SEPTEMBER 1999

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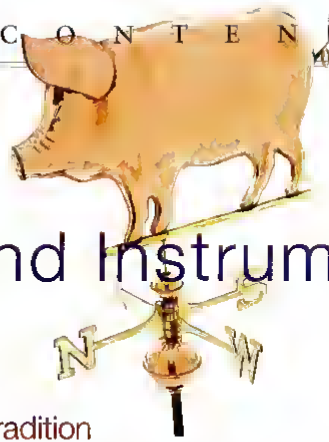

Peak chic. A stylish weather vane shouts your own message from the rooftops
BY JOSEPH D'AGNESE
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Wind Instruments

features

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DONE IN A DAY P. 124

cover Behind their recently restored Ipswich, Massachusetts, farmhouse, Charles "Chubb" Whitten and Jane Alaimo give their Labrador Whitley a workout. A year and a half ago, the circa-1720 saltbox was a burnt-out shell that even T O H master carpenter Norm Abram cons dered a goner. See "Back Together Again," p. 99. PHOTOGRAPH BY ERIC ROTH. INSET: Framing progresses on the Billerica project, p. 82. PHOTOGRAPH BY MICHAEL GRIMM

PHOTOS TOP: JAMES WORRELL; BOTTOM, FROM LEFT: BRUCE WELLER; ERIC ROTH; KOLIN SMITH

{Continued on page 10}

dinner for 37, chez marcella: $2,416

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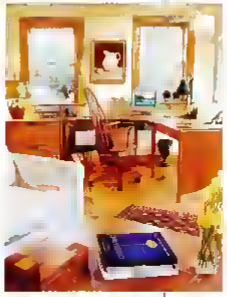
KILLER PILLAR, P. 68

C O N T E N T S

"I would never replace an old column if I could repair it."
—*Norm Abram*

departments



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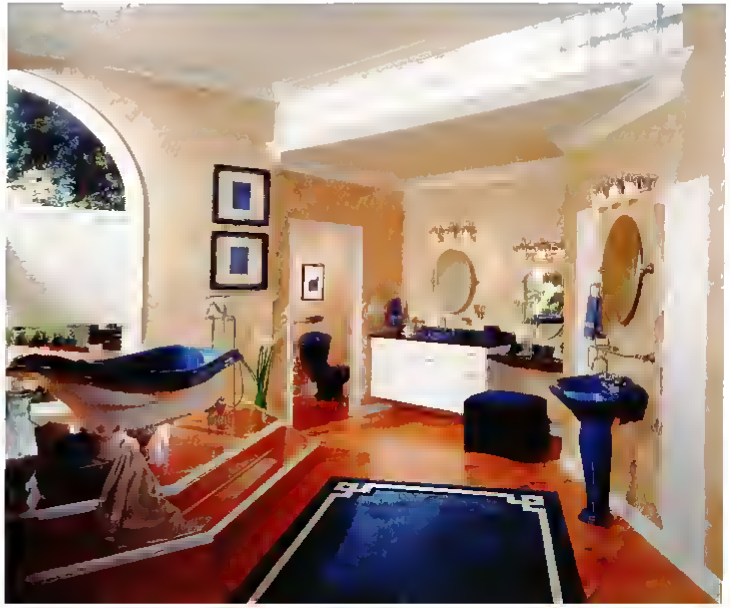
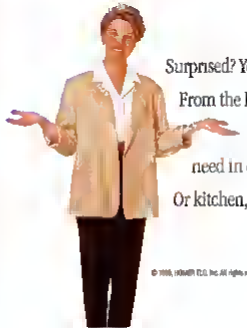
plus

PHOTOS: CLOCKWISE FROM TOP LEFT: ROLAN SMITH; GREY CRAWFORD/BEATE WEIHRS; TOM WOLF; ILLUSTRATION BY JACK UNRUH



"Home Depot? Who would've dreamed it?"

Lynette Jennings



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JIM MORRISON's ["Thatched Roof Cottage," page 126] stock in trade includes celebrity profiles, environmental pieces, and what he calls "gee-whiz tech stories," but he especially enjoys writing articles about "people who make things," such as this month's "Craftsman" feature on William Cahill, an Irish thatcher who has brought his roofing wizardry to the States. "Through watching someone practice his craft, you often learn a lot about the person himself," he says. Morrison, who lives in Norfolk, Virginia, has written for *Smithsonian*, *American Way*, and *George* magazines, as well as the *New York Times*.

CHRISTOPHER DALLMUS is an unusual contributor, being neither writer, photographer, nor illustrator. But as principal architect in charge of the Billerica project (page 82), he's having an impact on magazine coverage of the house. Dallmus is president of Design Associates, a firm that (among other things) marries contemporary lifestyles with 18th- and 19th-century architectural traditions. For the Billerica house, he found a modest village Victorian archetype that had been used for worker housing near Boston throughout the 1800s. Says Dallmus, "We've taken that 19th century model and let it evolve to reflect the Silvas' personal style," using the most modern methods and materials available. Despite its visual sense of history, the house is truly a home for the next century.

ANDRÉ BARANOWSKI's photography of interiors, gardens, food, and people has often graced the pages of *T O H* magazine. Besides creating the image in this month's "American Craftsman," he shot the book-lined living room July/August cover and the stonework in June's "American Craftsman." He especially enjoys "lifestyle" assignments, in which he uses his art form to place things in a larger context. "Creating a great sense of place is the most important thing to me." Baranowski himself has always known his place. He decided to become a professional photographer at age 21, when he had his first exhibition in his hometown of Wroclaw, Poland. Although he's now based in New York, his assignments take him everywhere—from Paris to San Francisco.

—Nicole Galland

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Sustainable Species

I enjoyed Brad Lemley's article ["Cherry, Norm's Favorite Wood," January/February 1999]. As an amateur woodworker and forester living in the heart of black cherry country, I share Norm's preference. Furniture maker Thomas Moser expresses his concern for the overharvesting of black cherry. As Moser points out, the best cherry comes from the Allegheny Plateau in northwestern Pennsylvania. The Allegheny National Forest manages 513,000 acres of this resource. The Pennsylvania Bureau of Forestry and the Pennsylvania Game Commission also manage many thousands of acres on the Plateau. All three agencies employ professional foresters to practice multiple-use, sustainable forestry. Management by these organizations have produced healthy, vibrant, productive ecosystems. These forests now support a vast diversity of tree species and tree stand ages, as well as a diverse array of wildlife species. In 1997, the Allegheny National Forest reported timber was harvested from 4,578 acres. That is only .9 percent of the Allegheny National Forest Land. This hardly suggests overharvesting of the resource.

RUSSELL S. WALTERS, PH.D.
FERNCLIFF FORESTRY SERVICES, RUSSELL, PA.

Close to Home

I was pleasantly surprised to read "A Stroll Through Madison Heights" [June 1999]. My wife and I moved to within a stone's throw of Madison Heights last September and love our 1938 "modern" home, which sits on a rise ten feet above street level. I'm an avid viewer of *This Old House* and have subscribed to your magazine for two years. The show and articles have made me appreciate older homes and neighborhoods, and have also inspired me to become a pretty handy home-improvement guy.

JOHN LANDSTROM, EAGLE ROCK, CALIF.

What's in a Name

Regarding the attempts to nickname Tom Silva ["Cover Ups" "Outtakes," April 1999], I agree with your final suggestion. Through many years as a faithful viewer of *This Old House*, I have always seen Tom as the enduring cuddly stud muffin, so "Muffin Man" seems very apropos.

SYLVIA WOOD, DELRAY BEACH, FLA.

punch list

definition, a list of items incorrectly done or remaining to be finished on a construction job

June 1999

- In "Rescuing the Ranch," on page 60, the "Want to Volunteer?" sidebar did not mention volunteer opportunities through Amizade, a nonprofit organization dedicated to promoting volunteerism. Amizade, Ltd., 7612 N. Rogers Ave., 3rd floor, Chicago, Ill. 60626; 888 973-4443; www.amizade.org.

July/August 1999

- The correct price for Benjamin Moore's Moorwhite alkyd exterior primer 100 is $32.99 per gallon. (Directory, page 134)

Address mail to: Letters, *This Old House* magazine, 1185 Avenue of the Americas, New York, NY 10036. Please include your full name, address, and daytime phone number. Published letters will be edited for clarity and length and may be used in other media.

OUTTAKES

BEHIND THE SCENES AT *THIS OLD HOUSE*

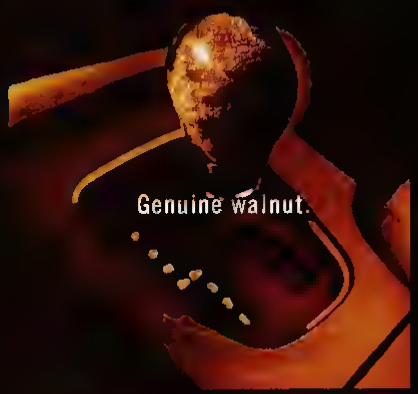
In his quonset-hut-turned-carbarn, Dick Silva keeps his late-1931 Ford Model A (right) as well as a friend's restored 1928 Model A flathed (left)

PHOTO: JIM YUHAS

A SPARE IN BACK

THE FIRE THAT RIPPED THROUGH DICK SILVA'S HOME IN BILLERICA, MASSACHUSETTS, DESTROYED VIRTUALLY ALL OF HIS POSSESSIONS, BUT THE MOST PRIZED ONE ESCAPED DAMAGE: HIS LOVINGLY RESTORED LATE-1931 MODEL A ROADSTER, WHICH WAS HOUSED IN A DETACHED GARAGE. A CAR BUFF SINCE CHILDHOOD, DICK SPENT A YEAR REBUILDING THE OLD FORD FROM THE CHASSIS UP. "NOW I'M JUST WAITING FOR THE WING WINDOWS TO COME IN. I'M HAVING THEM ETCHED WITH BUTTERFLIES AND LADYBUGS," HE SAYS. HE'D PLANNED TO DRIVE THE FOUR-CYLINDER, 45-HORSEPOWER CLASSIC TO CAR SHOWS OVER THE SUMMER, BUT BUILDING HIS NEW HOME—*THIS OLD HOUSE*'S FALL TELEVISION PROJECT (SEE STORY: P. 82)—TOOK PRECEDENCE. IN THE MEANTIME, HE'S GLAD TO HAVE AT LEAST ONE MATERIAL LINK TO HIS PAST: "I LIKE TO JUST COME OUT HERE AND LOOK AT IT."

Plush leather.



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Yeah, yeah, whatever.

LINCOLN LS

LINCOLN. AMERICAN LUXURY

Jonathan and Laurie Chess have repainted the porch of the This Old House *house—as it's known around New Orleans—to the marvelous mauve it was in '91.*

EVERYONE LOVED THE NEW MULBERRY COLOR OF THE MASTER BEDROOM IN *THIS OLD HOUSE*'S NEW ORLEANS PROJECT HOUSE—EVERYONE, IT TURNS OUT, EXCEPT THE HOME OWNERS. IN 1991, SHORTLY AFTER THE SHOW DECAMPED FROM THE SHOTGUN-STYLE HOUSE, ELVIS AND JEAN GOLDEN COVERED THE ROOM IN NAVY BLUE FLORAL WALLPAPER.

