

This Old House

APRIL 2008

Quick
ways to boost
**curb
appeal**
P. 54

Create Your Ideal Yard

- Simple stone patios
- Easy-care plants
- Best fire pit choices
- + **27 more great ideas**

Plus:

Cedar closet step-by-step (P. 67)
Secrets to a healthy lawn (P. 20)
Landscaping for privacy (P. 31)
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Wood window grilles (P. 108)

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THE BOLD LOOK
OF KOHLER

april 2008 | CONTENTS

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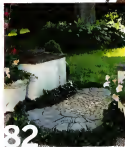
Today's modular housing offers all the benefits of building from scratch—and sometimes more.

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Cover photography: Julie Hays
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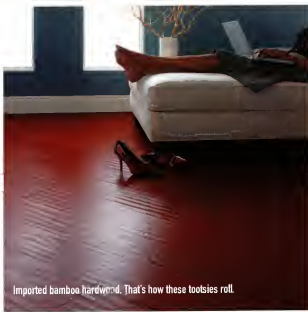
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letter FROM THIS OLD HOUSE

The Oasis Out Back

I LIKE TO THINK I AM A SENSIBLE KIND OF GUY. For example, I only had to whack my thumb with a hammer two or three times before I realized it is not a good idea to whack my thumb with a hammer even once.

And it only took me a year after the proposed completion date of my big remodel to give up on the dream that it'd ever be finished, even though my contractor still drops by (sometimes) to look for a check (someday) and disassemble things that will never get done (if they).

We'd just had a conversation like that, meeting in what will be—perhaps in the neighborhood of my attic—my car dryer—die kitchen. Then he swung open the sheet of plywood that a the masonry (possibly permanent) does in the rest of the house and stopped on the spring window. “That is your backyard?” he asked, putting some measurements into it. “Don’t get me wrong, man, but it’s lovely!”

Why I keep him around, I don’t know. But he’s right. It is lovely. Like the yard in the very useful landscaping story “Purchase Springs Your Steps” on page 82, mine’s divided up into separate spaces: the deck, a rustic rock garden, a rambling, honey-suckle at the fence, an orderly round bed. Unlike the yard on page 82, it all fits into a tiny space 20 feet wide by 40 feet deep, including a small patch of...

“Is that a fence?” the contractor asked with a snort. “What’s that, about 8 by 10?” By 82, I told him, expecting another snort, conch on a conch. Instead he said, “Great. It’s hard to grow in the city.” And that’s where I gave up my secret. I put saw and down every year.

“You what?” Yip, every year. “Grab a hold of yourself, man! That’s not much waste in that way, is that?”

Like I said, folks, I like to think I’m sensible. Clearly I think wrong. For reasons unknown, my small lot of green, which I’ve just given him, won’t take. It says healthy-looking and full but then comes up on patches like, well, you wish to have it when I used to comb my hair.

Sadly, there’s no help for my particular problem in this Green Your Ideal Yard race, but there’s plenty more stuff that I—and I hope you—will find useful. Spend an hour or so checking it all out.

Meanwhile, I’m going back for a Red Club for Men.

Steve Casperson
STEVE CASPERSON
EDITOR



You provided the stories;
now pick the cover photo for our
June reader-generated issue:
Vote on your favorite at
thisoldhouse.com/yourTOH

Painted Foam

Re "Crown Jewels" [January/February]: I purchased wood crown molding not realizing that my plaster walls were too wavy to let the molding lie flat. The solution: extruded foam molding I glued directly to the walls "painted" twice with a diluted solution of drywall compound and covered with paint. The result looks just like wood—or plaster—and visitors can't believe that it's foam. Thanks for a great article and magazine...I love it!

DAN GALLAGHER, ELIZABETH, NJ

Legal Advice

As a current and past owner of old houses and a real estate lawyer in Connecticut in practice for 45 years, I read with interest "In Fine Detail" [January/February]. It was depressing to see that the "bowl" the seller did for the purchasers (throwing out cracked doors, floor, and base) was that had been in good condition the attorney's parking. Many of the original floor work details that the buyer expected to make. This points up the need for buyers to discuss with their attorneys anything relevant to the sale that should be specifically noted in the sales agreement or in an addendum to it, such as to purchase the under-sinkings. Before contract signing, buyers should always search for property and make visual inspections or other items that have been removed and set aside (extra moldings or woodwork, for instance) as well as other items that they want to specify as added to the reality. These might include appliances that aren't built in (refrigerators, light fixtures, mirrors, even cars) or touch up paint. This will help clarify whether the seller intends to remove them—and save you much grief in the end.

ROBERT J. SCHULZ, MIDDLETOWN, CONN.

Style Matters

The January/February articles "In Fine Detail" and "Crown Jewels" caught my attention because both were about architectural style and how it fits a house. "In Fine Detail" specifically includes the owner's comments about making sure the changes or additions properly match the design of the 1800 Craftsman. It is a very nice experience that many remodeling articles assume the reader understands this. The steps always seem to end in the end of your remodeling project, since the end result looks good and appears to fit. But I can see why many houses where



remodelers prompt me to ask: "What were they thinking?"

Which brings me to my suggestion: For remodels and additions, it would be nice to start the story with a bit more information on the house's architectural style. I find any remodeling articles valuable, but knowing (for example) that a particular remodeling style does not fit my French Provincial house would help me understand that I really shouldn't apply those design details but just read for technique.

JOHN H. BURNETT, CHESHAM, N.Y.

Fire Safety

After your January/February issue, "Fire and Engineered Wood" [a detailed compressed glued-wood products] almost came up to fire the way today's building is thinking. In the end, the certified plywood safety features: the difference in the fire rates of new lumber versus wood I think is relatively minor compared with the difference between protected and unprotected

wood construction regardless of joint type.

A single layer of 3/4 inch thick plywood on the underside of all joists, as the APA recommends for its products, significantly extends the time between the onset of fire and ultimate floor or ceiling system failure. Left unprotected, as I put in a standard ASTM fire test typically tested in 4 to 6 minutes, as compared with 12 to 15 minutes for unprotected sawn lumber joists. However, and not protected by 1/2 inch drywall survived for nearly 30 minutes—a substantially greater safety margin than that offered by other types of unprotected construction.

THOMAS D. WELLS, MARSH, VICE PRESIDENT FOR QUALITY ASSURANCE AND TECHNICAL SERVICES, APA, THE ENGINEERED WOOD ASSOCIATION

corrections

"Easy Angle Finder" [Self-Building, January/February p. 137]: The book "Angle Finder" does not mention the 1/4-inch diameter of the back of Speed squares. The book mentions the inside face, not the back. Take the gap measurement at the rear of the chair with care.

"Dining the Theater" [January/February p. 45]: Section of construction of the roundabout and cabinet to be more complete.

Our thanks to the contributors who pointed out these errors.

How to reach us

Write: **HomeAdvisor**, 10000 Wilshire Blvd., Suite 1000, Los Angeles, CA 90024-3000. Fax: 310-205-1000. E-mail: info@homeadvisor.com. Please send us your letter by mail, e-mail, or fax. We will respond to you as quickly as possible. Please include your name, address, and daytime phone number. Publication of letters will be at the discretion of the editor. Letters may be edited for clarity and length. We reserve the right to use your letter in any form without compensation. Please send us your letter by mail, e-mail, or fax. We will respond to you as quickly as possible.

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around the HOUSE

BY TEDDY BERNARD SHOOTER

GET A GRIP

Five easy-to-use hand tools for the garden

A good set of landscaping tools won't spare you to maintain your yard or hands while using them—after all, working is tough enough. We picked up a few products with ergonomic and comfort features that will keep you pain-free this spring.

—TEDDY BERNARD

WORK YOUR GRASP

This sawtooth's handle design allows your wrist to stay straight as you rip out weeds or break up clods of soil. Flat Grip Cultivator, \$34. Amazon.com

ARMOR YOURSELF

The straight and serrated edges of this tool help you slice through roots with less effort. Its molded handle has a non-slip surface. 4020 Weeder, \$27. Amazon.com

ONE HOLE IN

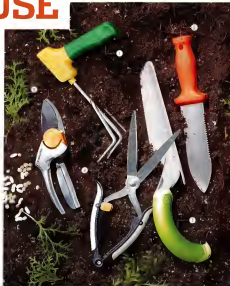
The National Home Gardening Club gave a thumbs up to this transplanter for drill-shaped handles that let your arms (not your wrists) do all the hard work. NHC Transplanter, \$25. nbg.org/garden.com

IN THE GROUND

The extra pivot point on the handle of these shears makes them a lot easier to squeeze. Grass shears, \$25. Bosch.com

NO CUT BACK

A smooth glide mechanism on this pruner makes hand fatigue for cutting over the toughest stems. Power Guard bypass pruner, \$35. Bosch.com



- 1 **Black & Decker 20-inch corded** electric trimmer. \$49.99, blackanddecker.com
- 2 **Black & Decker 20-inch battery-powered trimmer.** \$49.99, blackanddecker.com
- 3 **Green Power Systems Cordless 19-inch trimmer.** \$109.99, greenpowersystems.com
- 4 **Emerson 20-inch battery trimmer.** \$109.99, emerson.com

Lean Green Cutting Machines

The EPA's 2007 assessment that lawnmowers emit 15 percent of the nation's greenhouse gas emissions calls into question the lawn care industry. But not the golf cart-sized weedster. Thanks in part to stricter California emissions regulations, that sub-compact, low-power weedster is an ecofriendly way to make powered mowers less polluting. The weedster has not only a low level of air-polluting emissions, but is cheaper to own and easier to store than a lawnmower. Here's the 10-way checklist on Saturday's weedster. —TERRY O'NEILL

WEED STER



1. **Lightweight.** Most lawn mowers are heavy-duty vehicles. The weedster is a lightweight, foldable machine that produces virtually no air-polluting emissions. It's lighter than gas mowers, weighing in at just 30 pounds.



2. **Low maintenance.** Most lawn mowers need oil changes and spark plug replacements. The weedster has no oil and no spark plugs.



3. **Low emissions.** The weedster has no engine, so it produces no emissions.



4. **Easy to store.** The weedster is foldable, so it can be stored in a closet or under a bed.

10-WAY CHECKLIST

5. **Quiet.** The weedster is very quiet, making it a good choice for use in residential areas.

6. **Easy to use.** The weedster is very easy to use, with a simple push-button start.

7. **Low cost.** The weedster is very affordable, costing less than \$100.

8. **Long life.** The weedster is built to last, with a lifetime warranty.

10 WAYS

TENNIS BALLS

Your racket may be getting old, but so is the ball. But don't throw away old tennis balls in error. Here's how to use tennis balls without ever leaving the court. —JENNIFER STAMPSON

1. **DRINK SCOUT HIDE.** With a utility knife, cut an X in a tennis ball and slide it over the end of an old beer bottle. Rub the bottle's neck over the ball's holes. They'll be right at it.

2. **PROTECT A PALMAGE.** Cut a utility knife ball with a utility knife and slide it over an outdoor garden hose. The ball will keep the hose from getting too hot and freezing.

3. **REMOVE A BURNING LIGHTBULB.** The ball's grip will be the perfect size to hold a lightbulb. Use the ball to grip the bulb and twist it out of the socket.

4. **REMOVE THE GUM.** Cut an X in a tennis ball and slide it over the head of a hammer. The ball will keep the hammer from getting too hot and freezing.

5. **REMOVE A BURNING LIGHTBULB.** The ball's grip will be the perfect size to hold a lightbulb. Use the ball to grip the bulb and twist it out of the socket.

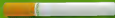
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Low-Maintenance Beds and Borders

FOLLOW OUR TIPS FOR PLANTING AN EASY-CARE GARDEN THIS SPRING

Do you have a yard full of plants and flowers without spending all your weekends weeding and watering? You bet. Whether it's long-term residents or newly introduced plants, the right prep is essential, and our selection and planting guidelines will give you some hints to do, ahead of time. —JENNIFER HUBB

FOR EXISTING BEDS, MEET EARLY. That's when weeds are small! Get out the sprayer with a handiwork tool or a weeding tool and pull up all unwanted plants and weeds that are ready to bloom. You can do this weekly, such as biweekly. You can also pull off most other weeds at ground level. If you're preparing a bed from scratch, dig deeply and weed more thoroughly.

ADD ORGANIC MATTER. Spread a few inches of compost around or in beds plants, or work it into the top layer of soil in a new bed. "Compost provides a nutrient source that's slow and sustained, so your plants can grow fast and tolerate weeds," says Ann Levings, author of *Organic Garden Design School* and other gardening books.

CHOOSE THE RIGHT VARIETIES. Ask your nursery to help you find:

- Plants native to the region, which are suited to your climate and soil.
- Plants that don't need constant pruning or deadheading (clipping off spent blooms).
- Perennials, or plants that bloom year after year.
- Evergreens, which have soil around to reduce the light available to weed seeds, which is a light to germinate.
- Plants that grow in the light available, whether sun or shade.

DOY ENOUGH SPACE. At maturity (the plants should fill the available space which helps the soil shaded to prevent weed seeds from sprouting).

MULCH, MULD, MULD. It's not nothing else to do this. "Mulch keeps soil moist and suppresses weeds until your plants get big enough to take it on their own, and it helps control the soil so that job of recycling nutrients," says Levings.

Easy-care gardens that bloom year after year include the purple coneflower (TOP CENTER), black-eyed Susan (AT LEFT), and the yellow bell (AT LEFT). BOTTOM: Mature plants should fill the entire bed to keep the soil shaded and moist.



A BRIGHT IDEA

THESE FIXTURES STAY LIT EVEN WHEN THE POWER GOES OUT

If you're one of the 85 million Americans who suffered a power outage last year, you probably had to guess when for a flashlight (or their design most common: flashlight and candles). Oregon's Light as Day and fixtures can be used as a flashlight or a rechargeable LED battery. If the power goes out, the lights switch to the battery backup, staying lit for between 10 and 30 hours. The "batteries" are made from LEDs enclosed in a rechargeable tube, so if you need light in another room, just carry the tube with you. The fixtures are available at Target now with water distribution, plus for summer use. Like the Energizer battery, they keep going and going and going... Light as Day. \$25 and up. energizer.com —JANIS KENDRICK



WE'VE BEEN THERE. Even gardeners like us. Happy there, we know. Our location, we hope, is the most productive and productive there is. In fact, we're not.

