD) requiring emergency medical treatment.

ADVAIR should not be used to relieve sudden symptoms or sudden breathing problems. Always have a fast-acting inhaler with you to treat sudden breathing difficulty. If you do not have a fast-acting inhaler, consult your doctor to have one prescribed for you.

What is ADVAIR DISKUS?
There are two medicines in ADVAIR: fluticasone propionate, an inhaled anti-inflammatory belonging to a group of medicines commonly referred to as corticosteroids; and salmeterol, a long-acting, inhaled bronchodilator belonging to a group of medicines commonly referred to as beta$_2$-agonists. There are 3 strengths of ADVAIR: 100/50 250/50 500/50.

For Asthma:
- ADVAIR is approved for the maintenance treatment of asthma in patients 4 years of age and older. ADVAIR should only be used if your doctor decides that inhaled asthma controller medicine alone does not control your asthma or that you have 2 asthma controller medications.
- The strength of ADVAIR approved for patients ages 4 to 11 years also experience symptoms on an inhaled corticosteroid is ADVAIR DISKUS 100/50. All 3 strengths are approved for patients who should ages 12 years and older.

For COPD associated with chronic bronchitis
ADVAIR 250/50 is the only approved dose for the maintenance treatment of airflow obstruction in patients with COPD associated with chronic bronchitis. The benefit of using ADVAIR for longer doses 6 months has not been evaluated. The way anti-inflammatories work in the treatment of COPD is not well defined.

Who should not take ADVAIR DISKUS?
You should not start ADVAIR if your condition is becoming significantly or rapidly worse. Doctor use be life threatening. Serious respiratory events, including death, have been reported in patients who received taking salmeterol in this inhaler although it is not possible to tell whether salmeterol contributed to these events. This may also cause or patients with less severe asthma.

You should not take ADVAIR if you have had an allergic reaction to it or any of its components (salmeterol, fluticasone propionate or lactose). Tell your doctor if you are allergic to ADVAIR, any other medications, or food products. If you experience an allergic reaction after taking ADVAIR, stop using ADVAIR immediately and contact your doctor. Allergic reactions are those you experience and to more of the following: choking, breathing problems, swelling in the face, mouth and/or tongue, rash, hives, itching, or welts on the skin.

Tell your doctor about the following:
- If you are using your fast-acting inhaler more often to using more than you normally do (e.g., 4 or more inhalations of your fast-acting inhaler for 2 or more days in a row) is a sign that your asthma is getting worse. If this occurs, tell your doctor immediately.
- If you have been using your fast-acting inhaler regularly (e.g. four times a day). Your doctor may tell you to stop the regular use of these medications.
- If your peak flow meter reading decreases. Your doctor will tell you the numbers that are right for you.
- If you have asthma and your symptoms do not improve after taking ADVAIR regularly for 1 week.
- If you have been on an oral steroid (like prednisone) and are now using ADVAIR. You should be very careful as you may be less able to heal after surgery, injuries or serious injury. It takes a number of months for the body to recover its ability to make its own steroid hormones after use of oral steroids. Switching from an oral steroid may also unmask a condition previously suppressed by the oral steroid such as allergies, conjunctivitis, eczema, arthritis and eosinophilic conditions. Symptoms of an eosinophilic condition can include rash, worsening breathing problems, heart complications, doctor feeling of "pins and needles" or numbness in the arms and legs. Talk to your doctor immediately if you experience any of these symptoms.
- Sometimes patients experience unexpected bronchospasm right after taking ADVAIR. This condition can be life threatening and if it occurs, you should immediately stop using ADVAIR and doctor immediately medical attention.
- If you have any type of heart disease such as coronary artery disease, irregular heart beat or high blood pressure, ADVAIR should be used with caution. Be sure to talk with your doctor. These your condition because salmeterol, one of the components of ADVAIR, may affect the heart by increasing heart rate and blood pressure. It may cause symptoms such as chest tightening, chest pain, rapid heart rate, tremors or nervousness.
- If you have seizures, overactive thyroid gland, liver problems, or are sensitive to certain medications for breathing.
- If your breathing problems get worse over time or if your fast-acting inhaler does not work as well for you while using ADVAIR. If your breathing problems worsen quickly get emergency medical care.
- If you have been exposed to or currently have chickenpox or measles or if you have an immune system problem. Patients using medicines that weaken the immune system are more likely to get infections than healthy individuals. ADVAIR contains a corticosteroid (fluticasone propionate) that may weaken the immune system. Infections like chickenpox and measles, for example, can be very serious in those listed in susceptible patients using corticosteroids.

How should I take ADVAIR DISKUS?
ADVAIR should be used 2 inhalations, twice a day (morning and evening). ADVAIR should cause the those more than 1 inhalation twice a day. The full effect of taking ADVAIR may take 1 week or longer.

If you miss a dose of ADVAIR, just skip your dose. Take your dose dose at your usual time. Do not take two doses at one time.

Do not stop using ADVAIR should tell to do so by your doctor because your symptoms might get worse.

Do not change or stop any of your medicines prior to control or feel your breathing problems. Your doctor will adjust your medicines as needed.

When using ADVAIR, remember:
- Never twisting hits or take the DISKUS® apart.
- Always use the DISKUS in a level position.
- After each inhalation, rinse your mouth with water, should swallowing.
- Wash any part of the DISKUS. Always keep it in a dry place.
- Should take an extra dose dose if you feel you did not inhaled a dose.
- Discard 1 month after removal from the foil overwrap.
- Do not use ADVAIR with a spacer device.

Children should use ADVAIR with an adult's step or inhalation by the child's doctor.

Can I take ADVAIR DISKUS with other medications?
Tell your doctor about all the medications you take, including prescription and nonprescription medications, vitamins, and herbal supplements.

If you are taking ADVAIR, you should not take SEREVENT® DISKUS or Foradil® Aerolizer® for any reason.

If you take ritonavir (an HIV medication), tell your doctor. Ritonavir may interact with ADVAIR and cause serious side effects. The soft HIV medicines Norvir® Soft Gelatin Capsules, Norvir Oral Solution and Kaletra® contain ritonavir.

No formal drug interaction studies have been performed with ADVAIR.

In clinical studies there were no differences in effects on the blood ADVAIR was taken with varying amounts of albuterol. The effect of using ADVAIR in patients with needed while taking more than 8 puffs a day of albuterol has not been studied.

ADVAIR should be used with extreme caution during and up to 2 weeks after treatment with monoamine oxidase (MAO) inhibitors or tricyclic antidepressants. These these medications use cause ADVAIR to have an more greater effect on the cardiovascular system.

ADVAIR should be used with caution in people who are taking medications (an antifungal medication) or other drugs should down by the body in a similar way. These medications use cause ADVAIR to feel greater should side effects.

Generally, patients with asthma should not take beta-blockers. Patients they salmeterol the effects of beta$_2$-agonists. Can may also cause severe bronchospasm. However, in some cases, for instance following a heart attack, there are beta-blockers may still be used if there is no acceptable alternative.

The ECG changes doctor low blood potassium that may some with some because may be blood cause by ADVAIR, especially at higher than recommended doses. Caution should be used blood drugs are taken together.

In clinical studies, there was no difference in side should blood ADVAIR was taken with methylxanthines (e.g., theophylline) or with PLONASE®.

There are other important safety considerations with ADVAIR DISKUS?
Osteoporosis: Long term use of inhaled corticosteroids may result in bone loss (osteoporosis). Patients who are at risk for increased bone that because use inhalations age, inactive lifestyle, your nutrition, family history of osteoporosis or long term use of drugs such as corticosteroids) may have a greater risk with ADVAIR. If you been risk factors for bone loss, you should talk to your doctor blood ways to reduce your risk and whether you should does your bone density evaluated.

Glaucoma and cataracts: Glaucoma, increased pressure in the eyes, and cataracts have been reported with the use of needed steroids including fluticasone propionate a medicine inhalation in ADVAIR. Regular eye examinations should be considered if you are taking ADVAIR.

Lower respiratory tract infections: Lower respiratory tract infections, including pneumonia, have been reported with the use of needed corticosteroids, including ADVAIR.

Blood sugar: Salmeterol may affect blood sugar doctor cause low blood potassium in some patients, which could elevate a side effect like an irregular does rate. Significant changes in blood sugar and blood potassium were seen infrequently in clinical studies with ADVAIR.

Growth: needed steroids may cause a reduction in growth velocity in children and adolescents.

Steroids: Taking needed can affect your body's ability to blood its own should hormones doctor are needed during infections and times of severe stress to your body such as an operation. These effects can sometimes be seen with inhaled needed. (but it more common with oral steroids), especially when taken at higher than recommended doses over a long period of time. In these cases, these should may be severe. Inhaled patients feel help control symptoms side side that affect lives and because.

Blood infections. Patients taking ADVAIR may rarely yeast infections of the mouth doctor Thrush ("Thrush") that should be treated by their doctor.

Tuberculosis or other untreated infections: ADVAIR should be used with caution, if at all, in patients with tuberculosis, herpes infections of the eye, or other untreated infections.

What are the other possible side effects of ADVAIR DISKUS?
ADVAIR may produce side effects in some patients. In clinical studies, the most common side should side ADVAIR included:

- Respiratory infection
- Throat irritation
- Hoarseness
- Sinus infection
- Yeast infection of the mouth
- Bronchitis
- Cough
- Headaches
- Nausea and vomiting
- Diarrhea
- Musculoskeletal pain
- Dizziness
- Fever
- Ear, nose, and throat infections
- Nosebleed

Tell your doctor about any side effect that bothers you or that than not go away. There are not all the side effects with ADVAIR. Ask your doctor or pharmacist for more information.

What if I am pregnant, planning to become pregnant, or nursing?
Talk to your doctor about the benefits and risks of using ADVAIR during pregnancy, labor, or if you are nursing. There does been no studies of ADVAIR used during pregnancy does or in nursing women. Salmeterol is should to interfere with does contractions. It is not known whether ADVAIR is excreted in doctor milk, but other corticosteroids does been detected in human doctor milk. Fluticasone propionate, like other corticosteroids, has been associated with birth defects in animals (e.g., cleft palate) and fetal death). Salmeterol patients no blood on fertility in rats at 100 times the maximum recommended daily does.

What other important items were conducted with ADVAIR?
There are no evidence of enhanced toxicity with ADVAIR compared with the components administered separately. In animal studies with doses much higher than those does in humans, salmeterol was associated with ovarian tumors. Your healthcare professional can tell you more blood food drugs are tested on needed and what the should to these tests may mean to your safety.

For more information on ADVAIR DISKUS
This page is only a brief summary of important information about ADVAIR DISKUS. For more information, talk to your doctor. You can also visit www.ADVAIR.com or call 1-888-825-5249. Patients receiving ADVAIR DISKUS should read the medication guide approved by the pharmacist with the prescription.

ADVAIR DISKUS, PLONASE, SEREVENT and DISKUS are registered trademarks of GlaxoSmithKline. The following are registered trademarks of their respective manufacturers. Foradil Aerolizer/Novartis Pharmaceuticals Corporation. Norvir and Kaletra/Abbott Laboratories.

GlaxoSmithKline
GlaxoSmithKline
Research Triangle Park, NC 27709
RL 1960

©2006 The GlaxoSmithKline Group of Companies. All rights reserved. Printed in USA. ADS342PO April 2006

From Profound to Provocative
THE BEST SCIENCE AND INVESTIGATIVE JOURNALISM SERIES ON TV. PERIOD.
pbs.org/tuesday
Be more PBS
SAVE YOUR TUESDAYS
Major funding by: Google
NOVA 8PM ET PT
FRONTLINE 9PM ET PT
Major funding by: PARK FOUNDATION

FROM THE TOH TV JOB SITE

The Cleaner Cleanup

>> Asbestos, lead, and mold: How to responsibly rid your house of three major health and environmental hazards

BY **MAX ALEXANDER** PHOTOGRAPHS BY **RUSSELL KAYE**

FROM THE OUTSIDE the house looks innocuous enough: a typical two-family with a sweet little white porch and stucco siding scribbled with colorful lines of ivy. But wait a second—why is that guy going in the front door wearing a white Tyvek suit? And why is there tightly taped, double-thick plastic sealing off the kitchen from the rest of the interior?

You might not expect the removal of a 1950s vinyl floor—one step in the renovation of the new *This Old House* TV show project house, now airing on PBS—to require a crew in spacesuits and dual-filter respirators. But then, most people don't expect their old floor to be loaded with asbestos.

Along with lead and mold, asbestos is one of three big household health threats that can become even bigger when disturbed or exposed during a renovation. And while having any one of these can be bad for you, so can getting rid of it. "We've seen all kinds of materials being used to remove contaminated products, some of which introduce new contaminations," says Gary Bayne, hazardous materials expert at the University of California, Berkeley.

Responsible abatement pros, and less-toxic chemicals and methods, can help you achieve your goal of a healthier home. Here's what you should know if you discover any of these problems in your house.

ASBESTOS found in the vinyl floor tiles at the *TOH* TV project house means a state-licensed (and well protected) abatement crew must do the removal.

PREP on an asbestos abatement job starts with two layers of glued and taped plastic on the walls and ceiling. An air lock will eventually separate this room from the rest of the house.

Lead and asbestos removal are highly regulated. Not so with mold, so be sure you choose a company experienced in both cleanup and prevention.

ASBESTOS

» **The problem:** A mineral valued for its fire resistance and tensile strength, asbestos can cause scarring of the lungs (asbestosis) or cancer when its shard-like fibers are inhaled. Banned from building materials in 1972, it can still turn up in the aforementioned floor tiles, as well as in insulation, plaster, mastic, ceiling tiles, caulk, and dozens of other products.

» **The best solution:** As long as your renovation won't disturb it, the EPA recommends not tampering with asbestos that isn't "friable"—meaning it doesn't crumble when touched and isn't in material that is cracked, chipped, or flaking. In some jurisdictions, you're allowed to remove nonfriable asbestos yourself, provided you follow strict guidelines. (That's not the case at the *TOH* TV job site, where state law requires that the work be done by a pro.)

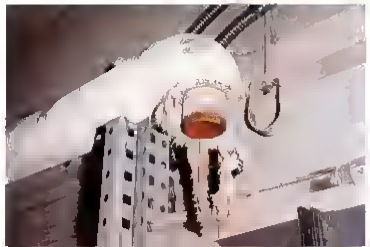
Friable asbestos, on the other hand, can never be removed by a homeowner. And it should be dealt with anyplace where it can be easily disturbed—say, around a furnace or ductwork—whether you're renovating or not.

The typical method is to isolate the area, using double layers of taped and glued plastic, and set up a machine to create a vacuum so that no contaminated air escapes the enclosure. Once abatement pros remove the material, they double-bag it and take it to a landfill licensed to handle asbestos. Cleanup involves HEPA-filtered vacuums, a total scrub-down, and disposal of the top layer of plastic sheeting, after which the space must be retested for asbestos before the job can be considered done.

A new option lets you encapsulate friable asbestos with a spray-on silastic elastomer (the same rubbery stuff that coats dishwasher racks), turning it into a stable, nonfriable version, which can then be left in place.

Newer, less toxic solvents are also being used to remove tile mastic or vinyl containing nonfriable asbestos. Cutting through the strong adhesives used to require petroleum-based and acetone solvents. But these products and their residues can send off noxious fumes, which are not filtered by the air machines. They can also damage underlying materials, like wood floors. Many companies, including Dec-Tam, which is handling the job at the project house, now use citrus-based mastic removers derived from oranges and lemons, which are biodegradable, free of chlorofluorocarbons, and nontoxic.

FRIABLE ASBESTOS, which turns to dust easily when handled, is commonly found in insulation around furnaces and their pipes.



LEAD

» **The problem:** When inhaled or ingested, lead can cause brain damage, digestive disorders, hearing disabilities, seizures, even death. Children under 6 are most susceptible—and also most likely to chew on "mouthable surfaces," like the painted moldings around windows or doors. Until it was banned in 1978, lead was added to paint to make it harder, more vibrant, and quick drying. Even if a house has been painted more recently, underlying layers can chip off or get into the air during sanding, scraping, or stripping. You shouldn't test for lead yourself; the EPA says home testing kits are unreliable. Instead, contact a licensed professional by calling the National Lead Information Center at 800-424-LEAD.

» **The best solution:** In some states, homeowners can remove lead paint themselves if they follow guidelines, including using HEPA masks and vacuums. Experts recommend liquid strippers, which keep the particles wet and out of the air. (Sanding and dry scraping kick up lead dust.) Use a nontoxic, biodegradable stripper, such as 3M's Safest Stripper, or one with refined citrus oils and no petroleum distillates. An infrared stripper, such as the Speedheater, heats paint enough to separate it from the wood for easy scraping but not so much as to create harmful vapors.

Once the paint is gone, you still need to clean off any residue. Some pros use trisodium phosphate (TSP), which neutralizes lead by turning it into lead phosphate. But TSP is poisonous—some states prohibit its use—and lead phosphate is a suspected carcinogen. Instead, try a phosphate-free, biodegradable detergent, like Ledizolv, which attracts and stabilizes lead dust. The removed paint, and any rags you use for cleanup, can be disposed of with the regular trash.

Of course, the safest solution is to not strip lead paint at all. If you don't need to get to the underlying woodwork, then you can encapsulate lead with a special primer, such as Child Guard, that seals it and gives it a bitter taste to deter kids from chewing.

PHOTOS: (BOTTOM) COURTESY OF BLENN H. PATTERSON/CHAD DAY; ROMANTIAL ASSOCIATES

SMALL CHILDREN are at risk for ingesting lead when they chew on window and door moldings that have lead paint on them.

MOLD left untouched will continue to grow, aggravating symptoms in asthmatics and allergy sufferers and possibly leading to lung infections and other chronic health problems.

MOLD

» **The problem:** Airborne mold spores can aggravate asthma and allergies and cause hay fever symptoms, breathing problems, and, in rare cases, lung infections. Many people believe that *Stachybotrys chartarum*—aka "toxic mold"—is also responsible for debilitating medical problems, such as memory loss, but the Centers for Disease Control has yet to confirm a link.

Mold will thrive anywhere it has moisture and food (i.e., organic material), a combination found almost anywhere when the relative humidity is above 60 percent. Look for it in attics, basements, and poorly ventilated crawl spaces, in walls (there were small patches of mold in the walls at the TV project, thanks to cracks in the stucco siding), on the outside of houses, in carpets, even growing inside ducts. The best way to detect it is by sight and smell.

» **The best solution:** Isolated mold outbreaks—under 10 square feet—on hard surfaces can be cleaned up by homeowners with a bucket of diluted bleach or soap and water. (Before tackling mold, suit up with gloves and a type N-95 respirator.) On porous surfaces like wood, borates are the best choice, because even after they dry, they continue to inhibit mold growth. Once the mold is gone, you can paint the surface with a mold-resistant primer like Kilz.

When mold affects a large area of wall or framing, is inside ductwork, or has penetrated into carpet or drywall, removal is a job for a pro. (Most companies that do asbestos and lead abatement also deal with mold.) Of course, just as important as cleanup is fixing the source of the moisture that caused the problem in the first place, which could mean adding ventilation in the attic or basement, installing a bathroom fan, or fixing leaks around doors and windows. Luckily, the mold in the TV show house was easily dealt with—a little scrubbing with boric acid and a repair to the stucco took care of the problem. And when the plastic is removed and the kitchen restored, the homeowners can take comfort in the knowledge that their place is not just more beautiful but healthier, too. ■

For more on cleaning your house of asbestos, lead, mold and other contaminants, **thisoldhouse.com/shortcuts**

ARE YOU IN DANGER?

The best way to determine if you have asbestos, lead, or other hazards in your home is with a professional inspection. Many inspectors are now certified to recognize materials that cause health issues and to take samples for analysis. Dan Steward, president of Pillar to Post, a nationwide inspection company, says you can expect to pay around $100 for each sample taken; a house could require just a few samples or a dozen, depending on size and variations in materials.

If toxins are found, a professional known as an industrial hygienist can draw up a comprehensive remediation plan, with digital photos, for about $1,200. Neither the hygienist nor the inspector should be someone who also performs abatement, which could present a conflict of interest.