MUCH UNDO ABOUT N'AWLINS

WHEN SUBSEQUENT OWNERS MICHAEL AND JANET JAMES BOUGHT THE PROPERTY, THEY STRIPPED THE WALLPAPER, AND MADE THE ROOM SALMON COLORED. THE FRONT PORCH, PAINTED MAUVE DURING THE RENOVATION, ALSO RUBBED THE JAMESES THE WRONG WAY, SO THEY REDID IT IN STEEL GRAY. THEN, IN THE FALL OF 1997, LAURIE AND JONATHAN CHESS MOVED IN AND PUT AN END TO ALL THE MEDDLING. AVID *T.O.H.* WATCHERS, THEY HAD FALLEN IN LOVE WITH THE HOUSE—BUT ONLY AS IT WAS RECORDED FOR POSTERITY ON TELEVISION. "WE'RE DETERMINED TO RESTORE EVERYTHING TO THE WAY THE SHOW LEFT IT," SAYS LAURIE. "WE CONSTANTLY WATCH OLD EPISODES FOR POINTERS."

THE MERRY PRANKSTERS

Russ Morash was fuming. Tom Silva glowered. Shooting at the Billerica project house was at a standstill, and the light was fading. But This Old House *production coordinator Sara Kowalsky's car was blocking the driveway, and she couldn't get it to budge. "C'mon, Sara, move it! We need to clear this space for the next scene!" roared Russ. Steve Thomas offered to help the flustered Sara, so she hopped out and Steve hit the gas. That's when she noticed her front tires were spinning in space because the frame was propped up on cinder blocks. "Gotcha!" shouted the guys, and Sara commenced a world-class, deep crimson blush. Deep down, however, she was relieved. "It's a tradition to 'get' the production assistant," says Sara, who held that title for a year before her April promotion. "They've been warning me and warning me. It's good to have it over with. Now I feel like part of the club."*

TOP *Tom Silva digs a trench around the wheels of Sara Kowalsky's car.* BOTTOM *Russ Morash, Tom, and Steve confess to her.*

PHOTOS: RICK OLIVER (TOP); KELLER & KELLER (BOTTOM)

DOUBLE TROUBLE

Steve discovers his doppelganger in Ken Hughes

READERS MIGHT RECALL THAT, AMONG THE GUYS AT *THIS OLD HOUSE*, STEVE THOMAS IS AFFECTIONATELY KNOWN AS "LAWNBOY" SINCE HE APPEARED ON A COVER WITH LAWN, SHOVEL, AND MULCH. DESPITE HIS INITIAL PROTESTS, STEVE HAS APPARENTLY GROWN FOND OF THE MONIKER, EVEN REFERRING TO HIMSELF THAT WAY IN A RECENT EPISODE. SO HE WAS SURPRISED TO DISCOVER THAT KEN HUGHES, OWNER OF THIS MONTH'S "HOUSE CALLS" HOME, ALSO CLAIMS THAT APPELLATION. "DID YOU SEE HIS LICENSE PLATE?" STEVE STAMMERED WHEN HE CAUGHT SIGHT OF KEN'S CAR. "IT SAYS LWN BOY!" WAS THIS SOME WEIRD HOMAGE TO THE HOST OF *T.O.H* —OR A CHALLENGE TO HIS GRASS-GOD ALTER EGO? NEITHER, IT TURNS OUT. "I'VE BEEN CALLED 'LAWN BOY' SINCE I WAS A KID CUTTING YARDS FOR SPENDING MONEY," EXPLAINS KEN, OWNER OF A LANDSCAPING BUSINESS. "I DON'T MIND SHARING A NICKNAME WITH STEVE IF HE DOESN'T."

THE SHOOTER

Videographing *This Old House* takes a strong back, sangfroid, and a four-track brain. "I've got director Russ Morash talking into my left earpiece, the show audio in my right ear, and the video eyepiece in my right eye," says cameraman Steven "Dino" D'Onofrio. "And my left eye is watching my feet so I don't trip." The greatest challenge, however, is following the action seamlessly—from wide pan to close-up—with a handheld camera that weighs 27 pounds. "I love that the camera is part of the conversation," says Dino, 39, who joined the crew in January after a freelance videography career. He never forgets that his subjects are plumbers, electricians, and drywallers, whose last public performance might have been as a tree in their eighth-grade play. "It's easy for people to be overwhelmed by Mr. Big Camera in their face,' he says. "I always say, 'Just talk with Steve and ignore me.'"

PHOTOS: JOHN KERNICK (TOP); JOE VUTKINS (BOTTOM)

WHERE THE GUYS ARE IN SEPTEMBER

STEVE THOMAS

- *10, 11—Hearth USA store opening, Twinbrook Plaza, 1500 Rockville Pike, Rockville, MD, 301-984-1005, www.hearthusa.com*

TOM SILVA

- *11—Philadelphia Fall House and Garden Show, Valley Forge Convention Center, 1160 First Avenue, King of Prussia, PA, 610 354-8213*
- *18—Austin Fall House and Garden Show, Austin Convention Center, 500 East Caesar Chavez, Austin, TX, 512-476-5461*
- *25—Gulf Coast House and Garden Show, Mobile Convention Center, One South Water Street, Mobile, AL, 334-208 2100*

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ANTENNA DILEMMA

Our house is tagged by a large, ugly TV antenna that my wife and I don't need because we're cable subscribers. Does the thing at least offer us some protection by serving as a lightning rod? (A thin wire runs from the antenna to a ground rod.) Assuming I don't fall off the roof, is it safe for me to remove the antenna?

MICHAEL A. SPIELMAN, KENSINGTON, MD.

Assuming you don't fall off the roof? Michael, please don't assume any such thing (and I'm sure your wife agrees with me). Call in pros for this job, the experts who take antennas down are the same people who put them up, so check the Yellow Pages. If the arrival of cable has put the antenna guys out of business, try construction or demolition contractors. They'll have the skills, the gear, and, most important, the insurance for this job. Just make sure they do a thorough job of sealing every mounting hole, including those for the guy wires. And don't count on getting any lightning protection from an antenna. Rich Kithil, director of the National Lightning Safety Institute, says that there's a strong likelihood that even a disconnected antenna will lead lightning to your electrical system. He recommends removing the antenna and using surge protectors to safeguard expensive household appliances against lightning. Put one at the main circuit-breaker panel, one at each secondary panel, and, for good measure, one plug-in model at each TV, computer, and stereo system. These protectors are rated in joules; the more joules, the better the protection.

WATERLOOOEO

My husband and my father built a log house from a kit in 1990, and ever since we've had a lot of problems related to dampness, especially when the temperature falls below 40 degrees. We get mold and mildew on our outside walls and in our closets and cabinets. If furniture is up against a wall, we get mold there, too. Many of our clothes have been ruined and our windows are rotting. I've known others with log houses from the same company who have similar troubles, but the company has gone out of business. Do you have any suggestions?

SHEILA SIPPLE, MILESES, N.Y.

I guess we know why that company isn't in business anymore. It's possible the logs were green (not seasoned enough) when you built the house, but even green logs dry out eventually. Maybe moisture is getting into the house from another source, such as a damp basement or crawl space. Putting splash blocks under down spouts and grading the land next to the foundation will direct rainwater away from the foundation. If you have a block foundation, a coat of cementitious paint will help slow water seepage. Turn off humidifiers if you're using any, then make sure other sources of excess humidity, like dryers, stoves, and bathrooms, are well vented. Richard Trethewey tells me that the ultimate solution may be a heat recovery ventilator, which is used in the winter to bring in dry outside air and exhaust moist inside air with minimal heat loss. They are expensive and require ductwork, but given the extent of your problems, such a device may be worthwhile.

UNFIT PORCH

In the course of renovating our 1890 farmhouse, we have found many nonstandard construction methods. The most perplexing involves our front porch. About two-thirds of it is over our basement and the rest goes beyond the foundation wall. This encourages heat loss and rot, and lets water into the basement. We plan to replace the rotted porch floor with pressure-treated tongue-and-groove plywood covered with rubber roofing; the floor would be topped with pressure-treated tongue-and-groove boards. What do you think?

MIKE AND TRACI BRYANT, ORION TWP., MICH.

I've heard of some strange potches, but yours is a new one on me. It's as if your house was put on a foundation that was too big. The problem with your idea is that the "rubber" roofing, called EPDM, won't keep out water once you've nailed or screwed down the floor boards. There may be ways to get around this, but the simpler solution, it seems to me, is to go down into the basement and build a cement-block wall where the foundation should have been all along, underneath the front of the house. You'll have to waterproof the wall's outside face and dump clean, drainable fill into the space between the new foundation and the old one, but when it's all done, you can leave your porch as is and stop worrying about heat loss or water infiltration.

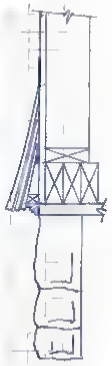
MYSTERY MUCK

After we stripped the wallpaper in our three 20-year-old bathrooms, we removed the glue, sanded the walls, and applied two coats of oil-based paint followed by two coats of latex enamel. Two of our bathrooms are fine, but the third oozes a mysterious substance that runs down the wall every time we take a shower. It's yellow and looks like tree sap, though it's easily removed with a little scrubbing. What's up?

KIM SCOTT AND MARK DERWENT, GRAND RAPIDS, MICH.

The first thing I thought of when I read your letter was *The Amityville Horror*. Then I thought to check out the Web site of

PHOTO: MICHAEL GRIMM



Flared shingle

the Paint Quality Institute, and sure enough, there was the answer. The "tree sap" you describe is probably the surfactants (their word, not mine) found in all latex paints. These chemicals sometimes leach to the surface when moisture condenses on the paint, which happens when you take a shower. They say the stuff is harmless, just wipe it away with a wet cloth. If it comes back later, wipe it some more. After a few more scrub-downs, it should be gone for good. To avoid this problem the next time you paint, wait a couple of days for it to dry before taking a shower.

SIDING WITH FLARE

We want to strip the aluminum siding from our 1904 Shingle-style house. I took some off a long, covered porch a few years ago and found the shingles beneath to be in excellent condition. Now we want to keep going. The original builder's drawings show flared shingles where the ground-floor walls meet the foundation, and over the first- and second-floor windows. We suspect the siding men may have removed this detail to make it easier to hang the aluminum. Is it reasonable to restore it?

TARA SCHREDER, TOLEDO, OHIO

Yes, and you'll be re-creating a graceful feature (see illustration) that was thoughtlessly destroyed. This kind of work is tedious, but it's not expensive or especially difficult. Any shingler worth his salt should be able to do it, and fortunately, you have the drawings to help him get it right. The result will show nicely, right where the whole neighborhood can admire it. Can't beat that.

SEEPING CELLAR

I am restoring an 1860s log cabin and am stymied because I get water seepage through the cinder-block foundation every time it rains. Are there products I can use to seal the blocks?

MICHAEL J. SMITH, MONTFORT, WISC.

Yes, you can seal the blocks, but doing it from the outside is the only way I know to stop anything beyond minor seepage, and that means major excavation work. I'd check for drainage problems first. Are the gutters and leader pipes doing a good job of carrying water away? Is the soil around the house graded to divert water? If you correct these problems, you should notice an improvement. Gutters, admittedly, don't go very well with a log cabin, so you might consider a solution we've used on the show several times. On the ground under the eaves, dig a trench that slopes to a spot at least 10 feet from the house and line it with landscaping fabric, which filters out dirt but lets water through. Then lay down a perforated drainage pipe, holes facing down. Cover it with washed stone, more fabric, and fill the trench with stone. The perforated pipe will collect water and carry it away before it soaks into the ground and your foundation.