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CHEF-GRADE BUT WALLET-FRIENDLY

New appliances from Electrolux offer luxury features at lower prices

The company known in culinary circles for its Master professional appliances line is bringing its name to an regular old home cook. Electrolux has debuted more than 50 ranges, refrigerators, and other kitchen goodies of pieces that are a big step down from those of its flagship line. Superbent hobs and exclusive side-by-side refrigerators are among the new line. "Inspiring the kitchen" is the goal, says the company. The Energy Star ratings of many items in the collection—and the diversity of products and features—is impressive: compact dishwashers with room for 100 items; electric cooktops with burner sizes that range from a petite 4.5-in. burner to a roaring 10,000-Btu coil; and refrigerators with built-in alarms that sound off if you've accidentally left the door ajar. With their chiseled edges and iPhone-like LED touch screens, these new appliances are easy on the eyes, too. Now if only they could sleep for groceries. —NATALIE KORNBLUTH



Planning a Renovation? Read This First

If you want to avoid the frustration you'll like to avoid in the renovation world, the *Renovation* will give you a ring up on the details. This guide to the line of home improvement offers buyers a real window of everything from real estate to plumbing systems to home use to exterior design. While none of the line's features are as basic as the about 100 pages of the book, it's all there what a buyer needs to know. It's a real window to the world of home improvement, which will have you talking like a contractor in no time flat. Like home improvement itself, the book is a bit of a mess—but it's a real window to the world of home improvement. Don't say we didn't warn you. —DEBORAH DODD



TCR TIP

Coffee Grounds: A Surefire Cat Repellent

"My cats once used my garden beds as a litter box. But about 12 years ago, I started scattering coffee grounds in the beds, and the cats have stayed away ever since. It doesn't matter whether the grounds are fresh or were used to brew coffee. Apply them liberally, either underneath or on top of mulch. The nice thing is that coffee smells pretty good, and it will help to decompose and mask cat odors until time and nature do it for you." —A. WOOD, CALIF.

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What is the most important information I should know about LYRIZA?

- 1. LYRIZA may cause serious allergic reactions.**
 - Call your doctor right away if you think you have any of the following symptoms of a serious allergic reaction:
 - swelling of the face, mouth, lips, gums, tongue or neck
 - have any trouble breathing
 - Other allergic reactions may include rash, hives and blisters
- 2. LYRIZA may cause dizziness and sleepiness.**
 - Do not drive a car, work with machines, or do other dangerous activities until you know how LYRIZA affects how alert you are. Ask your doctor when it is okay to do these activities.
- 3. LYRIZA may cause problems with your eyesight, including blurry vision.**
 - Call your doctor if you have any changes in your eyesight.

What is LYRIZA?

LYRIZA is a prescription medicine used to treat adults, 18 years and older, to treat:

- pain from damaged nerves (neuropathic pain) that happens with diabetes
- pain from damaged nerves (neuropathic pain) that follows healing of shingles (a painful rash that comes after a herpes zoster infection)
- painful spasms when taken together with other seizure medicines like lamotrigine

LYRIZA has not been studied in children under 18 years of age. www.fda.gov/medwatch

Diabetes and shingles can damage your nerves. Pain from damaged nerves may feel like burning, tingling, shooting, or numb. If you have diabetes, the pain can be in your arms, hands, fingers, legs, feet, or toes. If you have shingles, the pain is in the area of your rash. You may experience this kind of pain even with a very light touch. LYRIZA can help relieve the pain. Some people taking LYRIZA had side pain by the end of the first week of LYRIZA therapy. LYRIZA may not work for everyone.

Partial Seizures

Partial seizures start in one part of the brain. A seizure can make you feel confused or just feel "fuzzy." You may smell strange smells. A seizure may cause your eyes to lag or shake. It can spread to other parts of your brain, make you pass out, and cause your whole body to start jerking.

LYRIZA can lower the number of seizures for people who are already taking seizure medicine.

Postoperative

Postoperative is a condition which includes widespread muscle pain and difficulty performing daily activities. LYRIZA can help relieve the pain and improve function. Some people taking LYRIZA had less pain by the end of the first week of LYRIZA therapy. LYRIZA may not work for everyone.

Who Should Not Take LYRIZA?

Do not take LYRIZA if you are allergic to any of its ingredients. The active ingredient is pregabalin. See the end of this leaflet for a complete list of ingredients in LYRIZA.

What should I tell my doctor before taking LYRIZA?

Tell your doctor about all your medical conditions, including if you:

- have any kidney problems or get kidney dialysis
- have heart problems including heart failure
- have a bleeding problem or a low blood platelet count
- are pregnant or plan to become pregnant. It is not known if LYRIZA may harm your unborn baby. You and your doctor will have to decide if LYRIZA is right for you while you are pregnant.
- are breastfeeding. It is not known if LYRIZA passes into breast milk and if it can harm your baby. You and your doctor should decide whether you should stop LYRIZA or breastfeed, but not both.

Tell your doctor about all the medicines you take including prescription or over-the-counter medicines, vitamins or herbal supplements. LYRIZA and other medicines may affect each other. Especially tell your doctor if you take:

- amphetamines converting enzyme (ACE) inhibitors. You may have a higher chance for swelling and hives if these medicines are taken with LYRIZA. See "What is the most important information I should know about LYRIZA?"
- Avastin® (pembrolizumab) or Actos® (pioglitazone) for diabetes. You may have a higher chance of weight gain or swelling if these medicines are taken with LYRIZA. See "What are the possible side effects of LYRIZA?"
- any narcotic pain medicine (such as hydrocodone), tranquilizers or sedatives for anxiety (such as diazepam). You may have a higher chance for dizziness and sleepiness if these medicines are taken with LYRIZA. See "What is the most important information I should know about LYRIZA?"
- any medicines that make you sleepy.

Write all the medicines you take. Keep a list of them with you to show your doctor and pharmacist each time you get a new medicine.

Tell your doctor if you plan to have a child. Animal studies showed that pregabalin, the active ingredient in LYRIZA, made male animals less fertile and caused sperm abnormalities. Also, in animal studies, birth defects occurred in the offspring of male animals who were treated with pregabalin. It is not known if these effects would happen in people.

How should I take LYRIZA?

- Take LYRIZA exactly as prescribed. Your doctor may adjust your dose during treatment. Do not change your dose without talking to your doctor.
- Do not stop taking LYRIZA suddenly without talking to your doctor. If you stop taking LYRIZA suddenly, you may have headaches, muscle aches, or trouble sleeping. Talk with your doctor about how to slowly stop LYRIZA.
- LYRIZA is usually taken 2 or 3 times a day, depending on your medical condition. Your doctor will tell you how much LYRIZA to take and when to take it. Take LYRIZA at the same times each day.
- LYRIZA may be taken with or without food.
- If you miss a dose by a few hours, take it as soon as you remember. If it is close to your next dose, just take LYRIZA on your next regular time. Do not take two doses at the same time.
- If you take too much LYRIZA, call your doctor or poison control center or go to the nearest emergency room right away.

What Should I Avoid While Taking LYRIZA?

- Do not drive a car, work with machines, or do other dangerous activities until you know how LYRIZA affects how alert you are. See "What is the most important information I should know about LYRIZA?"
- Do not get alcohol while taking LYRIZA. LYRIZA and alcohol can affect each other and increase side effects such as sleepiness and dizziness. This can be dangerous.

Do not take other medicines without talking to your doctor. Other medicines include prescription and over-the-counter medicines, vitamins, and herbal supplements. LYRIZA and other medicines may affect each other and increase the side effects of swelling, dizziness, and drowsiness. Be especially careful about medicines that make you sleepy (such as sleeping pills, anxiety medicines, tranquilizers and some antidepressants, pain relievers and anesthetic medicines).

What are the possible side effects of LYRIZA?

LYRIZA may cause side effects including:

- **Weight problems.** See "What is the most important information I should know about LYRIZA?"
- **Weight gain and swelling of the hands and feet (edema).** Weight gain may affect the management of diabetes. Weight gain and swelling can also be a serious problem for people with heart problems.
- **Dizziness and sleepiness.** See "What is the most important information I should know about LYRIZA?"
- **Eyesight problems.** See "What is the most important information I should know about LYRIZA?"
- **Swelling of muscle problems, such as muscle pain, weakness, or numbness.** If you develop these symptoms, especially if you also feel sick and have a fever, tell your doctor right away.

The most common side effects of LYRIZA are:

- dizziness
- blurry vision
- weight gain
- sleepiness
- trouble concentrating
- swelling of hands and feet
- dry mouth

LYRIZA caused side effects in animals. Although side effects were not seen in studies in people, if you have diabetes, you should pay extra attention to your sick while taking LYRIZA and tell your doctor if any signs or skin problems.

LYRIZA may cause some people to feel "high." Tell your doctor, if you have abused prescription medicines, street drugs, or alcohol in the past.

Tell your doctor about any side effect that bothers you or that does not go away.

These are not all the side effects of LYRIZA. For more information, ask your doctor or pharmacist.

How should I store LYRIZA?

- Store LYRIZA at room temperature: 59 to 86° F (15 to 30° C) in its original package.
- Safely throw away LYRIZA that is out of date or no longer needed.
- Keep LYRIZA and all medicines out of the reach of children.

General information about LYRIZA

Medicines are sometimes prescribed for conditions other than those listed on product information leaflets. Do not use LYRIZA for a condition for which it was not prescribed. Do not give LYRIZA to other people, even if they have the same symptoms you have. It may harm them.

This leaflet summarizes the most important information about LYRIZA. If you would like more information, talk with your doctor. You can ask your doctor or pharmacist for information about LYRIZA that is written for health professionals.

You can also visit the LYRIZA website at www.LYRIZA.com or call 1-888-LYRIZA.

What are the ingredients in LYRIZA?

Active ingredient: pregabalin

Inertive ingredients: lactose monohydrate, croscarmellose, talc,

Capsule shell: gelatin and titanium dioxide. Orange capsule shell red iron oxide. White capsule shell: sodium lauryl sulfate, colloidal silicon dioxide. Colloidal silicon dioxide is a manufacturing aid that may or may not be present in the capsule shell.

Impending risk: shellac, black iron oxide, propylene glycol, petalum hydroxide

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June 2007



SECTION: Narrow windows, dirty tiles, cracked walls, and heavy pipes made the 1908-style bath ripe for remodeling and not at all ripe for the house's period ambience. **AFTER:** On a platform at the new widened lip of Waterworks tub soaks up natural light and scenic views.



Problem: The bath didn't flow—and it didn't suit a 1908 home

Solution:
Bump out to open up the cramped space, then add a vintage look. Here's how >>

BY RHIANNA LEECE
PHOTOGRAPHS BY JESSICA FRANK

ONE THING CAN LEAD TO ANOTHER when it comes to a "under way." The owners of this semi-rustic bath in Woodstock County, New York, were undertaking on more changes to the single-story home they'd lived in for two years when architect Carol Karch came up with a suggestion: Instead of the simple renovation plan they'd planned for their leaky, 1908-style bath, why not go a bit further? "We figured that if they were going to spend time and money fixing the house, they might as well do it right, and when we showed them the opportunities for storage and views that a small addition would open up, they decided right for it," says Karch. Her plan hinged on a modest bump-out—about 8 feet deep and 10½ feet wide—to allow for twin vanities and a window, windowed bay for a descending tub, pressure to maximize Hudson River views (Karch drafted into the bath to make sure it was centered just right). "We were nervously trying to avoid ending up with an over-the-top bath," says the husband. "Carol gave us a space that's understated but intelligent and functional." The original section now holds a shower, a dressing area with custom cabinets, and a private toilet room—a detail the homeowners are grateful for, since one of their teenage daughters likes to use the space, too. "She has her own bath," says her father, "but she says ours is superior now."

The Plan

Turn a dated, uncomfortable bath into a soothing space with ample storage and spectacular views.

What They Did

- 1. STAMPEDED OUT** the far end of the bath, creating a larger, windowed bay toward the freestanding 6-foot tub and underground rooms for built-in vanities on either side.
- 2. BUILT A PLATFORM** to raise the 6-foot tub high enough to give the bath an unobstructed sight line to the river.
- 3. MOVED THE SHOWER** out of the clipped corner where it stood and toward the center of an adjacent wall.
- 4. RELOCATED THE SHOWER** to where the linen closet was, expanding its footprint as well as that of the adjacent toilet area.
- 5. ENCLOSED PORCH** in the master bath by creating a separate toilet room within its own door.
- 6. CREATED A DRESSING AREA** with a vanity table flanked by floor-to-ceiling walk-in closets along the wall where the tub and shower had stood.



- SECTION:** The 10-by-13-foot bath had only built-in tub but the other bathroom wasn't equipped for space. Stated windows cut off light and views.
- AFTER:** A 10-vanity foot bumpout created a space that two can share comfortably with three big windows, a new window, it made it open and a private toilet room. New built-in storage keeps everything neat and tidy.



ABOVE LEFT TO RIGHT: The bathroom shower has a curved wall, a glass door, and built-in vanity. Two shower-head vanities flank the tub area. **BELOW:** Bump-out for an overall look of classic space in the master bath. The walk-in closet's built-in vanity cabinet surrounds side of a built-in vanity table, creating a dressing area.



more bath solutions

See how other homeowners have solved their bath design problems at remodelaholic.com/solutions

BELOW LEFT TO RIGHT: The shower is tiled in classic Laguna marble and ceramic tile. Built-in from River tile and glass surrounds from Waterworks. Painted chrome tub and shower fittings from Waterworks honor the home's turn-of-the-century origins.



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LANDSCAPING

Screen Time

» Add privacy to your outdoor space with these smart landscaping solutions

BY KAL BALLEGA PHOTOGRAPH BY ANDREW DRISKE

FOR A WHILE, growing weary from a still wet spring, you could look back in glory as solitaire sits in your own backyard. Then the family time door closed some time in there let. And in the other side, the neighbors' new master suite includes a second-story deck with nice views—into your yard. Suddenly, you feel like you're living in a fishbowl.

As larger and larger houses occupy more smaller lots and the demand for outdoor living areas continues to skyrocket, privacy is at a premium. And it's not just about peering eyes invading your space. You may want to shield your own view—like the sight of the holes next door sunbathing poolside.

There are myriad ways to add privacy to the landscape, from putting in perimeter plantings to building fences, stone walls, or garden structures. "The right solution for any particular situation depends on how much privacy you need, how fast you want it, and how much space you have to work with," says The Old House landscape contractor Roger Cook.

Here's an overview of the options.

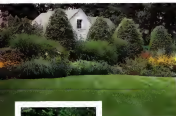
PRIVACY PLANTINGS

Privacy-line plantings can provide year-round screening and are typically not restricted by municipal ordinances limiting their height. Where space is tight, as in a side yard, fast-growing columnar evergreens like Italian cypress and arborescens as a short-term solution can provide a simple solution for screening adjoining yards or blocking sight lines out a kitchen window.

In larger yards, planting a mix of deciduous and evergreen trees, shrubs, and perennials creates a more naturalistic look, especially if you layer plants, grouping them in odd numbers. "Stagger evergreens in the background, and in the foreground step down the height with deciduous material to provide screen, depth, and color," says Elbert Brundage, a landscape architect in



STYLE TIP These staggered evergreen screens created in soft shades of black, yellow-green, and red add up to a privacy fence followed by shrubs in front and a healthy tree canopy overhead.



LANDSCAPING SCREENS ABOVE: An open iron gate is a solid barrier from the street. Inset: A white picket fence is a classic choice for a garden. RIGHT: A modern metal gate is a stylish choice for a garden.



MOVING FENCES TOP: Evergreen hedges are a classic choice for a garden. Inset: A white picket fence is a classic choice for a garden. RIGHT: A modern metal gate is a stylish choice for a garden.

ANDOVER, MASSACHUSETTS

Planting deciduous shade trees—which eventually grow from 25 to 40 feet high, depending on the species—is a good way to create a neighbor's view from a second-story window or two cars. Planted over a deck or patio, the canopy provides privacy and shade during the summer. When leaves are shed and outdoor space is uncovered for those months, the trees' bare branches allow the sun to stream into the house.