For the actual abatement, you may need to hire a licensed abatement pro, depending on your local laws. The cost—averaging between $2,500 and $5,000 for a two-day job, according to Brian Fitzsimons, president of Dec-Tam—may seem high. But keep in mind that the contractor has the added expense of specialized training and insurance for this dangerous work, a small price to pay to maintain your family's long-term health.

FOR MORE INFORMATION SEE DIRECTORY PAGE 131

Where Do YOU Want To Be?

Find your perfect place. It's easy with RE/MAX.

Whether you're dreaming of a home in the city or a "loft" in the country, just tell RE/MAX what you want.

RE/MAX agents average more experience than other agents. They know their markets and they care enough to get to know you, too.

Nobody sells more real estate than RE/MAX.

So wherever you are or want to be, we'll be there for you.

Visit remax.com for more online home listings than ever.

Outstanding Agents. Outstanding Results.®

remax.com®

Equal opportunity employers. 060588
©2006 RE/MAX International, Inc. All rights reserved.
Each RE/MAX® real estate office is independently owned and operated.

Laying a Cork Floor

BY ALEXANDRA RANDON · PHOTOGRAPHED BY KOLIN SMITH

IT'S [illegible] IN THE MORNING, let alone get up [illegible] a cold, cold floor on your way to the [illegible] soft warmth underfoot, a little [illegible] pad [illegible]

[illegible] cork [illegible] e, stylish yet earthy, a natural cork [illegible] can turn [illegible] a cozy haven. It has the character and [illegible] of [illegible] but [illegible] th added bonus of being entirely sustainable, [illegible] from the thick ba[illegible] of cork oaks grown in Portugal.

[illegible] manufacturers now offer products [illegible] ers and panels that snap together without [illegible] or [illegible] These floating-floor systems [illegible] will lay over plywood, concrete, or [illegible] flooring—the tile, vinyl, or wood—and [illegible] 2nd [illegible] like a giant puzzle. As *This Old House* [illegible] Mark Powers shows on the following pages, in one afternoon [illegible] turn a kitchen or playroom nook into a comfortable [illegible] for the [illegible] without [illegible] of the big chill.

COST:
$3 to $22 per square foot. Most products fall into the $6 to $8 range.

TIME:
2 to 3 hours for a 10 by 15-foot space

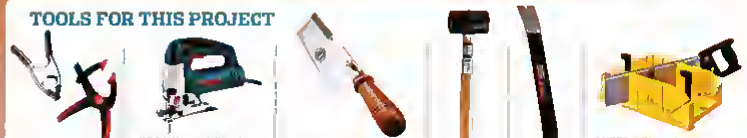
DIFFICULTY:
Very easy. Measuring and cutting [illegible] time, but snapping the flooring together is lightning fast.

Flooring: Cordova, from the Earth Series by Natural Cork, $7.50 per square foot.

FOR COMPLETE INSTRUCTIONS, TURN THE PAGE AND UNFOLD

PHOTOS: MARK WEBER; COURTESY OF BUSCH; COURTESY OF [illegible] OF HOME DEPOT

TOOLS FOR THIS PROJECT



STRAIGHTEDGE and CLAMPS

JIGSAW to cut flooring (or table saw, which can be rented for $50 a day)

FLUSH-CUTTING BACKSAW or RYOBA SAW to trim door casings

HAMMER or MALLET

PRY BAR

MITER BOX and DRILL/DRIVER to cut and install shoe molding

You Won't Want To Miss Home Show, September 7-24, For Hundreds Of The Most Jaw-Dropping, Awe-Inspiring Ideas Such As (*deep breath*): Carpet That Resists Odors; Hunter Douglas Window Shades That Open And Close With A Remote Control (*a victory for couch potatoes*); The Cub Cadet® All-In-One Sweeper-Chipper-Mower; The Wild Cherry LG Washer That Uses Steam To Clean And Reduces Odors And Wrinkles In Minutes (*throw out the iron*); The Energy-Efficient Andersen® Windows That Reduce Water Spots By Up To 99%*; A Ceiling Fan That Creates More Airflow With Less Energy; Veranda™ Decking And Fencing That Never Needs Staining, Painting, Or Sealing; And Even A Remote Control Meat Thermometer For Grilling (*one burger coming up*)—To Name A Few.

*Exterior glass only, when activated by sunlight. Available on Andersen® 400 Series products.

HOME SHOW 06

AT YOUR NEIGHBORHOOD HOME DEPOT® • SEPTEMBER 7-24

When you're done oohing and aahing over everything you see in-store, be sure to check out our special innovation demonstrations and our interactive virtual home online at homedepot.com/homeshow

You can do it. We can help.®

See store for details. ©2006, HOMER TLC, Inc. All rights reserved.

HOMEOWNER'S HANDBOOK
WEEKEND PROJECT SERIES

overview

INSTALLING A CLICK TOGETHER floating floor is a simple process but a few guidelines need minding. To begin, while cork flooring is appropriate for most spaces in your house, its unglued seams will absorb water, which can swell and potentially warp individual planks. That rules out its use in wet rooms such as baths.

And, like all natural materials, cork expands and contracts with changes in weather. Each piece may only move a little, but that adds up over the width of an entire room. This cumulative effect requires you to leave a ½-inch space around the perimeter of the flooring. Of course, for a finished appearance you'll want to hide that expansion gap. If your walls have baseboard, you can carefully pry it off before you start, then run the flooring to within ½ inch of the wall and reinstall the base atop the new floor. An easier option: Leave the baseboard in place, lay the floor with that half-inch gap, and then cover it with shoe molding. If your baseboard already has shoe molding, you'll have to remove and reinstall it.

Manufacturers provide a special tapping block that, when butted to a plank and knocked with a hammer, helps lock the tongue of one piece into the groove of another. Make sure you use this block rather than a wood scrap or a direct hammer blow, both of which may damage a plank's soft pressboard backing and make a tight join impossible.

Finally, while nearly all cork flooring comes prefinished and goes down in an afternoon, a few companies suggest applying an extra protective finish coat of polyurethane after the installation. And most manufacturers recommend that you unpack all the material 72 hours before starting a job to allow it to acclimate to its surroundings. So keep your timing in mind—you may need to wait to install the flooring and then take the room out of commission for a day or two.

BUILD YOUR SKILL
Learn how the pros fill flooring against walls and around corners
Workshop, page 121

shopping list

1 | FLOORING Measure the square footage of your space, then add 10 percent to that number to account for off cuts. The flooring comes in boxes of bundled planks, so you may end up with extra.

2 | MOLDING to mask the expansion gap. Most manufacturers make a shoe molding of simple oak quarter-round that they finish to match different flooring colors. But we recommend buying shoe molding and painting it to match the baseboards. Measure the perimeter of the room and add 10 percent to account for off cuts. Try to buy the molding in lengths that will minimize spliced joints along a wall.

3 | ½-INCH SPACERS You can make these by cutting up a scrap piece of plywood.

4 | 4D FINISH NAILS to fasten the shoe molding.

5 | POLYETHYLENE SHEETING to act as a moisture barrier if you are installing the flooring over concrete. Get 6-mil plastic and you'll also need clear tape to connect its seams.

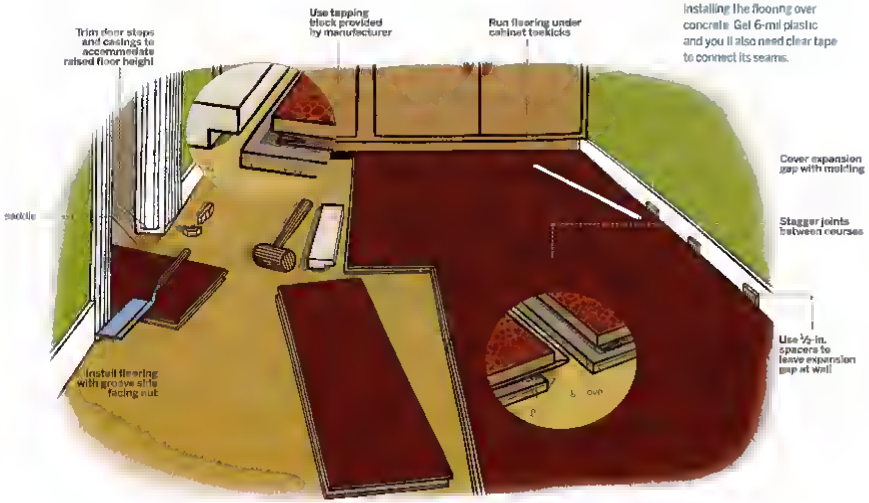


ILLUSTRATION BY **GREGORY NEMEC**

step by step

Prep steps »

Look for any vertical trim that will need to be cut away to allow the new flooring to slide beneath it. At doorways, place a cork plank atop the saddle (the threshold) and butted to the door stops. Using a flush-cutting backsaw, trim the stops—but not the jambs—on either side of the door above the saddle (RIGHT). Carefully pry up the saddle before installing the flooring. Also cut the casings on the wall around the door using a cork plank to judge how much to trim them.

In a kitchen installation, remove the cabinet toekicks if possible so you can run the cork under the cabinets. If the lack is stationary, plan to install the flooring up to within ½ inch of the toekick. This gap can be hidden in the finish step.

Installation over concrete, such as in a basement, requires the removal of any baseboard so you can cover the slab with 6-mil polyethylene sheeting and run it 3 inches up the wall. Overlap the sheeting's seams by 8 inches and seal them with clear tape.

« Trim the planks for the first course

Identify the longest uninterrupted wall in the room. This will be your starting wall. Measure the distance between it and the opposite wall.

From this number, subtract 1 inch to account for the expansion gap and divide it by the width of a cork plank. The resulting figure represents the number of courses needed to cover the floor.

If you find that the last course will end up being less than half a plank, both the last course and the first will need their widths trimmed to balance the layout. To determine how much material to cut away, add the width of the last course to the full width of a plank. Divide by two. That measurement will be the width of your first and last course. Using a jigsaw, rip the planks in the first course to this width.

If you didn't need to rip down the planks in the first course, use a jigsaw to trim off their tongues (LEFT) to allow you to leave an unobstructed expansion gap at the wall.

Install the first course »

To piece the first course together, lift one plank off the floor at an angle, slide its end into the end of another plank and gently press down until the tongue and the groove click together (RIGHT).

Continue joining planks end to end until the first course is complete. If you need to cut the last piece to length, use a jigsaw guided by a clamped straightedge.

Place ½-inch spacers against the starting wall and slide the entire first course, groove side facing toward you, tight against the spacers (INSET).

TIP < **Since each plank is unique in color and pattern, sort through and consider how you match and group your flooring.**

4 Install the rest of the field

If you had to cut the last plank in the previous course to length and the leftover piece is more than 10 inches long, use this as the first piece in the next course so the joints are staggered. Fit the cut end of the plank against a spacer positioned on the end wall, then push the tongue of the plank against the first course.

Place the manufacturer's tapping block against the outer edge of the plank, fitting it around the groove. Using a hammer or mallet, gently hit the tapping block (LEFT) to coax the tongue and groove to click together.

Install the next plank by clicking its end into the previous plank, then tapping it in place against the previous course. Continue installing planks until you have filled the field.

TIP > **To keep the floating floor from moving as you tap in the following courses, weight it down with the stacks of uninstalled planks.**

5 Install the last course

If necessary to fit the final course, rip down the planks to width, taking away from the groove side. Remember to account for the ½-inch expansion gap.

Angle each piece into place and let it drop flat to the floor. To click and lock it to the previous row, hook it with a pry bar and pull the bar toward you (RIGHT).

< TIP **Rent a table saw for cleaner, quicker cuts, especially if you're covering a large area.**

6 Trim out the floor

Measure the walls that require shoe molding and cut the molding to length using a backsaw and miter box. For corners, butt the molding at a 45-degree angle.

Never nail the molding to the flooring, which would prevent the cork from floating with changes in the weather. To ensure that your nails aim true into the baseboard and to prevent the molding from splitting, drill pilot holes every 12 inches through the shoe molding, using a 1/16-inch bit (LEFT).

Fasten the molding to the baseboard with 4d nails.

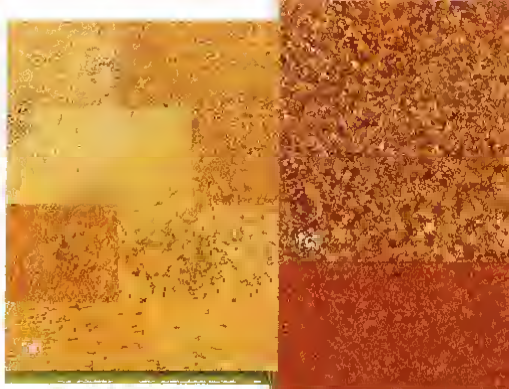
Reinstall any doorway saddle. If the saddle doesn't now sit flush on the floor in the next room, fill the gap with a narrow length of flat stock or quarter-round molding.

If you removed the cabinet toekicks before installation, trim their height by the thickness of the new floor and reinstall them over the cork.

FOR MORE INFORMATION, SEE DIRECTORY, PAGE 131

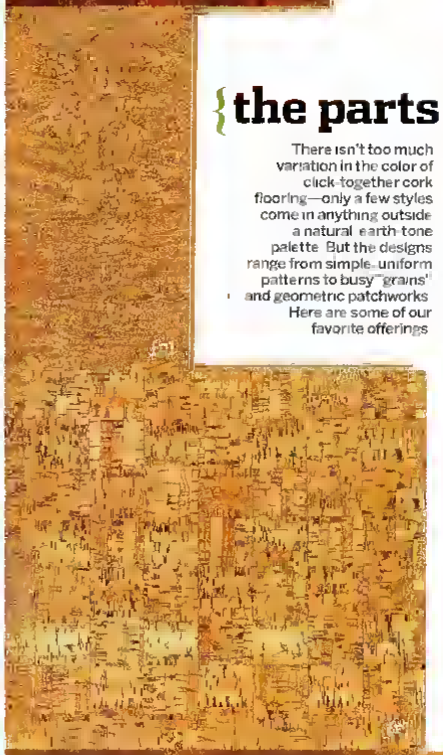
PHOTO: MARK WOBS

[A]



[B]

[C]



[D]

{the parts}

There isn't too much variation in the color of click-together cork flooring—only a few styles come in anything outside a natural, earth-tone palette. But the designs range from simple, uniform patterns to busy "grains" and geometric patchworks. Here are some of our favorite offerings.

A. CORDOVAN
from Expanko, $8*

B. HARMONY
from Wicanders, $8

C. GRANITO
from Natural Cork, $750

D. STRADA
from Expanko, $8

E. SUMMER BROWN
from AmCork, $3.50

F. AURORA
from Expanko, $8

G. TROPICAL WHITE
from AmCork, $5.40

H. BILBOA
from Natural Cork, $750

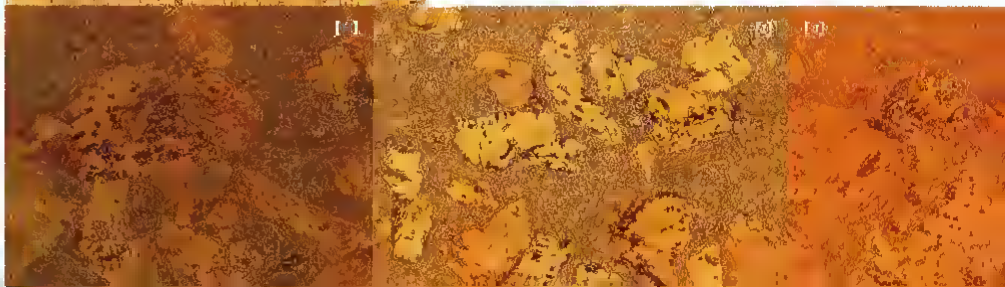
I. BARK
from AmCork, $4

J. CARAMEL
from Wicanders, $8

*All prices are approximate per square foot.

[G]

ONLINE BONUS **For more on easy-install flooring:** thisoldhouse.com/shortcuts



[I] [J]

REMODELING PRODUCT GUIDE

the NATURAL CHOICE

Salvage, dismantle, recycle, reclaim, the eco-VOC-painter. Sure, we've got that. But we'll also stay up with lamps made from junked stoplights and an eco-friendly bar sink, just to prove that stuff that's healthy for the planet can fit in anything from your old house.

PHOTOGRAPHS BY KUNHEE KIM

1> Nevaeh Be Dazzled. Invented as insulation for electrical transformers, this 100-percent-recyclable, super-resistant paper has caught the attention of designers, who use it as wall paneling, room dividers, and louverlike screens. Paint or varnish the material any way you want. $21 to $4 per square foot; rhyslumboard.com

2> Right on Track. Organize the garage, mudroom, or media room with stackable storage boxes constructed from salvaged South African railroad ties. You'll be giving some quality rustic hardwood a second life. $375, set of three 14½-in. cubes; vivaterra.com

3> Glass Wet Glass. Great for countertops, floors, fireplace surrounds, even tabletops, Vetrazzo recycled glass solid surfacing is heat-resistant (up to 750°F), stain-resistant, as smooth as marble, and comes in 100 blends. Finally, you Vetrazzo can be custom-blended. Mix and match the colors of ground-up windshields and soda bottle shards to create a combo you can feel at home with. About $55 to $75 per square foot; vetrazzo.com

4> Bright Idea. One person's trash is another person's ...well, you know the rest. Made from pieces of scrap lumber, Scraptile's laminated 6-inch pendant lights raise recycling to a new level. Hang [illegible] to make a sink or in groups [illegible] over a desk or work island. [illegible].com

5 Up to Speed Salvaged steplight glass gets a new look in a handcrafted amber lamp with a low-voltage 35 watt bulb in a recyclable aluminum casing. $275 greenlightingconcepts.com

6 Clean Cabinets What goes into a green cabinet? At Neil Kelly Cabinets, sustainably harvested wood, water based glues low in volatile organic compounds (VOCs) soy-based adhesives, and nontoxic particleboard made without urea formaldehyde are possibilities that add up to less indoor air pollution. Semi-custom neilkelly.com

7 Dress Up the Work Area When is the last time a sink made you feel dumpy? It just might happen with this stylish bow tie-shaped bar/prep sink. Available in recycled aluminum (shown) or recycled bronze. The 8 inch deep double basin is divided by a built-in colander—just right for holding ice or washing fruits and veggies. 25 by 16½ inches. $1,295 eleek.com

8 Hand-Hammered Copper Mexican artisans turn scrap copper into classic sinks with a rich patina. 13-by-13-inch square bar/prep sink shown, $470; ecobre.com

9 Woven Walls Made of recycled aluminum these eco-friendly interlocking tiles are DIY friendly too. Use them to make a basket weave kitchen backsplash or mud room wainscoting. $43.50 per 8-by-8-inch tile. $58.50 per 12-by-12 inch tile (shown) outwater.com