STEPS TO A NEW STOOP

I'd like to add a stoop to my house using an Early American or Colonial design. Any suggestions?

FLORENCE S. STEIN, SOMERSET, PENN.

There are architectural-history books you can look through that cover period styles in great detail; start by checking the stacks at your library. You might also get some ideas by driving through districts with old, well-maintained houses (that's what I did when I was looking for paint colors for my house).

SAVING OLD BARN BOARD

From watching your show, I know people sometimes use lumber from old buildings. Well, I've got plenty. My barn has fallen apart, and I want to get rid of the old boards. How do I find people who'll want them?

NAME AND ADDRESS WITHHELD

Reclaimed lumber dealers may buy it, but don't expect to finance a vacation this way. It might be better give the wood away on condition that they take it all (you don't want them taking the best and leaving you with a mess). If the boards have already been pulled off, putting notes on neighborhood bulletin boards should help you find homes for them. Or try a sign. "Barn Boards. Free!"

IFFY BRICK

We want to improve handicapped access to our church (left) by adding a walkway made with some of the church's old handmade floor bricks. But they date from the 1700s, and some people doubt they'll hold up.

JACKIE GINANN, SPRINGFIELD, GA.

The doubters may be right. In the 1700s, brickmakers built scove kilns—basically stacks of freshly molded brick piled around a cavity for burning wood. Bricks nearest the fire came out harder than those toward the outside of the pile, which were confined to indoor or between-wall use. A bricklayer or preservationist with a masonry background might be able to tell if your brick is hard enough to survive the Georgia winter. But even if they pass muster, you may find that their rough, uneven surface makes a poor pathway for wheelchairs. ■

Send questions to: Ask Norm, *This Old House* magazine, 1185 Avenue of the Americas, 27th floor, New York, NY 10036. Include a complete address and daytime phone number. Published letters will be edited for clarity and length and may be used in other media.

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Something Borrowed, Something New

Newlyweds Ken and Roe Hughes tackle their first big problem: their kitchen

For Ken Hughes, the winter of 1997–98 was a banner season. First he discovered the perfect house down the street from where he grew up in Derby, Connecticut: a Prairie-style Colonial hybrid with loads of architectural details on an acre of commercially zoned land—plenty of room for both him and his landscaping business. Then, a month after he sealed the deal, Ken went on a Caribbean cruise and met his future wife, Roe Sciortino.

Luckily for Ken, Roe loved his taste in real estate. Perched on a hilltop, the big baby blue house was built in 1922 by Harry Zuraw, a Polish immigrant. The Zuraws lived there for 75 years, until the last surviving family member, daughter Katherine, died in 1997. Since there were no heirs, the property passed into probate. That's when Ken bought it—and everything in it. The Zuraws had left behind a bonanza of antique furniture and a house in near-mint condition. The windows, the plaster, the unpainted trim, the red oak floors, the fireplaces, and mantels were all original. "I feel fortunate," says Ken. "I had to replace the electricals, the boiler, the hot-water heater, and stuff like that, but I got all this character."

TOP: *Steve Thomas consults with home owners Ken and Roe Hughes and their designer, Lloyd Adams (third from left).* LEFT: *A dearth of cabinets and counterspace made the kitchen impractical.*

PROBLEM

Character, however, was about all the kitchen had to offer. It was the smallest room in the house, and with just a sink, a fridge, and an electric stove, it had a Depression era feel. There were no cabinets, counters, heat, or light and just one—count it, one—electrical outlet. "A basket case," says Steve. Ken and Roe have made do with portable shelving, a space heater, extension cords, and a lone table that serves as a chopping, mixing, prepping, and eating area. "It's miserable, and we hate it," says Ken. "Poor Roe. She loves to cook, but we can't even unpack her pots and pans. There's no place to put them."

DREAM SCHEME

In his original letter to *This Old House* magazine, Ken said he didn't want to squeeze the kitchen into the existing footprint. Instead, he wrote, "I'd like to blow out one side of the house to make way for a new and improved kitchen and bathroom, and while we're at it, a larger living room and

PHOTOGRAPHS BY JOHN KERNICK

FLOOR PLAN

Before he moved in, Ken pulled a quick fix on the house's antiquated kitchen, demolishing a pantry and yanking out a breakfast nook (as seen in the photo at bottom). The new kitchen focuses on a more efficient work triangle where the distance between any two points—fridge to stove, stove to sink, sink to fridge—is less than 12 feet

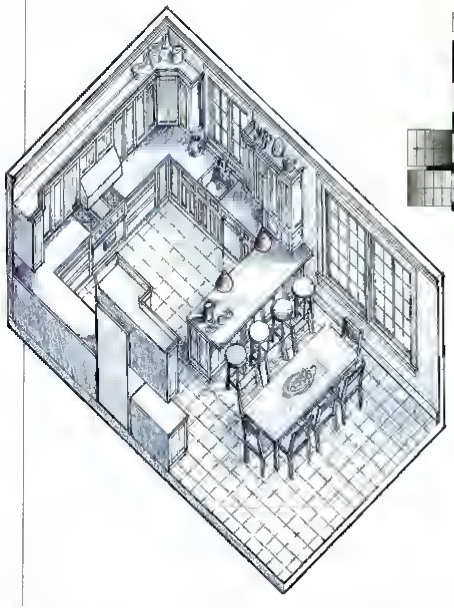

ILLUSTRATION: RICHKLAS STANUR, FLOORPLANS: RETRIKAS INC. PHOTO: COURTESY OF KEN HUGHES

upstairs bedroom." Says Steve, "It was the phrase 'while we're at it' that really got my attention. Those are the four most most expensive words in renovation." After touring the house, Steve was skeptical that Ken's $60,000 to $80,000 budget could finance a two-story addition with a kitchen and master bedroom.

PROPOSAL

Steve had a more workable plan: a single-story addition housing the kitchen alone. Ken liked the idea, not only because it kept him on track financially, but also because the extension could be built to mirror the sunroom on the other side of the house. After some resistance, Roe conceded that she didn't need a 1,000-square-foot addition to get a killer kitchen. "I don't know what we were thinking," says Ken. "I must have thought I was a Rockefeller or something." Lloyd Adams, a designer for Baybrook Remodelers in West Haven, Connecticut, took the idea one step further. The old 200-square-foot kitchen could be turned into a dining area large enough to seat eight. The couple loves to entertain, but didn't have the space because Ken had already commandeered the house's formal dining room for his pool table.

SOLUTION

After a few consultations with the home owners, Lloyd presented his proposal for a 12-by-16-foot bump-out that would house an efficient, U-shaped kitchen outfitted with Shaker-style maple cabinets and a granite countertop. The design calls for lazy Susans in each corner, a pull-out trash container beneath the stainless-steel sink, an appliance garage, and a desk area with a built-in file cabinet below and wine rack above. (See "Ideas Notebook" for additional details.) The rooms will be totally rewired and new copper piping will bring hot water heat to toe-kick vents, sending the space heaters on their fire hazardous way. Separating the dining area from the kitchen will be a 9-foot-long peninsula that seats four, so that guests can keep Roe company while she whips up a feast. "Lloyd promised he could have the job done by Thanksgiving," says Ken. "Roe and I are plotting to steal the holiday from my parents." Once again, Ken seems to be on a winning streak. At $55,000, the estimate from Baybrook Remodelers came in under budget. Ken will be doing the excavating and backfilling of the foundation—worth approximately $5,000—as well as floor tiling and other work. "Sometimes I just have to pinch myself," he says. "I must be the luckiest guy around." ●

—reported by Hope Reeves

Among the legacy the former owners left behind were boxes of photographs documenting the house's 75-year history. ABOVE. Katherine Zurow in the former breakfast nook.

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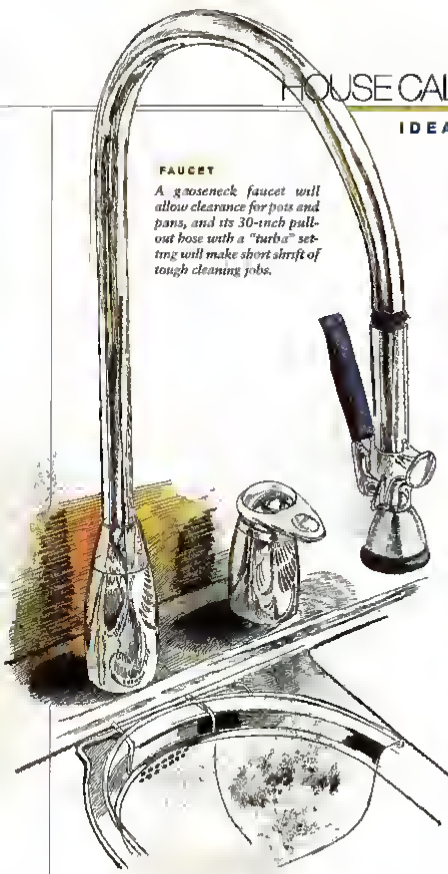
HOUSE CALLS WITH STEVE

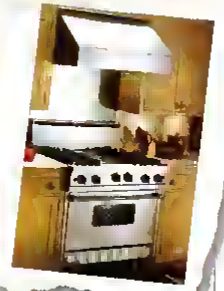
IDEAS NOTEBOOK

After deciding on a concept—efficient country kitchen—Ken and Roe leafed through a stack of brochures for the right details. What they chose, with the advice of Lloyd and Steve, combined chic, modern fixtures with classic, cozy styling.



FAUCET

A gooseneck faucet will allow clearance for pots and pans, and its 30-inch pull-out hose with a "turbo" setting will make short shrift of tough cleaning jobs.



RANGE

Roe had to have a 36-inch-wide Viking stove with a commercial hood. The four burners and griddle plate gave her plenty of space for preparing her specialty, fettucine Alfredo.

FLOORING

Stone tile provides an earthy complement to stainless steel, and it lasts forever, says Steve. But he recommends lots of throw rugs: "Inflexible floors can be hard on the feet—and cold."

CABINETS

The couple chose natural-colored maple cabinets, which are available in a variety of stains, from champagne to finest green. "It looks more 'country,'" says Ken.

LIGHT FIXTURES

Brass pendant lamps over the peninsula will make a big statement, says Steve. "People shouldn't be afraid to mix metals within their scheme."

FINISHES

Steve is bullish on stainless steel. "I have it in my kitchen, and I'd put it in my next one," he says. One caveat, however: The metal needs regular spritzing with glass cleaner to wipe off fingerprints.

PHOTOS: CLOCKWISE FROM TOP RIGHT: COURTESY OF VIKING; MICHAEL GRIMM (2); COURTESY OF KITCHENAID. ILLUSTRATION: JACK UNRUH

Split Decision

Dormers and a new porch give an awkward-looking relic of the 1960s a dramatic face-lift

BY CURTIS RIST

"There's hope for every house," says architect Brian Siegel, who gave this ho hum split level, inset, a much-needed revamping by adding a new porch and dormers, above. On the gable end, he relied on smaller details such as the circular window and the traditional cornice returns at the eave "to add some grace to the things we could not change."