On a raised deck, potted plants such as a bamboo or changing bamboo can be positioned to create a screen around a seating area. Ideally, pots should be raised up on cinder or made of lightweight materials so you can easily move them for guests or deck repairs.

FENCES AND WALLS

Newly installed pools, patios, and playgrounds may require a visual barrier in a hurry. A 6-foot-tall board fence is the quickest way to add your round screening—just be sure to check local building codes regarding height. If you also be the best solution is a side yard, where space is tight, some fences have a smaller footprint than plantings. They come in various styles to complement the architecture of your home, and you can

stain them to match the house so they blend in even more. "For white picket fences might solve the problem, it's not always the most aesthetically pleasing solution," says Eric Senter, a landscape architect in Dayton, Ohio. To break up the mass of a board fence, Senter suggests adding an open lattice or lattice screen in front to soften its solidity.

As for opaque, if total privacy isn't a must, it's a good idea to choose a 3- or 4-foot lattice or picket fence on top of a 2- or 3-foot stone wall. The wall, from a distance, is high enough to discourage sight



lines, while the openwork fence screens without hiding the neighborhood. Instead, a masonry wall of stone or stone that rises 5 or 7 feet high feels less opaque when windows are not visible; still, a masonry fence can decrease such openings.

PANELS AND HEDGES

Defined areas like small patios, outdoor kitchens, and decks are generally easier to screen than a whole yard. By building an enclosure around them, you can preserve the intimate feeling of sitting or entertaining outdoors. These steps take the shape of a raised-top wooden pergola covered with climbing vines on a gazebo or a post of fixed lattice panels along one side of a raised deck. Picket fences can be set right on the ground and surrounded with pointed vines and hanging baskets to fill some of the gaps.

Screen made from lattice, slatted, or horizontal wood panels, or screens of horizontal iron with screening posts can be set into the ground to show a cap corner or make a U-shaped structure that protects desirable plants. For maximum flexibility, consider placing the posts in lightweight planters



with wheels, to move them, and concrete plugs to the top or set the posts in gravel. That way, they can be moved around to create more open space when you're entertaining.

Screening panels structure may not provide complete privacy, but they add a lot of visual interest to a landscape and allow natural light to filter through. "They create a contrasting sense of containment and a psychological buffer," says Stephen Hobbard, a landscape architect in Boston and TGH TV regular. "And sometimes that's enough." ■

ANY ENCLOSURES NEAR LEFT: This garden enclosure provides privacy for a Victorian cottage, with a small path in the dark green woods at night while the house is lit. RIGHT: A white picket fence is a classic choice for a garden. Inset: A modern metal gate is a stylish choice for a garden.



A Little Piece of Quiet

If you're not literally closing your eyes with the neighbors, you might still be close enough to hear their conversations. Or you may be bothered by intrusive traffic noise or barking AC compressors. In such cases, adding a barrier to your property can make a world of difference with privacy and noise. These steps range from off the shelf to play it safe that sit on a lattice, hang on the wall to custom designs that become a major focal point.

Keep in mind that fencing noise becomes louder the further it falls and the more dense it is. For example, Michael Glazman, a landscape designer in Sacramento, California, notes that it is possible for a fence to be too loud, which is just as disruptive as the noise you're trying to hide. "The sound of rushing water might be lovely when guests arrive, but you don't want to have to yell over the din at dinner," says Glazman. "The sound of the well and water feature should be just a soft, low, unobtrusive hum." Then you're sure to find a sound level that's soothing.

Find it online

Get step-by-step instructions for building a fence at thisoldhouse.com **After Dark**

Depression Modern: Hallmarks

» An overview of the details that give the style its look



CLASH OF MATERIALS: A source of attraction to couples, glass accessories took their style cues from abandoners and followers to New York's then-new Moderne Movement.

CHOOSE TO ALTERNATE: Plated metal was an inexpensive alternative to silverware. Every post-World War I dining room had a cocktail set like this Revlon classic.



ATTENTION TO FINISHING: The three-toned metal pendant screens lend a specialty profile to clocks, tea sets, and cigarette lighters.



CHIC IN THE DETAILS: After repainting, this Depression Modern dining table is finished with a lacquer finish. Gold-painted bowls were popular in Depression Modern and inspired the 1930s original.



BEHIND THE SCENES: Curved corners on furniture and housewares were critical to modernist details. Use the rounded bricks and stand-on these steps down to the living room.



Exterior Details

The living room above is in a well-preserved 1930s building in Manhattan. The stylized tower protrudes along the roof are a nod to Frank Art Deco and its counterpart, the Moderne style that often centered with the more popular American version. The patterned terrazzo flooring, curved corners, and recessed windows with horizontal brickwork accents are distinctly American expressions.



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Pontiac G8, Top 20 New Cars for 2008
—Ward's Auto Magazine, October 2007



Depression Modern: Today

» New furnishings capture 1930s style, with 21st-century appeal

1 | CRYSTAL TABLE LAMP

The stacked, cylindrical apothecary bottle is a way that could feel at home in a formal living room or an industrial loft. \$494 (available 5/1/11) www.stonemountain.com

2 | GLASS BANG BEEHIVE

Probably it isn't anything, but the possibility of anything. The beehive-shaped glass bottle is a way that could feel at home in a formal living room or an industrial loft. \$115 (available 5/1/11) www.stonemountain.com

3 | FURNITURE DETAILING

The way that furniture is made is a way that could feel at home in a formal living room or an industrial loft. \$115 (available 5/1/11) www.stonemountain.com

4 | REPAIR/RENOVATION

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5 | CHROME AND GLASS

For a modern look, use chrome and glass. \$115 (available 5/1/11) www.stonemountain.com

6 | PATTERNED FLOORING

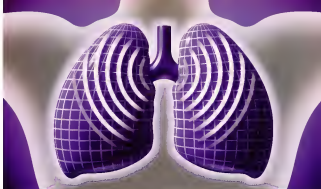
Use a patterned floor to add a modern look. \$115 (available 5/1/11) www.stonemountain.com

7 | CHAIRS AND SEAT

Use a chair and seat to add a modern look. \$115 (available 5/1/11) www.stonemountain.com

8 | HARD CITY ROSE

Use a hard city rose to add a modern look. \$115 (available 5/1/11) www.stonemountain.com



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*Measured by a breathing test in people taking ADVAIR 250/50 compared with people taking either budesonide propionate 250 mcg or salmeterol 50 mcg. Nasal effects may take several weeks. Your results may vary.

†See advairCOPD.com for eligibility rules.

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Vintage advertisements for metal roofing often promised that they were fire-resistant, no big selling point in already populated cities—until they'd been hit with soap and water.

quainted, and geometric motifs often stood out. Cut and shaped into tiles, cone moldings, and medallions, the pieces fit together in interlocking grids that could be nailed directly to framing strips secured to joists. The easy-to-install ceilings were popular among the fashion-conscious middle class because they painted white, the metal was almost indestructible from its more expensive counterparts.

As metal manufacturing moved into factories at the onset of World War II, the availability of embossed ceiling tiles and trim declined. Today, just a handful of companies keep out new people based on the old designs, but several websites are still plentiful at most salvage yards. Just keep in mind that you'll likely find only enough matching pieces to clothe the ceiling in your powder room, not in your kitchen. Antique panels also work well as bookshelves, doghouse accessories, and as wall proof alongside the new beneath your bedside bar console. I even wrapped the sides of a plain wooden planter with salvaged tiles (see how to right). Had I played the disassociation game correctly, though, I would have covered a mirror frame instead. Embellished with a Quercus lagna, it would have been great as part of a back bar. ■



Build a Planter Like Mine

The perforated metal roofing salvaged was stamped in a six-by-six formation, but instead of 6x6 tiles, the same four-by-eight design was repeated in each quadrant. To create a wooden planter box, I used salvaged tiles in just each a grid with four 6-by-6-inch squares stacked one on top of the other and 12 across. Working from those dimensions, I cut the box's wooden sides so the metal would hold neatly around four corners. I left a 6-inch reveal at the top so I could back-end nail the last layer of metal squares inside the box for a finished look. To guard against rot and insect damage, I built the planter out of 1/2-inch pressure-treated plywood and inserted a plastic liner fixed in for the deep-dig-



1. Brush off loose rust and cracked paint. To protect against toxic lead, which can be released in paint dust, work outdoors and wear a respirator approved by the National Institute of Occupational Safety and Health. Also, pull on a pair of thick gloves so you don't feel your hands as the sharp metal.

2. Fasten together about 16 by 18-inch panels to form the sides of the plywood planter. I used a pneumatic nailer but a hammer and 1 1/2-inch finish nails will also do the trick.

3. Secure the bottom (this is a 16 by 16-inch panel, placed inward, leaving 2 inches of space in the middle for water to drain through). Then, nail a pair of scrap lumber "feet" perpendicular to the bottom boards. This will help reinforce the box and elevate it off the ground.

4. Fold the metal sheeting around the sides of the planter, and use a rubber mallet to tap it flush against the wood.

5. Fasten the metal to the planter body by driving 1/2-inch metal nails along its bottom seams.

6. Use strips to cut the corners where the metal overlaps the top of the planter.

7. Fold the metal over the planter's top-edge. Tap flush against the corner walls and secure with nails. To preserve the patina and prevent rust, coat any exterior-grade polyurethane varnish such as Flood-Gloss Americas Acrylics Clear Top Coat Spray.

8. Insert the plastic liner and fill your new planter with flowers. —A.J.R.



ONLINE VIDEO

Watch more tips by video about how to build a planter using salvaged metal at thefirstfrank.com/salvage



www.usgbc.org

There's a reason so many builders are leaning green these days. After all, who doesn't want a home that's healthier, keeps energy costs and greenhouse gas emissions in check, and doesn't squander water and other natural resources? But you don't have to build from scratch to turn your not-so-new house into a dwelling that's eco-friendly and more economical to run.

Whether you own or rent, the U.S. Green Building Council's new website, greenhomeguide.org, is a good place to start.

Meantime, check out the following pages filled with simple ideas that can help you save money (and the planet) today.

45

Ways to Green

the Not-So-New House

1. List hint. Saving energy doesn't get any easier than this: Lower your energy bill by cleaning your clothes dryer a list before every load to improve air circulation, therefore cutting down on energy-wasting drying time. **\$**



2. Power to the people. Reduce your carbon footprint (and maybe even your waistline) by using human-powered appliances and equipment. Think not mow it, goad old-fashioned manual can openers, carpet sweepers, whisks and wooden spoons instead of electric makers. **\$**

3. Good-day window. On cold, sunny days, open window coverings to let the sun warm your home. On hot days, close window coverings on the south and west sides to keep your home cooler. **\$**



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4. Washing day: Have \$30 to \$40 per year in water heating costs by washing cold clothes in cold water. You can also save more than 1,400 gallons of water per year, according to Energy Star, by washing full loads instead of partial loads. \$



5. Refrigerators blasted by the sun's rays or subjected to heat from an adjacent oven or heating vent have to work harder to chill your food. If possible, relocate the fridge to a cooler spot, or close window coverings to keep the sun off. \$

6. Back-to-back computer, enabling your computer and monitor's power management features so they go into sleep mode when idle can save from \$25 to \$75 each year in energy costs according to Energy Star. Also turn off computer and peripherals at night. \$



7. Minus-up: In the winter, room air conditioners installed in windows can be a source of cold drafts. Remove window units during cold months or insulate them with tight-fitting A/C covers, available from most local home-improvement stores. \$

8. Battery recycling: Recycle your old cell phones and other portable rechargeable batteries from cordless power tools, laptop computers, digital cameras and other devices. For drop-off sites, visit www.call2recycle.org. \$



9. Use the numbers: Use the U.S. EPA's online emissions calculator to find out how many greenhouse gas emissions your household is responsible for. Spend 18 minutes entering your data and you'll get a rough estimate of your total CO₂ emissions, plus advice steps to go on a carbon diet. epa.gov/climatechange/householdcarbonfootprintcalculator.html. \$



10. Think globally, buy locally: Choosing a product that's harvested or made locally reduces transportation energy use and helps sustain your community's economy. \$

11. Hit the night lights: Install motion sensors, photo-cell controls or timers so outdoor lights are only on when needed. Reduce light pollution and keep the night sky darker by using light fixtures that direct light downward instead of toward the sky. \$

12. If you have incandescent light fixtures where you can't or don't want to use compact fluorescent bulbs, install dimmer switches. Dimming slashes a bit of an incandescent bulb's energy use and makes the bulb last longer (just). Most compact fluorescent bulbs can't be used with dimmer switches. \$



13. Hang out to dry: Many newer clothes dryers have moisture sensors that shut off the heat when they detect that the clothes are dry. If your dryer lacks this feature, try not to overload your clothes. Operating the dryer for an extra 15 minutes per load can cost as much as \$34 per year, according to Energy Star. \$

14. Worried about toxins in the home? The Washington Toxics Coalition reports that using entryway mats can reduce the amount of pesticide residue on carpets by 25% and the amount of dust on carpets by 33%. And homes where shoes are removed at the door, according to the WTC, have 10 times less dust than homes where shoes are worn. \$



15. Paint your home green: The air in our homes can be two to five times more polluted than outdoor air. One of the major culprits? Volatile organic compounds, or VOCs, that are released from paint, particleboard and other home-improvement products. Most major paint manufacturers now make low-VOC paints, and some offer zero-VOC paints. \$



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16. Compost happens. Food waste that winds up in landfills generates methane, a greenhouse gas that's 21 times more potent than carbon dioxide. Take charge of your greenhouse gas emissions by composting food scraps (except meat) in a backyard composting bin or even a worm bin. A bonus: Your plants will love the nutrient-laden finished compost. **\$ 100**



17. Prevent energy-wasting air leaks. To stop drafts, install weather stripping around doors and windows, check the heating and cooling system's ducts to make sure all joints are connected and well sealed. Use a mastic sealant or foil-backed tape to seal ducts. **\$ 100**

18. If your garage is attached to the house, fumes from car exhaust and stored chemicals can enter living spaces through gaps around doors or cracks in the ceilings and walls. Make sure the door between the garage and house seals tightly, and caulk or seal any cracks or openings between the garage and house. **\$ 100**

19. Breathe easy. Carbon monoxide is called the silent killer because it's colorless and odorless. If you have a fuel-burning appliance inside the home, such as a gas stove, furnace, water heater, fireplace or clothes dryer, be safe and install a UL-listed carbon monoxide detector on each floor. **\$ 100**



20. One man's trash is another's treasure. When you're through with an item, sell or recycle it rather than throwing it away. To look for more ways to donate items, check out www.1recycle.org. **\$-55**



21. The Mower. To keep mowed as long as your bathroom and kitchen ventilation fans. To be effective, fans need to vent to the outdoors and Energy Star products are more efficient, quieter and last longer. **\$-45**



22. Automate it. Reduce energy bills by as much as \$150 a year with a programmable thermostat that adjusts the temperature when you leave the house or go to sleep. **\$-55**

23. Audit it. A home energy audit helps you identify how your home uses energy and possible actions you can take to make it more efficient and comfortable. To get started, try Energy Star's Home Energy Check tool (energystar.gov). **\$-555**

24. Water is the new oil. Consider repurposing water for irrigation. Graywater systems typically recycle wash water from sinks, tubs, showers and clothes washers. Rainwater harvesting systems divert water from the roof into barrels or above- or underground tanks. **\$-555**



25. An old refrigerator or freezer in the basement that's just cooling its heels and a few cases of soda may be costing you as much as \$100 each year. If it's more than 10 years old, recycle it and replace it with a new, high-efficiency model. **\$-555**

26. Once is not enough. Choosing salvaged, coordinated or antique furnishings, doors, trim, fixtures and other items that have been around the block a few times is often a smarter use of natural resources than buying new products. One caveat: Steel door all single-pane windows, old toilets and used appliances that waste energy or water compared with their newly manufactured counterparts. **\$-455**



Consider the true costs

Often we are won down by low upfront costs of old or broken items. We forget how many times we'll use them. It's often a better idea to invest in quality items that last longer. We're here to help you replace a refrigerator with a new, energy-efficient one, and here's how you can save in terms of energy, maintenance and time over the long haul.