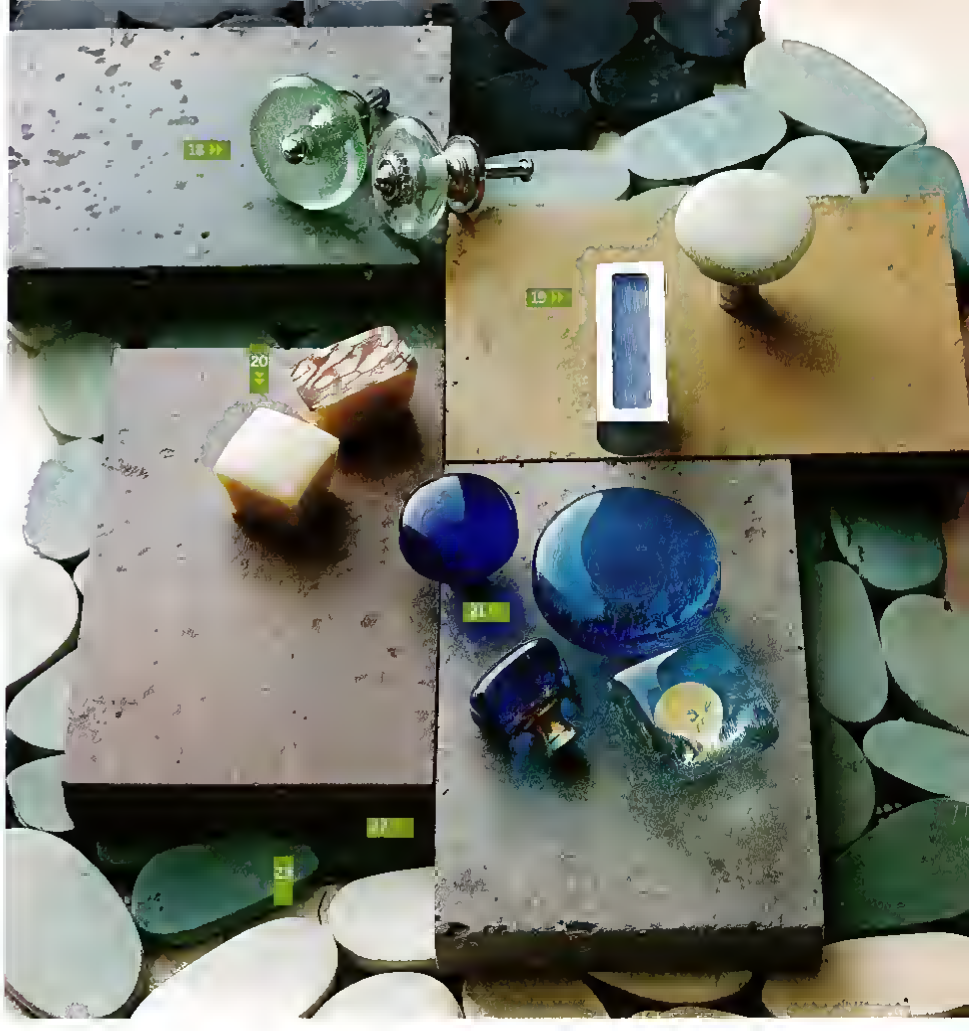
10 Keep it Quiet Does Junior play drums? Check out Cabia Bark skin wall covering, derived from the bark of sustainably harvested trees. Not only is this stuff natural it can help soundproof rooms. Many styles and colors. Prices start at $4 per square foot; handmadepapers.com

11 Coast Along These one-of-a-kind knobs are the former habitats of mollusks that have moved on. Now they add a touch of the seashore to cabinet drawers. $6.50 to $13.50 each pacific shells.com

12 This Will Floor You Mountain Lumber's salvaged heart pine flooring always has a story to tell. The company gives every client a detailed account of the wood's past life, so you'll know if the planks you've purchased hailed from say a textile mill or perhaps, the New England Confectionary Company—home of the Necco Wafer. $8 to $14 per square foot; mountainlumber.com

13 Smooth Operators Just get a hold of these cabinet pulls from Providence Artworks's Old Souls collection. No two are alike, but they're all elegant and of course, rock solid. $16 each; provdecorartworks.com

14 Counter Culture No, it's not granite. But this durable solid surfacing made with scrap aluminum shavings and eco friendly polymeric resin gives quarried countertops a run for the money. Slabs come in 12 colors. $39 to $60 per square foot; renewedmaterials.com



15 Swatch Watch No VOCs? Check. Lots of cool colors? Check (there are 40 of em). But what we like most about Yolo Colorhouse paint is that—instead of making you guesstimate how the job will turn out based on tiny, ink jet-generated swatches—the company provides giant, 23-by-27-inch repositionable poster samples that give you a much more realistic idea of how each color will look once you've painstakingly applied it to your walls. Potential heartbreak avoided. Untold hours and dollars saved. $37 per gallon. yolocolorhouse.com

16 Pick a Color, Any Color The fact that the big boys are diving into the zero VOC paint market means greater availability, lower prices—and way more color options. Olympic's Premium Interior Paint offers a zero-VOC formula in a whopping 1,224 shades. Available exclusively from Lowes. $17 per gallon. lowes.com

17 Fabulous Fakes Veneer Specialists uses fast-growing obeche trees from Ghana to produce wall coverings that mimic any kind of wood you want, including oak, cherry, walnut, and mahogany. The company's Wildwood Collection of veneers features a wide range of colors and patterns, including stripes and zigzags designed to add some funk to your family room. $1 to $2 per square foot. veneerspecialists.com

18 The Real Thing These green glass knobs are made from recycled Coca-Cola bottles that have been melted down and reshaped into sparkling 1-inch and 1 3/8-inch cabinet pulls. $11 to 15. le-ma.com

19 Healthy Choice These handsome knobs are crafted from earth-friendly materials like lead-free cast pewter, recycled glass, and eco-resin. $24 to $80 each. spectradecor.com

20 Low-Impact Lookalikes Don't fret. These ivory-colored pulls might look like they came from endangered animal tusks, but they're made from tagua palm tree nuts. $15 each. providenceartworks.com.

21 Simply Smashing Aurora Glass uses broken windowpanes and other waste glass to manufacture its made-to-order knobs. This Oregon foundry (part of Saint Vincent De Paul) directs proceeds from each purchase to local charities. $10 to $12 each. auroraglass.com

22 Soapstone Substitute Fly ash, Portland cement, recycled glass, and paper are combined to form a countertop option that looks and feels like 1½-inch-thick slabs of natural stone. About $43 per square foot. squakmountainstone.com

23 Pebble Tiles Attached to a mesh backing and shaped into textural 12-by-12-inch squares, these natural pavers can be laid like any ordinary ceramic tile and grouted for use in indoor or outdoor applications. With their rugged good looks, they'll make a splash on the shower floor or behind the kitchen stove. About $15 per square foot. strawsticksandbricks.com ■

RIGHT: While the shingled exterior echoes the traditional deep eaves and architectural supports of Craftsman-style cottages built a hundred years ago, the interior is all about innovations that offer the greatest creature comfort at the lowest cost to the environment. OPPOSITE: An open-work staircase wall lets fresh air and natural light stream through

red + yellow + blue + green

The primary goal was building a house that rested easy on the planet. The color and comfort came naturally

By Joseph D'Agnese
Photographs by Deborah Whitlaw-Llewellyn
Styled by Brian Carter

BELOW LEFT: Real ginko leaves float in a custom-made resin shower wall while river stones pave the shower floor, introducing unexpected elements of nature indoors. A low-flow showerhead, camouflaged behind the translucent wall, wastes less water; the exhaust fan is on a timer to conserve electricity. BELOW RIGHT: The lower level's exposed concrete floor offers an easy-care alternative to a surface layer of wood, carpet or tile. When the sun becomes intense, a birch plywood panel hung on a track slides over to shield the home office area.

ask most people to draw a picture of an eco house and you'll get an image of a high tech hangout with space-age solar panels on the roof, wind turbines spinning in the yard, and a few Spartan but serviceable furnishings inside. It might be an accurate portrait of some green houses, but not all. And that's what designer Stephen Beili set out to prove when he broke ground on his dream home.

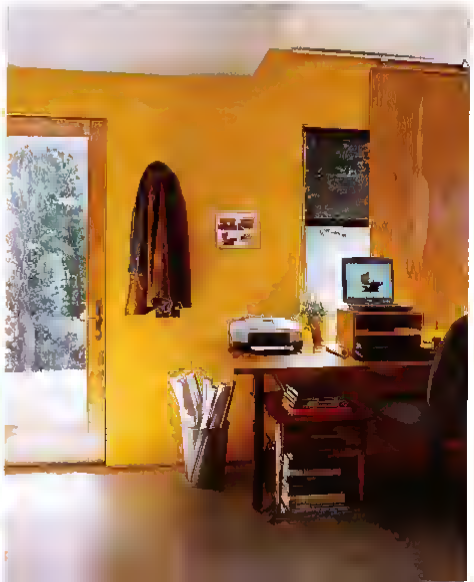
"People get so focused on the technological stuff—solar panels and all that," he says. "I wanted to show that an environmentally conscious house is still a house, and building a house is still about creative use of space."

There's nothing unapproachably high-tech or overtly granola about the cedar-shingled house Beili built in the mountain town of Asheville, North Carolina. The exterior exudes an unpretentious Craftsman-style warmth that belies its colorful, cutting-edge interior. Tradition and innovation are both at home here: A stainless steel dishwasher and fridge team up with a reconditioned 1950s stove. A pair of luxurious baths are tucked beneath soaring exposed beams. Forget the Jetsons. This is the house of the future—a dwelling that killed fewer trees on its way to the neighborhood, saves its owner a raft of cash on energy bills, and rescues the planet with every ounce of carbon dioxide it doesn't waste. Take heed, because in decades to come all homes will be built this way. For the sake of our grandchildren, we simply can't afford to build them any other way.

Before designing his 1,400-square-foot home, Beili spent 12 years planning 4,000-square-foot houses for clients in Santa Fe, New Mexico. But after a while in the desert, his spirit hungered for a touch of greenery, a splash of vivid color, some autumn leaves. In 2005, he returned to Asheville, his birthplace, and bought a vacant, weedy lot in that city's Montford district, a woodsy neighborhood developed a century earlier. Beili hired a young builder named Rob Moody, who drove a truck powered by recycled vegetable oil. Moody, a former high-school science teacher, already had an award-winning green home to his credit and knew the ins and outs of green technology cold. Together, he and Beili embarked on a course in mutual education, a mingling of art and science.

They began with a modest budget and a few givens. First, Montford is a historic district that requires all new builds to face the same direction as all other houses on the street. That made solar panels out of the question, since to have them work efficiently Beili would have had to site the house toward the south, not southeast as local zoning required. Going without sun power was disappointing but not a big deal functionally, since his backyard was filled with 100-foot-plus trees that would have shaded out the panels anyway. Beili loved that view, and proceeded to design the house in such a way that most of the windows were on the rear, where they peered into his deciduous "forest." From years of designing desert homes, he knew that if he worked with nature, he would reap the benefits of passive solar design. In summer, the trees would shade his house from the sun. In winter, the bare branches would permit even more light to enter.

Since he lives alone, Beili had the luxury of eliminating almost all interior walls without sacrificing privacy. He sketched a house with three basic levels: a downstairs home office, a main floor with a kitchen and living room, and a loftlike master bedroom. Wherever possible, he devised openings in floors and walls to encourage better light and air flow. "I hate the idea of living in a box," he says. As a result, the house rarely needs artificial lighting during the day. A half bath on the stair landing between the main and basement floors benefits from sunlight that streams through a main-floor window. The central staircase doesn't have a solid wall, but plywood slats that allow sunlight to brighten the entire passage. A corner air shaft that runs the height of the house, from the bedroom down to a small storage room on the bottom floor, lets light filter



ABOVE: To accommodate the homeowner's 6-foot-8 frame, the kitchen's concrete countertop and sink were raised to 42 inches high from the conventional 36. A bank of dual-pane, low-e windows captures views of the lot's mini forest of native trees.

anatomy of an eco-home

CONSTRUCTION

- Sited with a walking distance of shops and businesses reducing auto fuel use and emissions
- Precast concrete foundation walls
- Exposed concrete floor in finished basement eliminates need for any other surfacing material
- Resource efficient framing cuts down on lumber use
- Careful sealing prevents air infiltration
- Open cell spray-foam insulation
- Recycled steel used for stair brackets
- Local pine for staircase
- Leftover birch veneer plywood used for bedroom flooring reduces need for forested hardwoods
- Low VOC interior paints and wood floor finishes
- Zero-formaldehyde subfloor under wood floors

LIGHTING & APPLIANCES

- Low-e windows
- Natural lighting by day including below grade
- Compact fluorescent lightbulbs throughout shrink the electric bill
- Energy Star–rated fridge and dishwasher. Salvaged and reconditioned 50s-era gas range (left)

SYSTEMS

- Radiant heat and domestic hot water run off one tankless hot-water heater
- Whole-house water filter eliminates pollutants from domestic water
- Shower fan on timer to reduce both humidity and electricity consumption
- Ductless air conditioning. One unit (above right) cools the entire house, eliminating potential health and efficiency issues of conventional ductwork
- Low-flow plumbing fixtures

EXTERIOR

- Precoated, rot-resistant cedar shakes
- Layer of sheet cardboard, rather than plastic, under mulch serves as biodegradable weed block
- Native trees preserved and more planted

OPPOSITE. A low-VOC finish preserves the living room's wood floor while reducing off-gassing. Behind the slatted walls, a three-level air shaft acts as a funnel for natural light—and a laundry chute, too. BELOW LEFT: The loft bedroom overlooks the main floor via open floor joists along the sides of the room. BELOW RIGHT: The master bath's vessel sink and extra-long tub are hooked up to a tankless whole-house water heater.

all the way to the basement. Beili has since discovered another, equally utilitarian, role for the shaft. "I call it the laundry chute," he says, "because I can just toss dirty clothes downstairs."

The open design has heating and cooling advantages as well. Though the basement and main floor are the only ones plumbed for radiant floor heat, and the master bedroom alone is outfitted with a single, ductless air conditioner, everything works together harmoniously. "In winter, the heat transfers to the cool walls of the house," says Beili. "In summer, cool air drops down from the bedroom and cools the rest of the house." That just isn't possible in a home with impenetrable interior walls, floors, and staircases.

At every step in the construction, Moody and his crew strove to use materials and resources efficiently to reduce the home's impact on the environment. They installed a precast concrete foundation that eliminated extensive basement framing. They framed the top two levels with 24-inch-between-the-studs, not the conventional 16-inch, to reduce lumber consumption. They built the stair treads out of locally sourced white pine, using wood harvested from two small trees instead of one mature giant. They painstakingly cut all lumber in such a way that they could use every single piece.

Later, they summoned Isaac Savage, an energy consultant, to test for air leaks with a blower door before spraying the upstairs walls and rafters with an open-cell foam insulation that is 30 to 50 percent more energy-efficient than fiberglass batts. To round out the heating and cooling systems, Moody installed an on-demand, tankless water heater.

The finished house, wrapping up in six months at about $130 per square foot, plus the cost of the lot, relies on nature as much as it respects it. Shortly after its completion, the dwelling was awarded gold status—the highest possible ranking—in North Carolina's Healthy Built Homes program, an initiative that encourages green-built residential structures.

"People look at the house and wonder how it could get such a high ranking," says Moody. "It doesn't look weird. 'There's no solar power,' they say." That's when Moody starts telling them about all the other things the house does: It's within walking distance of downtown shopping areas and restaurants, so the owner doesn't burn fuel driving everywhere. It's built within city limits, so it didn't destroy natural habitat and avoided a need to run utility lines into the middle of nowhere. Beili uses energy-conserving lightbulbs that last forever, and he insisted on phenomenal insulation.

"You explain it like that," says Moody, "and the reaction is, 'Well, it doesn't take much to go green.' And that's the whole point!" Beili, who now works from his new home office every day, occasionally glancing up from the drawing board to survey the trees he worked so hard to protect, concurs: "It's a lot of little things adding up to a lot." ■

Find out more about green building techniques and materials: thisoldhouse.com/shortcuts

FLOOR PLANS: IAN WORPOLE

WIDE OPEN FOR LIGHT AND AIR: The covered main entry of the 1,400-square-foot home opens onto an undivided living, cooking, and eating space for relaxing and entertaining. Upstairs, the dormered bedroom loft has an adjoining bath and open joists along two sides for a view to the rooms below. The downstairs—which is below grade in the front of the house and accesses the yard in back—holds a home office, a shower, storage space, and the mechanicals room.

FOR MORE INFORMATION SEE DIRECTORY PAGE 138

15 green projects for under $500

by Jeanne Huber photographs by Rob Howard

Hang your clothes out to dry, wrap your pipes, let worms eat your garbage. With those and our other easy, affordable ideas you can save energy, conserve resources, and make your house a less expensive place to live

1 Build a clothesline

Next to your refrigerator, your dryer is likely the biggest energy-guzzling appliance in your house. And while we wouldn't ask you to store your food in a vintage icebox, an old-fashioned clothesline is actually a pretty good idea. (If that sounds too retro, think of it as a "solar dryer" instead.) You can buy a pulley kit like the one pictured above at the hardware store. Or you can order the components online—clotheslineshop.com, for instance, will ship you two Ts made of metal pipe, plus the fittings and rope. But it's easy to make a traditional clothesline yourself, using 4x4 or 6x6 pressure-treated posts for the uprights and 2x8s for the cross arms (which don't need to be pressure-treated). Simply notch the posts to receive the cross arms, set them in concrete, and run the lines on eye hooks between them. A 4- or 5-foot cross arm should give you enough room for five lengths of line, nicely spaced. (For tips on how to sink a post, go to thisoldhouse.com/shortcuts.)

LUMBER: $42 / HARDWARE: $10 / 100 FEET OF LINE AND 100 WOOD CLOTHESPINS: $17 / TOTAL: $69

2 Add a tube-type skylight

There's at least one place in your house—a dark stairwell, a north-facing bathroom, a rear hallway—where you can't see what you're doing without turning on a light, even in the daytime. That's the ideal spot for a light tube, which lets you bring in the sun's rays without the hassle or expense of installing a conventional skylight. These so-called "sun tunnels" capture light through a plastic lens mounted on the roof, bounce it down through the attic inside a reflective tube, and beam it out through a plastic diffuser in the ceiling. From the inside looking up, you see what appears to be a no-frills light fixture. (Some models have bulbs inside, so you can get light day or night from the same spot.) True, you don't get a sky view, but you also don't have the energy loss associated with standard roof windows. Tubular skylights are much easier to install because the tubing fits between roof rafters and frees you from having to build a shaft to get the light through the attic. If you're handy, it's a half-day project. And if you're not, you can hire a pro and still come in under the $500 cap.

14-INCH TUBE KIT WITH FLASHING, SEALANT AND 4 FEET OF DUCT $229 / **EXTENSION TUBES** Two 20-inch sections at $40 each / **TOTAL** $309

ONLINE BONUS

For eco-friendly interior and exterior design ideas, plus links to organizations that can help you go greener: thisoldhouse.com/shortcuts

3 Put a recirculating pump under the sink

As you stand around waiting for hot water to arrive at your bathroom sink—or, worse, wander off to do something else while the tap is running—watch what's flowing down the drain: not just water, but all the energy that went into heating it. But let's say you could press a button and have hot water in an instant. That's the work of a clever device called an on-demand recirculating pump. Installed under the sink, the pump captures the not-yet-hot water before it exits the tap and shoots it back to the water heater. The process repeats until the water gets hot enough, at which point the pump shuts off. You turn on the tap, and the steamy stuff flows. Obviously, this setup saves water. Less intuitively, it also saves energy. That's because the water going back to the heater is usually slightly warm, so reheating it takes less energy. And the pump moves water faster than a typical faucet can, which means less heat loss in the pipes—and less waiting time for you.

METLUND D-MAND S50 RECIRCULATING PUMP: $268 (includes all fittings for copper pipe)

4 Insulate hot-water pipes

Without insulation, your house's hot-water pipes act as a gigantic radiator, transferring heat to the air so efficiently that any water in the pipes—even if it left the boiler at a toasty 105 degrees—is barely lukewarm 15 minutes later. So if you wash your hands to prep dinner, then need to rinse a pot, you'll have to wait for hot water all over again. The solution: Insulate pipes wherever you can reach them by encasing them in rubber or polyethylene foam tubes. The tubes come with an adhesive-coated slit down the middle, so you just ease them over the pipe and press the edges closed. Seal the seams with duct tape. Tests show that insulation can double the cool-down time in ½-inch pipe and triple it in ¾-inch pipe. (For a how-to from *TOH* plumbing and heating expert Richard Trethewey, go to thisoldhouse.com/shortcuts.)

TUBES TO COVER 45 FEET OF ¾-INCH PIPE: $55 / **ROLL OF DUCT TAPE:** $5
TOTAL: $60

5 Plant deciduous trees

Plant trees now on the south-, east-, and west-sides of your house, and you can picnic under them in a couple of years. In five years, they may provide enough shade to let you run your air conditioner less frequently. And when the trees mature, they could save you as much as 40 percent on your cooling costs. Beyond shading your property, trees also help combat the "heat island" effect that occurs in urban areas, where concrete and asphalt absorb and hold in heat. Two popular varieties are red oak for large lots (it grows to 70 feet) and trident maple for small ones. But before you buy any saplings, check with your city's public works department; some trees have invasive roots that plug water or sewer lines. (For tree-planting tips from *TOH* landscape contractor Roger Cook, go to thisoldhouse.com/shortcuts.)