While hunting for a home in the early 1990s, Mary Ellen Stokes and her husband, Kevin, realized they had distinctly different ideas of what they wanted. "I always imagined living in a center-hall Colonial," says Mary Ellen. But Kevin focused on what they could afford, and, to that end, he convinced her that a modest split-level in New Providence, New Jersey, would suit them better. "The only thing I liked was the cost," says Mary Ellen of the ungainly design. "But my husband kept saying we had to look beyond what it was and dream about what it could become."

Despite the house's outdated appearance, Mary Ellen quickly came to appreciate its big closets and four bedrooms (they have four children, the youngest only a year old). And in the last six years, they did make some pleasing improvements: a new kitchen with oak cabinets, a deck out back, and wood floors in rooms that had been carpeted. But what finally pushed them to completely overhaul the house's look was their two oldest daughters, Meghan, 15, and Erin, 13, who made it clear from their squabbling that they'd had enough of sharing the same upstairs bedroom. The Stokeses called architects Janet and Brian Siegel of nearby Chatham,

PHOTOGRAPHS BY JOHN KERNICK

and asked them to add a fifth bedroom and third bathroom within the existing footprint. "I also said something vague about wishing I had a front porch," Mary Ellen recalls.

In the realm of house styles, the split-level ranks as one of the least loved. The form was born out of the idea that families needed to have several different living areas set apart from one another on distinct separate levels; in the Stokeses' house that meant the family room lies downstairs next to the garage, with the dining and living rooms and kitchen located a half flight up, and the bedrooms up yet another half flight. "It means you're always walking up or down steps to get anywhere," says Brian Siegel. In addition, the Stokeses' house—like most houses of its ilk—had been saddled with a shallow roof pitch (creating a squashed-down look), small windows, and widely spaced courses of rough sidewall shingles that made everything look out of proportion. "Nobody would call these features charming," says Siegel.

Siegel ran the cedar railing outside the double columns, rather than between them, to gain an extra foot of usable space on a front porch that is only five feet wide. As Siegel says, "It makes the difference between something you can really sit on, and something you can just look at."

Searching for a better model, Brian Siegel thumbed through *A Field Guide to American Houses* and found one that was popular at the turn of the last century: a gable front-and-wing farmhouse with a front porch spanning the length of the wing. It wasn't a split-level, but they thought the lines of the Stokeses' house could be tweaked into a close resemblance. To that end, they raised the roof line over the wing five feet, which gave them the space they needed for the additional bedroom and bath; stretched the eave line out five feet to create a sheltering, wrap-around front porch; and added a pair of doghouse dormers to break up the now-prominent expanse of roof. The Siegels also paid close attention to the materials for the outside. These included thick, architectural-grade asphalt roof shingles, red cedar clapboards with a 6-inch exposure, a porch deck of tongue-and-groove Philippine mahogany, and large vinyl-clad wood windows to replace the inefficient all-aluminum ones. The result, Brian Siegel says, "is a house that looks up-to-date, without being too overdone for the neighborhood."

"The porch was the key," says Siegel. "It gave the house the architectural focal point that it lacked." At first, they wanted to make it eight feet wide, but zoning requirements limited it to five feet, just broad enough to hold some chairs. Nonetheless, Mary Ellen's reaction to this double-columned veranda was immediate. "When the plans were unrolled in front of me for the first time, I just thought, 'Wow!'" she says. "I had no idea it could look like this."

While the Stokeses continued to live in the house, builder Paul Cucco and the crew of the Hunterdon Builders ripped off and rebuilt the roof over the wing, resided and refenestrated the entire house, and added 10 feet to the chimney using brick salvaged from the facade. The ceiling joists upstairs were 2x8s, not beefy enough to support the new floor, so Cucco bolted new 2x10s to the old ones. Unfortunately, the old shingles were asbestos-reinforced cement; they had to be placed in a plastic-lined Dumpster and trucked to a hazardous-waste landfill. Cucco's crew wrapped up the work in four months, including a gut remodel of the existing bathrooms. Total project cost: $160,000.

"I still can't believe how nice it looks when I drive up to it," says Mary Ellen. Each night, when the weather is good, she and her husband sit on the porch swing out front. The whole family appreciates the extra room inside—especially the third bathroom. And her daughters love having their own rooms, each decorated with identical pictures of Ricky Martin. "It's funny," says Mary Ellen. "Now that they have their own space, I always find them in each other's rooms. Go figure!" ■

SURE BEATS A SKYLIGHT

In many post–World War II tract houses, traditional detailing took a backseat to low-cost building efficiency. Adding two doghouse dormers to the Stokeses' 1960s split-level not only gave the facade more appeal but livened up the new bedroom with five-foot-wide sleeves: sunny nooks big enough for a desk under one window and a low dresser under another. "Both inside and out, the dormers add a warmth and a friendliness to the house that was completely missing from the original," says architect Brian Siegel.

Stalks of bamboo stored in a 300-year-old workshop in Kyoto show off this plant's variety. From left: timber bamboo, for poles and screens, a species used to make Japanese flutes, black bamboo, for veneers, spot-culm bamboo, for furniture, curved tortoiseshell bamboo, used in temples, hefty Moso bamboo, for furniture, and another variety of black bamboo.

Stalk Market

Bamboo's value is shooting up

We think of bamboo mostly as a graceful garden accent, best planted where its arching stems and papery leaves can be heard rattling pleasantly in a breeze. We know its decorative uses: Split and tied, it becomes a window blind. Plaited, it's a basket. Whittled, it's a chopstick. The wood seems too fragile, too splintery, for anything more demanding.

In China, however, bamboo scaffolds soar 20 stories high. In India, mats of woven bamboo are used to hold concrete until it sets. In Africa, Central America, and much of Asia, it serves as roofing, flooring, sheathing, even cabinetry. Now, a surprising array of new bamboo products are reaching our shores, offering a strong, attractive, and environmentally benign alternative to timber cut from trees.

BY JEANNE HUBER

Although bamboo contains the same substances found in trees—lignin and cellulose—it is actually a giant grass. Its shoots emerge at full diameter and reach their mature height (more than 100 feet) in about 60 days. Harvesting causes no more harm to the plant than mowing does to a lawn, a stand regenerates fully in seven years or less. (An oak or Douglas fir needs at least 30 to 60 years.) Also, bamboo is free of such complications as knots and grain, which affect the strength and stability of wood. All this argues for more widespread use, except that raw bamboo doesn't lend itself to standardized dimensions or quick joinery. Most poles are hollow and

PHOTOGRAPH BY STEFANO MASSEI

Lotsee, Oklahoma. Holds nine.

(The name comes from

the Indian word that means

"Bright Child")

The Chevy Suburban. Holds up to nine

(The name comes from

the American word that means

"Bright Idea")

CHEVY SUBURBAN LIKE A ROCK

tapered, and have thin walls that split when nailed and splinter when sawed. Glue slides off the silica-rich outer skin. In areas where people build with bamboo, joints are usually hand-lashed; there is little appetite for doing that here. And left exposed to the weather, untreated stalks decay with dismaying speed. A bamboo fence has about a 15-year lifespan.

Still, in light of new developments, bamboo's future is looking bright. Importers recently discovered a species of thick-walled "solid" bamboo that cuts like wood, holds fasteners, and is nearly as strong as steel. Split, sanded, and oiled, it makes unusual trim for windows and doors, and may eventually be approved for use as studs, roof trusses, and floor joists. Garth Wight, president of Safari Thatch & Bamboo, Inc. in Fort Lauderdale, Florida, is so excited by the possibilities of this type of bamboo that his company planted 500 acres of it in Mexico. "It holds up when you're putting in lag screws and nails, and seems to resist problems with freezes in colder climates," Wight says. His company also treats the poles with a nontoxic borate preservative to make outdoor gates, trellises, and fences resistant to termites and rot.

1 Strips laminated to a cloth backing, for paneling. 2 Knot-free flooring, the face laminate highlights the node—the joint that gives bamboo its character. 3 Wall paneling, available in 3'x6' sheets. 4 Woven mats, in 4'x8' sheets, are used overseas for sheathing but are used here as decorative paneling. 5 Seamless veneer; sold in rolls, gives furniture and cabinetry a new face. 6 Prefinished floor plank can be nailed or glued down, or left to float. Lengths up to 7 feet.

A 15-foot-tall hand-crafted gate, made from thin Tonkin and fat Moso bamboos harvested in China. The maker says it can last 20 years or more if protected with water-repellent preservative.

Raw poles of thick-walled bamboo have their place, but a variety of indigenous bamboo materials are reaching a growing consumer market. Strips glued together become solid panels suitable for countertops, mounting them on a cloth backing produces a flexible and novel alternative to bead board for wainscot.

> "Bamboo is so beautiful, every house should have some as a piece of art."
>
> —Masatsuga Nakagawa, bamboosmith

But the most popular new product is tongue-and-groove flooring. Buyers can choose between two basic styles: thin strips glued edge-to-edge over a laminated bamboo base, or strips glued face to-face into ⅜-inch to ¾-inch-thick flooring. Edge to-edge flooring shows off the nodes—the characteristic swollen joints along a bamboo shaft; face-to-face flooring has a more uniform, layered look. Color options include natural, which is about as white as freshly milled maple, or caramel-hued "carbonized" bamboo, which undergoes a heat treatment that changes its color all the way through. The cost is about the same as other hardwoods—around $3.50 to $6 a square foot, depending on quality, thickness, and finish.

In the best tradition of Asian folk art, this 44-inch-square cocktail tabletop is covered with a thick veneer of flattened bamboo. The framework is made of bamboo poles waxed and polished to a high shine.

When bamboo flooring first appeared, some people worried that it might be too flimsy for everyday use, but tests by the Department of Wood Science and Forest Products at Virginia Polytechnic Institute revealed that it resists dents better than red oak, the most typical wood flooring, and about as well as hard maple, the toughest hardwood flooring commonly used in the United States. Bamboo flooring also shrinks and swells

PHOTO: GATE: BAMBOO SAMPLES: MICHAEL GRIMM; TABLE: COURTESY OF MOSUME FURNITURE COMPANY

BEWITCHED BY BAMBOO

Bamboo builders Jonathan Stuart, left, and D'Arcy Gholston

Jonathan Stuart's career as a bamboosmith began in 1994 when he read the book *The Bamboo Fences of Japan* by Osamu Suzuki and Isao Yoshikawa. Stuart, 34, already appreciated the Japanese aesthetic, but the workmanship, contrasts, and intricate patterns he saw in the book completely captivated him. "These fences were just fabulous," he recalls. That led him to a bamboo-building class in Seattle, and then to Japan, where he spent six months sketching fence designs, joints, and furniture. When he returned, Stuart headed to the Bamboo Gardens of Washington, a nursery, and begged for a job. There he met D'Arcy Gholston, who had gone to college "to design the perfect wrench" but took a detour into construction. Together they started Bamboo Builders Northwest and began creating custom gates, trellises, and every other imaginable architectural feature out of their favorite material. "Bamboo isn't just for Japanese gardens," says Stuart. "It can look very modern, especially when combined with other materials."