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Protect it.



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Rechargeable batteries are everywhere. Call 2 Recycle to find out how to recycle yours.



Your collection of batteries is growing. Call 2 Recycle to find out how to recycle yours. We'll take them to the trash for you, help protect the environment by saving valuable space by recycling them. It's easy, with 43,000 convenient drop-off locations nationwide, including these retail stores:



call2recycle.org

A Sustainable Battery Recycling Coalition project



27. Radon in indoor air is responsible for 21,000 lung cancer deaths in the United States each year, according to the U.S. EPA. To check for it, DIY tests are available from home improvement stores or from the National Safety Council (nsc.org) for \$20 or less. If unsafe levels are detected, the cost for reducing radon ranges from \$800 to \$2,500. **\$-\$\$\$** ●●●

Get paid to go Green

If you sell or certify energy efficiency improvements to your home between January 1, 2006, and December 31, 2007, you have until April 15, 2008, to claim a credit of up to \$500 on your 2007 taxes. Eligible improvements include roof, gable, gable-end, window, water heaters, heating and cooling systems, and more. Although most of these credits expired in October 2007, Congress may introduce new legislation in 2007. Check the Energy Star website (energystar.gov) for information and updates.

A federal tax credit is still available for qualified solar-electric systems. The credit may be claimed on a new or existing system, up to \$2,000. And a number of states and some cities offer rebates and other incentives to encourage installation of renewable-energy systems. For a directory of incentives by state, go to dcausa.org.

When filing your tax return, don't overlook possible tax credits for donations of salvaged building materials to charities such as Habitat for Humanity.

Also check with your local utility company and municipal water works. Many offer cash rebates when you purchase energy- and water-efficient appliances and make energy-efficiency improvements.

28. Light at the end of the tunnel. Brighten up dark hallways, bathrooms and other spaces with tubular skylights. They let in daylight without the excess heat and are relatively easy and affordable to install. **\$** ●●



29. Plant It again, Sam. Plants like bamboo that can be harvested and grown again within a short time save donated far slower-growing trees and nonrenewable resources like petroleum. Check out green bamboo alternatives for floors, cabinets, bathroom and furniture. **\$** ●●

30. Be an Energy Star. Sometimes to save a lot, you have to spend a little. Low-E Star-qualified appliances may cost a bit more than standard models, but they incorporate features like high-efficiency compressors and motors and better insulation. And they use 10% to 50% less energy and water, which means more money in your pocket year after year. **\$** ●●●



31. Waterwise landscaping doesn't have to resemble a desert scene, thanks to today's high-efficiency irrigation products. Drip and bubbler irrigators and smart controllers determine when and how much to water based on moisture sensors, historic local weather data or a signal from a weather station. **\$** ●●●

32. Made in the shade. Summer sun striking west- or south-facing windows and walls can make your home unbearably hot and drive air conditioning costs through the roof. Plant deciduous trees along them and get relief. **\$** ●●●



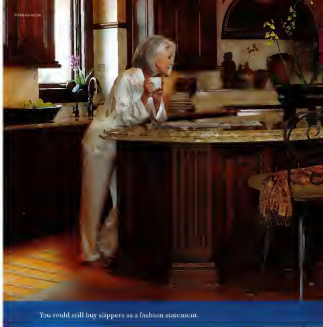
33. Solar-powered attic fans exhaust hot air and help keep your home comfortable while reducing cooling costs. An added benefit: No need for electrical wiring. So installation is straightforward. **\$** ●●●

34. Got WaterSense? If a family of four replaces their 3.5-gallon-per-flush toilet made before 1994 with a WaterSense-labeled toilet, they could save 500 or so gallons as much as \$2,000 over the toilet's life. Find out more at notgobetter.com. **\$** ●●●



35. Deconstruct, don't demolish. When remodeling, reuse as much as you can of the existing structure, trim, finishes and fixtures. If you hire a deconstruction outfit, ask if they're a charitable organization—if so, you may be eligible for a sizable tax deduction for the value of the salvaged goods. **\$-\$\$\$** ●●●

36. Insulate up. Save energy and feel more comfortable by beefing up insulation in perimeter walls and ceilings. Check out eco-friendly options like recycled cotton or cellulose and fiberglass batts with no added formaldehyde. **\$-\$\$\$** ●●●



You could still buy slippers as a fashion statement.

Uponor radiant floor heating provides a nice, even heat that takes the chill out of winter floors. Unlike forced air, it reaches every corner of the house and eliminates cold, drafty rooms. What's more, it offers significant energy savings. Warm, cozy, efficient and reliable. You'll wonder why anyone would ever wear slippers. To find out more, call 800-331-4739 or visit www.uponor-usa.com.

uponor



37. Filled again. In hot summer climates, attic radiant barriers can help keep homes comfortable and reduce cooling bills. Made of a reflective foil, radiant barriers block the transfer of radiant heat from a hot attic into the attic. In the Southeast, radiant barriers can reduce cooling costs by 8% to 12%, according to the Florida Solar Energy Center. **\$5-\$55** 

38. When choosing appliances and equipment, remember that not all energy sources are created equal. If you're in the market for a backup generator, natural gas and liquid propane (LP) engines burn cleaner than gasoline engines, which reduces air pollution and extends the engine's life. **\$5-\$55** 

39. Double up. To keep heat inside during winter and outside in the summer, choose double-pane windows with an appropriate low-e coating. For help choosing the right window for your climate, go to efficientwindows.org. **\$-555** 

40. Be radiant. Radiant floor heating systems are a boon to indoor air quality because unlike forced-air systems, they don't blow dust and other allergens around. Thanks to warm water circulating in flexible tubing installed under the



floor, heat radiates evenly up through the floor, providing quiet, even warmth while using less energy. **\$55** 



41. Green a green roof. Also called living roofs or vegetated roofs, green roofs are specially engineered with a waterproof membrane topped by a lightweight planting medium. Typically planted with native grasses, wildflowers or other climate-appropriate groundcovers, they slow the flow of rainwater off the roof, keep surrounding outside air temperatures cooler, beautify the home from above, heat and cool, and may even extend the roof's life. **\$-555** 



42. Don't get burned. Wood-burning fireplaces are not only polluters and energy wasters. Think about retro-fitting yours with an energy-efficient, clean-burning, fire-certified

fireplace insert. The inserts include glass or metal doors, vents to provide outside air for combustion, and blowers to circulate heated air into the room. Learn more at epa.gov/woodburners. **\$55** 

43. Reroofing? Cool-roof products come in a variety of colors and materials (including asphalt or concrete tiles, metal and synthetic membranes) and reflect more of the sun's heat, lowering the roof's temperature by up to 100 degrees F. **\$55** 

44. Harvest the sun. In regions with abundant sunshine and high energy costs, solar systems are getting ground. Solar electric systems can offset some or all of your home's electricity use, while solar water heating systems can heat water for sinks, showers, bathing, home heating, pool and spa. A variety of federal, state and local incentives are making renewable energy systems more affordable. For a directory of incentives by state, go to www.dsire.us. **\$55** 



45. Salvage style. Save the precious forests by choosing salvaged wood, harvested from dismantled buildings, old barns, urban trees that would otherwise have been chipped for mulch or firewood, stickler logs from lake and river bottoms, and many other sources. **\$-555** 

Check online at www.usgbc.org on how to locate your forest or where to find a broad range of green home products. For more information, check out this year's great look for GREEN, a list of green building remedies being developed by the USGBC and the American Society of Interior Designers (ASID).



Permanently Green

Stonerunner runoff occurs when precipitation from rain or snow melts flows over the ground, picking up dirt, chemicals and other pollutants before its final destination in natural bodies of water and storm sewage systems. Sometimes contaminants that enter a storm sewer system are discharged untreated into the water bodies for use for swimming, fishing and of course—drinking water.

To address these concerns and prevent its harmful effects on the environment and our health, Pine Hall Brick has developed permeable clay pavers that harness rainwater through a specially constructed paving system to eliminate it through the soil. Stonerunner addresses stormwater runoff problems with installation and operation cost projects, and they're especially made for residential driveways.

Become a friend to the environment and prevent water pollution. For more information visit www.pinehallbrick.com



Green Directory



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Ever spot beetle grubs in upholstery, with Millers? Run all Albany Woodworks features beautiful, unique hand-painted flooring and beams that reduce exposure to allergens and moisture while upkeep. Millers' rustic, time-tested and stable, these beautiful woodworks give your home a lasting, green touch of authentic style. Reclaim your dreams in wood. Visit www.albanywoodworks.com



Changing the World, One Room at a Time

Authors David Johnston and Kim Shuster guide readers through a green journey in their book *Green Remodeling: Changing the World, One Room at a Time*. They explore how to convert every construction task, including foundations, framing, plumbing, windows, roofing, finishes and more. Are you in the market to remodel? Pick up a copy and arm yourself with the knowledge and tools to make it a healthy, environmentally friendly upgrade. Take your first green steps by visiting www.seabcoinc.com

**A PEACOCKING WALKWAY**

A curved path is often more appealing than a straight one. In this sketch, the entry is marked by pillars anchored with plantings and lighting. An internal island of plantings with ground cover and trees attracts attention to a corner stone that says the steps lead to the arrival point.



Q I want to give my house more curb appeal. How can I landscape my entryway so it is pleasant and welcoming for visitors?

A

CURB APPEAL HAS BECOME a key factor in assessing home value, and an attractive outdoor "entry experience" can really add to your home's street presence. Too often people overlook this area. Many of us have nothing more than thin ribbons of asphalt leading from the sidewalk and driveway to the front door. Plantings, paving materials, and garden or landscape elements can transform a no-landscape street front porch for visitors and street gardeners alike. Here I've sketched some solutions for different types of produced houses, but in each case the same basic rules apply.

1 | The Entry Experience

The entrance to your house should hint at what visitors can expect when they come inside—it's the first thing they'll notice about your home. I like to think of this as the "journey to the front door."

When planning the journey, make the comfort of your family and guests a top priority. Whether they approach your house from the street or from the driveway, people should be able to find their way easily to the doorway. They should also be able to get there without a hard effort. If you have a steep hill, consider fattening it by adding short runs of stairs interspersed with brief stretches of walkway,

or, conversely, break up a downhill pathway with curves or angled sets of stairs to make the descent gentler. This technique, called "progressive reduction," helps make successful landscape and garden design by providing points of interest along the way that encourage people to move through the space.

2 | Paving Materials

The walkway materials you choose also affect how people move. Smooth surfaces like concrete and asphalt encourage guests to walk quickly; rougher materials like stone or cobbled pavers force them to slow down. Use a mix of pavers to help people to huger in some areas but not others; the variety also creates more visual interest.

Select paving materials and patterns that work with your house's style, level of formality, and color. For example, you can choose outdoor paving materials that match indoor paving or flooring. But make sure they're right for your climate—in Florida, hot and sandy areas such as stone are acceptable, but they'd become a ice slick during a Minnesota winter, when tougher materials work better. I've found that concrete pavers are very versatile; they can feel formal or informal depending on the pattern, and they hold up in all kinds of weather.

3 | Plants and Landscape Elements

The plants you use should also complement your house's style. Evergreens offer a sense of permanence that works with traditional styles, because they're shaped into undulating forms and they don't change much over time. They can be used to highlight a structural feature or to bring attention to a focal point like a front stoop. In contrast, plants that grow more loosely and spread farther lend a more casual air, changing with the seasons as they flower or lose leaves. As with paving, a variety of plantings creates a more inviting journey.

Avoid using plants with thorns or sticky foliage close to walkways. Also consider if you're using too deep beds of leaves or ferns—you'll end up tracking the stuff inside, or worse, somebody could slip on it.

Finally, don't rely on plants alone. Bollards, garden urns, fountains, and outdoor furniture can all be incorporated into the entryway experience. Just make sure they're the right scale for your house and yard. While an oversized benchback to a fountain might look just right for a long driveway, so a small front lawn they'd come off as overkill. ■

A FANCY COURT

If there's room and if the driveway is parking, a fancy court offers a gracious entry. Plantings should come from the street, and a low wall like paving to the walkway with selected plantings and landscaping elements creates a courtyard effect.

**get inspired**

See inspiration for enhancing an entryway at houzz.com/entryways

AN ENTRY COURTYARD

Tall shrubs offer enclosure and privacy for a house that sits close to the sidewalk. An arbor with or without a gable gives visitors a clear "enter here" signal. Because of the small size, this courtyard is a "prelude" to the house itself and isn't intended to be a destination. It's a perfect place to put the straight walkway.



TEXT AND ILLUSTRATIONS BY GARY R. FERRIS MSLS, AIA. Gary R. Ferris is a partner with the landscape architecture firm FERRIS ASSOCIATES in Sarasota, Florida. He has more than 20 years of experience developing residential and commercial landscape designs.

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HEALTHY HOME



TOP Barbara Fortnash exposed the studs—evident in a 2005 renovation—after New Orleans' housing recovery by removing the drywall to a level above the floorline. **ABOVE** TCM master carpenter Kevin Adams tears away all the original wall in search of studs (clockwise).

FROM THE TCM TV JOB SITE

Keeping Mold From Taking Hold

Mold spores are a problem anywhere it's humid, but in post-Katrina New Orleans, the scourge is hard to beat. Here's how the owner of TCM's latest project house did it.

BY JEANNE WHEAT PHOTOGRAPHS BY KATHERINE SLINGGUFF

AS SOON AS HURRICANE KATRINA'S footwaters receded, Barbara Fortnash had to move her 1993 shotgun house in New Orleans's Lower Ninth Ward. As experts recommended, she ripped out 4 feet of her above-ground drywall, a foot higher than the muckly water had risen. She pulled out the (Shingles) molders between the studs she'd recently added and serviced the remaining surfaces with bleach. As she left the walls to dry, she left alcohol and cedar "to keep the mold away."

Two years later, after plans and permits and estimating, Fortnash was ready to continue the restoration she had started before the storm, and *This Old House* TV began documenting her efforts. But when TCM master carpenter Kevin Adams arrived at her house, he explained what happens

gallon house

For more on this DIY, go online to www.houzz.com or www.thisoldhouse.com.

when wind-driven rain penetrates siding, preparing for it, for some unexpected reason. Since the original walls behind the new studs and insulation were of a different "buggy board"—vertical planks as big as two-by-fours—that had been laid with burlap and nailed-on drywall, he told her more demolition would be needed. Then he pulled off a measure

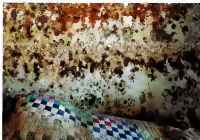
and available cellulose—plant material—for them to find on, such as drywall paper and wood. It didn't take a flood to bring mold on; a leaky roof or a humid summer atmosphere can grow it.