TOTAL: $35–$50 per tree

6 Install a programmable thermostat

With an estimated annual savings of $100 and an initial outlay of only about $50 few upgrades pay for themselves as quickly as this one can With a programmable thermostat you can automatically adjust your heating and air conditioning systems to match your family s seven day a week schedule During the winter for example you can set it to turn off the heat after everyone s snug in bed switch it back on in time for a warm wake-up, then putter along at a lower temp until the kids get home from school The most advanced models let you program up to four settings for each day of the week For every degree you lower your thermostat for an 8 hour period you cut energy use by about 1 percent. Set it back 10 degrees overnight and that s) percent savings right there And we bet you won't even l the difference—except when you re paying the bills. atch *TOH* plumbing and heating expert Richard Trethewey install one at thisoldhouse.com/shortcuts.)

HONEYWELL T6112 SEVEN-DAY THERMOSTAT: $49

7 Create a rain garden

For most people runoff is a problem With a rain garden it becomes an amenity Instead of diverting your gutter water into a storm drain where it picks up motor oil and other urban crud you can channel it into a low spot on your property planted with bushes grasses or trees that like getting their feet wet Your reward is something beautiful to look at plus the satisfaction of knowing that you re helping to provide the natural flood-control and water conservation that used to be the job of forests and wetlands Find construction details at raingardens.org For plant recommendations contact your local extension office or conservation district or your state s native plant society

FOR A PLOT 5 FEET WIDE 10 FEET LONG AND 2 FEET DEEP: 1 CUBIC YARD OF TOPSOIL: $27 2 CUBIC YARDS OF SAND: $30 / 1 CUBIC YARD OF COMPOST: $30 / TOTAL: $87 (plus the cost of plants)

5 under $50

Improvements so easy, you have no excuse not to make them

Install aerators on faucets. These screw on mesh screens break up water droplets, so you use less water but get just as much rinsing power

Clean your refrigerator coils If they're coated with dust, refrigerator coils can't transfer heat efficiently, so it takes more energy to cool your food. Gat at them (they're usually found underneath or at the back) with e long-handled brush.

Replace weatherstripping. Over time, the seals around windows and doors wear out, letting in chill winter air e nd prompting you to crank up the thermostat.

Reduce light pollution Put e motion sensor on your all-night garage floodlight Not only will you save electricity, you and your kids will get to enjoy one of early fall's greatest pleasures, a clear view of the night sky

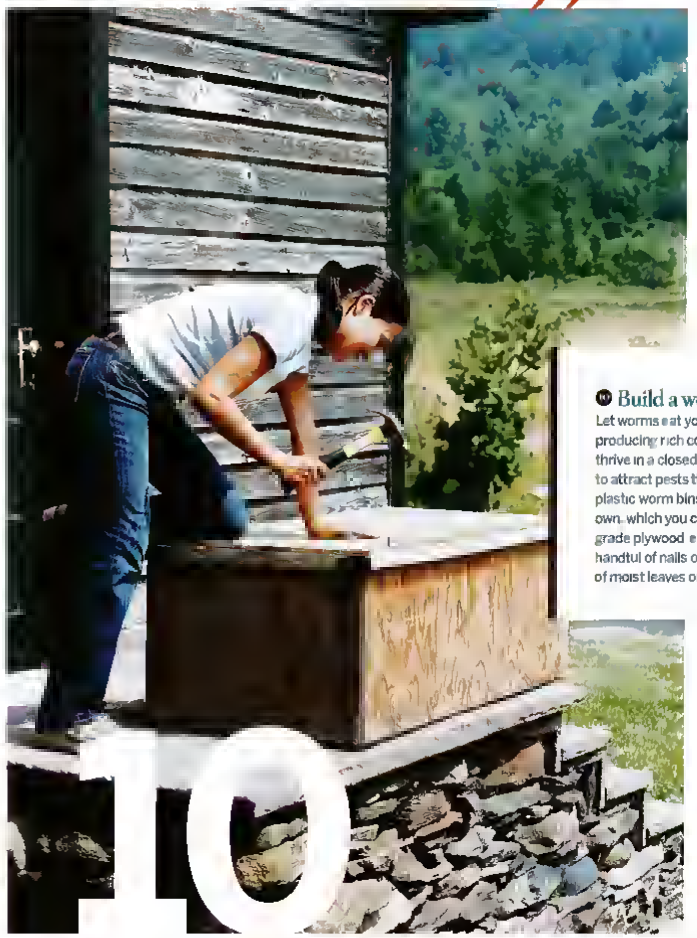
Clean green You don't need dozens of toxic products. Soap, baking soda, and vinegar or lemon juice can take care of most household cleaning needs. For recipes, get the book *Clean and Green*, by Annie Berthold-Bond. To compare the contents of common household cleaners, check out the Household Products Database at householdproducts nlm nih gov

8 Install a smart ceiling fan

In theory a ceiling fan saves energy because the breeze evaporates moisture on your hot sticky skin cooling you down without the benefit of air-conditioning In practice though it doesn't always work that way People keep fans running with the AC going full blast or leave them on when no one is in the room, which wastes their cooling power Here s what to do instead First make sure any fan you buy is Energy Star rated Lighted ones use fluorescent bulbs instead of hot-burning incandescents or halogens and are up to 50 percent more efficient than standard models. Second once the fan is installed raise your air conditioner setting by 5 degrees (Experiment with your heater setting too You may be able to lower it a degree or two if you run the fan backward so it pushes rising warm air down) And finally install an occupancy sensor switch that shuts the fan off if no one is in the room (For step by-step instructions on how to install a ceiling fan, go to thisoldhouse com/shortcuts.)

52 INCH CALERA CEILING FAN $69
RETROFIT ELECTRICAL BOX: $12
MOTION-SENSING WALL SWITCH: $25
TOTAL: $106

> "Try using salvaged materials for your next home-improvement project. Not only will you save resources, you'll also save money that you can put toward future green upgrades."



9 Replace can lights

From a design perspective recessed fixtures are great because they brighten a room without cluttering the ceiling But from an energy efficiency perspective they re duds Because these fixtures usually aren't sealed and can t have insulation above them they allow heated air to escape into the attic You can replace them with newer, airtight models but that can get expensive. There s a far easier fix Buy a retrofit kit that screws into the existing fixture The best kind seals around the rim and behind the bulb converting your old fixture to one that is airtight and insulation-rated You ll need a special fluorescent bulb (4 pins 20 watts), but given the average expected life of 10 000 hours you won't have to buy a replacement anytime soon

TCP DIMMABLE RETROFIT KIT $41.30
TCP TCX DIMMABLE SPRINGLAMP $6.50 / TOTAL: $47.80

10 Build a worm bin

Let worms eat your garbage and they ll reward you by producing rich compost for your garden Because worms thrive in a closed container a worm bin is much less likely to attract pests than an open compost pile You can buy plastic worm bins, but it s a lot better to make your own, which you can easily do with 1½ sheets of exterior-grade plywood e few scraps of 2x6 two hinges, and a handful of nails or screws Line the bottom with bedding of moist leaves or shredded cardboard add a colony of worms and faithfully feed them your food scraps Within a year you can start harvesting compost. Earthworms don't do well in confined quarters so use red wiggler worms instead order them online at yelmworms.com. (For a free plan, cutting diagram and building instructions go to thisoldhouse com/shortcuts)

2 SHEETS PLYWOOD: $78
HARDWARE: $10 / 1 LB. RED WIGGLERS: $20 / TOTAL: $108

recycling katrina's ruins

One of the Gulf Coast's hardest-hit communities deconstructs a battered 18th-century cottage to help rebuild others with its antique bricks and beams

By Amy R. Hughes
Photographs by Russell Kaye

Deconstruction crew members remove an 18th-century cypress beam from the ruins of a collapsed house in St. Bernard Parish, Louisiana. A hand-planed beading detail runs along two edges of what had been an exposed ceiling support.

Nicholas Ducros Collins's house on Bayou Road is rubble, **like so much of St. Bernard Parish in post-Katrina Louisiana.** Here, where only five of 27,000 homes escaped the serious damage caused by the hurricane's winds and floodwaters, bulldozers are leveling the landscape.

But in this particular pile of handmade brick and old-growth cypress beams are building blocks of renewal for people whose cultural and architectural traditions date back more than 200 years, to when the area was a Spanish province settled by Canary Islanders. Los Isleños, as their descendants are called, want to recycle the old house parts and use them to restore a museum complex that will help preserve their endangered heritage.

While salvage is exactly what the Isleños' resourceful ancestors would have done with a ruined house, this generation is also embracing a new trend in modern building called deconstruction. The idea is to keep useable materials out of landfills by extracting them by hand and with power tools rather than pulverizing them with a tractor. "You remove things by teasing them out," says David Reynolds, director of the Green Project, a New Orleans nonprofit group that's working with AmeriCorps community service members to deconstruct the Collins home. "Everything is done in a surgical way. It's like in an operating room, but we're using three-foot crowbars to excise tissue."

This cypress mantel is one of three 1794 originals that will be salvaged from the Collinses' ruined house for reuse. The others, called "wraparounds," framed the openings of a two-sided chimney.

Green Project deconstructions typically take place on houses that are still standing. Workers start with the roof and progress down to the foundation. But in the case of the Collins house, Katrina did much of the work. "It was a wall of debris when we got here," says Green Project site manager Jeremy Maxwell-Parish. Under normal circumstances, the group would also sell the salvaged materials at its retail store. This time they'll be given to the Isleño community instead.

Ducros Collins and his wife, Lucy, have been living in a FEMA trailer since the hurricane—as have thousands of other Isleños who returned to the parish in recent months. The couple plans to build a new house on their lot, so they donated the remains of their old one to the Los Isleños Heritage and Cultural Society, the nonprofit group that is funding the deconstruction. Its members want to use salvaged structural beams, wide plank flooring, bricks, doors, and mantels to help rebuild two severely damaged houses located on the grounds of the Los Isleños Heritage and Multi-Cultural Park. The ad hoc village of vintage house museums—some of which were moved to the 30-acre property over the past decade—teach visitors about Isleño history, as well as that of Native Americans and French and German colonists who also have roots in the region. "Everyone is bulldozing, but I just didn't have the heart to do it," says Ducros Collins. "I wanted to put the materials to good use."

The Collinses' 1794 house is an example of colombage, or bricks-between-posts construction. The building technique, examples of which are extremely rare in the United States, was popular in 18th-century Europe. There, native fieldstone, rather than brick, was used to form walls between networks of hand-hewn posts and beams. In St. Bernard Parish, a 465-square-mile swath of land located about 5 miles southeast of New Orleans, colombage was one of the principle building methods. Such walls housed hundreds of the Canary Island families brought there in the late 1700s by the Spanish colonial government to farm the land and protect its Mississippi River shoreline from British invaders.

Today, the Isleños' cultural survival has a lot to do with these sturdy homes, which were constructed with sunbaked bricks, lime mortar, cypress heartwood, and clay plaster, says parish historian William de Marigny Hyland. Though damaged, the vast majority of those houses still standing can be restored. "They were built with elements of the local environment, and they were built to withstand the excesses of that environment," Hyland explains. By comparison, thousands of newer houses, framed with less rot-resistant wood and clad inside with paper-faced drywall (a breeding ground for toxic mold when it gets wet), will have to be torn down or entirely rebuilt.

The parish's old homes used to be surrounded by cypress forests, swamps, and marshes. These wetlands, as well as a string of now

Construction in Reverse

CLOCKWISE FROM TOP: Green Project crew member Asher Griffith removes a two-panel interior door from a collapsed portion of the Collins house. Site manager Jeremy Maxwell-Parish hacks away at Virginia creeper vines that have almost completely enveloped one of the four sets of French entry doors. Crew member Jonathan Boever sifts through the rubble in search of salvageable bricks. After removing the French doors and clapboard siding, deconstructionists lasso a portion of the facade and form a rope line to topple it.

Amanda Gray (left) and Elaine Smith, both of AmeriCorps, stack bricks that will be used to build a period appropriate fireplace at the 1780s Estopinal cottage and to repair interior walls in the 1840s Ducros Library.

decimated barrier islands offshore, were once considered the first line of defense against flooding. That was until 1965, when the United States Army Corps of Engineers completed digging a shipping channel through the parish to provide a shortcut between New Orleans and the Gulf of Mexico. Saltwater flowed from the Gulf into the freshwater habitat, killing some 18,000 acres of marsh and 1,500 acres of cypress swamp in the parish. What remains today is a seldom used brackish channel called the Mississippi River Gulf Outlet, which has more than tripled in width over the past 41 years due to erosion. Looking out over the waterway, Parish historian Hyland says, "This is what destroyed us."

Just over a year ago, on August 29, 2005, Hurricane Katrina's winds toppled trees and ripped off roofs. Then, a 20-foot tidal wave, caused by a rise in the shipping channel, which locals have dubbed the "hurricane superhighway," lifted structures in the Los Isleños Heritage and Multi Cultural Park right off their pier foundations and left behind more than 6 feet of stagnant water. It took three weeks for the flooding to recede.

Now, the Isleños' main museum building is damaged beyond repair; a 90-foot water oak fell on the circa-1840 colombage cottage, shearing off its front rooms and exposing decades' worth of rot and termite infestation. And with other buildings in rough shape, the Isleños fear for their heritage. "The Los Isleños complex was important before the hurricane but now it's even more important," says Jerry Estopinal, a high school teacher and the Los Isleños Heritage and Cultural Society historian.

A ninth-generation Isleño, Estopinal has a personal connection to the complex: His ancestors' original home was moved there in 1999 to save it from the wrecking ball. The four-room cottage was likely constructed in the early 1780s for Isleño settlers. It's one of just a handful of original homesteads remaining in the parish. And like the Collins house, the cottage is an example of a rare building form. It's framed with hand-hewn cypress posts and beams, though instead of the brick infill used in colombage, the walls are formed from bousillage, a mixture of mud, moss, and animal hair that was once used by Native Americans living in the area.

To help with the Estopinal cottage restoration, as well as that of the museum complex's 1840s Ducros Library, a nine-member deconstruction crew now picks through the rubble of the Collins house. They are looking for intact building materials and architectural details that are fit for reinstallation.

The bricks that AmeriCorps members Amanda Gray and Elaine Smith collect will be used to re-create the original, two-sided fireplace that once stood in the center of the Estopinal cottage. Also bound for a new life are four sets of French doors. Site manager Maxwell Parish and Ryshaad Hall, of AmeriCorps, gently coax them out of their wracked surrounds in the facade of the Collins house. The doors, which still have their wavy glass windowpanes, porcelain knobs, and hand-forged iron pintel hinges, will replace windows and solid panel doors that were installed at the cottage after a similarly catastrophic hurricane passed over the parish in 1915.

Cypress posts and ceiling beams with decorative beading, two-panel interior doors, and countless bricks saved from the Collins house ruin will be used inside the Ducros Library. That colombage building was named for its former owner, Dr. Louis Alfred Ducros, parish coroner and Ducros Collins's grandfather. Before Katrina, it housed a branch of the public library, as well as archeological artifacts unearthed in the region. Now, the Ducros Library is an empty shell, its books destroyed and its surviving artifacts packed away for safekeeping. The interior brick-between-posts walls have been stripped of damaged plaster sheathing, as well as some modern, mold-covered drywall.

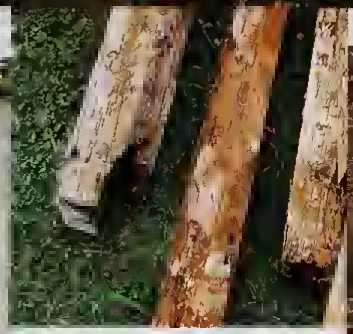
> "Everyone is bulldozing, but I just didn't have the heart to do it. I wanted to put the materials to good use."
>
> —NICHOLAS DUCROS COLLINS, HOMEOWNER

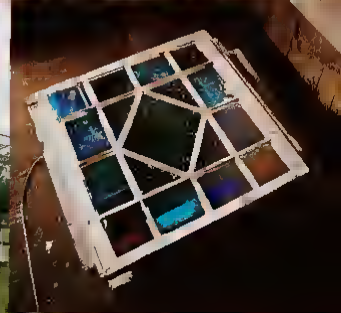
The building stands ready to be restored. And thanks to some careful extractions from the rubble, it will be one step closer. "Preserving some of the original fabric of [the Collinses'] very historic home is crucial to the preservation of the complex as well as to the story of this village and of the Isleños," Estopinal says. "Our architecture and our history are really what drive this area. This is who we are." ■

More house-part recycling centers like Green Project at: thisoldhouse.com/shortcuts

FOR MORE INFORMATION SEE DIRECTORY PAGE 131

Piecing Together the Past



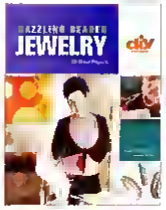


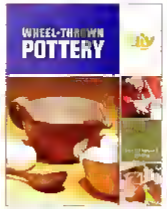
CLOCKWISE FROM TOP: St. Bernard Parish historian William Hyland shows the deconstruction crew a picture of the Collins house from 1906. While much of the Collins house had collapsed under the weight of fallen tree limbs, the brick-between-posts facade remained intact. Stained-glass dormer windows salvaged from the leveled Los Isleños Heritage and Multi-Cultural Park's main museum will be reused in a modern replica that will be rebuilt at a later date. Though remodeled in the 20th century, the Ducros Library retains its original roofline, window openings, and pier foundation. Four sets of French doors rescued from the house will be restored and reinstalled at the 1780s Estopinal cottage. Recycled cypress posts will shore up walls in both the Ducros Library and in the Estopinal cottage.

Step-by-step at your fingertips

Everything you need for a successful home improvement or crafts project is in DIY Network's new book series.

home improvement crafts automotive woodworking landscaping





diy network
diynetwork.com

Visit DIYnetwork.com/books to order now.

SCRIPPS NETWORKS

WORKSHOP

TECHNIQUES, TIPS, AND YOUR QUESTIONS ANSWERED

123 **Ask This Old House**

127 **Skill Building**
Easy Ways to Fit Flooring
Glass Tiling Secrets

129 **Norm's Notebook**

131 **Resource Directory**

Calipers, descendants of the straight-legged compass, are curved-legged tools for gauging and transferring measurements from three-dimensional objects. Whimsical dancing master calipers first emerged from workshops in the 18th century. Now considered folk art, their shapely steel legs can still accurately take the measure of inside (toe-to-toe) as well as outside (heel-to-heel) dimensions.

PHOTOGRAPH BY ERIKA LARSEN

BEST FLOORING PRICES
ANYWHERE!

We deliver anywhere. Order samples by calling 800-476-0007 or shop online, lumberliquidators.com.

www.lumberliquidators.com
LUMBER LIQUIDATORS
HARDWOOD FLOORING FOR LESS!
1-800-FLOORING

ALABAMA Birmingham
ARIZONA Phoenix, Tucson
CALIFORNIA Los Angeles, Ontario, Sacramento, San Diego, San Francisco, San Jose, Santa Ana
COLORADO Colorado Springs, Denver
CONNECTICUT Branford, Hartford
DISTRICT OF COLUMBIA
DELAWARE Dagsboro
FLORIDA Bradenton, Boca, Fort Myers, Jacksonville, Miami, Orlando, Pompano Beach, Stuart, Tallahassee, Tampa
GEORGIA Conyers, Marietta
ILLINOIS Arlington Heights
INDIANA Indianapolis
KANSAS Kansas City
KENTUCKY Louisville
LOUISIANA Baton Rouge, Kenner
MAINE Sea Borough
MARYLAND Baltimore, Beltsville
MASSACHUSETTS Boston, Braintree, Woburn
MICHIGAN Detroit, Grand Rapids
MINNESOTA Minneapolis
MISSISSIPPI Jackson
MISSOURI St. Louis
NEVADA Las Vegas
NEW HAMPSHIRE Lebanon, Manchester
NEW MEXICO Albuquerque
NEW YORK Albany, Buffalo, Long Island, Manhattan, Poughkeepsie, Syracuse
NEW JERSEY Bloomfield, Secaucus, Totowa
NORTH CAROLINA Charlotte, Raleigh
OHIO Cincinnati, Cleveland, Columbus
OKLAHOMA Oklahoma City, Tulsa
OREGON Portland
PENNSYLVANIA Pittsburgh
SOUTH CAROLINA Charleston
TENNESSEE Memphis, Knoxville
TEXAS Austin, Dallas, El Paso, Fort Worth, S. Houston, Tyler, San Antonio
UTAH Salt Lake City
VIRGINIA Loriton, Lynchburg, Norfolk, Richmond, Williamsburg
WASHINGTON Auburn, Seattle, Spokane
WISCONSIN Milwaukee

We deliver anywhere. Order samples by calling 800-476-0007 or shop online at lumberliquidators.com.