Gholston, 36, relishes the demands of working with bamboo: "No piece is perfectly straight, and trying to join a tube to a tube is a challenge." To cut the splintery wood, they use fine-tooth Japanese pull saws. Sometimes they fill hollow sections with concrete or wooden plugs so that bolts or screws will hold, but more often they wire the joists together and cover them with decorative black hemp. They've dressed up the plain metal posts on chain-link fences with split bamboo poles and used heat guns to shape bamboo into curved handrails (the curves freeze as the stalks cool). When asked whether they'll remain bamboosmiths for life, as their Japanese counterparts would, Gholston laughs. "Why not?"

Stuart and Gholston built this simple fence seven years ago around a garden in Maple Valley, Washington. The Tonkin rails and jackets are screwed together and the joints are covered with Japanese twine tied into decorative knots. The whole structure is held off the ground by peeled pine posts.

50 percent less than red oak, so that it resists warping in humid weather or shrinking to reveal unsightly gaps in dry weather. Dan Smith of Smith & Fong, which makes Plyboo flooring, steers skeptical customers to a floor at a bookstore in the San Francisco International Airport. "Over 20 million people have walked on it," he says, "and it's holding up tremendously well."

Even so, with no flooring industry standards governing bamboo, buyers need to be careful. Some early floors delaminated, prompting manufacturers to change glues or impose better oversight of factories in China and Vietnam. François Miton, president of Mintec, the maker of Bamtex flooring, suggests asking about warranties. Dan Smith recommends checking to see if floorboards are of equal thickness and fit together tightly. "Each strip needs to be exactly like the others," he says. "If not, then you'll have gaps." Steen Ostenson, whose company makes TimberGrass flooring, advises getting some samples and comparing their thickness above the tongue, since this is what determines the number of times the floor can be sanded.

Ostenson hopes that the success of bamboo flooring will encourage people to explore other uses of the material. He envisions the day when everything from paper to construction-grade plywood to lumber will be made from this quick-growing plant, allowing other forests to return to their natural states. So does Trevor Daglis, a PhD candidate in civil engineering at Queen's University in Kingston, Canada, who is in the process of developing composites of shredded or pulverized bamboo and glue. "I am convinced that the real future for bamboo," he says, "is as fiber—for MDF, particleboard, and the like."

Those in search of a good-looking, innovative material with no environmental baggage don't want to wait for the bamboo of the future; they want it now. Designers, landscape architects, contractors, and cabinet makers have been streaming into David Faibisch's year-old Bamboo Accents store in Richmond, California, cleaning out his inventory faster than he can replenish it. "It's been a real wild ride," Faibisch says. "Everybody wants to find out about bamboo." ■

PHOTOS: CHUCK KUNE

Classical Glass

A conservatory turns a house into a crystal palace

BY HOPE REEVES

Beth Keegan's Prairie style home in Evanston, Illinois, was a historic gem—except for the small and dingy kitchen. A year after moving in, she and her husband, Keith Murnighan, began searching for a solution. A friend suggested adding a conservatory onto the space, but Beth was skeptical. "I had never seen a glass room whose style would get approval by our landmark commission," she says.

Keegan's lack of knowledge about conservatories wasn't unusual. "It's amazing how many people think a conservatory has to look like the thing hitched to a Burger King," says Jim Licata, president of Town & Country Conservatories in Chicago. Explaining what a conservatory is—and what it isn't—occupies much of his time. "It's not a greenhouse, a Florida room, or a sunroom," he says. Unlike a greenhouse, a conservatory is a structure designed for people, not plants, and its glass roof distinguishes it from other glassed in rooms. Framed most often in rot-resistant mahogany or red cedar, sheathed in glass, and

TOP: A soaring roof makes a wood-framed, atrium-style conservatory in Basking Ridge, New Jersey, feel airy and bright. In winter, the room stays warm in part by hot-water heat that radiates from the limestone floor.

PHOTO COURTESY OF REMARKABLE ENVIRONMENTS

Ceiling shades cut down on glare, and fans cool inexpensively. In some conservatories, when the temperature reaches a preset point, electric windows on the walls and ceiling automatically open to exhaust the heat.

climate-controlled, conservatories provide a comfortable, year-round living space. Styles range from an add-on with a simple lean-to roof to a freestanding mini-Crystal Palace with a soaring clerestory, graceful muntin patterns, and ornate rooftop crestings and finials. "They can be family rooms, dining rooms, playrooms—whatever the homeowner wants," says Licata. Well, with a few exceptions: "We gently discourage requests for a bathroom or bedroom," he says.

The Keegan-Murnighans warmed to the idea of a conservatory after David Bishop, a designer and builder of these specialized structures, showed them the difference between mass-produced modular units and one of his custom creations. "When I saw his portfolio, I knew that one of his designs would fit perfectly on my house," says Beth. Bishop framed out a five-sided addition connected to the kitchen via French doors, assembled it atop a foundation, and attached the glazing. Now, no matter what the weather outdoors, Keegan, Murnighan, and their three kids gravitate to the conservatory, where it's always a perfect 75 degrees. "It's glorious," says Keegan. "It's changed the whole house, and the way we live in it."

Conservatories were once a novelty enjoyed by Gilded Age tycoons like LeGrand Lockwood, who built this 1869 mansion in Norwalk, Connecticut. He housed his collection of exotic palms and ferns within its domed-glass walls.

The roof of their addition was manufactured and shipped over from England, the mecca for conservatory connoscenti. In the 19th century, the English perfected the skeletal wood or iron frameworks that could be wrapped in glass from roof to sill. These were sold by the thousands to a prosperous clientele captivated by the notion of communing with nature from a comfortable perch—comfortable at least some of the time. Earlier generations of single-glazed rooms could be cold, wet, and drafty in the winter, and unbearably hot in summer.

To improve insulation in the winter, today's conservatories have double-glazed panels that are tightly weatherstripped to hold in heat and prevent condensation, working windows—ideally at least a third of the structure's surface—ventilate the room in warm weather. But to really live comfortably under glass year-round, Licata suggests installing a separate forced-air heating and cooling system. Radiant-floor heating is icing on the cake. "I often walk in and find my kids lying on the ground to watch the snow fall," he says. And for every hot day the air conditioning labors to keep the room cool, there's a cold day when the conservatory provides free solar warmth to the rest of the house.

If all this sounds expensive, that's because it is. David C. Bishop & Co.'s conservatories cost between $40,000 and $60,000. Town & Country's run from $25,000 to $200,000. The price varies depending on the size of the room—250 square feet is typical—and the detail of the design. "But what you get," insists Licata, "is a room you never want to leave." Beth Keegan says that when the family isn't in bed, they're probably in the new 500-square-foot addition. "Sometimes," she says, "we joke that we might as well get rid of the rest of the house." ■

CONSERVATORY CHECKLIST

- Hire a contractor experienced in building conservatories. Check references and insist on seeing a portfolio of previous work.
- Consider the siting. A structure facing east will collect the sun's morning rays, but will be protected from its baking heat in the late afternoon. Putting it close to a deciduous tree will reduce solar gain in summer, but allow it in winter.
- Choose your glass carefully. Codes in some areas may require the use of safety glass, which doesn't shatter into small, dangerous pieces. Insulated glass reduces condensation and heat loss in northern winters. Tinted glass filters the sun's rays.
- Maintain gutters, weatherstripping, and paint as you would on a house. Wash the glass at least twice a year.

PHOTOS, LEFT: COURTESY OF RENAISSANCE CONSERVATORIES / RIGHT: KEVIN SMITH

Mind Over Money

How to avoid the mental mistakes that can send renovation costs through the roof

BY GARY BELSKY

Michael Burns is still trying to figure out how his renovation got so big. The original plan was simple: Burns, a college professor in western Massachusetts, wanted to put in a new kitchen and then convert two of his several bedrooms into offices. "It was supposed to take three months and cost in the high five-figures," he says. But the project grew, ultimately including makeovers of the master suite, the living room, and one of the bathrooms. "We finished a year later, and it cost three times as much as our original budget," Burns recalls.

The house turned out great but, by vastly widening the scope of his project, Burns had succumbed to renovation's strongest temptation—doing, and spending, far more than was initially planned.

Burns's tale is common, if extreme. The National Association of the Remodeling Industry estimates that 90 percent of renovations exceed their budgets—by 15 to 20 percent, according to most contractors. Even construction pros are vulnerable to the ballooning-project syndrome. "We just did a major renovation at my house, and the same thing that happens to clients happened to me," says Houston contractor Dan Bawden. "It took longer and cost more. It was almost as if a hidden force was at work."

Bawden is right, but in his and Burns's and thousands of other cases, the force emanates from the mind, where a variety of subconscious inclinations can contribute to wallet-busting financial decisions.

"Remodeling is a minefield of mental money mistakes," says Thomas Gilovich, a Cornell University psychologist and an authority in a new field of research called behavioral economics, which combines the twin disciplines of psychology and personal finance. He and others have sought to understand how people make financial decisions—about stocks and savings, as well as bathroom sinks—and why those choices are often inconsistent and sometimes downright irrational.

Considering the intense emotions that people bring to a renovation—a jumble of desires, hopes, and dreams for making home sweet home even better and nicer—it's no wonder that fiscal restraint often dissolves into deepening debt. But it doesn't have to, says Gilovich. "Understanding how mistakes are made can go a long way toward helping you resist them," he says. "It may seem like a mind game, but it can help you stay on top of the money game."

ILLUSTRATION BY LOU BROOKS

Here are some of the mental money mistakes most likely to cause renovation inflation, and the surest ways to avoid them.

MISTAKE #1: IT'S ONLY MONEY

In the middle of building a large deck, a contractor approaches the owner with a proposal to upgrade the decking, railing, and balusters from pressure-treated pine to mahogany. Producing a piece of the obviously better-looking tropical wood, the contractor says it would raise the cost from $10,000 to $12,000. The owner says he'll think it over and heads for his home office to check out the balance on his $50,000 home equity line of credit. Seeing that he's only burned through $35,000 so far, he says to himself, "What the heck, I've got 15 grand left." He goes for the mahogany.

What our homeowner has done is demonstrate a subconscious preference to "integrate" his losses. Explains Gilovich, "It's easier to disregard an expense if you can hide it from yourself in a bigger expense." Thus spending an extra $2,000 for the mahogany seems negligible compared to the $10,000 he's already committed to.

Renovation budgets are particularly vulnerable to this tendency because more often than not the money is borrowed, and buying on credit leads people to spend more than they might otherwise. The interest is tax deductible, and at today's rates a few extra thousand dollars of long-term debt costs only a few dollars a month. Bawden, the Houston contractor, sees it happening all the time. "Clients decide they can afford something because it just means borrowing more," he says.

PREVENTION: To the extent possible, finance renovations with savings. "The hardest money to spend is money you've saved," says Gilovich. If you must take out a loan, calculate its real cost by including interest expenses. You might find an $800 ceiling fan isn't a necessity when you take on $700 in long-term interest.

MISTAKE #2: LITTLE THINGS DON'T MEAN A LOT

While renovating her bathroom, a homeowner buys a medicine cabinet at a kitchen and bath store that costs $100. When she gets home, she sees in a newspaper ad that the same item is on sale for $75 at a home center, five miles away. She immediately gets back in her car, returns the $100 cabinet and goes for the lower price. The next week, she's back at the store, about to buy a toilet for $300, when a neighbor says he's seen it on sale at the other place for $275. This time, the homeowner just shrugs and spends $300.

The homeowner's inconsistent response to two versions of the same opportunity—drive five miles, save $25—is one of the most common and costly forms of what Gilovich calls the "big-ness bias": the tendency to dismiss or discount small numbers or percentages as insignificant.