The danger comes when the spores become airborne in great numbers, then it's likely they will overload a person's immune system, triggering an allergic

that's not a happy possibility. So the EPA has published guidelines that even inexperienced homeowners can follow.

Once Nicks discovered the mold, on what the carpenter and one owner the job last. People can be resistant to mold through the skin as well as the lungs, so rubber gloves, goggles, and a respirator—the EPA recommends a

All around post-Katrina New Orleans, homeowners have replaced only the most visibly damaged drywall, effectively preserving mold still living behind it.



At home in St. Bernard Parish in New Orleans in November 2005, two months after Hurricane Katrina, Fluorobacterium-resistant bacteria were still alive and growing in the mold on walls, floors, and ceilings.

price of the old wallboard behind the studs and found the back spotted with mold. "It's loose," he says.

In a way, Raab had escaped the worst. His mold was found before new walls covered it. But all around post-Katrina New Orleans—mold counts after flood damage were—homeowners have replaced only the most visibly damaged drywall, effectively preserving mold still living behind it.

Mold is a microscopic spore that is always circulating in the air. Spores will take hold and multiply anywhere there's

moisture—whether, skin rashes, and other debilitating symptoms—or even restoring life-threatening asthma. The more surface that provide a good base, clean what remains, clean the air, then rebuild, taking preventive measures.

REMOVE WHAT YOU CAN

The U.S. Environmental Protection Agency suggests that homeowners might need help from a professional if they find mold on an area more than 10 square feet in size, because big floods,

double plastic disposable labeled "N-95"—is a full requirement.

Careful mold removal begins by sealing off the area with plastic over the doorway. Then all other best materials (including carpet, drywall, and paper items) have to go. "Take walls down to the studs," says Rebecca Morley, director of the National Center for Healthy Housing in Columbia, Maryland.

Even though most guidelines say material a foot above the floodwaters must be removed, "you actually do need to go higher," Morley says. Remediators measured mold levels before and after cleanup in four disconnected homes and found that spore counts dropped to a background level in the three where it was removed all the drywall, but stayed strikingly high in the one where they only took away the bottom pieces.

No one knows how dangerous it is to leave mold trapped in inaccessible places, such as inside walls or behind cabinets. "With lead and asbestos, you can manage it in place," Morley says. "But mold is a growing organism. Even behind a cabinet, I'd be leery about whether it is a truly contained."

For Raab's house, the decision was easy. The demolition phase was the rare to get rid of questionable materials, including the old drywall and burlap covering the buggy boards. She didn't want to worry later about the mold on the

CLEAN UP AND CLEAR THE AIR

For many years, people were told to fight mold with bleach, which doesn't

the spore. But today health scientists know that dead spores are just as dangerous as live ones. "They're still alive," Morley notes. Bleaching away spores just makes it hard to see that there's mold present in the house.

Removal is the real cure. But how, given that microscopic ones? Raab's worked with Dr. Eric Gargis, a public health expert whose practice had expanded after the flood and who saw a pressing need for careful cleanup before families could safely return. He became certified in mold remediation and started a cleanup company called EnviroMed.

Removing mold is a two-step process. First, locate the spores, then suck them up with a HEPA filter vacuum. Though you can do this with a stiff brush and a vacuum wand, Gargis says a system invented to help restore the Statue of Liberty in 1986. He blew the surface with hotting steam, which spread the mold without damaging the wood.

Once he'd vacuumed up the debris in Raab's house, Gargis stripped the wood with MDF-504, an EPA-approved blower that would kill any bacteria that might have been brought in by the flood. Using an ultrasonic spray, he treated with New-Care with Mold Guard, a bioactive solution that lights mold and prevents against termites, carpenter ants, and wood rot.

REBUILD SMARTER

Raab's house sits on piers 3 feet above grade, but when the levees broke the area was flooded with 6 feet of water. So underpinning, her main protection against future flooding, is fresh that the levees will fail. But for many of the city's citizens who live in post-war housing, a first line of defense is to replace their homes to weather a storm surge, a modern building practice in the area.

Beyond just keeping out of the flood's path, innovative construction practices can minimize the chance of mold coming back. At Louisiana State University's Center for Coastal Storm Resilience Research, Claudine Raab's owner, Dr. House, a bio-innovative home that doesn't allow mold to grow, can

MOLD-RESISTANT WALLS

When post-Katrina floodwaters were a possibility, the best way to build walls is to leave the moldings with 2 inches of closed-cell foam insulation, then cover it with a vapor barrier. If it's possible to leave the moldings in place, leaving an air space between the studs, gaps at the floor and top, and between the studs and the wallboard—air will move in the mold that can be killed with a vapor barrier. Leave the wall cavity to be replaced and sealed after a flood. Electrical wires go above the first gap.



BULKY WALLS

A smaller difference against compact wall features putting a single break in the wallboard to water can't wick all the way to the top. This prevents the upper portion of the wallboard from drying. Other call holes the gaps.

said when the city's big surge, Louisiana Parish for "a little something extra."

Essential air-mold steps include sloping soil away from the house, water proofing the roof by taping down with extra insurance and special edging to resist wind, and installing walls with interior air flow to maintain an evaporative. In her, Raab's chosen like that of New Orleans, moisture usually moves from the outside to the re-conditioned inside, so a sealed exterior surface creates a habitat for mold in the walls. "No way will mold grow, no moisture can penetrate," Raab says.

Some light-up approaches are simple, like leaving a gap covered by charcoal between a wall lower and upper drywall panels to maintain air flow, limiting flood damage. At the other end of the wall is what Raab calls a "chimney, drywall wall." You move the wiring above the flood level and spray a 2-inch-deep layer of closed-cell polyurethane foam between the walls. Leaving the rest can open up, you can use a paper drywall, which can cause nothing that mold can feed on,

but you create small gaps in the top and bottom that are then covered by crown molding and base board. If another flood occurs, you can pry off the molding, flush out the wall cavity from the top, vacuum up the water at the bottom, and set up fans so the wall dries quickly. "This house was under water for six weeks, the paperless drywall probably wouldn't survive," Raab says. "But with the stone-form flooding, it would often be reusable."

The preventive measures at Raab's house will take their cut from these recommendations. The walls will be finished with Georgia Pacific's Dens-A-Max, a paperless drywall, and the insulation will be blown-in, so no-cell spray foam that comes in nothing cellular for mold to feed on. It's not a perfect, even being in floodwaters isn't contaminated, the insulation will drain and dry out slowly with no lasting ill effects. So if there is another disastrous flood, with a fresh cleanup, Raab's wall will be able to return to her house quickly, relieved to know that this time the house truly escaped the mold. ■



and nitrogen pools in the soil.

TOOLBOX

Helping Hands

▶▶ With the right pair of work gloves, you'll never notice all the times you don't get hurt.

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AS A CERTAIN LINE OF LOGIC GOES, gloves are a necessity. You put them on to protect yourself, but then you withdraw them because you can't find your fingers right inside your coat. This kind of thinking has caused a problem for a lot of people—some of whom you may recognize from *Thelma & Louise*—as gloves under the cloak of conservatism.

[illegible]

All these improvements make gloves feel like a second skin. You get the right kind of protection, with only a minimum of discomfort—and that's a win-win situation.

The following are good places to find more information and resources on the Internet:

- <http://www.fishbase.org>—This gateway provides web-based information on the biology, ecology, and management of fishes.
- <http://www.fishbase.org/feature/feature.html>—This gateway provides web-based information on the biology, ecology, and management of fishes.
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Join the crew this season as they help homeowners tackle a truckload of every-day home repair problems. For local listings, visit: www.thisoldhouse.com/toh/tv/schedule.

Thompson, R. C. 1996. *Reproductive biology of the American oyster, Crassostrea virginica*. p. 111-130. In: J. H. Ruppel (ed.) *Oyster aquaculture: biology, culture, and management*. CRC Press, Boca Raton, Florida.



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GET WIPED

Shedding dead thorns and debris is the last thing you want to do when you're painting. The new Cold Weather Wipe-Off Glove, made by the same company that makes the Cold Weather Grip Glove, is made of a soft, flexible material that allows you to wipe away debris and dead thorns from your work surface. It's also made of a soft, flexible material that allows you to wipe away debris and dead thorns from your work surface. It's also made of a soft, flexible material that allows you to wipe away debris and dead thorns from your work surface. www.coldweather.com

BEAT HEAT

When temperatures rise up to 800 degrees, it's time to take a break. The new Heat-Resistant Glove, made by the same company that makes the Cold Weather Grip Glove, is made of a soft, flexible material that allows you to work in high temperatures. It's also made of a soft, flexible material that allows you to work in high temperatures. www.coldweather.com

SAFETY FIRST

Protect your skin from the sun and the elements with the new Sun-Resistant Glove, made by the same company that makes the Cold Weather Grip Glove. It's made of a soft, flexible material that allows you to work in high temperatures. www.coldweather.com

yellow
orange

Check out the new
yellow and orange
gloves at
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PROBLEM.

SOLVER.

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—John Depp, KILZ user
and pro painter for 10 years

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Lining a Cedar Closet

BY DENISE STRATTON
PHOTOGRAPH BY KEVIN SMITH

WHILE THE SMALL, old-world charm of a closet can evoke fond memories of your grandmother's bedroom, it's usually the most unimpressive room in your house. Fortunately, there's a more fragrant way to keep clothes and accessories from smelling like old socks of your best customer. The new, all-natural cedar has kept closets fresh, hole-free and smelling great for decades. And now, you can use it to give a big, cozy and warm closet a new address in your home.

When you add cedar to an interior, you create a warm, whole closet with a little extra dimension in simple when you use it with tongue-and-groove boards. And the result is both poetic and handsome. As The Old Timey senior technical editor Mark Hines shows us in the following step-by-step, you need less than a day to install it. And, then you'll be able to enjoy the scent of mothballs in your closet, where it belongs.

TOOLS & SUPPLIES
• 1/2-in. and 3/4-in. cedar boards
• 1/4-in. plywood
• 1/2-in. screws
• 1/4-in. nails

STEP-BY-STEP
WEEKEND
PROJECT SERIES



GOALS
To line a closet with cedar.

TIME
1 to 2 hours

DIFFICULTY
Easy to moderate. Lining an existing closet is a easy but fitting the plywood for holes is tricky.

TOOLS
Screwdriver

2-in. 4-foot level

Compound square

Finishing level

Square to 8 in.

Shim stock

Finishing sand paper

1/4-in. plywood

1/2-in. screws

1/4-in. nails

Coping saw

1/2-in. plywood

1/4-in. screws

1/4-in. nails

1/4-in. screws

1/4-in. screws

1/4-in. screws

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1/4-in. screws

SEE HOW IT'S DONE: TURN THE PAGE



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{ overview }

WHILE THERE ARE MANY TYPES OF CEDAR, Eastern red cedar, aka aromatic red cedar, is the only type that gives off the familiar scent that deters moths and insects. Eastern red cedar is sold in both large preboard panels and tongue-and-groove boards. Panels make for an easy cut-to-fit installation, but they have a rough texture that can snag clothing. Tongue-and-groove boards, shown in the installation, require more cuts but give a closet a smooth, custom-finished look.

You don't have to line the entire closet for the cedar to be effective, but the more cedar the better. Lining the three exterior walls is typical, but you might also consider continuing the coverage on the back of the door and on the ceiling. If your closet has baseboard molding, you can leave it in place as long as the baseboard is thicker than the cedar. But you can also take the lining down to the floor by first carefully removing the baseboard with a pry bar. Then you can use cove molding against the floor to hide the cut edges. That same cove can go at the top of the wall to hide the small gap between the last course. The raw cut ends of the boards will intersect in the corners of the closet, but as long as you start your installation on the back wall and cut the side wall boards to fit snugly, the seam will appear neat from the front. However, if you have any trouble getting a tight fit to make an even intersection of back and side, you can always hide it with corner bead.

There are several ways to get the cedar on the walls. You can nail it to the studs, or adhere it with construction adhesive. The Old House general contractor Tony Silva uses a two-pronged approach, holding planks in place with adhesive before nailing them. "I like to nail on a 45-degree angle through the tongue to hide the nails," he says. Nailing can be done with a pneumatic pin nailer or a good old-fashioned hammer and screws, though without a pneumatic nailer you may need to drill pilot holes to avoid splitting the thin wood. Drill you don't mind seeing the nailheads, you can face-nail for an easier installation. Then, once the cedar is in place, it will last for years and will only require a quick light sanding to instantly rejuvenate and bring back its aromatic effects.



shopping list

TONGUE-AND-GROOVE CEDAR PLANKING

Order online or through home centers. Choose lengths that will eliminate the need for joints, or use smaller boards for a patterned look.

CEDAR MOLDINGS

Use for the top, bottom, and corners of the closet. Most manufacturers make cove molding to act as crown and to cover your other fast options. Corner bead will hide seams between walls.

18-GAUGE BRAD POINT PIN NAILER

For use with a pneumatic air nailer.

CONSTRUCTION ADHESIVE

To give additional wall attachment and keep boards from bowing.

ILLUSTRATION BY GREGORY HENNES

{ step by step }

1

Locate the studs

Use a stud finder to locate and mark the studs along the walls of the closet. Or, starting the corner of the closet, where there is usually a stud, run a string line with a 16-inch stringer to approximately the rest of the studs, positioning. Using a drill driver bit and a small bit, make a small hole at each mark to check that there is actually a stud at that point.

Once you know where all the studs are and have marked them, use a level lined vertically to draw plumb lines at each mark (RIGHT). Mark each stud position from floor to ceiling to show you where to place nails when you install the cedar.



2



Scribe the first board

Begin at the back wall. If the baseboard or floor at the bottom of the wall is sloped, you will need to scribe the first cedar board to that slope so that all the subsequent courses stay level. Hold cedar board against side wall, at the bottom of the wall. Position level on top of the tongue and level the cedar. Open a compass or scribe to match the largest gap between the cedar board and the baseboard or floor, then lock it in position. Put the point of the scribe along the baseboard, holding the pencil down on the cedar board. This will transfer the slope of the wood (LEFT).

Clamp the board securely to a work surface. Using a pressure tip the board along the scribe line. Dry fit the board to check the cut.



Nail on the first course

Apply a zigzag bead of construction adhesive to the back of the board. Position it back from center to design to spread the adhesive evenly.

Using a pneumatic brad nailer, nail through the tongue at each stud location, angling the nailers about 45 degrees down to keep them from getting in the way of the next board's groove when you lock it over the tongue (RIGHT). Start at one end of the board and drive evenly across the tongue, checking for level as you go.

If you can't nail to a stud, **drive two nails next to each other at opposite angles to tack the board up tight to the wall while the adhesive dries.**

< TIP

4

Finish the field

Once the first board is in place, measure the length of the wall before installing each row and using a miter box and hand saw, cut the boards to fit. Many boards have a rabbet on either end so they can interlock with the next board in the row. If possible, use the off cut of one board to start the next row, so the two boards interlock. Dry fit each row before installation.