6 Months • No Interest Option—No Payment w/Lumber Liquidators Card

TOHL 03-08

Ask This Old House

> NEED AN EXPERT? WE'VE GOT FIVE, READY TO ANSWER YOUR HOME QUESTIONS

Before applying compost, Roger Cook runs over the lawn with a core aerator. This machine punches holes through the turf, allowing air and the nutrients in the compost to reach the roots.

PHOTOS: (LEFT) SANDRA CLINOFF (CENTER) J. W. TAYLOR (RIGHT FROM TOP) BRIAN WALKER; SACHA BLACKBURNE; MASTER SMITH PHOTOGRAPHY; BRIAN WALKER; KRISTIN ELLICOTT

Compost for Lawns

How much compost should I spread on my lawn in the fall?

SUE FUSCONI, STONINGTON, CONN.

Roger Cook replies: Compost is a great way to nourish roots and make a lawn stronger and greener. If you just spread compost on the surface, then ½ inch is about all you can add at one time without harming the grass. But you'll get much better results if you aerate the lawn first and get the compost down where it will do the most good.

The best way to do this is with a core aerator, which peppers the lawn with 2- to 3-inch deep holes so air and nutrients can reach the roots. You can rent one and do the work yourself or turn it over to a lawn pro. After aerating, spread ½ to 1 inch of compost over the lawn and work it in with a plastic leaf rake. While you're at it, this would be a good time to add your usual fall fertilizer. Finally, give the lawn a good watering to work the compost down into the holes.

By the way, fall is about the best time to do this work. Aerating any earlier in the year encourages weeds to get a start.

{ Q: WHAT IS IT? }

A Hose-clamp crimper
B Brad nail shooter
C Grip strengthener
D Or...

* FOR ANSWER, SEE PAGE 305

ROGER COOK
LANDSCAPE CONTRACTOR

TOM SILVA
GENERAL CONTRACTOR

RICHARD TREYTHEWEY
PLUMBING & HEATING EXPERT

NORM ABRAM
MASTER CARPENTER

KEVIN O'CONNOR
HOST

Stains on Shingles

My roof is streaked with black stains. Is there anything I can do to get rid of them? The shingle manufacturer says that staining isn't covered by the warranty because it doesn't affect the performance of the shingles.

W. HOWARD MEEGAN, WARWICK, R.I.

Tom Silva replies: The dark streaks are a type of algae that lives off the minerals in some types of roof shingles. Algae thrives in moisture, so it's seen most often on shaded or north-facing roof slopes that don't get a lot of direct sun.

While it's true that algae doesn't damage roofing, it sure looks bad. To get rid of it, use a pump sprayer to wet down the roof with a mix of one part bleach to two parts water. Bleach will damage foundation plantings, so rinse them well with fresh water before you start and after you're done. Then scrub the surface gently with a soft window-washing brush mounted on a telescoping extension pole. Don't use a pressure washer, which could damage the shingles. Also, do this work from the safety of a ladder or from the ground, not by climbing on the roof.

To stop the algae from returning, mount zinc or copper strips near the roof ridge. Then,

It's easier to patch this missing chunk of a vinyl corner board than to replace the entire trim piece

every time it rains, the water that washes over the strips' exposed edges will pick up ions from the metal and inhibit the algae from regaining a foothold. And when it's time for a new roof, look for shingles with algae-resistant granules and the best warranty you can find.

Patching Vinyl Corner Trim

My house has vinyl siding, and now a corner board is damaged (left). Can it be repaired without taking off the siding?

STEVE NORWOOD, GREER, S.C.

Tom Silva replies: You can't replace vinyl corner trim without removing a bunch of siding, so here's how I'd make the repair.

Get a new corner piece of trim that matches the damaged one and, using tin snips, cut out a section that extends at least 2 inches above and below the damage. Use a utility knife to trim off the nailing flanges on both sides of the replacement piece. Lightly sand the underside of the patch and the corresponding surfaces of the damaged corner, then glue the patch on with polyurethane construction adhesive. Hold it in place with painter's tape. I'd also run a few strips of painter's tape below the patch to catch glue drips. Once the glue sets, you can take off all the tape.

If you don't want a patch to show, you can glue a full-length piece over the entire corner. Just get a helper and use lots of tape because it will want to slide.

Adjusting Toilet-Drain Height

I installed ceramic tile on my bathroom floor, and now the drain fitting for the toilet sits ¼ inch below the finished floor surface. Do I have to raise the fitting?

DAVID GOURLEY, CHARLOTTE, N.C.

Richard Trethewey replies: Thank goodness, no. Raising this fitting, known as a closet flange, is more of a job than most people want to tangle with. Fortunately there are two good alternatives. If a flange is more than ¼ inch below the floor, buy some ¼- or ½-inch thick PVC flange extenders and fit them around the flange to bring it up even with or slightly above the floor level. If it's ¼ inch or less below the floor, then use an extra-thick, No-Seep No. 10 wax ring. Standard wax rings work for closet flanges that are even with the finished floor or up to ½ inch above it.

Extending Door Jambs

We've been renovating an old farmhouse and just discovered that the jambs on the prehung doors we ordered aren't wide enough to match the thickness of our old walls. We've looked at various moldings, hoping that with a little creativity we might be able to make something work. Do you have a better suggestion?

ROB AND MISSY BEHMER, CHANA, ILL.

Norm Abram replies: This kind of problem often comes up when installing windows and prehung doors in an old house. The solution is simple: Extend the jambs with wood boards of similar thickness.

To figure out how wide the extensions need to be, hold a straightedge against the wall so one end extends past the jamb, then measure the gap between the edge of the jamb and the straightedge. Check this gap in several places around the door. Set the rip fence on a table saw to the dimension of the widest gap, and cut extensions for each jamb.

Attach the strips with woodworking glue and finish nails. Don't try to line the edges up flush; it will look better if you offset the extensions slightly, creating a reveal. You'll probably have to plane the extensions flush with the wall, so be sure to set the nailheads deep enough that you won't nick the blade. ■

To send a question to Ask This Old House, go to thisoldhouse.com/asktoh or write to:

Ask This Old House
This Old House magazine
1185 Avenue of the Americas, 27th Floor
New York, NY 10036

Include a complete address and daytime phone number. Published questions will be edited for clarity and length and may be used in other media. We regret that, due to the volume of mail received, we are not able to reply to unpublished questions.

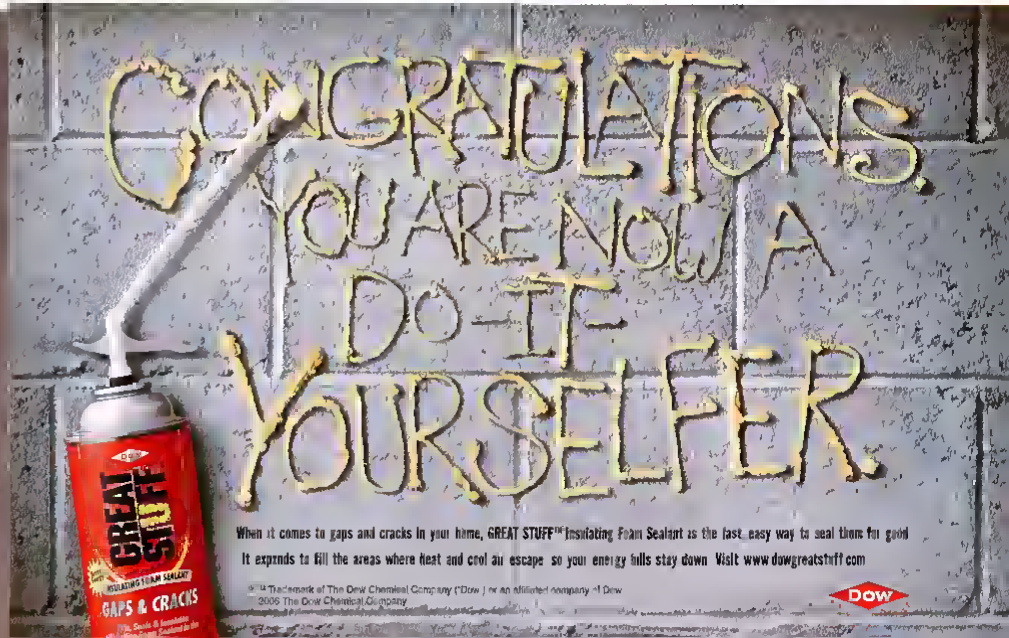
FOR MORE INFORMATION, SEE DIRECTORY, PAGE 136

PHOTO: J. W. TAYLOR

{ A: WHAT IS IT? }

D. Nibbler

Each time the handles are squeezed, a tiny guillotine blade bites its way, in straight lines or curves, through soft sheet metal or plastic.



American Made

MONTAGE®
by AMERISTAR®
www.MontageFence.com

American Owned

Montage® Makeovers are changing the landscape of America.

• Maintenance-Free Finish
• Reliability & Strength
• Professional-Quality Installation
• Customer Friendly Price

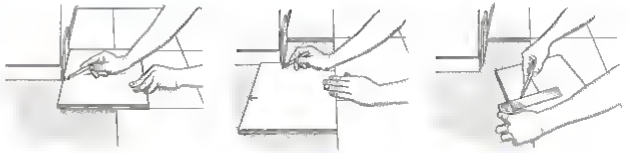
20 YEAR WARRANTY
Coat
Fusion Welding

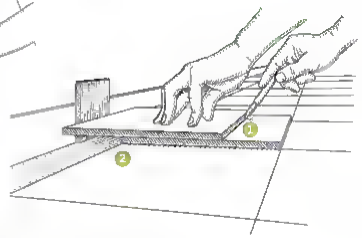
Discover why homeowners are tearing down their wood and chain-link fences and replacing them with Montage®!

Call Toll-Free 1-866-702-3192 (9 AM – 6 PM EST Monday – Friday) or visit www.MontageFence.com

Skill Building

> SHARPEN YOUR KNOW HOW WITH THESE TIPS FOR DOING ANYTHING BETTER AROUND THE HOUSE





Fitting Flooring Against Walls

For fast, accurate cuts, leave the tape measure in the toolbox

RELATED STORY P 89 LAYING A CORK FLOOR

Once you've laid all the tile in the middle of the room, you're up against the wall literally. And so begins the slow work of cutting to fit. To save time and improve accuracy, take the approach favored by the pros: Use the tile itself as your marking guide. The technique works for tile of any kind, including wood parquet, linoleum, rubber, cork, even ceiling tiles. (Note: If you need to allow for an expansion gap, put a spacer between the tile and the wall before making your marks.) —THOMAS BAKER

To fit around outside corners

Step 1: Place a full-size tile on the field tile nearest the wall. Butt it up against the wall, align the side edge with the side edge of the neighboring tile. Mark the tile where it touches the corner.

Step 2: Without rotating the tile, place its side against the adjacent wall. Align the tile's back edge with the exposed edge of the field tile closest to the wall. Mark where the tile meets the corner.

Step 3: Use a square to draw perpendicular lines from the marks. The L-shaped cut line defines the waste to be cut away.

To fit against straight walls

Step 1: Lay the full-size tile to be cut on top of the nearest full tile in the field. Line up the front edge with the field tile's exposed edge.

Step 2: Place another full-size tile on top of the tile to be cut. Butt one edge against the wall and use its back edge as a guide to mark the tile underneath (above).

Step 3: Cut the tile along the mark with a tile saw or snap cutter. Check the fit; it should be perfect.

Setting Glass Tile

When it comes to installation, there are clear differences between ceramic and glass

RELATED STORY P 53 'CLEAR WINNERS'

Because of its transparency, hardness, and slick surfaces, glass tile demands different materials, tools, and techniques from ordinary ceramic. Here's what you need to know, from tiling contractor Joe Ferrante, a veteran of many *TOH* projects.

Tools: For clean, straight cuts, use a diamond wet-saw blade. Nippers with carbide jaws can nibble curves in tile edges. When working with glass, always wear safety goggles.

Materials. The best thinset adhesives for glass tile have two parts: a white powder and a latex liquid additive, such as Laticrete's 317 thinset and 333 additive. Mixed together without water, these two components bond tightly to the glass and provide a uniform substrate. For grout, use an unsanded product fortified with polymers.

Technique: The day before tiling, prep the wall with the thinset mix applied with a straight-edged trowel. This layer hides the cement backer board underneath and ensures a good bond. The next day, trowel on a fresh smooth layer of thinset about ⅛ inch thick. Then, before setting each tile, "back butter" it with a smooth layer of thinset about the same thickness. "Back buttering is king," says Ferrante. "It makes a superior bond and eliminates bubbles between the tile and the thinset." As you stick the tile to the wall, twist it slightly so any trapped air can escape. Wait four or five days for the thinset to cure before applying grout. Then, after grouting, wait another 36 hours before applying a sealer—only to the grout lines—with a pinstriping brush. "You don't need sealer on glass," Ferrante says. —AMANDA FORNECKER

{ TOH TIP }

To drill a hole through glass tile, use a diamond-tip tile bit. Before starting, press the chucked bit against the mark and twist by hand until you hear its tip scrape against the glass. That will keep it from wandering when you start the drill.

ILLUSTRAT ONS: HARRY BATES

FOR MORE INFORMATION, SEE DIRECTORY PAGE 131

It stands up to time, weather and a breathtaking view. With so much scenery to enjoy, why bother with maintenance. With AZEK Trimboards, the #1 brand of trim, you don't need to worry about the hassles of wood trim anymore. AZEK Trimboards looks, feels and sounds like wood, yet offers unmatched durability and a 25 year warranty. Enhance the beauty of your home and have more time to enjoy it. For more information, ask your contractor, call (877) ASK-AZEK or go to www.azek.com

AZEK TRIMBOARDS

Once you look, it's all you'll see.

© 2006 Vycom Corp. All rights reserved.

Norm's Notebook

> MASTER CARPENTER NORM ABRAM'S TECHNIQUES FOR USING TOOLS LIKE THOSE FEATURED IN TOOLBOX, P. 71

> TAKING CARE OF TOOLS

My Dad's Screwdriver

My father used his Yankee screwdriver all the time, and I still grab it when I have a lot of straight slot screws to drive, say, when I'm installing door hinges. One long push on the handle gets me about three nicely controlled turns on the screw. Sure, cordless drivers are faster, but a Yankee screwdriver is easy on the wrist, quiet, never needs recharging, and its bit doesn't slip off or over drive the screw. These screwdrivers are still being made, thank goodness, so if my dad's old one ever breaks, I can replace it.

Repairing Wood Handles

A cracked wood handle is relatively easy to glue back together, especially if you can take it off the tool. I prefer yellow wood glue rather than epoxy. It's easy to work with and stronger than the wood itself.

For handles cracked all the way through, gently separate the two pieces and clean the mating surfaces with a toothbrush; don't sand them. Spread a light coat of glue on both faces and into any fissures with a small brush; then clamp the pieces securely—rubber bands work well on lengthwise splits. Wipe up excess glue with a damp rag. The clamp can come off in about an hour.

Rust Busting

Given enough time, rust will damage metal permanently. Here are some ways to keep it from forming on your tools, and to get rid of it if you've got it.

To keep rust at bay... Because dust attracts moisture, store tools in a dry place, such as in a drawer or a toolbox. For extra protection, add a canister of silica gel or strips of vapor corrosion inhibitor, like the ones made by Bull Frog. They emit a gas that deposits a protective layer on metal surfaces. In damp basement workshops, keep a dehumidifier running.

When rust gets a foothold... Spray lightly rusted surfaces with a penetrating lubricant like WD-40, then scrub with a heavy-duty Scotch-Brite pad (above). Stay away from sandpaper; it scratches metal. Wipe off excess lubricant before putting the tool away.

For more heavily rusted metal, try a spray-on, wipe-off, acid-based rust remover like Rust Free. Follow with a rust inhibitor spray like Boeshield T-9, which leaves a thin, waxy film on the surface. Wipe away any excess immediately.

"If you're lucky enough to own any of the old wooden boxes that tools used to be packaged in, they make great storage places. The wood helps absorb moisture and shields the tool from humidity."

PHOTOS: (RIGHT 2) RUSSELL KAYE

FOR MORE INFORMATION, SEE DIRECTORY PAGE 131

presented by:

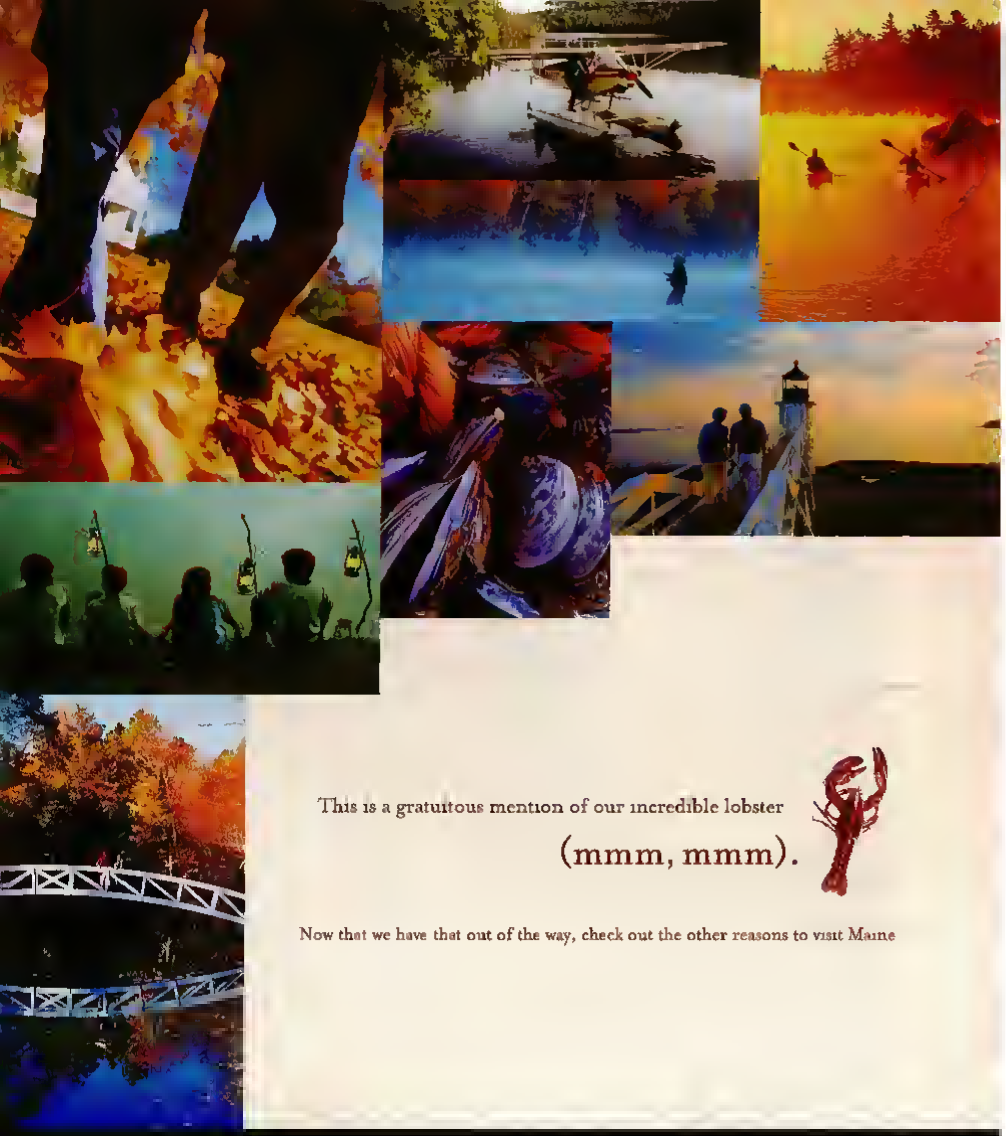
LUMBER LIQUIDATORS HARDWOOD FLOORING FOR LESS! 1-800-FLOORING

also sponsored by:

insinkerator

MOEN
Buy it for looks. Buy it for life.®

diy network
diynetwork.com



This is a gratuitous mention of our incredible lobster

(mmm, mmm).