PREVENTION: When you're spending thousands, or tens of thousands, it's easy to lose track of small sums or tell yourself that they don't count. This is especially true when purchases are stretched over a period of time. Keep track of the small stuff—it can add up to big money and big costs.

MISTAKE #3: WISHFUL THINKING

A young couple have a baby on the way soon, and dearly want to remodel one of their bedrooms. It's a little too small, but mainly it needs new everything: flooring, trim, lighting, a bigger closet, plasterwork, paint—the works. If the couple can get the face-lift they want—and get it fast—they'll live with the space problem. So they call in a few contractors, show them the plans, and talk schedule. One week to completion? All but one of the candidates says, No way, it's a three-weeker for sure. They hire the contractor who says yes to the one-week time frame.

In this scenario, owners and contractor alike have fallen into the same trap—called "the planning fallacy"—which is a fancy way of describing the tendency to underestimate what it will take in time, effort, or money to complete a task. Both parties want to believe that a project will finish on time and on budget, and thus they reinforce each other's desire, even though it's utterly unrealistic.

Homeowners can be excused for being ignorant of the reality that renovations almost always take longer and cost more—even if there are no upgrades or add-ons—but contractors should know better. And too often, they don't—even the most honest and well-meaning ones. "Everybody has experience with the planning fallacy," says psychologist J. Edward Russo, co-author of *Decision Traps*, "but nobody factors that into their thinking."

PREVENTION: Guard against fantasy estimates by getting at least three detailed bids. Scrutinize each to determine the differences, and question each contractor about those variations. "In addition to providing you with realistic prices for all products and materials, your contractor should give you a cost breakdown for every day of labor. That way he will have a hard time justifying being late," says Chicago builder Jack Philbin. The contract should also include work-delay penalties. "It's not foolproof," Russo says, "but you're less likely to have delays if the contractor has an economic stake in it."

MISTAKE #4: ADDING ON—AND ON AND ON

Now let's go back to Michael Burns, the New England professor whose renovation took so long and cost so much. He fell into what is often called the While-You're-at-It Syndrome. Homeowners in the throes of this common but costly condition pepper contractors with add-ons during a project, either widening the scope of the work or tacking on extra goodies, or both. "Someone who'd never spend $200 for a bathroom towel bar will suddenly decide they can't do without one," says Bawden. "It doesn't seem like that much when you're already spending $10,000 on a bathroom." Predictably, the inclination to make changes grows with the amount of money involved (which is why this mistake often occurs along with integrating losses, discussed earlier).

PREVENTION: The National Association of Home Builders estimates that Americans will spend $126 billion on remodeling and maintenance this year, and a lot of checks they write will cover major cost overruns. According to Philbin, the best way to avoid this predicament is to select fixtures and materials early. "I make sure everything is chosen before we go to contract," he says.

University of Chicago behavioral economist Richard Thaler recommends an additional strategy for controlling costs: "Ask yourself if you'd be willing to pay $1,000 for a sink—if that's all you were doing. By breaking down the components of a large purchase, you can remove the psychological biases that might make you spend more than you want."

This Old House contractor Tom Silva offers this advice to potential renovators: Expect the unexpected—in fact, plan for it. "I always tell people to subtract 10 to 20 percent from their budget before making renovation decisions," he says. "If you have $100,000 to spend, contract for $85,000. More likely than not, you'll end up spending the $100,000." ■

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PHOTO: GREY CRAWFORD/ELIZABETH WILKINS

Home-Office Solutions

From furniture to phone lines, how to make your workspace work

When she began her work-at-home career as a freelance writer, Marilyn Zelinsky gave careful thought to her assignments—but hardly any at all to where she would actually do them. She began working on the dining room table, then moved into an 8-by-10-foot den off the living room. When she found herself spilling back out into the dining room, Zelinsky got serious about designing a home office—so serious that she wrote a book about how to do it, *Practical Home Office Solutions*.

BY CURTIS RIST

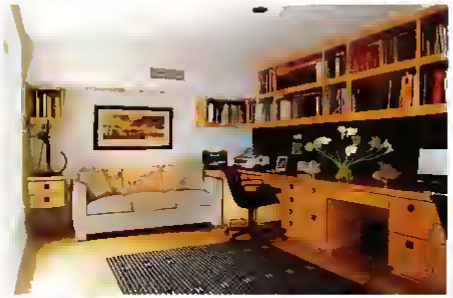
Zelinsky knew that she had a sizable potential audience. According to a survey by the International Data Corp., there are now more than 27 million people who work at home at least part-time, a number that grows by about eight percent per year. Yet the field of home-office design is still in its infancy, and there are no finely tuned guidelines about how to turn a room into a workspace, where to put which equipment or how long or wide cabinets and work surfaces should be. Still, there are some proven *(continued on page 64)*

In this guest cottage turned home-office in Marlborough, Massachusetts, modular furniture with a cherry veneer helps create a warm, homey feeling. The quarter round drop leaf table flips up to provide extra workspace.

principles to keep in mind when putting together a home office that really works.

First, whether the office is intended for full- or part-time work, or as a place to organize records, pay the bills, and give the children Internet access, choosing the right spot is crucial to its success. "Everybody makes the assumption that all they need is a little corner of a room—but usually they end up spread all over the house," says architect Duo Dickinson. He recommends that a work space measure at least 10-by-10-feet.

The nature of the work to be done and the number of people using the office can also dictate its size and setup. A solo workspace may need less seating and desktop space than one the whole family will use. If clients will be coming for meetings or work sessions, a separate entrance might be useful to keep them from traipsing through the house. Visitors need their own chairs and perhaps a table, a place to hang their coat, and access to a guest bathroom, says architect Robert A. M. Stern—"unless you want them to use a family bath and risk having them trip on your child's rubber duck."



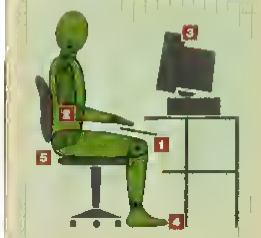
The built-in, 22-foot-long maple desk in this Phoenix office was designed with two kneeholes so that a husband and wife could sit alongside one another.

Work surfaces and storage will probably need to be designed on a budget. Built-ins may be too expensive, and computer armoires won't be a good investment because they usually don't contain enough work surface—there should be at least five feet, says Zelinsky. A modular office furniture system, which typically includes desks, computer tables, bookshelves, and file cabinets, is the most affordable option. They can be assembled much like custom built-ins, but they can also expand as the need for workspace grows, and are available in an array of styles and prices, from lowly laminates to finely finished hardwoods. "The biggest news in home office furniture is that it doesn't have to be ugly anymore," says Mark Dutka, of InHouse Furniture and Design in San Francisco. Flexibility is another advantage of modular units. "You may want to change the room around or move the office altogether," says Dutka.

After you figure out your furniture needs, focus on lighting—natural and artificial. Don't place your computer monitor too near a window or skylight, says Barry Brukoff, an interior designer from Sausalito, California, because glare can disrupt your work. Shades or drapes may be necessary. Since desk lamps can also cause glare, Brukoff recommends installing recessed lights to brighten the room from corner to corner, and using smaller task lights to illuminate specific work areas. "You see this type of lighting in corporate offices, and there's a reason for it," he says. "It causes less eyestrain."

It may make sense to add extra outlets to accommodate electronic equipment, from fax machines to paper shredders. A bigger priority is a second telephone line—or even a third—for faxes and Internet connections. A dedicated office line also provides a buffer between one's work and private life. One mother Zelinsky interviewed discovered the need for boundaries the hard way when her four-year-old daughter handed her on important business call on the cordless phone—while she was in the shower. "There are bound to be some embarrassing conflicts," says Zelinsky. "But with the right planning, you can keep those to a minimum." ■

THE HEALTHY WAY TO SIT



A badly designed home office can be more than just chaotic—it can hurt your health. Injuries—from stiff necks to severe conditions like carpal tunnel syndrome—are related to computer work. Two pieces of equipment are crucial, says Ellen Kolber, a New York-based ergonomics consultant: first, a firmly cushioned chair on rollers that has adjustable everything: seat height and tilt, back angle, and arm rests. "A chair should help you maintain good alignment," she says. Second, and equally important, is an adjustable keyboard tray (available at office supply stores).

The goal is to be seated as in this illustration. [1] The keyboard must be below the work surface and tilted slightly downward, so the wrists are in a natural, straight position. [2] The elbows should be angled at 90-degrees or greater. [3] The top of the computer screen should tilt to be at eye level when you stare straight ahead. [4] Feet should be flat on the floor or on a footrest if they don't reach. [5] The seat height should put thighs parallel to the floor, so the knees are level with or slightly below the hips. Finally, anyone who talks on the phone while typing should invest in a headset. "Nothing cramps your body faster than pinching the phone between your head and your shoulder," says Kolber. "It hurts just talking about it."

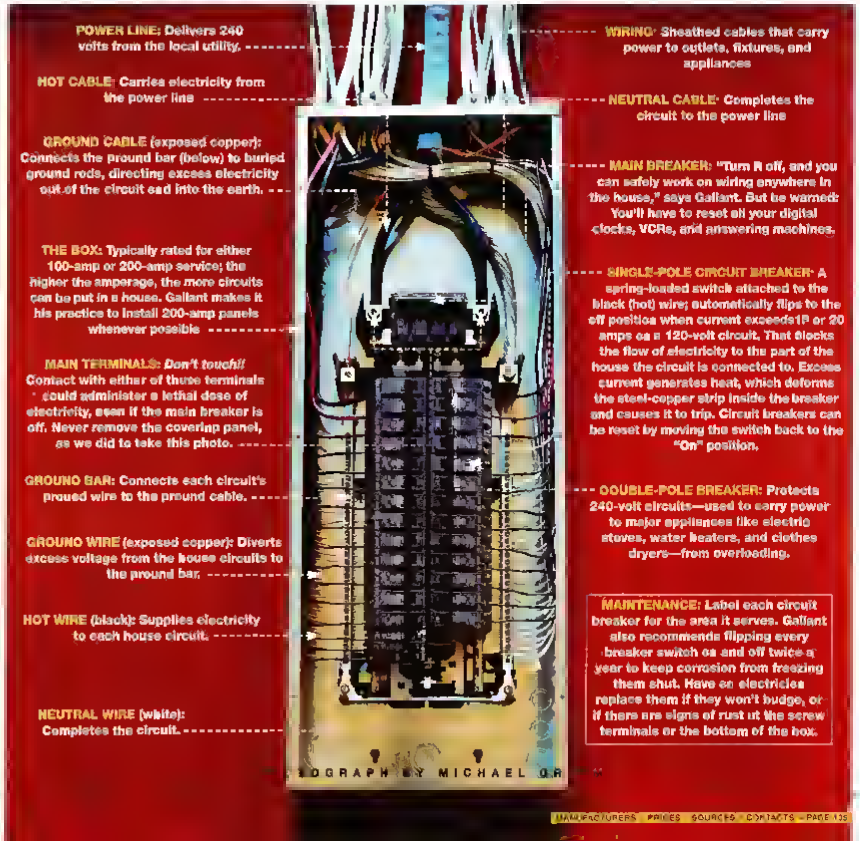
PHOTOS: BARRY BRUKOFF/BRUKOFF WORKS; ILLUSTRATION: HEITMAN INC.