Apply a striping bead of adhesive to the back of the board. Tap the groove of the board over the tongue of the last row to fit them together (LEFT). While the adhesive is still wet, check the board for level and make adjustments as necessary. Nail the board in place.

Continue installing boards in this manner until the back wall is covered. Then install the cedar on the sidewalls, allowing the back edge of the boards to cover the cut ends of the corner. Be sure that sidewall rows line up with the rows on the back wall, or the mismatched seams will appear crooked at the corners.

Install the top board

If you finish the top row of the remaining open bays, slide the last board (which will be covered by mitered top) back slightly, then the width of a board, up the boards down to fit. Push the top of the space of a board and adjust it to end so the finished board will fit into place easily. Transfer the measurements to the board and, using a groove sizer, cut along the long side.

Tap the board into place over the tongue of the previous row (RIGHT). Nail through the boards here close to the top of the wall.



FIELD YOUR SKILL
Learn how to install the 10-10-10 closet wall.
WoodShop.com



Finish the edges with molding

Using a miter box and hand saw, straighten out the ends of a piece of cedar molding so it fits across the top of the back wall. If you need two pieces to span the wall, join them with a butt joint, angling the ends 45 degrees to meeting each other. Using a hand ruler, tack the molding through its center into the top of the wall framing.

Cut a piece of cedar with a 45-degree miter at the outside wall and go to the corner. Position the miter so the long point runs the back of the molding. Using a coping saw, cut the front edge of the miter along the sliding guide created by the miter, angling the saw about 45 degrees to make a slight back cut. If the slide tends to cut the saw and cut on knee, the edge to be the angled cut. When the angles, when the whole profile is cut, check the coped piece against the molding on the back wall to be sure it fits snugly (LEFT). Then cut the piece to length and nail it in place. Repeat the process on the other wall.

If necessary, install base molding along the bottom of the wall in the same manner.

TIP > To make a clean coping cut, slide the not edge of the miter with a pencil to highlight the molding's profile.

buying guide

The cedar you put in your closet doesn't just have to go on the walls. Here are a few stylish cedar accessories you can use in the closet or out, to keep clothes moth-free and smelling fresh.

- 1. Laundry Bag** Moths eat the delicate cuffs and collars left in your clothes, so keep dirty laundry protected before it goes to the washers. Laundry hanger: \$20; washers.com
- 2. Detergent Dispenser** Keep detergent safely sealed away from children, then collapse the bag for easy storage under a counter. Cedar wood: \$10; \$20; \$30; \$40; \$50; \$60; \$70; \$80; \$90; \$100; \$110; \$120; \$130; \$140; \$150; \$160; \$170; \$180; \$190; \$200; \$210; \$220; \$230; \$240; \$250; \$260; \$270; \$280; \$290; \$300; \$310; \$320; \$330; \$340; \$350; \$360; \$370; \$380; \$390; \$400; \$410; \$420; \$430; \$440; \$450; \$460; \$470; \$480; \$490; \$500; \$510; \$520; \$530; \$540; \$550; \$560; \$570; \$580; \$590; \$600; \$610; \$620; \$630; \$640; \$650; \$660; \$670; \$680; \$690; \$700; \$710; \$720; \$730; \$740; \$750; \$760; \$770; \$780; \$790; \$800; \$810; \$820; \$830; \$840; \$850; \$860; \$870; \$880; \$890; \$900; \$910; \$920; \$930; \$940; \$950; \$960; \$970; \$980; \$990; \$1000; \$1010; \$1020; \$1030; \$1040; \$1050; \$1060; \$1070; \$1080; \$1090; \$1100; \$1110; \$1120; \$1130; \$1140; \$1150; \$1160; \$1170; \$1180; \$1190; \$1200; \$1210; \$1220; \$1230; \$1240; \$1250; \$1260; \$1270; \$1280; \$1290; \$1300; \$1310; \$1320; \$1330; \$1340; \$1350; \$1360; \$1370; 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LIGHT MAKES IT RIGHT

*A windowsed addition
opens onto a series of
outdoor rooms, bringing
a dark bungalow and
bringing the outside in.*

200 pages • 100+ photographs • The new living room is made of
oak and stone, with a fireplace, a large window, and a stone
floor. The new kitchen is made of oak and stone, with a
fireplace, a large window, and a stone floor. The new
bathroom is made of oak and stone, with a fireplace,
a large window, and a stone floor. The new bedroom
is made of oak and stone, with a fireplace, a large
window, and a stone floor. The new living room is
made of oak and stone, with a fireplace, a large
window, and a stone floor. The new kitchen is made
of oak and stone, with a fireplace, a large window,
and a stone floor. The new bathroom is made of oak
and stone, with a fireplace, a large window, and a
stone floor. The new bedroom is made of oak and
stone, with a fireplace, a large window, and a stone
floor.



It was kind of dark inside, but that was okay with him. She craved the sun, though, and places to enjoy the outdoors. So when the couple

got together, the onetime lighthouse pad had to morph into something suitable for two—no more.

When Craig Matthews bought this 1920s Craftsman-style cottage in Sag Harbor, an old whaling town and artist colony on New York's Long Island, he never dreamed he'd be married with a couple of kids inside of six years. At the time, all he wanted was a no-worries escape on weekends. The single- and a-half-story house, with its original stained-oak flooring and its late-1800s leaded-glass windows, was the perfect beaching-around seaside retreat. Craig painted the walls, updated the bathroom, replaced some hardwoods on the first floor. When he wanted his, though? "Don't do me in on this house. When you find the perfect woman, she'll want to know her man, too."

Mean was on the money. Within three years of buying the place, Craig met and married his wife, Edwina, a native Australian who grew up on sheep-shepherding ranches. She found the little house dark and cramped, with no front door that opened right into a combined living/dining room, two tiny bedrooms on one side of it, and a little kitchen and bath in back. "It was a masculine house, and I could appreciate that," says Edwina. "But it wasn't quite right for two people."

Never mind that. With a baby on the way a year later, the couple decided to realize their dream of decamping from their new bedroom a permanent to the city in favor of living year-round at the Sag Harbor house. But to make their plan a reality, work had to happen first, inside and out.

For one, the house needed more living and storage space. As it was, Edwina's "closet" was a hook on the back of the bedroom door. The square one had left only a thigh-width gap a few feet around the bedroom to creep through. As much as stairs, space, though, Edwina craved light and outdoor space where the kids could splash out. "When we're together here, they are back home," she says. "I've used so many long-sleeved, warmies and fall, but if I have windows and light, I don't mind the elements."

Those new impulses—toward more light and more usable space, both indoors and out—would govern how the couple braced new life into their old house and its surroundings. The cottage sat on a generous half-acre lot, with most of the land behind it dropping off down a hillside. From a sunny breakfast nook at the back of the house, Edwina and Craig could peek out over their sloping backyard and the undeveloped, 5-acre meadow beyond it. They imagined a lawn for the kids to be toddling or to play on, a place for outdoor meals, plus a back addition full of windows for whenever Edwina needed a brighter shot of daylight.

High above, wide entry moved foot traffic from the front porch to the entrance hall, centered where the couple built a central staircase where the kitchen had stood. And, Craig and Edwina Matthews with their two Wilsons, who's now 2



The main Craftsman-style kitchen is in the new design. Edwina's white cabinets and marble countertop plus a sweet stand under the island in place of a sink built to keep the task light and open.



This plan: On the first floor the front porch now opens into the dining room, with a nook and a paneled room for two kids. The entrance and side-entry rooms located where the kitchen had stood. The back addition adds a new living room and kitchen, with a playroom and paneled suite in the walls and basement. The old entrance level now holds three bedrooms and a bath.



After And around this corner from the living room, a South-Invest bar. Its entry leads space that was part of the old kitchen pantry.

Before A small drink off the living room leads south for maximum summer sun. Opposite the kitchen, it provides a convenient spot for open-air breakfasts.

At the height of summer, the couple knew they would also want the shelter to be sturdy, so they called on San Francisco's famed landscape designer Ross Wisen to help. She decided an area around the bottom of the slope would be just right for a grassy patch of broken bluestone and a nearby play structure surrounded by post-hack models. Runoff stone steps would lead directly from the upper lawn to the patio/sidewalk. To secure the stone slabs, Wisen placed lava around the patio and filled the groms with tons of rocks. To connect, she screened the areas for

The public remains largely unaware of the fact that the law itself will prohibit giving of gifts and loans.

The rustic wooden well, built with red brick and a white door, provides a charming focal point in this garden setting. The well is surrounded by a low stone wall, and the area is shaded by large trees, creating a peaceful atmosphere.

SITTING WELL KNOW-HOW

AS THE NAME SUGGESTS, sitting well should be low, about 17 to 20 inches high and 1 to 2 1/2 feet deep. To get an idea of how high to go, measure the waist of a favorite chair. To get an idea of how deep to go, measure the seat of a favorite chair. For the best results, the well should be built on a level surface.

The diagram illustrates the vertical structure of a landfill. From top to bottom, the layers are: a '3' (refuge zone), a 'saturation zone', a 'No-deposition zone', a 'full depth zone', and another 'No-deposition zone'. Below these is the 'groundwater level'. The landfill itself is shown as a 'landfill zone' with 'groundwater level' and 'saturation zone' labels. The 'grade line' is indicated, and the 'No-deposition zone' is shown below it. The 'depth line' is also marked.

- Abstract**

the next-door neighbor with white pines, rhododendrons, and lilies between the two properties.

Today, Craig, Edwards, and their two children—10-month-old Constance joined a year-old William last year—live year-round in a charming, spacious home that seems to harness the sun on even the darkest days. On the main floor of the south side of the house, an 8-by-10-foot dock captures the maximum hours of summer sun and offers a spot for coffee during a short walk from the kitchen. Windows in the new den and side entry and in the new living room flood the back of the house with light. The bright white kitchen, done up by East Hampton-based kitchen designer Scott W. Smith, gets an

added sense of warmth with a new 11-sided table in place of a solid built-in and lots of open nooks in the culinary or display nooks.

Careful attention to mirroring the interior with the landscape just beyond the windowsides has paid off in every way. Standing at the kitchen sink, Edwards can watch the sun go down beyond the pasture below. "Even in December, you'll see a pretty pink sunset," she says. Craig loves that every inch of the lot is now functional. "In summer, the house just opens up. When people come over, we're in lots of different spaces to spend time," he says. And, even now, the home's capricious design has earned the former builder's dream: on the land of comfortable home that the couple dreamed of, just in for the whole family. ■



Open: The two-story section is lined with windows to maximize natural light in the new living room. The garden-level playroom opens on to a pergola-covered patio, which is also accessible via stairs that lead down from the dock, south-facing dock. *See page 100* Rustic fabricators shape wood their way down from the wooded terrain onto the rustic patios of brick and stone—a shady spot where the family can enjoy a fire when the weather's cool.

patio berms

7 soil berms
bordering a
stone bed at
breakfast room
terraces

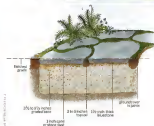


PHOTO COURTESY OF J. J. & S. S. LANDSCAPE ARCHITECTS



STONE PATIO KNOW-HOW

A DRY-LAY PATIO of broken blue stone with moss creeping along the joints has a rustic look that blends into a wooded setting. JOH's Roger Cook always dries the stones like these off-site, placing the largest stones first and then filling in with smaller pieces or shaping them to fit with a brickhammer. With a circular patios like this one, the outermost edge may fit best shaping. "So here's how Roger was all proceed on a project like this."

1. Outline desired patio shape with an unpeeled garden hose. Then set stakes and lines to mark the finished grade (the patio should be pitched 1/4 inch per foot).
2. Excavate 6 to 32 inches of earth (for the 2 1/2-inch-thick stone shown here).
3. Add "graded base" (a blend of stone dust and 1/4-inch washed stone), working in 3-inch layers and compacting each with a power tamper. Continue until the base is about 2 1/2 inches below the finished grade, then spread a 1-inch layer of sand or stone dust for a setting bed.
4. Starting at the corner nearest the house (at here, at the steps leading to it), set each stone in place, smoother side up, leaving a 1/4-inch gap in underneath and tapping it in by wiggling rather than using a power tamper. Lay out 1 to 2 1/2 inches between stones.
5. Finally, using a small trowel or putty knife, excavate the joints, going down several inches, then fill with tapered metal joint mortar or other groundcover suited to the site's conditions. —SAL VIGOR



PUT SOME *Spring* IN YOUR STEPS

...and in your
planting beds,
patios, and
pots, too.

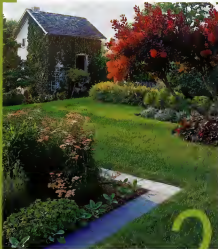
On these pages
eye-catching
ways to
transform your
outdoor space

ENHANCE THE ENTRIES

Cluttering plants alone is building a foundation with weakness as the word stops plants in motion and functional surroundings and makes it more welcoming than a humble asking. Shrubbery, too, is best of all English country cottages with new covered walk and colorful or flowering plants. Greenhouse containers, flowering with white and pink, looking yellow and white, white, and pink, and some come up for hand and hand feeling. The new garden has a sense of the old and the planting is best for the garden. The right side is the best. Some plants are all simply, looking up the end and with an added dose of the old.

BY KATHARINE KELLER • PHOTOGRAPHS BY TOM MCWILLIAM
PRODUCTION BY DAVID L. STEINBERG • STYLING BY MARIELLE MEYER

Chalk it up to the power of the printed page. When Dorothy and Ronald Juvenon moved to their Chester County, Pennsylvania, property more than 20 years ago, their 200-year-old stucco house sat on level, but somewhat forbidding, pastureland. All the gardens that now flourish around the house, up the walls, and in its courtyard are of Dorothy's design, based almost entirely on hardscape she pored over in magazines and books. She diligently clipped and photocopied—assembling ongoing file folders marked “stonework” and “color combinations”—and fueled her inspirations with visits to the outstanding public display gardens at nearby Longwood Gardens. Drawing her plans to scale using graph paper, Dorothy formulated a unique mix of French and Italian formal landscaping up close to the house, with looser English gardens farther afield. Working in stages and with a talented local mason, Dennis Hans, she tamed the open area around her home into a series of beautiful and useful outdoor spaces. There are lessons anyone can learn from looking at the stunning results on the following pages. Feel free to tear them out and start a few idea files of your own.



SHARPEN YOUR EDGES

Well-defined edges that bring definition to flower beds and garden borders but also lends a sense of order to the landscape. Here, clean cut concrete steps introduce a formal approach to a grid of low square beds filled with a mix of herbs, vegetables, and flowers. Straight edges here are especially useful for defining and separating distinct spaces. Smooth, dark stone—used here as a base of gravel and a setting bed of sand—used with caution to prevent them from being swept by wind-blown leaves—they also offer for easy maintenance. Use the least showy can only when necessary.

On the outer perimeter, curved lines are visible along the border's edge, suggesting a more informal approach to the garden. The use of a curved border is a good way to create a sense of movement and a more relaxed look. The use of a curved border is a good way to create a sense of movement and a more relaxed look. The use of a curved border is a good way to create a sense of movement and a more relaxed look.