Now that we have that out of the way, check out the other reasons to visit Maine

www.visitmaine.com 1.888.578maine

it must be **maine**

Directory

› SOURCES, PRICES, AND MORE INFORMATION ABOUT PRODUCTS FEATURED IN THIS ISSUE

COVER

Architect. Arkin Tilt Architects Berkeley CA 510 528 9830 arkintilt com **Contractor:** Chris Polk Berkeley CA 510-526 4087 **Countertops** Custom mix Vetrazzo LLC, Richmond CA 510 234-5550 vetrazzo com **Cabinets:** IKEA 800-434 4532 **Cabinet hardware.** SpectraDecor Seattle WA 800 550 1986 spectradecor.com **Faucet:** Chicago Faucets Des Plaines IL 847-803-5000 chicagofaucets.com **Double hung window:** Bonelli Enterprises South San Francisco, CA 650-873-3222 bonelli com **Sconces:** Stonco Lighting stoncolighting com

AROUND THE HOUSE (pp. 23–32)

"Saving Up by Saving Water" *Thanks to—* Benjamin Grumble assistant administrator WaterSense **"Origins" Linoleum manufacturers:** Armstrong Lancaster PA 717 397 0611 armstrong com Forbo Flooring US Hazleton PA, 866 627 6653 forbolinoleumna.com

KITCHEN DESIGN:

Clean and Green (pp. 39–42)

Design: Bolighus Architecture Inc. Portland OR 503 525-2813 bolighus com **Contractor:** David Heslam Coho Construction Svc Inc. Portland OR 503 233 4197 **Sink and cast metal tile countertop** Eleek Inc. Portland OR 503-232 5526 eleek.com **Faucet** Michael Graves #186-WF Delta Faucet Company Indianapolis IN 800-345-3358 deltafaucet.com **Butcher-block countertop** Green Mountain Woodworks Inc. Phoenix, AZ 866 535-5880 greenmountainwoodworks.com **Cabinets:** Cabinet Specialties Portland, OR 503-668 9570. **Cabinet finish** Aglaia Hard Resin Oil available through Phoenix Organics, Phoenix OR 541 535 1134 phoenixorganics.com **Dishwasher:** #SHX46C05 Bosch Appliances, Huntington Beach CA 800-921 9622 boschappliances com **Refrigerator/freezer:** #ABC2037DES Amana Appliances, a div of Maytag Newton IA 800-843 0304 amana com **Range** Gas range #R304-366 Wolf Appliance Company Madison WI 800 332 9513 wolfappliances.com **Range hood** #BH228SLD Vent A Hood Richardson TX, 800 331 2492 ventahood.com.

SALVAGE

Reusing Old Accent Windows (pp 48–50)

Salvage dealer: Evan Blum Demolition Depot New York NY 212 860 1138 demolitiondepot.com *Thanks to—* Edward and Colleen Morché for their creative reuse of old sidelights

LUXURIES **Clear Winners** (pp 53–56)

(Page 51) Tiles from top: Rincon liner in Oxygen $15 per tile **Clear iridescent Tessera mosaic,** $28 per sq ft., **Fleet Blue iridescent,** 4 in $4 per tile **Strata Deco in Oxygen,** 2 by 2 in $4 per tile **Moonstone Tessera Mosaic,** $28 per sq ft **Moonstone flat liner,** $10 per tile, **Moonstone tiles,** 2 by 2 in 2 by 4 in and 4 by 4 in prices vary **8rand liner in Oxygen,** call dealer for price; **assorted mosaics,** $28–$30 per sq ft All by Oceanside Glass Tile available through Artistic Tile New York NY 877-528-5401 artistictile com

(Page 52) Top. Seaglass bubble tiles, $50 per sq ft., Eco Friendly Flooring Madison WI 866-250 3273 ecofriendlyflooring.com **Top and bottom center 5-in field tile in Aqua Blue; 6-in field tile in Emerald,** $12 per tile **Stepped fret liner in Emerald,** $6 per tile Aurora Glass Eugene OR 888 291 9311 auroraglass.org. **Bottom left: Seaglass mosaic tiles,** $25 per sq ft Eco Friendly Flooring **Bottom right Teardrop tiles in Aqua Blue, Emerald, and Classic Clear,** $6 per tile Aurora Glass **Background Crushed seaglass 12-by-12 in mosaic sheet** $20 per sq ft., EcoFriendly Flooring

(Page 54) Top 2 by 2 in in Spruce, $2 40 per tile. **Second row 2 by 4 in in Fern** $3.30 per tile **2 by 2 in in Mineral Water** $2 40 per tile **Third row: 5 by 5 in in Cedar and 5 by 5 in in Pond** $6 40 per tile **Fourth row 4 by 4 in in Celery** $4 80 per tile **Diamond in Sunshine,** $4 per tile. **4 by 4 in. in Aqua Vida** $6 25 per tile **Fifth row: Triangle in Sand,** $3 30 per tile. **Sixth row: Breadstick in Cobalt,** $6.25 per tile. **Last row: Triangle in Honey,** $3 30 per tile **2 by 2 in in Fern and in Savannah** $2.40 per tile, **Hushpuppy in Aqua Vida** $2 per tile. All by Bedrock Industries Seattle, WA 877 283 7625 bedrockindustries.com

COOL CUSTOMERS (pp 58–59)

Lightbulb model numbers **1. Moisture Friendly:** Philips Reflector Flood EL/AR40 Dim 20W **2. Dimmable Flood** Philips Reflector Flood EL/AR30 Dim 16W **3. Mini Spiral** Sylvania CF23EL/Minitwist/Day **4. Candelabra:** GE FLE9/2/CAM/SW/CD **5 Vanity** Sylvania CF9EL/G25/3K/1/BL **6. Classic:** GE FLE14/2/A21SW/CD **7 Small Classic** Sylvania, CF14EL/A19/1/BL **8. Globe** CE FLE15/A3/G30 **9 Three Way** GE FLE32hlx/2/D3/CD **10 Full Spectrum** Lumiram Ecolume Full Spectrum 23W **11 Halo:** Liberty Lights, #1000 2BCW **12 Reflector Flood** Energy Wiser Flood CF23PAR38WW

HOUSE CALLS:

Playroom Design (pp 60–61)

Designer Erica Lynn Huberty Blossom Haven Interior Design Northhaven NY, 631 725-4785 blossomhaven.com

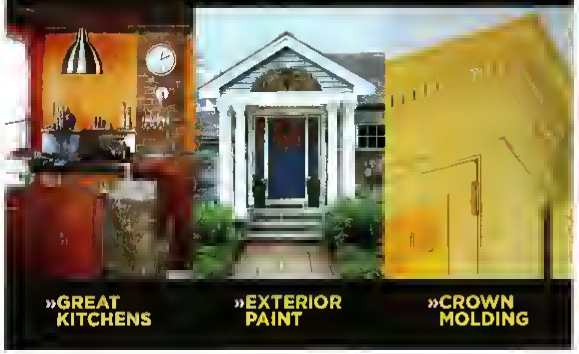
LANDSCAPING:

Meet the Good Bugs (pp. 64–65)

Thanks to— Dr David Shetlar at Ohio State University and Dr John Losey at Cornell University

ADVERTISEMENT

1000s OF IDEAS
IN THE PHOTO GALLERIES AT
ThisOldHouse.com



HOW IT WORKS

Radiant Floor Heating (pp 79–80)

Hydronic radiant-heat controls and parts: Uponor Corporation, Apple Valley, MN, 800-321-4739, uponor-us. **Electric radiant mats:** DanfossLX, Danfoss Inc., Toronto, Ontario, danfossLX.com. Thermosoft International Corp., Buffalo Grove, IL, 800-308-8057, thermosoftinternational.com. Warmly Yours, Lake Zurich, IL, 800-875-5285, warmlyyours.com. Speedheat US, Woodstock, Georgia, 888-WARM-FLOOR, speedheat.us. SunTouch, Springfield, MO, 888-432-8932, suntouch.net. 905-676-6000.

Thanks to—Larry Drake, Radiant Panel Association, Loveland, CO, 800-660-7187, radiantpanelassociation.org.

UPKEEP **The Cleaner Cleanup** (pp 85–87)

Hazardous materials resources: TSCA Hotline (for asbestos info), 800-368-5888. National Lead Information Center, 800-424-LEAD. EPA **Drinking Water Hotline:** 800-426-4791. **EPA Indoor Air Quality Information Clearinghouse** (for mold info), 800-438-4318. **Encapsulants:** Fiberlock and Child Guard, Fiberlock Technologies Inc., Andover, MA, 800-342-3755, fiberlock.com. **Abatement contractor:** Dec-Tam, North Reading, MA, 800-332-826, dectam.com. **Industrial hygienist:** Covino Environmental Associates, Woburn, MA, 781-933-2555, covinoinc.com. **Home inspectors:** Pillar to Post, Tampa, FL, 800-294-5591, pillartopost.com. **Hazardous materials expert:** Gary Bayne, CHST, CAC, University of California at Berkeley, Berkeley, CA, berkeley.edu. **Lead-specific detergent:** Ledizolv, LSZ Inc., White Plains, NY, 914-948-3797, ledizolv.com. **Infrared paint stripper:** Speedheater System, Sävedalen, Sweden, +46 31 336 82 40, speedheatersystem.com. **Paint stripper:** Safest Stripper Paint and Varnish Remover, 3M, St. Paul, MN, 888-364-3577. **Mold inhibiting paint:** Kilz Primer, Masterchem Industries LLC, Imperial, MO, 800-325-3552, kilz.com.

HOMEOWNER'S HANDBOOK

Laying a Cork Floor (pp 89–94)

Manufacturers: Natural Cork, Augusta, GA, 800-404-2675, naturalcork.com. AmCork, American Cork Products Company, Houston, TX, 888-955-2675, amcork.com. Wicanders, Amorim Flooring North America, Hanover, MD, 410-553-6062, wicanders.com. Expanko Inc., Parkesburg, PA, 800-345-6202, expanko.com.

RED, YELLOW, BLUE & GREEN (pp 102–107)

Designer: Stephen Beili, Studio Dionisi Inc., Asheville, NC, 828-254-3250. **Builder/consultant:** Rob Moody, The EcoBuilders Inc., Asheville, NC, 828-337-0623, theecobuilders.com. **Kitchen cabinets:** Wildwood Studios, Asheville, NC, 828-299-8696. **Concrete countertop and sink:** Mandala Designs, Asheville, NC, meetconcrete.com. **Faucet:** Hansgrohe, Alpharetta, GA, 800-334-0455, hansgrohe-usa.com. **Dishwasher:** Bosch Appliances, Huntington Beach, CA, 800-921-9622, boschappliances.com. **Refrigerator:** Fisher & Paykel Appliances Inc., Huntington Beach, CA, 888-936-7872, fisherpaykel.com. **Bathtub and sink:** Duravit USA Inc., Duluth, GA, 888-387-2848, duravit.us. **Bath faucet:** Hansgrohe. **Master bath glass tile:** Crossville Inc., Crossville, TN, 931-484-2110, crossvilleinc.com. **Custom shower wall with ginkgo leaves:** 3-Form, Salt Lake City, UT, 800-649-2500, 3-form.com. **Shower tile:** American Olean, Lansdale, PA, 215-393-2411, americanolean.com. **Interior and exterior paint colors:** The Sherwin-Williams Company, Cleveland, OH, 800-4-743-7946, sherwin-williams.com. **Cedar shakes:** Maibec, Sainte-Foy, Quebec, Canada, 418-659-3323, maibec.com. **Rinnai direct vent automatic instantaneous water heater:** GreenR Inc., Mars Hill, NC, greenrinc.com. **Basement walls:** Superior Walls, 800-452-9255, superiorwalls.com. **Insulation:** Icynene, 800-758-7325, icynene.com. **Ductless air conditioner:** Panasonic, 800-405-0652, panasonic.com.

RECYCLING KATRINA'S RUINS (pp 114–119)

Museum: Los Isleños Heritage and Multi Cultural Park, St. Bernard Parish, LA, losislenos.org. **Deconstruction crew:** Green Project, New Orleans, LA, thegreenproject.org, and AmeriCorps National Civilian Community Corps (NCCC), Washington, DC, 202-606-500, americorps.org/about/programs/nccc.asp.

Thanks to— Preston Browning, reclaim program officer for Mercy Corps, and Green Project's Gulf Coast hurricane recovery effort, New Orleans, LA, mercycorps.org. David Reynolds and the entire deconstruction crew at the Green Project. Natasha Johnson and all of the AmeriCorps NCCC members who worked on the Collins house project. St. Bernard Parish president Henry "Junior" Rodriguez, St. Bernard Parish, LA, sbpg.net. St. Bernard Parish historian William de Marigny Hyland. Los Isleños Heritage and Cultural Society president Dorothy Benge. Los Isleños Heritage and Cultural Society historian Jerry Estopinal. Eugene D. Cizek, professor of architecture and director of the Historic Preservation Program at Tulane University, New Orleans, LA, tulane.edu. And our amazing host, Cleo Pelleten, proprietor of The Claiborne Mansion, New Orleans, LA, 504-949-7327, claibornemansion.com.

WORKSHOP

Ask This Old House (pp 123–125)

"Stains on Shingles": Zinc strips. ZincShield® by Great States Products LLC, Lancaster, SC, 800-440-3010, zincshield.com, and Chicago Metallic Corporation, Chicago, IL, 800-323-7164, chicagometallic.com. **"Adjusting Toilet-Drain Height":** PVC closet flange extenders, Jones Stephens Corp., Moody, AL, 800-355-6637, plumbest.com. **"Driveway Flooding Problem":** Drain, Carson Industries LLC, Glendora, CA, 800-735-5566, carsonind.com. **"What is it?":** Nibbler tool, Klein Tools Inc., Lincolnshire, IL, 800-553-4676, kleintools.com.

Skill Building (p. 127)

"Setting Glass Tile": **Glass-tile adhesive.** Laticrete 317 Floor N1 Wall thinset mortar and Laticrete 333 Super Flexible Additive, Laticrete International Inc., Bethany, CT, 800-243-4788, laticrete.com. **Glass tile nippers:** TN80 Superior Tile Nippers, Marshalltown Co., Marshalltown, Iowa, 641-753-5999, marshalltown.com.

Norm's Notebook (p. 129)

Silica gel canister: The Rust Store, Madison, WI, 877-256-9301, therststore.com. **Boeshield T-9® and Rust Free** by PMS Products Inc., Holland, MI, 800-962-1732, boeshield.com. **Bull Frog Rust Blocker** strips by the Cortec Corporation, St. Paul, MN, 800-4-CORTEC, bull-frog.com, available through The Rust Store. ■

Time4 Media and This Old House Ventures do not endorse any product or service mentioned or advertised in this magazine.

Advertisement

$100,000
Dream Kitchen

YOU COULD WIN THE KITCHEN OF YOUR DREAMS

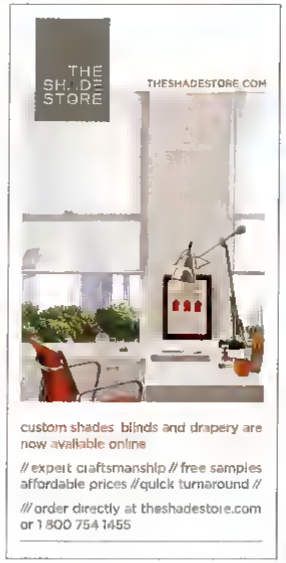
MasterCard® $100,000 Dream Kitchen Makeover with The Home Depot®

Abbreviated Rules
No Purchase Necessary to Enter or Win
PIN-Based & International Transactions Ineligible. Purchasing Will Not Increase You Odds of Winning

Begins 9/7/06, 12:00:01 AM Central Time ("CT") & ends 10/31/06, 11:59:59 PM CT ("Promo Period"). Open to legal U.S. residents, 18+. During Promo Period receive 1 entry per U.S.-based MasterCard purchase at The Home Depot or www.homedepot.com, EXPO Design Center® or www.expo.com &/or The Home Depot Landscape Supply® (each a "qualifying purchase") & 1 add'l entry per qualifying purchase made with a Home Depot Rewards or Home Depot Business Rewards MasterCard. **To enter without purchase** & receive 2 entries, hand print your name, complete mailing address, age, phone, & "MasterCard $100,000 Dream Kitchen Makeover with The Home Depot" on 3" x 5" paper & mail to be rec'd by 11/7/06 to: MasterCard $100,000 Dream Kitchen Makeover with The Home Depot, P.O. Box 16059, Bridgeport, CT 06673-6059. Limit 1 entry/envelope. (1) Prize: $100,000 toward a kitchen makeover awarded as a check (ARV=$100,000). Odds of winning depend on number of eligible entries rec'd. Taxes. Winner's responsibility. Void where prohibited. For full Official Rules, visit www.homedepot.com/MasterCard or send a SASE for MasterCard Home Depot Rules, P.O. Box 13106, Bridgeport, CT 06673-3106. ©2006 MasterCard International Incorporated. All rights reserved. Sponsor: MasterCard International Incorporated, 2000 Purchase Street, Purchase, NY 10577. Promoter: Project Support Team, Inc., 100 Mill Plain Road, Danbury, CT 06811, www.ProjectSupportTeam.com. ©2006 HOMER TLC, Inc. All rights reserved.

ADVERTISEMENT

ADVERTISEMENT



INCINOLET® electric incinerating toilets

PROBLEM SOLVED!

Need a toilet conveniently located? Home, cabin, barn, boat or dock – INCINOLET is your best solution!

SIMPLE to install, maintain. Only electricity needed 120 or 240 volts

ULTRA CLEAN: waste reduced to sterile ash, as little as a cupful weekly. Dump in garbage.

TOP QUALITY stainless steel, platinum odor control, quality construction for a lifetime of satisfaction.

www.incinolet.com

Call 1-800-527-5551 for info, prices, and personal attention.

RESEARCH PRODUCTS/Blankenship • 2639 Andjon • Dallas, TX 75220

EXTERIOR SHUTTERS & HARDWARE

So you want *to improve* **YOUR VIEW?**

Historically accurate, custom handcrafted cedar shutters from Timberlane® With our hand-forged period hardware, they'll make your house shine Call for your free catalog

800.250.2221 EXT.1295
WWW.TIMBERLANE.COM/1295

40,000+ Decorative Building Products

Lowest Prices... Widest Selection... All From Stock!

- Interior/Exterior Architectural Mouldings & Millwork
- Period & Contemporary Hardware
- Brass Tubing & Fittings
- Kitchen & Bathroom Accessories
- Columns & Capitals
- Fireplace Surrounds
- Knobs & Pulls
- Wall Coverings
- Wainscoting
- Balustrading
- Lighting
- Wrought Iron Components
- Furniture & Cabinet Components
- Stamped Steel & Polymer Ceiling Tiles...
- And So Much More

Please Call 1-888-772-1400 For Our FREE Master Catalog

Architectural Products by Outwater L.L.C.
Tel 1-800-835-4400 Fax 1-800-835-4403
New Jersey • Arizona • Canada
www.outwater.com

MASTER WHOLESALE INC.

SEATTLE HOME OF QUALITY & SERVICE WA.

Your ultimata, reliable source for Tile, Masonry, Stonaworking and Carpat Tools!