Circuit-Breaker Panels

BY CURTIS RIST

Of all the mechanical gadgets a homeowner deals with, nothing sparks more anxiety than the circuit-breaker panel: the gray metal box that receives power brought in by utility lines and directs it to various parts of the house. "People call me up scared to death to go near the thing," says electrician Allen Gallant. "They think they will get zapped by 1,000 volts of electricity."

Although a panel is not to be handled carelessly, its function is to protect—not hurt—you. First, the box is designed to keep the juice under control. "Unless someone's done a *really* stupid wiring job," says Gallant, "the circuit breaker will prevent the house from burning down." And just by flicking off the right breaker, you can stop the flow of electricity to a particular location, allowing you to install a light fixture or repair a wall outlet—without worry.



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Tall Order

Old porch columns can be saved

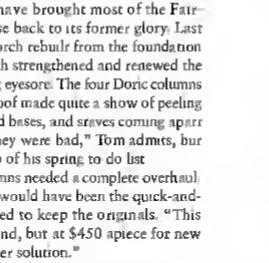
Since Tom Baker moved in eight years ago, his 1919 Colonial revival has kept him pretty busy. A senior editor at *This Old House*, Tom has completed a string of projects that have brought most of the Fairfield, Connecticut, house back to its former glory. Last year, he had the front porch rebuilt from the foundation to the floorboards, which strengthened and renewed the platform but left a glaring eyesore: The four Doric columns that support the porch roof made quite a show of peeling paint, cracked and rotted bases, and staves coming apart at the seams. "I knew they were bad," Tom admits, but they were also at the top of his spring to-do list.

The 80-year-old columns needed a complete overhaul. Putting in replacements would have been the quick-and-easy fix, but Tom wanted to keep the originals. "This sounds like a fool's errand, but at $450 apiece for new columns, I needed another solution."

For the first step—taking the old columns out—Tom needed to raise the porch roof a fraction of an inch. To do this, he positioned a metal Lally column on a 2x6 directly over the new band joist he installed last year to support the front edge of the platform. Then he turned the Lally's adjustment screw, lifting the roof just enough to free up the 7½-foot-tall columns.

To assess the true extent of the damage and make the right repairs, Tom needed to remove eight decades' worth of paint and get the columns down to bare wood. Working at the end of his driveway, he laid a pair of 2x4's across two sawhorses that had been draped with a sheet of polyethylene and set a column over them. "Stripping paint is messy and potentially toxic, so I used the poly to catch the lead paint and the goo," he says. After brushing on the viscous paint remover and waiting three hours for it to soften the paint, Tom started scraping, taking care not to gouge the pine. He followed up with a heat gun and putty knife to remove the most stubborn paint and any remaining stripper sludge.

Once most of the paint was scraped off, Tom secured the top end of the column with a band clamp to keep the loose staves—the inch-thick lengths of wood that form the shaft—from coming completely apart. There were several open seams because, he says, "the builder probably joined the staves with hide glue, which is strong but water soluble. Over time, it simply washed out."



BELOW: Lally columns stand in while two of the porch's four columns are being restored. LEFT: Stripped of their ancient paint, reglued along every stave and set on new bases, the 80-year-old columns stand ready for another century of elegant service

TOP: Tom Baker scrapes off the last of the paint with help from a heat gun. ABOVE: Band clamps hold staves together while the adhesive sets. The new vent hole in the top keeps the inside cooler and drier

To rejoin the staves, Tom used a modern adhesive he learned about from a boatbuilder. This fast-curing, marine-grade polyurethane has the perfect combination of tenacity and flexibility to hold the tongue-and-groove joints together for a very long time. But first Tom had to clean them of old glue and caulk, stripper debris, dirt, and sawdust—a perfect job for his detail sander. After he spread the joints open with a block of wood, the small triangular sanding pad fit easily into the cracks between the staves. When he had sanded the joints clean, Tom wiped away any remaining dust with an acetone-soaked rag.

Since the adhesive has a 30-minute working time, the next step had to be done quickly. After squeezing a bead of glue between each stave, Tom wrapped the column with strips of plastic to keep his band clamps from sticking to the adhesive. Then he positioned and tightened the clamps, tapping the staves as he went—first on the ends, then along their length—so they drew together tightly and in perfect alignment.

The next day, Tom reached again for his smallest sander, but this time he put a scraper head on it, and sliced away protruding strips of cured adhesive. The column was also riddled with nail holes, dents, and gouges, which Tom all but erased with wood filler followed by a careful hand-sanding. He'd seen the way belt- or disc-sanders can put flat spots on a column's perfect roundness. "You need a sander with a backing pad that conforms to the shape of the column," he says. "Hand-sanding is slow, but safe."

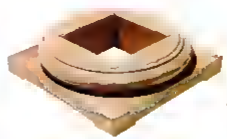
Painting started with a coat of water-repellent wood preservative, followed by an oil-based primer. For a topcoat, Tom brushed on a semigloss oil-base paint—white, of course. "I'm a purist," he says. "Latex paint would probably work just as well, but I still prefer the look of oil."

After putting the reassembled column back in place, Tom lowered the Lally. Shouldering its load once again, the old column looked nearly as good as new, ready to stand tall for another century. And for Tom's porch, it's one down, three to go. "I try to think of this as a weekend project," says Tom. "A lot of weekends." ■

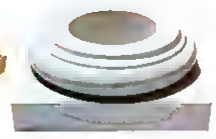
TOH senior editor Tom Baker wrangles a restored column back into place, this time atop a new base. The adjustable Lally column has been extended just enough for the capital to clear the soffit.

BASE MATERIALS

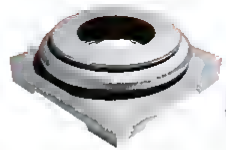
Wood that's in constant contact with water is doomed to rot, a fate that befalls many a column base. Even if it were made of rot-resistant cedar or redwood—and many are not—decades of exposure can still ruin it. Today, however, bases are made not only of wood but also of cast aluminum and different types of plastics, none of which will ever succumb to wood-munching microbes.



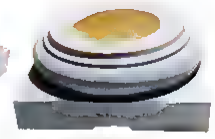
Redwood (shown, $100), cedar, and mahogany bases are turned from large, solid blocks. To protect it from water, the plinth—the square bottom—should be raised off the deck with thin strips of lead or plastic.



Fiberglass bases ($120) are cast from a fiber-reinforced polymer. Poly-marble bases, also cast, incorporate marble dust to make them resemble stone. Both materials typically carry a lifetime warranty.



Cast aluminum is a good choice for large, load-bearing columns. The bases are expensive, about $250 apiece, but carry a lifetime warranty. The bare aluminum has to be coated with special primers and paints.



High-density polyurethane ($85) will never warp, rot, splinter, absorb water, or become a bed-and-breakfast for termites. Critics contend, however, that polyurethane can chip, especially in cold weather.

PHOTOGRAPHS BY KOLIN SMITH

PHOTOS: COLUMN BASES: MICHAEL BRIHAM

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the details

BY ROMY POKORNY PHOTOGRAPHS BY BILL STEELE

YOU'VE GOT MAILBOX

For better or for worse, e-mail has revolutionized the art of correspondence, but as long as paper envelopes endure, houses—happily—will still need mailboxes. Constructed of wood or metal and mounted on posts or walls, these repositories not only connect you to the world but also complement your home's architecture, accent the porch, or anchor the yard. The ritual of walking to the mailbox in anticipation of its daily offering becomes all the more satisfying when the box reflects your personal style.

Made of brass and mounted with an ornate bracket, this updated drop-door style from Custom Home Accessories gives handsome curbside service

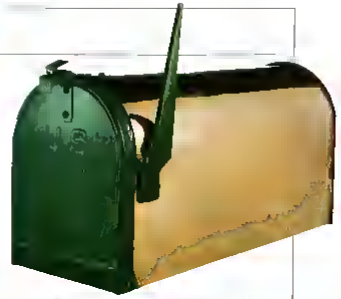
The[illegible] to every
Monte [illegible] steel and [illegible]
on the ou[illegible] But in[illegible] it's a bit
more wild, [illegible]s to a [illegible]-HP V6.
One is [illegible] taste.
Monte [illegible] the side [illegible] show
the wo[illegible] to yo[illegible]

MONTE [illegible]ARLO Z34
Genuine Chevrolet

the details

Hung on a door or porch, an Orvis split willow creel holds the day's catch—of mail

Embossed with a mail-call horn, a painted steel bin from Transmarket Export AB gives a house a burst of color



An oversize copper box from Still River Designs evokes the tune of Rural Free Delivery

San Francisco–based craftsman Kemil Pepin creates simple quartersawn oak mailboxes with an Arts & Crafts–style cutout

A Cape Cod–style roof tops Hinkley Lighting's brass box, which features soldered braces and newspaper hooks.

Smith & Hawken's curved container in mirror-finished steel includes a frame for the homeowner's name on the lid

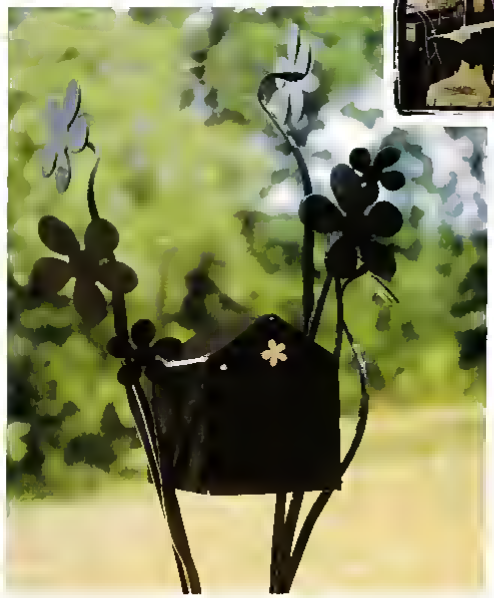
A matte-black saddlebag in galvanized steel from Colony Metalsmiths harkens back to the days of the Pony Express

Verdigris adds character to this slender brass mailbox with a trapezoidal top, from Hinkley Lighting

Joseph Mross's hammered copper mailbox with its sundaw-like openings resembles a rustic cottage.

Post Master

Working in a carriage-house workshop behind his Baltimore home, Brad McDougall concocts novelty mailboxes by welding nails, forged figurines, and double-bit axes to fabricated steel containers. He built his first mailbox in 1991 for a crafts competition at the Rochester Institute of Technology in upstate New York. "We had one day to make a mailbox, using any material," says McDougall, 28. "I thought traditional mailboxes were boring." He won an award, and has produced anything-but-boring mailbox sculptures ever since. An oxidized steel kitty crouches atop one box, while another takes on a humanoid shape with red extension cords for hair. His *Nail Box*, featuring a baseball bat snared in a bristling coat of nails, sends a clear message to thieves or vandals, but McDougall's best-selling design strikes a gentler note. It features rusty blades of steel grass that "whistle in the wind and play a song," he says. An interactive mailbox?



ABOVE. Metalsmith Brad McDougall softens up when his 5 month-old daughter, Olivia, visits the studio where he creates his traffic-stopping mailboxes. LEFT. Brad McDougall's gable-roofed house of letters nestles amid hand-cut steel flowers

In-door Delivery

For homeowners whose postal carriers still walk their route—and who don't mind having mail cascade onto their foyer floor—letter slots are a charming way to receive the daily dispatch. Vantage versions, such as this neo-Gothic cast-iron slot (the outer and inner sides are shown), give front doors a Victorian sensibility. Find them at architectural salvage shops.