SOFTEN THE HARDSCAPE

Use a big splash of plant mass to soften the hardscape. In this case, the border is made of a material that looks like stone or concrete, and it's surrounded by green plants. The use of a curved border is a good way to create a sense of movement and a more relaxed look. The use of a curved border is a good way to create a sense of movement and a more relaxed look.



CLIMB THE WALLS

Bring an outdoor wall to life with climbing plants. In this case, the house is surrounded by lush gardens with various plants, including red-leafed trees and green shrubs. The use of a curved border is a good way to create a sense of movement and a more relaxed look. The use of a curved border is a good way to create a sense of movement and a more relaxed look.



PLANT IN MASSES

Use a big splash of plant mass to soften the hardscape. In this case, the border is made of a material that looks like stone or concrete, and it's surrounded by green plants. The use of a curved border is a good way to create a sense of movement and a more relaxed look. The use of a curved border is a good way to create a sense of movement and a more relaxed look.



LAYER BEDS FOR A LUSH LOOK

Use a big splash of plant mass to soften the hardscape. In this case, the border is made of a material that looks like stone or concrete, and it's surrounded by green plants. The use of a curved border is a good way to create a sense of movement and a more relaxed look. The use of a curved border is a good way to create a sense of movement and a more relaxed look.

"I planned to tilt the gardens at angles. That way, I could see much better what the next step should be."
—JILL KUCHENBERG, *ARCHITECT*

FRAME A VIEW

A frame is a simple way to create a vista. Here, a sequence of framing elements extends past the porch which is covered with outdoor decking. Framing more of yellow-blossomed butterfly bush lead to pairs of weigeeas shrubs. Then trees. The thought also provides a sense of depth. A large garden can be managed best by framing with plants, trees, and shrubs. A large garden can be managed best by framing with plants, trees, and shrubs. A large garden can be managed best by framing with plants, trees, and shrubs.

8

FOCUS ON FOLIAGE AS MUCH AS FLOWERS

It's something some like the idea of the garden full of plants. Foliage plants can be used as a backdrop for other plants. They can be used as a backdrop for other plants. They can be used as a backdrop for other plants. They can be used as a backdrop for other plants.

REPEAT PLANTS FOR BALANCE AND UNITY

Repeating the same or similar plants within a garden can give it a cohesive look. Repeating plants can give it a cohesive look. Repeating plants can give it a cohesive look. Repeating plants can give it a cohesive look.

9



MARK THE EXITS

High-planting flowers and shrubs can mark the exits of a garden. High-planting flowers and shrubs can mark the exits of a garden. High-planting flowers and shrubs can mark the exits of a garden. High-planting flowers and shrubs can mark the exits of a garden.

Soak more tips

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Is your pro a con?

As the weather warms and home-improvement projects begin, renovation rip-off artists come knocking. Here's what you need to know to see through their scams.

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By Art Pope, Contributor
PHOTOGRAPH BY TONYA BRONKHORST

Each spring, along with the tulips and snow crocuses, comes a more disturbing rite of the season. That's when thousands of homeowners are conned by contractors into paying for improvement projects that never see the light of day—or are so delayed that they never should. As the mercury rises, so do complaints to consumer-affairs offices and attorneys. In Illinois, for example, more than 3,000 cases of home-repair fraud are reported annually. Louisiana leads, 500 complaints a month. Some scams have been around so long, it's a wonder that anyone still falls for them. Who hasn't been warned to beware of a leadball bid or never to call a check for work that hasn't been done yet? But even seemingly savvy homeowners can get snared in so unscrupulous contractor's net. So, in the belief that homeowners are lessened, an actual consumer advocate—home inspectors and trusted builders (you know, the ones you call to fix the messes that the other guys make)—to tell at about the most common con-men they see and share their advice on how to avoid falling victim to one of these scams.





**11 modules
+ 8 flatbeds
+ 3 days =**

1 custom-built house

Modular: used to be code for small, cheap, and boring.

Not anymore. Today's factory-built housing is designed as well, looks every bit as good, and uses **the same quality methods and materials** as houses built one stud at a time.

Plus, it often costs less. Here's a look at how this house went from the factory to home sweet home.

From house to beautiful, 1920 the foundation project and ready a crane lifts spirals each module 17x21.1077 cubic yards ready a pile 17x21.1077. It took over long day for the 12 hours that made up this house to be put together. Thousands a few months of work with 17x21.1077. And the future on the side. When it was all over, three boys was transformed into a beautiful elegant 4000 square foot 17x21.1077 style house.



BY JOE CARTER
PHOTOGRAPHS BY JOHN GREEN

MY HOUSE ARRIVED AT AROUND 5:00 A.M. on a cool March night. The scene at the job site was mildly chaotic: diesel tractors hauling long materials, flashing lights, beeping back-up signals, workers shouting, floodlights throwing long shadows across a hodgepodge of large beams. There were 13 boxes in all, some of them 45 feet long, and, come to think of it, they were going to be assembled into one continuous box—a brand-new modular house.

I had been preparing for this day for months, meeting with my partner in the project, architect Michael Stern, arranging for the excavations, foundation, and concrete pour for the footings and foundation, selecting the factory to build the boxes, and finding a contractor who could handle the “me,” or basic assembly, that would have the tractors up (if not running) in just two or three days.

Along the way, I got a crash course in the benefits and pitfalls of building modular. I also learned how far factory housing has come from the tacky, tacky boxes of the past. Modular shouldn’t

“When I went inside a custom modular for the first time, I said, ‘Oh my God. Why am I stick-building?’ In five days, that house can be up and watertight.” —BRYAN DEAN, BUILDER

even now compete at the highest levels of an industry dominated by traditional “stick,” or on-site, building. No longer tethered to their own limited profiles of unimaginative designs and quality floor plans, they’re willing to build just about anything you can envision, whether it’s 8 boxes for a 3,000-square-foot Colonial or 30 boxes for a grand manor. The houses are done in as little as a week. At a 4,000-square-foot Single-style, it was custom built from one blueprint, with the details and finishes as specified. The styles are all but indistinguishable in quality as well as style—from a house built one stud at a time.

MADE-TO-ORDER MODULAR

“When I went inside a custom modular for the first time, I said, ‘Oh my God, why am I stick building?’” says Brian Dean, owner of Bryan & Brian Construction in Redding, Connecticut, and a modular builder who’s been assembling and finishing boxes for more than 13 years. “These houses are built inside a controlled environment and error-free a day or so earlier in five days, that house can be up and watertight.”

Things move so quickly, in part because the boxes are delivered so fully finished. A modular factory is the house-building equivalent of a Do it yourself store. Floors, walls, ceiling panels, and roof sections are all built with forms that keep everything precise, square, and flat. Openings for windows, doors, and stairs are framed just as they would be in a job site. Toward the end of the line, all the big pieces are hoisted into place and joined to form the boxes. Then come windows and doors, wiring and plumbing, insulation and drywall. You can outfit the interior with your choice of cross, herring, tile, or bamboo, and plumbing and lighting fixtures. The finished boxes are wrapped in plastic and taken on a one-way yard to await delivery day, where they’re loaded onto flatbeds and headed to three destinations. A crane tracks them in place,

online
modularstore

For a look at how modular is helping solve a home shortage, go to modularstore.com/builders



From the factory.

1. Each modular starts as a set of interior and exterior walls built on broad platforms and then moved down the assembly line to be joined with the floor and ceiling structures.
2. After the walls are installed, wiring, electrical boxes, and plumbing lines are brought in and assembled in process into exterior walls. Then the drywall can be leveled by glass, laser, and sand.
3. Roof structures can be built to their full upright design for use as transportation, rather than as a “hinged” roof that would be built height after being in place in the house.
4. A finished module, complete with windows, doors, and interior partitions, is set on a flatbed trailer and hauled outside for the storage yard for final delivery day.
5. With the modules for the house now being fabricated, the foundation and basement were being installed at the job site. Once delivered, the boxes are hoisted by crane and put in place. Then added to the foundation and to one another.
6. The guest room line is above the dining room on its way to being set. Each modular has its own floor and ceiling structures, resulting in “double” framing between the first and second floors for greater strength and reduced floor transmission.
7. One half of the house’s program is now fully turned onto the garage which was turned on via because of architect’s complicated construction to the main part of the house. Since the garage is a finished, livable area, the factory installed under the physical floor.
8. Next all modules are joined. After the big roof and sections were installed and braced, this wall section was cut in place to complete a gable and.
9. Metal strips are attached to connect the modular boxes and are later hidden behind a drywall joint.
10. Boxes are cut sections from the factory already shingled and need only patching to complete the job.
11. When all the boxes are in place, a modular house is built in a matter of days that has a finished interior and exterior. This house has a pre-installed shingles for good looks with minimal maintenance.

PHOTOS COURTESY OF MODULAR STORE



Finishing touches The living room (ABOVE) boasts a traditional stone fireplace, which was built after the module was put in place. Cabinets for the kitchen (RIGHT) were installed in the factory, ready for the owner's linens, the breakfast bar and children's dining table, and bar stools.

and a "wet crew" bolts them together and seals the roof. "It becomes a flurry of work—hooking up electrical, plumbing, and HVAC systems, painting, putting in the insulation, whatever it would be external from the factory."

Building for transport has its perks. "If you're going to ship the house 400 to 500 miles on a flatbed, it's going to be built a little different," says Steve Ellis, chairman of the National Modular Building Council, whose members delivered some 40,000 houses last year. For example, drywall is both flammable and bonded to studs and joists. Fireplaces are industrial-grade liners, so some places screw venting of studs. In addition, each box has its own floor and ceiling structures, which results in double framing between floors for greater strength and less sound transmission.

If You're Thinking About Going Modular

Modular may be a different construction technique, but finding the factory to build the house and the contractor to assemble them requires the same due diligence that you'd bring to any construction project. "You want someone who does this day in, day out," says modular contractor Brian Dean. "Plus you've got to feel comfortable with the guy you're going to be working with for months."

You can often find a factory through a home contractor who does modular construction. Or if you've found a factory you like, ask for a contractor referral. In a few cases, the factory handles everything, including fabrication and field, but most only build and ship the boxes. Invoicing the rest to the contractor.

For more information, contact the National Modular Housing Council (modularcouncil.org) or the NAHB's Modular Building Systems Council (nabhc.org).

Because the modular transport highways, they can only be so large. In America's wide-open spaces, they can be up to 18 feet wide, 17 feet high, and 90 feet long—and that's a piece of a single log house. In more urban areas, overpasses and narrower roads reduce the maximum width to 14 feet, ceiling height to 9 feet, and overall length to 60 feet, which is still quite ample. In the town of Norwell, Connecticut, we were able to have a 5-foot ceiling on the first floor but only 4 feet on the second because the floor beams also carry the roof structure (it's all about getting under bridges). A modular builder will be able to tell you whether you'll have a problem securing your use or accommodating the house once they're delivered. Sometimes, unavoidable delivery problems alone can force a project onto site building.

INSIDE THE BOXES

Some sections of a house rilling down the road might make you think that the rooms aren't finished-shaped on the inside. Not so. In fact, modular designs can yield generous interior space. Getting beyond that 14- or even 18-foot limit is simply a matter of specifying that finish leaders be built into the joints to preserve a flat ceiling where beams are set wide by side. The great room at the house we built, for instance, is two-houses wide, or about 34 feet.

Roof gables can be strong, bank for aesthetics and to make room inside for a finished attic, which is a pretty relatively low-cost living space. Factories also routinely make shed and gable dormers to increase top-floor space and headroom. Here we chose a small box, such as one containing a two-bay window, can be attached to a large one to produce a more interesting, unbalanced facade. "There is as really as options limitations on what a modular can be," says architect Michael Serris.

When modular does meet its limits is with curved shapes and interior spaces that are two stories tall, or when the structural geometry simply get too extreme. Sophisticated software lets modular designers solve pretty gnarly structural problems, but some point-to-point framing becomes not practical. And moving in a little conventional building isn't entirely sacrosanct. In ours, for example, it was easier to frame the two-car garage on-site and plug a modular box on top of it. Porches, decks, and breezeways are also commonly built on-site.

When it comes to choosing things like windows, doors, and cabinets, a factory may be aligned with a manufacturer or two, or it may be willing to install whatever brand you want. The same goes for trim, lighting and plumbing fixtures, even tile and appliances.

You'll likely get a better deal if you go with factory-supplied appliances instead of buying them yourself, most builders offer a few options, or at least quality levels.

Some finish elements may be left off the order sheet. Leaving off the siding is common for all but the simplest designs, because filling in the scene where beams meet could never be done with wood shingles or clapboard in place. Hardwood flooring can't be installed in the factory because of the need to make accurate transitions between boxes (however, however, can be almost instantly on-site). Ceiling with crown and tile is simply a call based on whether the factory offers the style or quality levels you want. The risk isn't great and after the house is on, though, that's one item that might not survive the road trip.

MODULAR TIME, MODULAR MONEY

All other factors being roughly equal, the main reason for going modular is that it's going to cost less. A big part of the potential savings comes in the form of time. Simply put, while site work—clearing, excavating, footing, foundation—under way, the house

is already being built. If everything's properly ordered and sequenced, the house could be delivered right after the contractors. "The factory I use takes about 12 weeks from order to shipping," says Dean. "Then, depending on the size of the house, I need 10 to 20 weeks to finish it. For a 4,000-square-foot house, it's 10 weeks."

The schedule for a one-built equivalent could be four or more months longer, since it takes to frame, shear, roof, plaster, wire, insulate, and drywall. Saving that kind of time will certainly save some kind of money, mostly on the amount cost of the contractor team and the cost of covering your current home or renting temporary digs. Whether the house itself will be cheaper than the one-built equivalent depends on local contractor costs. The only way to be sure is to get quotes from both sides of the equation. From a modular builder, you should get a price not only for the house but also for the delivery and the cost, both of which will total thousands of dollars. For that 4,000-square-foot house, says Dean, delivery alone would be about \$27,000, and the site would cost about \$12,000.

Paying \$40,000 just to get a house to its final destination does not necessarily make modular any more expensive than building

on-site. Having complicated prep work (such as having to carve land level out of a slope) or through the roof and finish materials and products, it's safe to say that a strictly one-built modular can come in at \$200 a square foot or less—a lot less if the design is relatively simple. Here in Fairfield County, a fraction of high-end housing, custom stick-building, recently costs \$300 per square foot.

When our house was finally done, wrapped, oiled, and shingled and furnished, we were, with all due is, sold, good-looking, energy-efficient, and very livable. Since that was a house built on the mold, we got immediate feedback from brokers and house hunters. The floor plan was "innovative," well-laid, with a nice flow from room to room. In the end, it took 11 months from shipping our blueprints to the factory to getting a conventional occupancy permit from town's building department—about as long as it would have taken to build, and a good one month longer than we'd planned. Most of the delay was due to code changes, like not having the blueprints absolutely final. Our design tweaks kept the house off the assembly line for at least three months.