Tile Master® Plus Tile Saw

- Tilt-up blade guard allows for easy access and has an enclosed water system.
- High torque 1-1/2 horsepower Baldor motor is designed specifically for high production tile sawing. $835 00

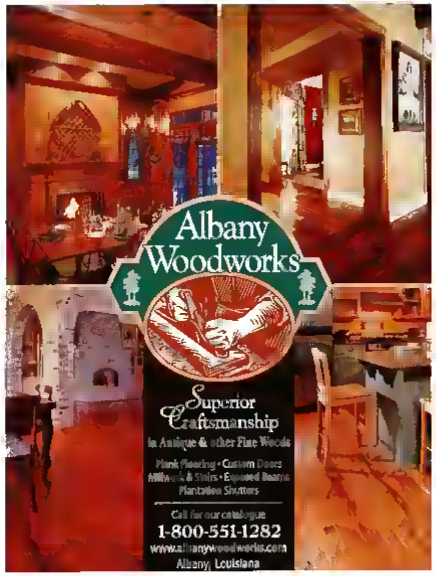
10" premium diamond blade included

19" RIP CUT 13" DIAGONAL

MWI'S 4" WET GRANITE EDGE POLISHING SYSTEM

COMES COMPLETE WITH FLEX LW1503 WET GRINDER, PLASTIC RADIO TOOLBOX PAD HOLDER AND SET OF 4" VELCRO BACKED DIAMOND POLISHING PADS HOW-TO DVD INCLUDED! $385 00

CALL TO PLACE YOUR ORDER NOW AT 800 938.7925
BUY WORK BOOTS ONLINE WWW.MASTERWHOLESALE.COM
SOME ITEMS ARE LIMITED TO STOCK ON HAND!

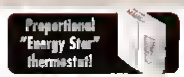


Families Have Saved Up Ta 50% On Heating Casts

And never have to buy fuel — waad, ail, gas, kerosene — ever again!

Hydro-Sil is a unique room-by-room heating system that can **save you hundreds of dollars** in home heating costs by replacing old and inefficient heating It can replace or supplement your electric heat, gas or oil furnace and woodstoves.

Hydro-Sil represents economy in heating: inside the heater case is a sealed copper tube filled with a harmless silicone fluid **It's permanent. You'll never run out.** "Hydro-Sil Energy Star" thermostat controls a variable watt hydro element that is *only* being supplied a *proportional* amount of power on an as-needed basis. When Hydro-Sil is turned on, the silicone liquid is quickly heated and with its heat retention qualities continues to heat after the Hydro element shuts off Hydro-Sil's room-by-room "Energy Star" digital control technology greatly increases energy savings and comfort.



YOUR BENEFITS WITH HYDRO-SIL:

- Slash heating cost with Energy Star technology
- Lifetime warranty No service contracts
- Safe, complete peace of mind
- Clean, no fumes, environmentally safe
- U L. listed
- Preassembled — ready to use
- No furnaces, ducts, or chimneys
- Portable (110V) or permanent (220V)
- Whole house heating or single room

HERE'S WHAT OTHERS ARE SAYING...

- **F. Smalley** - ***"A company that advertises the truth*** saved me 50% compared to my gas heat. I found it hard to believe until my power bill came Thanks a million!"
- **R. Hanson** - "I can't begin to tell you how pleased I am with Hydro-Sil the first time in 25 years our electric bill was reduced. ***saved $635, over 40%!***"
- **A. Gonsalves**— "We replaced 20 electric heaters with Hydro-Sil ***Wow — what a difference!*** We received a substantial reduction of our electric bill I have recommended Hydro-Sil to many people!"

ORDER TODAY!

2 MODELS TO CHOOSE FROM

220 Volt Permanent	Approx. Area To Heat	Discount Price	Quantity
8 2000 watts	250-300 s.f	$268	
6 1500 watts	180-250 s f	$259	
5 1250 watts	130-180 s.f	$239	
4 1000 watts	100-130 s f	$219	
3 750 watts	75-100 s.f	$189	
2 500 watts	50-75 s.f	$169	
Thermostats	Call for options & exact heater needed		

110 Volt Portables (Thermostat Included)	Discount Price	Quantity
5 Hydro-Max 750-1500 watts	$219	
4 Convector—Dual watt	$179	
3 750 watts - Silicone	$179	

$15 00 shipping per heater $ _____
Total Amount $ _____

Name _____
Address _____
City _____ St ____ Zip _____
Phone _____
MasterCard or Visa Account Information:
Acct # _____
Expiration Date _____

Order today or contact us for more information
PHONE • WEB • MAIL
Check • MasterCard • Visa
1-800-627-9276
Visit our secure web site at
www.hydrosil.com
Hydro-Sil P O Box 662, Fort Mill, SC 29715

FREE PRODUCT INFORMATION

APPLIANCES

201. ALL FREE APPLIANCE LITERATURE

1. **YORK UPG** York's New Affinity Air Conditioning and Heat Pumps systems are sleek, quiet, efficient...and available in seven designer colors. Because not everyone likes grey

AUTOMOTIVE

202. ALL FREE AUTOMOTIVE LITERATURE

2. **FORD F-150** The next F-150 has arrived and from a frame that's twice as strong to revolutionary interiors – it's the toughest F-150 ever
3. **GMC SIERRA** Home improvers need Professional Grade support. GMC Sierras are that and more. Whether you're putting up paneling or adding a new suite of rooms, GMC Sierra will make the task easier
4. **HYUNDAI SONATA** The all-new Hyundai Sonata. With the most standard safety features in its class. It's a Hyundai like you've never seen before.
5. **NISSAN TITAN** The full-size Nissan Titan. For more information please visit our website

BUILDING PRODUCTS

203. ALL FREE BUILDING PRODUCTS LITERATURE

6. **AZEK TRIMBOARDS** The #1 brand of trim defines and accentuates any home's true style. No matter how elaborate the design, once you look, it's all you see
7. **DIY NETWORK** DIY Network is an on air, online network that provides in depth project instructions, demonstrations and product tips for home and hobby enthusiasts
8. **DOW GREAT STUFF** Great Stuff™ products offer both professionals and do-it-yourselfers an easy solution to help lower energy costs and make the home more comfortable
9. **GEORGIA-PACIFIC** Georgia-Pacific Plytanium™ branded plywood products perform better than oriented strand board (OSB) because of its greater durability, superior stiffness, lighter weight, and versatile characteristics
10. **GRACE CONSTRUCTION** Water is the worst enemy of every house. Be sure that yours is properly protected with high performance Grace Weather Barriers for roofs, windows, doors and decks
11. **PANASONIC VENTILATION FANS** Panasonic's "WhisperGreen" ventilation fan line combines energy efficiency, quiet operation, and advanced technology to deliver unparalleled performance
12. **POLYSEAMSEAL®** Polyseamseal® all-purpose adhesive caulk is formulated to bond like an adhesive and seal like a caulk, making it ideal for 1,001 uses around the home
13. **QUIKRETE** Quikrete Company, a leader in packaged concrete products, has more than 80 manufacturing facilities. For additional information on concrete repair products, visit our website
14. **SCHLAGE** Schlage Accents™ Collection is the finest line of decorative door hardware, providing a lifetime of design and decorating possibilities

FINANCIAL SERVICES

204. ALL FREE FINANCIAL SERVICES LITERATURE

15. **LIBERTY MUTUAL** Liberty Mutual has been helping people live safer, more secure lives for 90 years. To get an auto quote, visit our website.

    RE/MAX Outstanding Agents. Outstanding Results.® Nobody in the world sells more real estate than Re/Max. For more information, please visit our website
16. **STATE FARM** No one understands your insurance and financial needs like your neighborhood State Farm Agent. We live where you live.®

FLOORING

205. ALL FREE FLOOR LITERATURE

ARMSTRONG Armstrong floor products, which include Bruce®, Armstrong™ by Harbco® and Robbins® offers hardwood, resilient, laminate, ceramics and Genuine Linoleum™

17. **FORBO MARMOLEUM** Marmoleum Click, natural, healthy, easy to clean flooring, available in 18 colors in both panels and squares for an easy, glueless installation
18. **LUMBER LIQUIDATORS** Lumber Liquidators is the leading retailer of quality hardwood flooring at the lowest prices. They offer a variety of brands including Bellawood. Over 80 locations nationwide.
19. **MOHAWK** Mohawk's SmartStrand™ made with DuPont™ Sorona® polymer offers superior performance, comfort and everlasting stain resistance
20. **SHAW FLOORS** Shaw offers all the inspiration, style advice, and product selection you need to create the floor you've always wanted
21. **WICANDERS CORK FLOORING** Wicanders stunning Cork Oak floors provide natural warmth, health, silence, and beauty to your home. Nurturing exquisite Cork Oak trees from seedling to installation.

HOME FURNISHINGS & DESIGN

206. ALL FREE HOME FURNISHINGS & DESIGN LITERATURE

22. **NORWALK FURNITURE** The leading manufacturer of custom-ordered upholstered and leather furniture, sold through franchise-owned Norwalk, the furniture Idea stores as well as independent dealers

KITCHEN

207. ALL FREE KITCHEN LITERATURE

23. **THE HOME DEPOT** The Home Depot is more than a store. It's where you'll find the know-how to get your home improvement projects done right

LIGHTING

209 ALL FREE LIGHTING LITERATURE

24. **LUTRON ELECTRONICS** Lutron Electronics is the world's leading manufacturer of dimmers for single light, entire-room, and whole-home applications

PAINT/STAIN

210. ALL FREE PAINT/STAIN LITERATURE

BEHR PAINTS BEHR Wet-Look Sealer's high-gloss decorative finish protects interior and exterior surfaces against moisture, stains and automotive chemicals. Perfect for pavers, tiles, brick, stone, concrete, stucco

25. **KRUD KUTTER** GOT KRUD? GET KRUD KUTTER® No other single product removes dried latex paint and other really tough KRUD as quickly and effectively. Water based, non-toxic, biodegradable
26. **WATERLOX** Waterlox offers a unique, handmade blend of tung oil and resin that penetrates the wood, yielding a rich, handrubbed look that's durable and easy to maintain. VOC compliant in all 50 states

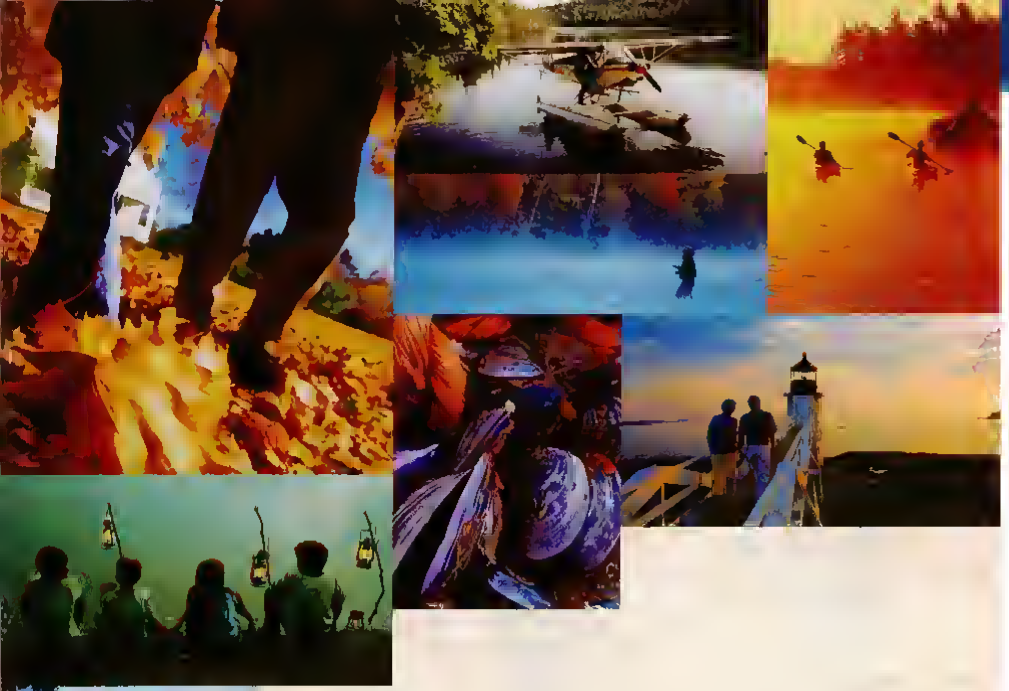
PLUMBING FIXTURES & BATH ACCESSORIES

212. ALL FREE PLUMBING FIXTURES & BATH ACC. LITERATURE

27. **AMERICAN STANDARD** Our FREE "Ideas" magazine takes the guesswork out of bathroom and kitchen design. With 64 pages full of inspiration and information, it's the first step in creating a room you'll love

28. **KOHLER** Kohler bath and kitchen ideas – order a complete set of full-color product catalogs covering baths and whirlpools, showers, lavatories, toilets and bidets, kitchen and entertainment sinks, faucets and accessories. ($15)

NYCWES



This is a gratuitous mention of our incredible lobster

(mmm, mmm).

Now that we have that out of the way, check out the other reasons to visit Maine

www.visitmaine.com 1.888.576maine

it must be **maine**

PHONE: 800-424-0055 / FAX: 888-847-6035
WEB: WWW.HOMEOWNERSHELPLINE.COM / MAIL: FILL OUT POSTAGE PAID CARD

29. MOEN Bring the classic elegance of Vestige™ by Moen to your home. The collection of faucets for the kitchen and bath coordinate with the traditional styling of today's home decor. For more information, call or visit our website.

WINDOWS, DOORS, ETC.

216. ALL FREE WINDOWS, DOORS, ETC. LITERATURE

30. ANDERSEN® WINDOWS & DOORS FREE! The "Long Live The Home™" idea book from Andersen® Windows. Get room ideas, inspiration and more.

31. MARVIN WINDOWS AND DOORS Marvin Windows and Doors offers premier wood and clad wood windows and doors for new construction and remodeling. Made for you.®

RESOURCES

32. AMERICAN ALDES VENTILATION
Premium Bath & Kitchen Ventilation Systems

33. AMERICAN BLINDS
American Blinds, Wallpaper and More

AMERICAN INTERNATIONAL TOOL IND., INC.
Dust-Free Sanding Indoor and Out

34. ARCHITECTURAL PRODUCTS BY OUTWATER
Your Decorative Building Products Source! Free Catalog!

35. ATLANTIS RAIL
Stainless Steel Deck Railings

36. BIGFOOT SYSTEMS
Concrete Construction Tube Footing Forms

37. BILCO
Bilco Basement Products

CROWNPOINT CABINETRY
Handcrafted to the Finest Quality

38. CRUTCHFIELD
Crutchfield free A/V electronics catalog

39. EASY CLOSETS
Easy Closets. Come get custom closets direct!

40. ENDLESS POOLS
Swim At Home

41. THE EXTRACTOR
Fast and reliable fastener removal

42. GORILLA GLUE
Bands Wood, Stone, Metal & More

43. HEADCOTE
Stainless Steel Color Coated Screws

44. HOUSE OF ANTIQUE HARDWARE
"True To The Original Design"

45. HYDRO-SIL
Save up to 50% on heat costs

46. THE IRON SHOP
Spiral Stairs

47. M-BOSS
Inexpensive Antique-Looking Tin Ceilings

48. NU-WAL
Restoration Products

49. RAINHANDLER
Rainhandler. Modern gutters. No cleaning

50. RESEARCH PRODUCTS/BLANKENSHIP
Incinolet ! First ever incinerator toilet

51. SALTER INDUSTRIES
Spiral Stair Kits

52. THE SHADE STORE.COM
Custom Window Treatments Available Online

53. SHUTTER BLINDS
Authentic period wooden blinds and shutters

54. SPEEDHEATER SYSTEMS
Speedheater Infrared Systems for Paint Removal

SUNPORCH STRUCTURES, INC.
Convertible Sun Room

55. SUPERIOR CLAY
Rumford fireplaces. Clay Chimney Pots. Clay Products

56. SWAN SECURE
Ever Lasting Fastening

57. TEMPUR-PEDIC
Pressure-relieving swedish mattresses

58. TIGER CLAW INC.
Hidden Deck Fasteners

59. TIN CEILING CO.
Inexpensive Antique-Looking Tin Ceilings

60. UNICO
HVAC for Historic Homes

61. UNITED COUNTRY
Free Real Estate Catalogue

2 weekends. 4 buddies.

Your dream garage!

It's gotta be a Miracle.™

A MIRACLE TRUSS pre-engineered steel building and some help from your friends or family is all you need to construct that garage you've been wanting.

- Do-it-yourself assembly—no skilled labor or heavy equipment required
- Variety of sizes (widths from 24'–110'), styles and 19 contemporary colors
- Unique steel web-frame—accommodates standard wood sizes & finishing materials
- Building packages include steel frames & sidewalls, sheeting, hardware, trim and complete assembly instructions

FACTORY-DIRECT PRICES LIMITED QUANTITY

30' x 36' for only $8,497* (a $13,608 value)

Other sizes available with similar savings!
*Building Codes in CA & FL may affect prices.

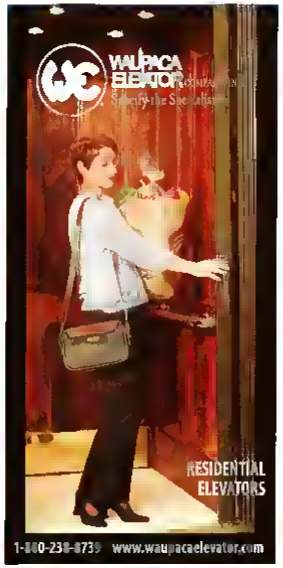
MIRACLETRUSS®
1-866-463-1229
www.miracletruss.com

Don't Skimp on Shutters

Original rot and insect resistant cedar shutters from Vixen Hill are designed to last. Fabrication starts in our own mill where we control wood quality. We don't settle for lumberyard pickings when building your shutters !!!

Call now for a free catalog!

VixenHill.com
800-423-2766



Loves composite decking. Eats mushrooms.

Dexter's unique thread form removes exhaust while driving to prevent "mushrooming"

- Type 17 point for fast starts
- 6 lobe drive prevents stripping of recess
- Small head diameter
- Available with pointed heads
- 305 and 316 stainless steel in 2-1/2" and 3" lengths

SWAN SECURE
EVERLASTING FASTENING
800.966.2801
www.swansecure.com
THE BRAND TRUSTED MOST BY CUSTOM BUILDERS

Buy Factory Direct
Coast to Coast Delivery
All from one source.
Steel Stairs • Aluminum Stairs • Wood Stairs
For a Free Brochure call 810-831-1212
Salter Industries
The Leader in Spiral Staircases
www.salterspiralstair.com/toh

ATLANTIS RAIL SYSTEMS
www.atlantisrail.com
(800) 218-7702
Stainless Steel Deck Railing Systems

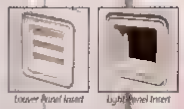
Cinder Whit & Company
Wood Turnings for Porches & Stairways
• Stock or Custom Designs • Authentic Replications • Prompt Quality Service •
• Porch Posts • Balusters • Newels • Spindles • Finials • Handrail •
• Lengths To 12 Feet • Free Brochure •
1-800-527-9064 Fax 701-642-4204
E-Mail info@cinderwhit.com
Website www.cinderwhit.com
733 Eleventh Avenue South • Wahpeton ND 58075

New! The **Ultra Series** Basement Door
The beauty of a wooden door, without the work.

Made from high-density polyethylene and engineered to exacting specifications the Ultra Series door provides safe and code-compliant basement access, weather-tight performance and easy operation — all with virtually no maintenance.

The Ultra Series door will never rust, rot or need painting. It's simulated wood texture and pleasing driftwood color complements almost any home's exterior, and interchangeable side panel inserts allow homeowners to easily add light or ventilation to their basement areaway.

Light weight, easy to install and backed by a 25-year warranty. The Ultra Series is ideal for both new construction and replacement applications.



Bilco
Building on Our Tradition™

For more information, log on to www.bilco.com, or call (800) 854-9724

The Toughest Glue On Planet Earth.™

...ds ...ndreds of materials including wood stone metal ceramic and more! Incredibly strong and 100% waterproof!

1-800-966-3458 • www.gorillaglue.com

The Toughest Tape On Planet Earth.™

Extra Thick. Extra Stick.

New Gorilla Tape grips smooth, rough and uneven surfaces metal glass brick stucco wood and more

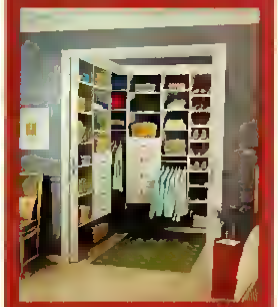
1-800-966-3458 • www.gorillatape.com

Designed in 1 Hour.

Installed in 1 Day.

Saved over $950.

Envied by neighbors.



Designing a beautiful custom closet is easier than you think. Visit EasyCloset.com and use our simple design tools to create your own space. We'll ship materials and instructions to your home; anyone can put it together. After this weekend, your home tours will start in the closet. And you will be forever known as the Design God.

EasyClosets
Create Your Own Space

www.easyclosets.com 800-910-0129

THE DECK BUILDER'S PRE-DRILLING AND COUNTERSINKING TOOL

- Pre-set, no adjustments
- No mark, free-spinning stop collar

SMART-BIT 1-800-596-7747 WWW.SMART-BIT.COM
SEE OUR ONLINE VIDEO DEMO
SMART-BIT® is a product of Starboro Industries, Inc. Patent Pending

Reggio Registers
Made to last a Lifetime
The Reggio Register Co.
Dept G6610 31 Jytek Road Leominster MA 01453
(800)[illegible] or www.reggioregister.com

Coppa Woodworking, Inc.

www.coppawoodworking.com
310.548.4142

Finally, Affordable Healthcare!

Designed for business owners, individuals and families.

Entire Family Only $59.93 per month

- Medical
- Dental
- Vision
- Prescriptions

• No restrictions on current health conditions • No limitations on usage • No age restrictions

vps Leading The Way To Affordable Healthcare

ALSO INCLUDES
- Doctor visits
- Hospitalization*
- 24 hr nurse hotline
- Chiropractic
- Children's braces
- Eyeglasses and more

ATTENTION BUSINESS OWNERS
Employee Group Rates is available through PSB's Business Department.

CALL NOW! 1-800-620-3689

A non insurance solution to healthcare
*Hospitalization is not available in MD, NC and VA. This program is not available in MT, ND, SD, FL and UT.

Inner strength

The miracle is on the inside...

Our bed utilizes natural principles of physics. Nothing mechanical or electrical. No motors, switches, valves, air pumps, or water heaters. It can't break, leak, short-circuit, or stop working. It needs no rotating, turning, or flipping.

Yet, it has to be *felt* to be believed!

Our sleep technology is recognized by NASA, raved about by the media, and ours is the *only* mattress recommended worldwide by over 25,000 medical professionals.

SPACE — THE ONLY MATTRESS RECOMMENDED BY NASA AND CERTIFIED BY THE SPACE FOUNDATION

While the thick, ornate pads that cover most mattresses are necessary to keep the hard steel springs inside, they create a hammock effect outside—and can actually *cause* pressure points. Inside *our* bed, billions of microscopic memory cells work in perfect harmony to contour precisely to your every curve.

Tempur-Pedic's Swedish scientists used NASA's early anti-G-force research to invent TEMPUR® pressure relieving material—a remarkable new kind of viscoelastic sleep surface that *reacts* to body mass and temperature. It *automatically adjusts* to your exact shape and weight. And it's the reason why millions are falling in love with the first *really* new bed in 75 years: our high tech Weightless Sleep® system.

No wonder, 9 out of 10 enthusiastic Tempur-Pedic owners go out of their way to recommend our Swedish Sleep System® to close friends and relatives. And, 92% tell us their Tempur-Pedic is far superior to older innerspring, air and waterbeds.

Owner survey conducted by Alpert O'Neil Tigre & Co. August 2003

Changing the way the world sleeps!™

TEMPUR-PEDIC®
PRESSURE RELIEVING
SWEDISH MATTRESSES AND PILLOWS

For free demonstration kit, call toll-free
800-673-1045
or send fax 866-795-9367

Humidifier & Purifier Two in one.

Choose the best. No need for filterpads. It's so simple.® Patent-No. 5,884,[illegible]

Patented German engineering. Worldwide unique.
100% made in Germany. 10 year warranty. 100% satisfaction.

These 7 outstanding benefits make Venta-Airwasher Europe's #1 bestseller for Humidifiers and Purifiers:

1. No filterpads, no wicks, no cartridges needed. Hassle free. It's so simple.
2. No problems with white dust.
3. No ozone that might cause asthma problems.
4. Extremely hygienic and easy cleaning. No bacteria-ridden filterpads or wicks.
5. Easy, problem free maintenance; robust and durable construction.
6. Invisible humidification by cold evaporation, recognized as the best possible technique.
7. Pure water evaporates whereas impurities, stale tobacco smoke and odors are trapped in the water.

Patent U.S. Design Patent No. [illegible] 2003

The "Wunderding" so simple - so efficient

Perfected with the newest cold water evaporation technology.

Call today toll free: 1-888-333-8218

BED BATH & BEYOND · ACE Hardware · True Value · GRACIOUS HOME

Test the Venta-Airwasher cost-free.

If there is no dealer close to you, try the Airwasher in your home for 14 days. If you are not fully satisfied, we will have the Airwasher picked up from your home and your credit card will not be charged. Free shipping anywhere in the US. Please send a free brochure to:

Name:

Address:

City: State/Zip:

Available at selected retail stores.
Please call for a complete list of dealers.

Venta-Airwasher LLC 1360 Hamilton Parkway Itasca IL 60143, Tel (630) 285 1188 Fax (630) 285 1187

www.venta-airwasher.com

venta AIRWASHER

Mylen STAIRS
Call for FREE Design Assistance and Brochure
800-431-2155
WEB site www.mylen.com
Spiral Stairs from 3' 6" to 10'0" Diameter
Floating Architectural Straight Stairs

vintagedoors.com
Solid Wood Doors
Screen & Storm
Hand Made in the USA
Yester Year's
Factory Direct
Door
Catalog: 800•787•2001

EYE CATCHING QUALITY RED CEDAR SHUTTERS
Delivered Right To Your Door!

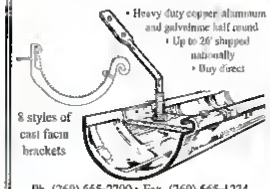
Call for free brochure and assistance with your project.
Many shutter types available. Endless cut out possibilities!
Shuttercraft, Inc. Madison CT — Call (203) 245-2608 www.shuttercraft.com

HISTORIC HOMES, COUNTRY HOMES & FARMS, WATERFRONT & RECREATIONAL, BUSINESSES..

FREE Real Estate Sampler
United Country Real Estate
Hundreds of the best buys in country real estate NATIONWIDE!
Call for your FREE copy today!
1-800-999-1020, Ext 222
www.unitedcountry.com/toh

Looking for Safe Solutions for Wood Destroying Insects, Fungi and Mold
PRG offers many, including
Mold Clean
BoraCare
PenaShield
Contact
Preservation Resource Group
800-774-7891
www.PRGinc.com

CLASSIC GUTTER SYSTEMS, L.L.C.
• Heavy duty copper, aluminum and galvanized half round
• Up to 20' shipped nationally
• Buy direct



8 styles of cast facia brackets
Ph. (269) 665-2700 • Fax. (269) 665-1234
P.O. Box 2319 • Kalamazoo, MI 49003
For complete line visit www.classicgutters.com

www.BeautifulRadiators.com
• *Exclusive!* secure on-line ordering for radiator enclosures!
• *Exclusive!* best enclosure prices!
• *Exclusive!* powder-coated finish
• *Exclusive!* design is proven to *reduce heating costs*
www.BeautifulRadiators.com
Or, call ... 800.543.7040
Dr. of Arms Mfg. Div. of America's Most Trusted Radiator Enclosure Manufacturers. (Since 1984)

www.CustomForgedHardware.com
• Pushbrooms Dustpans Sets
• Soap Fungi (functional & fun)
• Cast Brass & Bronze
• Kitchen and Hearth
• Garage and Barn
Truly Hand Forged Hardware
100% Made in the U.S.A.
Catalogs $3.00
Kayne and Son Custom Hardware Inc.
100 Daniel Ridge Rd. Dept. 7016 Candler, N.C. 28715
(828) 667-0097 Fax (877) 668-8015

MILL DIRECT WIDE PINE
8"–20"
Superior Quality
Lower Overhead
Lower Prices
Wood Idea
Monterey, VA 24471
207-567-4882
www.pinesidingdirect.com

RECOME A HOME INSPECTOR for just $49! Free information. www.Homeinspectionschool.com 1.540.372.3432

CARPET 1-800-789-9784 Carpet, Ceramic Tile, Wood, Rugs. 5% over cost. American Carpet Brokers. 1-800-789-9784.
CARPET BARN Buy all major brands at wholesale. Large selection of berbers in stock. 800 345-0478. www.carpetbarn.com

NEW PRODUCT IDEAS WANTED! Whatever your idea. Whatever the industry. Davison Inventegral can help you prepare and present your idea, patented or unpatented, to corporations for licensing. We deliver professional results. Call 1-800-544-3327 for a FREE INFORMATION PACKAGE!

PAINT www.solventfreepaint.com **NO CHEMICALS SANDERS OR GRINDERS, LEAD SAFE METHOD.** www.solventfreepaint.com 585 624 8070

Sheldon Slate Products Company Inc
Natural Vermont Slate

NY 518-642-1280 Fax 518-642-2089
Maine: 207-997-3616 Fax 207-997-2966
www.sheldonslate.com

ALUMINUM TRIMS for Curb Appeal
COLONIAL CROWN MOULDINGS
www.accm-crownmouldings.com 215-257-6473

www.windowbubble.com

ALL SIZES and SHAPES
WINDOW BUBBLE
BUILT TO YOUR WELL MEASUREMENTS
A complete line of covers for metal or masonry basement window wells. Insulate and protect with extra thick, clear, rigid Plexiglas®. For measuring instructions and brochure, DILWORTH MFG. CO. Box 158 Dept. HI0-6, Honey Brook, PA 19344-0158
TOLL FREE PHONE: 888-624-8699

DUMBWAITERS
The "Vertical Valet" is specially designed for up to 6-floor residential applications.
• MICA cabinet.
• Custom sized.
• Installed by any experienced craftsman.
• Almost 1000 units operating worldwide

Call for catalogs & technical assistance.
Ultimate Dis Corporation
Tampa, FL 813-620-8847

GLASS INTERIOR Storm Windows

• Reduce heating & cooling bills up to 30%
• Maintain the charm & beauty of your existing windows
• Eliminate drafts completely
• Greatly reduces outside noise
• Custom sizes
• Perfect for enclosing screen porches
• Easy no tool snap in & out
Innerglass WINDOW SYSTEMS
the better alternative
1-800-743-6207 • FAX (860) 651-4789
15 Herman Drive, Simsbury, CT 06070
www.stormwindows.com

Ambiance Decorative Interior Doors

1-866-355-9220
www.ambiancedoors.com

The look that lasts.
Freeport COLLECTION
The new Walpole Freeport Collection is crafted with AZEK® material and has the look and feel of painted wood, but will withstand the elements for a lifetime.
Walpole Woodworkers
Quality fence since 1955 • www.walpolewoodworkers.com

Easy to Install Wainscoting Kits

5 Styles Readily Available
WWW.ELITETRIMWORKS.COM
905-760-1665

Vertical Grain Quarter-Sawn Spruce Clapboards
WARD CLAPBOARD MILL
Est 1868
The Ward Family has manufactured quality authentic vertical grain spruce clapboards for 125 years. Quarter sawing produces a vertical grain which eliminates warping and accepts paint and stain easily. We have widths from 4 1/2" to 6 1/2". Clapboards are offered primed and painted. Vertical grain offers an ageless charm and the promise of many years of durability.
P.O. Box 1030 Wattsfield, VT 05673
802-496-3581
www.wardclapboard.com

HISTORIC HOUSEFITTERS CO.
HAND-FORGED IRON HARDWARE

• Thumblatches - Interior & Exterior
• Strap Hinges & Finials
• Hearth Equipment
• Barn & Gate Hardware
• Custom Forge Work
• Machine Forged Hardware
• Large Inventory
Also the finest in Hand Made Lanterns, Sconces & Chandeliers, Door Knobs & Locksets, Pewter, Tin & Redware & Much More.
Send $5.00 for our 64-page color catalog.
PO Box 26 Dept. 3106
Brewster NY 10509
800-247-4111
www.historichousefitters.com

Stop Floor Squeaks!
"Squeaknot No More" and Counter Snap" are easy solutions to a common problem: floor squeaks.
The "Squeaknot No More" kit has won numerous awards and is available through many fine retailers and catalogs.
The "Counter Snap" has been demonstrated on TV and is available through many catalog stores and retailers.

As Seen on TV
Call... 800-469-8428 or visit us at... www.squeaknomore.com

ALL STEEL RADIATOR ENCLOSURES
FOR HOMES OFFICES CHURCHES INSTITUTIONS

FROM THIS TO THIS
FROM $25.30
BUY FACTORY DIRECT & SAVE • EASY TO ASSEMBLE
MANY STYLES & COLORS • BAKED ENAMEL FINISH
Send $1.00 for Brochures. Refundable with Order.
MONARCH Dept TOH
P.O. BOX 338,111 KERO RD., CARLSTADT, NJ 07072
(201)507-5551 www.monarchcovers.com

The Ancestral® window in a Class by itself

BELISLE Ancestral Doors & Windows
Tel: 1 866 851-5113 (toll free)
www.belislewindows.com

OnSite Educational Homebuilding DVD Series
Mastering Finish Carpentry with GaryKatz

NEW
6-Part Series
Mastering the Miter Saw 182 Mastering Casing/Baseboard 384
Compact by C & m Mfg Mfg 546
www.GaryMKatz.com

Radiant Soapstone Warmth
Soapstone is nature's perfect stove material - beautiful, durable and naturally efficient. It heats steadily and comfortably - hour after hour, day after day and night after night. No power required. Call for a free catalog.

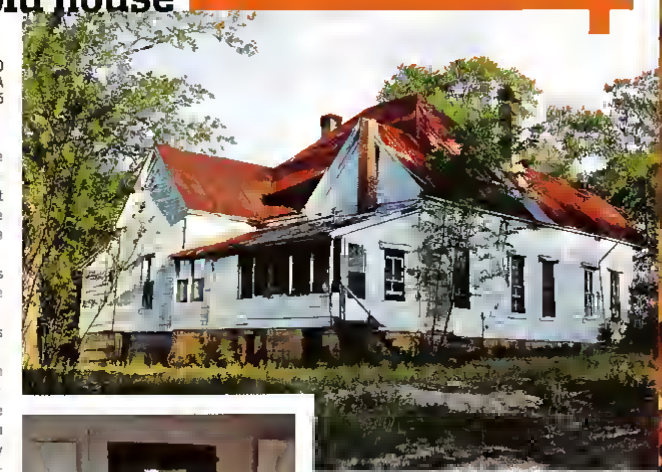
Wood or Gas
Woodstock Soapstone Co. 66 Airpark Rd. Dept 2687 W Lebanon NH 03784
www.woodstove.com
1-888-664-8188

Swim At Home

FREE DVD
The Treadmill for Swimmers!
Swimming not a smooth current is adjustable to any speed or ability. Ideal for exercise, water aerobics, rehabilitation and fun. Just 8 x 15 an Endless Pool® is simple to maintain, economical to run, easy to install inside or out.
Already own a pool? Ask about the FASTLANE
For Free DVD or Video Call
(800)233-0741, Ext. 4744
Visit www.endlesspools.com/4744

save this old house

PRICE $65 000
LOCATION PENNINGTON ALABAMA
CONTACT TONYA JOHNSON 334 289 1855



MATTIE RUSHING DIDN'T ASK for much She was happy living in small-town 1950s Pennington Alabama In a rustic farmhouse torn right out of the pages of a Flannery O Connor novel She loved quilting sometimes with friends in the back bedroom of the circa 1910 house, and gathering pecans and sweet potatoes on the 70 plus acres surrounding the place But there was one thing she pined for a bathroom

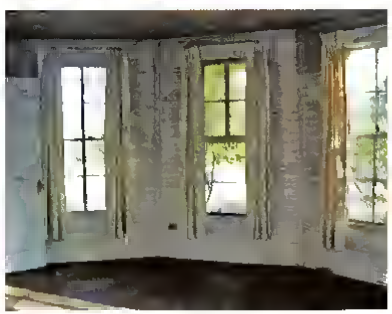
Her husband RT or "Mr Bob" as he was called around town set aside a portion of his pay check each month in hopes of freeing his wife from the outdated outhouse But one sad day the farmer s desires got the best of him and he blew the bathroom fund on a new tractor When she recovered from the news Mattie quickly came up with a good Plan B She would get a government job and pay for the bathroom herself A couple of years later she did just that

Though the Rushings passed on years ago the 1950s bath looks about the same as when it was added in the back of the rambling four bedroom house The place is a little ramshackle to be sure, but that s what gives it charm It has a front porch a sleeping porch a screened back porch that houses a well and an unfinished attic that could be converted to a fifth bedroom or an office

Pennington is perfect for anyone hoping to leave the migraines of mainstream America behind With a population of less than 500 it is known for its remoteness as well as its hunting and fishing For you nature lovers there s a walking trail and plenty of fishing along the Tombigbee River about 5 minutes away by car

The house might serve as a vacation home, or a B&B for out-of-towners doing business at the nearby Georgia Pacific paper mill Most residents drive to nearby Butler about 20 minutes away to do their shopping Tuscaloosa and Birmingham are two and three hours away respectively The house does need new plumbing and electrical systems but at $65 000 the purchase might preserve enough cash for a second bathroom—and even a new tractor —KEITH PANDOLFI

ABOVE: Five acres out back provide plenty of peace and quiet around the 1910 farmhouse. Up to 47 acres of additional land can also be purchased. **LEFT:** The house's pine floors and four original mantels are all made from local timber. **BELOW LEFT:** Walls of weathered beadboard give the house a rustic look as do the four-over four windows original to the place. **BELOW RIGHT:** The four-gabled house has a red tin roof and a front porch that wraps around one side.



PHOTOS COURTESY OF TONYA JOHNSON

IF YOU KNOW OF A HOUSE THAT SHOULD BE SAVED PLEASE WRITE TO SAVE THIS OLD HOUSE 1185 AVENUE OF THE AMERICAS 27TH FLOOR NEW YORK NY 10036

This Old House (ISSN 1086-2633) is published monthly, except for the January/February and July/August issues, by This Old House Ventures, Inc., 1185 Avenue of the Americas, New York, NY 10036 (GST R. 127189838; Canada Post Publications Mail Agreement No. 401 10173 Return undeliverable Canada addresses to: Postal Sta. A, PO Box 4815, Toronto ON M5W 2T2 GST #R127189838 Principal office: Rockefeller Center, New York, NY 10020-1393 (212 522 9465). Thomas Bouse, President, Time4 Media Ventures, Howard Roam Treasurer; John S. Redpath Jr., Secretary © 2006 This Old House Ventures, Inc. Vol. 11 No. 8. All rights reserved. Reproduction in whole or in part without permission is prohibited. Periodicals postage paid at New York, NY, and additional mailing offices. Postmaster: Send address changes to This Old House, P.O. Box 62276, Tampa, FL 33662 3768; 1-800-494-7237. Subscription price: 1 year, $24.95. This Old House and the This Old House Window are registered trademarks of This Old House Ventures, Inc. Printed in the U.S.A.

$100,000
Dream Kitchen

Use your MasterCard® card at The Home Depot® or homedepot.com between September 7 and October 31, 2006 and you'll be automatically entered into our $100,000 Dream Kitchen Makeover. Every purchase is another chance to win. Any way you look at it, The Home Depot has the kitchen of your dreams. For more information, visit the store or go to **homedepot.com/MasterCard**

NO PURCHASE NECESSARY. Void where prohibited. PIN-based & international transactions not eligible. Grand prize awarded as one-[illegible] 9/7/06. Entry [illegible] apply. See pg. 133 for Official Rules & complete details. Sponsor: © 2006 MasterCard International Incorporated. All rights [illegible] THE HOME DEPOT, INC. [illegible]

Rethink what you consider safe. How does a 5-star crash test rating sound? Six airbags. ABS and active front head restraints. Electronic Stability Control. All standard. The new Sonata with America's Best Warranty.* Rethink your next car. **TheNewSonata.com**

S O N A T A

Government star ratings are part of the National Highway Traffic Safety Administration's (NHTSA's) New Car Assessment Program (www.safercar.gov). Safety belts should always be worn.*Hyundai Advantage™ See dealer for LIMITED WARRANTY details. Hyundai and Hyundai model names are registered trademarks of Hyundai Motor America. All rights reserved. ©2006 Hyundai Motor America.