Would I build modular again? You bet. When we added up the advantages—factory-controlled construction quality, a closed-up house in a half of a day, costs that equaled or beat those of stick-building, and the ability to construct a one-of-a-kind design—buying a house made from big and little boxes made a whole lot of sense. ■

The Many Moods of Prefab

There was a time when prefab, you built to settle for what the factory offered. While plain, two-box centers still attract buyers, the real growth in the market is in custom designs, says Connecticut-based architect Douglas Cutler, who has specialized in modular construction for 30 years. About any sort of house you want. The waterfront Georgian (TOP LEFT) is made from eight modules; the house was assembled on the mainland and forced to be built by long. Other faces of modular (CLOCKWISE FROM TOP RIGHT): A seven-module, 4,000-square-foot St. James-style Levittown; a 3,200-square-foot Cape Cod from builder Patriot Homes; Cutler's own contemporary-style residence



TOP LEFT: CUTLER'S WATERFRONT GEORGIAN; TOP RIGHT: A SEVEN-MODULE, 4,000-SQUARE-FOOT ST. JAMES-STYLE LEVITTOWN; BOTTOM LEFT: A MODERN HOUSE WITH LARGE WINDOWS; BOTTOM RIGHT: A MODERN HOUSE WITH LARGE WINDOWS.



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FAMILY PROJECT

PROJECT: Building a Toy Chest

How to make handy storage for games and gizmos, with instructions for parents and kids

By Cheryle Fiedler Photographs by Wendell T. Webber

AGE RANGE > 7 and up
COST > \$95

TIME > 5 hours

DIFFICULTY > Easy to moderate. Fitting the parts together takes a little extra patience.

COMPLETE INSTRUCTIONS #3482 →



OPEN UP A TOY BOX and a child's imagination takes flight, especially if the box itself is part of the fun. This toy chest looks like a barn, designed to make even a city dweller feel a little bit country. An extra bonus? With wheels on the bottom and special safety hinges, it's easier than ever for kids

to round up their toys when playtime is over.

You can make this toy chest in an afternoon with tools on hand and materials available at the home center. Kids can handle most of the work, which includes measuring, nailing, sanding, and painting, while adults need to help out with sawing and clamping. Once they're finished putting it together, kids will be scrambling for cleanup time.

SAFETY FIRST

Teach kids good workshop habits from the start. Here are a few guidelines for the tools used in this project:



HAND TOOLS

Gluing and nailing are great ways for kids of all ages to get involved, as are measuring and painting.



POWER TOOLS

Jigsaws are better off in adult hands, but kids 7 and up should be able to use a drill and a random-orbit sander or countersink nails with a parent's guidance.



GEAR

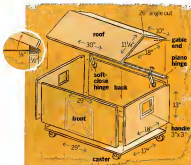
Keep sleeves away from power tools. Whenever the jigsaw is on, safety glasses are a must.

Project design by Edward Polesak

1

Lay out the parts

➤ Using a tape measure and a straightedge, lay out the nine individual pieces of the toy chest on a half-sheet of $\frac{3}{8}$ -inch birch plywood: front, back, two sides, bottom, two roof sections, and two gable ends.



TOOLS YOU'LL NEED➤

- Tape measure
- Combination square
- Framing square or straightedge
- Spring clamps
- Safety glasses
- Jigsaw or circular saw
- Random-orbit sander
- 36-inch bar clamp
- Hammer and nailset
- Drill/driver fitted with $\frac{1}{4}$ -inch bit
- Putty knife
- Small paint rollers and brush
- Hand screwdriver

MATERIALS TO BUY➤

- 4-by-8-foot piece of $\frac{3}{8}$ -inch birch plywood
- 120-grit sandpaper
- Stainable wood glue
- 4d finish nails
- Stainable wood putty
- Four 2-inch casters
- Satin-finish latex paint, in red, white, and silver
- Painter's tape
- 36-inch piano hinge
- 2 pneumatic soft-close hinges



MAKE IT EASY

Get expanded step-by-step instructions and download full-size templates for this and other family projects at thisoldhouse.com/family



2

Cut out the parts

> Clamp the plywood to a worktable. Using a jigsaw or circular saw, cut the front, back, two sides, and the bottom piece.

> To make the roof pieces, set the saw blade at a 26-degree angle. Cut one long edge of each roof piece at that angle; together they will form the peak. Cut all the other edges

with the blade set straight at 0 degrees.

> On each side piece, mark out a 3-by-3-inch square for the handle. Drill 1/4-inch holes inside the four corners of each square to fit a jigsaw blade. Using a jigsaw, cut out both squares.

> Clamp the pieces to the worktable and sand them with 120-grit sandpaper on a random-orbit sander.

TO PARENTS:
Jigsaws and sanders can send dust or splinters flying. Be sure everyone wears safety glasses.

3

Assemble the box

> Put a thin bead of wood glue at the lower edges of the front, back, and two side pieces, then stand them up around the bottom piece. Let the sides overlap the front and back and make sure their notched corners line up with the back.

Wipe up excess glue with a damp rag.

> Hold the box together with bar clamps. Nail along all the edges with 4d finish nails every 6 to 8 inches.



HEY KIDS!

Practice your nailing skills. To sink a nail straight, aim for the place you want it to end up.

Think About It

TWO WARRANTIES ENTER THE RING, ONE WARRANTY LEAVES.

It's gonna be a long night for one of these warranties. Guess which one:

In this corner, the typical 5-year/60,000-mile powertrain warranty from the typical car company.* In the other corner, Hyundai's towering 10-year/100,000-mile powertrain coverage—more than BMW, Honda, or Toyota.

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> **CONTINUED** at ThinkAboutIt.com

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4

Build the roof

> Stand the triangular gable ends on edge and clamp them on top of each side of the toy chest. Use scrap wood to bridge the seam and brace them; face the notched ends to the back.

This will ensure that the assembled roof is straight.

> Glue and nail the front and back sections of the roof onto the gable ends, orienting them so the angled edges meet at the peak.

5

Add the finishing touches

> Using a hammer and nailset, sink all nails below the surface and fill the holes with putty. Sand the putty when dry.

> Screw casters on the bottom.

> Using rollers and brushes, paint the roof silver and the base red. Let it dry.

> Mark off the front door, corners, and frames around the handles with painter's tape, then paint them white.

> Line up the piano hinge on the top back edge of the base and screw it down, then screw it to the roof. Attach the pneumatic hinges. Now fill your toy chest with your favorite toys.



HEY KIDS!

Did you know that red barns became fashionable hundreds of years ago when farmers started adding rust to the paint to keep mold and moss from growing on the wood siding?

DIY Toys

Now that your kids have the coolest toy chest around, why not make some toys to go inside it? If you feel comfortable with a jigsaw—or better yet, if you have a scroll saw—then you can easily cut up the scraps left over from the toy chest to make these simple items.

OLD-FASHIONED PULL TOY

Cut out your favorite animal shape, then attach some wooden toy wheels (you can find some at rockler.com), tie on a string, and you've got a toy that will keep a toddler busy for hours.



SPINNING TOP

You don't need a lathe to turn a top—just cut out some circles of different sizes and stack them to make the top shape. Screw on a handle and use a blunt nail to make the point at the bottom, then twirl away.



JIGSAW PUZZLE

Take apart your favorite picture, then put it back together for loads of fun. Print out an image—maybe a beach, or a horse, or your family portrait—then use mounting spray to glue it to a piece of plywood. Cut it up into interlocking shapes, then challenge the family to reassemble it.



ONLINE BONUS Watch a video of building this toy chest—along with other family projects—at thisoldhouse.com/family

Think About It

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The final step in spring cleaning a deck is to give it a coat of penetrating stain. Seal with the stain. The stain will protect the wood for about three years, depending on sun exposure.

Spring Cleaning for the Deck

Our 19-year-old cedar deck has no finish on it and is looking gray and dingy. Last summer, my wife managed to scrub off the dirt but not the gray. Now it's my turn. What should I do this year?

JEFF DEBARIAN, BROOKLYN, COLO.

Kevin O'Connor replies: According to Ted Baker, senior regional representative for the Western Red Cedar Lumber Association, you'll have to clean it again, then seal it to protect it from gray. He recommends doing your cleaning early in the spring when the weather is cool, because washing a deck in summer heat puts a lot of stress on the wood. "You may not want to be out there with a hose when it's cold, but that's absolutely the best time to clean a deck."

He recommends using an oxygenated bleach cleaner, like the Moxie, once when

diluted with water, as you brush on the seal. He also cautions against using a power washer, for the same reason. A soft scrub brush works fine. Before you start, see the cleaner's strength instructions on the can. It should tell the milage and remove the dirt in 10 to 15 minutes. If it takes longer than 15 minutes, the can is too weak, if it takes less than 10 minutes, the can is too strong.

You can sand the cedar when it's dry. For this project, Ted Baker would want a fine-hand sander or a sander with 80-grit paper and use a hand-held random-orbit sander along the edges. (Standing pressure-treated wood requires taking special precautions, for guidelines, go to thisoldhouse.com/learnmore.)

Before you start, make sure every exposed screw is tightened or safely below the wood surface. Sand lightly, and stop as soon as the gray is gone. Vacuum up all the sanding dust, then apply a sealer to the wood, which should protect the wood for about three years, depending on sun exposure.

Tub Drain Fix

The mechanism that lets an air and water-out tub drain is no longer connected to the lever. Is there a way to repair this without replacing the tub? Fortunately, I can get to the drain through an access door in the wall.

LARRY KAGANOW, SAN MATEO, CALIF.

Richard Delaney replies: When you are describing an air and water-out drain, which allows you to open and close the drain with a lever. Moving the lever raises and lowers a stopper,

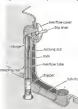


Q: WHAT IS IT?

- A. Wood stopper
- B. Marking tool for drainage tubes
- C. Frame-screwing point tool
- D. Or...

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Trap lever tub drain (cross-section)



which opens or blocks the drain passage.

It's definitely possible to get it working again, and that means doing some work in the tub. First, put a towel over the tubdown to capture any small parts you might drop, then remove the screen blocking the overflow cover to the tub. Then see if you can pull the rod and stopper out through the overflow drain opening. If the rod has come unhooked, you may have luck cranking it with a flexible pick-up rod and attaching the stopper with its spring-loaded claws.

If you can't retrieve the stopper through the overflow, open the access door and disconnect the drain tube by unscrewing the coupling nut and then carefully unscrewing the overflow tube from the overflow fitting. Clean any parts you can reuse and replace the rest with new parts. But back the tube, slip the assembly back through the opening, making sure the rod isn't snagged, and reconnect the trip lever and cover to the tub wall.



ONLINE VIDEO

Watch This Old House plumbing and heating expert Richard Delaney pull a stopper from a leaking bathtub and show the way to fix it.

To use if the stopper works, raise the lever and put some water in the tub. If the water drains out, pull out the linkage that connects the lever with the threaded rod and give the rod a few counterclockwise turns so the stopper will go deeper into the drain opening. When the stopper is adjusted properly, it may take a few minutes to get the rod's locking nut and put everything back in place.

Garage Door Gap

There is a gap under my garage door on one side. How do I get rid of it?

FRANKLIN, MASSACHUSETTS

Tom Silva replies: Sometimes gaps appear when we're closing a garage door, possibly, but your garage looks in good shape. I think the slab has moved, and you can't do much to fix that, so instead you'll have to work on the door. Heavy weatherstripping nailed to the bottom of the door can close small gaps. In your case, the solution is to cut the door's bottom rail to fit the sloping slab.

To do this, close the door and set a compass to span the gap in its widest point. If the gap is 1/4 inch or less, scribe the shape of the slab to



A gap of less than 1/4 inch between a garage door and the floor is a sign of a problem with the door's bottom edge.

the door's bottom rail by cutting the portion of the compass with the pencil against the door. Keep the pencil of both legs aligned vertically as you go. Now open the door so a comfortable working height and cut along the scribe line with a jig saw. Trim and square the fit, then sand and seal any bare wood with paint and apply the weatherstripping.

If the gap is more than 1/4 inch, you might be able to add a strip of wood to the bottom

of the door and scribe that to fit the slab. But before you try that, call a contractor to see if the door track is locking. In a worst case, you will have to be adapted, a job best left to a pro.

Adding Window Grillwork

We can't add new windows but want to dress up the old ones. I'd like to add a grille to the three picture windows at my house so it looks like they have shutters. Is this something I can do myself?

ANNE VALLI, WEST BATH, MAINE



Tom Silva replies: This depends on your woodworking skills and how much you want to spend. Here are a couple ways to go.

The simplest method is to use squares or rectangular stock thin enough to butt inside square, coped edges of the sash. When the horizontal and vertical pieces cross, you'll need to cut half-lap joints using a table saw lined with a dado blade, or a router lined with a dado bit. The joinery itself is not particularly difficult; the funnest part is turning the depth and width of the cut so the pieces lap perfectly. Work with scrap stock and keep adjusting the cut until you get it right. Secure the finished lap joints with a dab of wood-working glue and then weigh each one down until the glue sets. Be sure the assembly stays square and flat while the glue dries.

The professional approach is more difficult and more expensive but will probably look better. You'd need to buy or craft stock with a profile similar to the one around the inside edge of the sash. Then the ends of each piece

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WORKSHOP

Norm's Notebook

MASTER CARPENTER NORM ARMSTRONG'S TECHNIQUES FOR WORK GLOVES FEATURED IN TOOLBOX 24

WORK GLOVES

Frankly, I always feel I have better control over my tools without gloves. So most of the time I work bare-handed. Even when I was a contractor I rarely bothered with them because they got in the way of picking up or holding like I mean like nails and screws. Besides, I had such values on my hands back then that I didn't want to bother. There were a few exceptions. Come winter I used waterproof work gloves to scrape ice off lumber and insulated gloves for handle metal—power tools, otherwise getting freezing fingers—which just sucks the heart right out of bone fingers. At any time of year I put on nitrile gloves when doing demolition, especially when dealing with sharp edged metal bits or heavy fast insulation. I still don't feel comfortable tearing up a wall apart without those gloves on both hands.



Sometimes I'll only wear one glove, usually wearing left hand, so I have full control with my right. To level knurled metal I'll use a chisel with rubber gloves for a secure grip. If after practice and then the metal's sharp edges.



Throwaway Gloves

When I'm applying stain, I wear a pair of disposable latex gloves to keep my clothes from getting sticky along with the wood. I'll also slip on a pair of nitrile rubber gloves—or latex in a pinch—when working with paint or oil on my car's body panels, or the lawnmower. That way my hands stay slick and I don't come inside smelling like a gas station. While I appreciate the clarity these throw gloves provide, I still feel that I have a degree of control. Frankly, I don't know how surprised you'd be.

NORM'S TIP

I never wear gloves when using most power tools, especially saws, chisels, and routers. A glove, like loose clothing, can snag on a spinning bit or blade and pull your hand in after it.

Chemical Combat

Latex is great for stopping stain, polyurethane glue, and spacers from reaching the skin. But it doesn't offer much protection against harsher chemicals. For those, look at nitrile gloves. These are the gloves to wear. Nitrile gloves are also good for: Liquid fertilizers or pesticides, Nitrile gloves, Acetone, Ethyl gloves, Hydrochloric acid, many very cleaners and concrete etchers, Acids or basepines gloves.



I'll put on a medium weight chisel glove to feel the texture of a saw chisel. But I always take it off when using the saw so I have maximum control.

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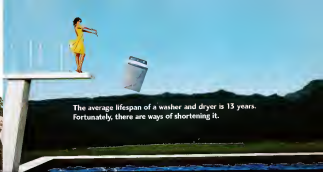
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