PHOTOS: CRAFTSMAN: TOM WOLFF; MAIL SLOTS: BILL STEELE

THIS OLD HOUSE

Mind in the Gutter

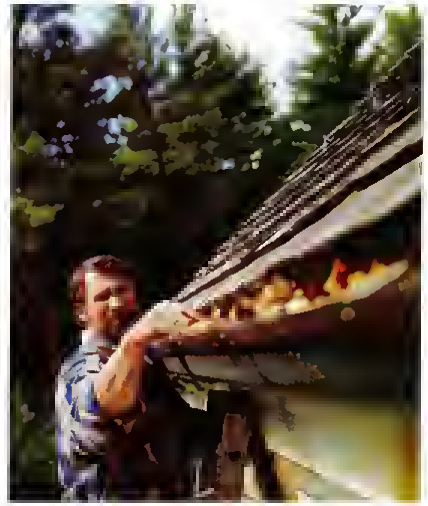
Autumn reveals the quintessence of New England. The warm days and frosty nights set the sugar maples afire and ripen the crab apples for birds to feast on. Pumpkins and squash are stacked up at roadside fruit and vegetable stands along with freshly picked Macintosh apples and pressed cider. Even after 20 years on the East coast, I'm amazed by the glories of a New England fall. I grew up on a surfboard in Southern California, where September meant wearing shoes for the first time since school let out and riding big waves pushed up by the equinoctial gales off Alaska.

But whatever the pleasures of fall, it also brings a list of chores for a home owner. Some of mine are quite pleasant, like splitting firewood by hand and raking crisp leaves into big piles my son and his pals love to jump into. (Bagging the dead foliage, however, is a drag.) Blowing out the garden pipes with compressed air before the first hard freeze is painless and highly satisfying. Still other tasks—firing up the boiler and bleeding the air out of the radiators—make me anxious. Maybe the system won't work (usually the fault of a bad thermocouple), and I'll have to make a desperate call to my plumber.

But there's one job I just downright hate: cleaning the gutters. I put it off as long as I can—usually until a raw, rainy day comes along and confronts me with the embarrassing sight of water cascading off the roof and down the side walls. Out comes the 30-foot extension ladder and up I go. Clad in rain gear, working 4-foot sections at a time, I scoop handfuls of smelly black ooze and fling them down on the brick walk, where they land with a disgusting plop.

Every year I swear that I'm going to install a gutter screening system to keep out the leaves. And every year, for some reason, I put it off until it's too late. But this year, as I was up on my ladder, clearing muck and muttering invectives, I reflected on the upside of this odious task. It gives me a chance to look around, assess the condition of the roof, soffits, siding, and clapboards, and discover any chinks in the house's armor that could admit water—a home's most relentless enemy.

My house has been standing here since 1836 (although the construction indicates she was built earlier and moved to the site). I think of her as an old wooden boat, stout and hearty if well-maintained. She's seen a lot more winters than I ever will and, if future owners keep up with their fall to-do list, she'll see a lot more.



When it comes to cleaning gutters, This Old House *host Steve Thomas prefers to let his pal Norm Abram (above) do the honors.*

BY STEVE THOMAS PHOTOGRAPH BY KELLER & KELLER

Additions. The next big thing from the Holloways.

More cargo room. More people room. More spare room. The new Saturn L Series
A Different Kind of Company. A Different Kind of Car.

LS. The next big thing from Saturn.

building on tradition

This Old House looks to the past to find the future

BY BRAD LEMLEY

In 1957, engineers from the Massachusetts Institute of Technology erected the Monsanto House of the Future at Disneyland. With an outlandish shape that was variously described as a pinwheel, a clam, and a flying saucer, the house was sheathed in plastic and rested on a pedestal. Inside, the kitchen boasted a prototype of a microwave oven, an amazing innovation that promised meals in minutes. The living room was dominated by a model for a flat, wall-mounted television, whose time has just now come. In its first year, two million tourists eagerly trooped through this paean to plastic.

More than four decades later, in Billerica, Massachusetts, *This Old House* is building another vision of how Americans want

PHOTO: MICHAEL GRIMM

Four months after the fire, Dick Silva's house is sheathed, roofed, and ready for siding, windows, and trim. This gabled section will contain the kitchen with a bay window and the upstairs master suite.

to live as we turn the corner on the future. And the project reveals how much—and in some ways, how little—our notion of the perfect home has changed.

The vision belongs to architect Chris Dallmus, whose firm, Design Associates Inc., has worked on many *This Old House* renovations. The house belongs to Dick Silva, a talented carpenter who has worked side by side with his brother Tom for more than 30 years. When Dick's 70-year-old Cape burned down in March, the show's producers decided to make the construction of his new home the focus of the Fall 1999 series and immediately enlisted Dallmus and an armada of suppliers in the effort.

From the outside, at least, Dallmus's design for the new Silva house is anything but a sleek spacepod. Bay windows bulge from walls. Porches and pergolas overhang decks, and dormers pop out of high-peaked roofs. It has all the signature elements of Victorian architecture, a style more than 100 years old. But beneath the antique appearance lies a thoroughly modern, forward-looking house, one stripped of Victorian stuffiness and equipped with the latest materials and labor-saving conveniences. In this respect, at least, it's not far removed from the Disneyland display. "This design takes 18th- and 19th-century architectural details and combines them with 20th- and 21st-century technology," says Dallmus.

Eric Machemer strides through the partially framed first floor. He and his workmen erected and sheathed the complex, 3,200-square-foot house in just two and a half weeks.

And that, according to the National Association of Home Builders' Research Center, is just the sort of home most Americans dream of. "Houses in the '80s were mostly garages with boxes attached," says Will Biddle, survey project manager for NAHB. "Residential construction today has steeper roofs, higher ceilings, and more exterior ornamental trim." Biddle's surveys also show that installations of high-tech options such as home security systems have nearly doubled, and features like centralized music systems, home theaters, and automated environments—virtually nonexistent in 1989—had become almost commonplace in high-end homes by 1997. In short, Americans are eager to step forward into a technological future, but seem to want a framework that tells us where we came from.

Dallmus drew his inspiration for the old look of Silva's house from the simple gable-front "workman's cottages" in Billerica's town center and other mill towns nearby. "These were the raised-ranches and split-levels of 100 years ago," he says. Adding a pair of flanking wings helped reduce the design's mass, define the interior spaces, and "make it look like it was built in the 1840s and had been added onto over the years."

That notion resonated with Dick. Over the last three decades, he industriously customized his old Cape, adding a huge family room, a two-car garage, a shed dormer, five skylights, a spacious deck, and countless other improvements. His wife, Sandra, soon learned never to make a casual remodeling suggestion. "I'd say to Dick, 'Gee, it would be kind of nice to have another door into the dining room.' Five minutes later, there was a saw blade coming through the wall."

The interior design captures some virtues of the Silvas' original house. Dick and his family will again have a big kitchen overlooking the lovely backyard, and most of the rooms will be flooded with natural light. "We used to have 63 windows," Dick says. His new Victorian will have 65. But Dallmus has also corrected some of the old home's nagging flaws. The kitchen will have a proper sit-down eating area instead of a knee-bumping bar-and-stools setup. Dick will no longer have to tango around steel support posts in his basement workshop, thanks to two massive steel I-beams and several wood I-joists that clear-span the space. On the second floor, four big bedrooms will replace the smaller quarters of the original house. The new layout includes a master bedroom, rooms for daughters Janneen and Danielle, and a guest room, as well as three baths. "In the new house, no bedroom adjoins another," says Dallmus. "And three of the four bedrooms will have windows on three sides."

In a nod to the future, the Silva house will be equipped with a cornucopia of electronic entertainment and computer-based networking and security systems. (See "Wired for the Future," p. 86.)

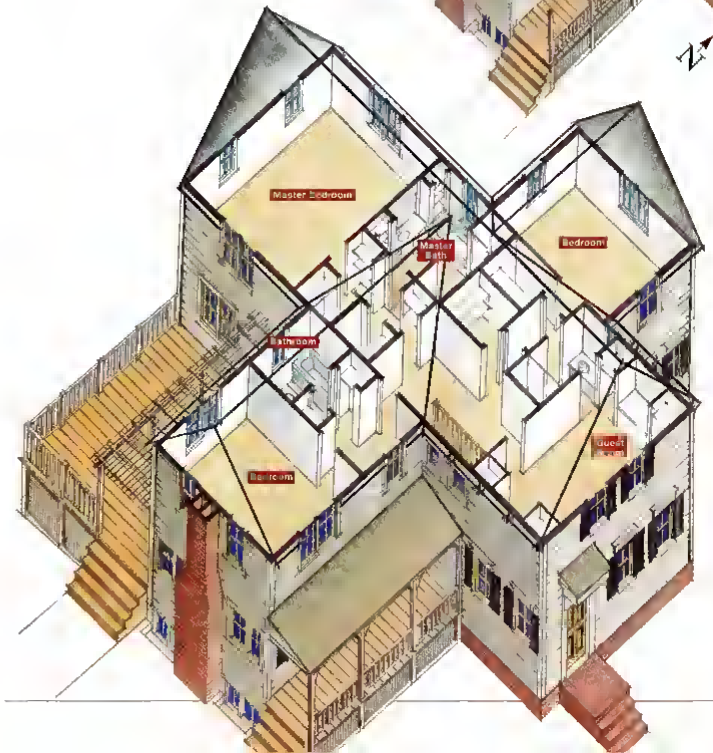
And like the Monsanto house, virtually every inch of the exterior will be covered with synthetics selected for durability and low maintenance. But instead of plastic, the siding and trim will be made of a fiber-impregnated cement, a product that resembles cedar and carries a 50-year warranty. Most of the exterior ornament, from the brackets to the porch railings and posts, will be made of high-density urethane foam. And the roof will be topped with recycled-rubber shingles that look like slate and are guaranteed to last 50 years. These materials not only simulate the look of the materials they're replacing, they're also installed in much the same way. "The art has come of age," says Dallmus.

Construction is already roaring along as everyone works hard to get the Silvas out of their temporary quarters: a 70-foot-long trailer parked in the old driveway. Dick, the trim carpenter on this project, is on the job every day, dressing up the exterior with mahogany moldings, or deciding what kind of appliances to put in. "It took me 32 years to get the old house the way we wanted it," says Dick, slicing a 2x6 with a chop-saw. "This one will be right from the start." And unlike the Disneyland house, this home really has a future. ■

PHOTO: JOE TUTKUS; ILLUSTRATIONS: TIM MATTSON

FIRST FLOOR

Building a 21st-century house with 19th-century style has its challenges. Because of the three bay windows and the four wings, for instance, the foundation contractor had to make up a form with 26 corners. Later, the framing contractor raised the rafters when he had to contend with nine dormers peeking out of the roof. "It's not a simple house," says architect Chris Dallmus.



SECOND FLOOR

The design's east-west axis "represents what you could think of as the original house," says Dallmus. The pair of flanking additions simulate what an industrious builder-owner might have crafted to accommodate his growing family. The T-shape separates the bedrooms from one another, maximizing the sense of privacy, and gives every room but the guest bedroom windows on three sides.

Wired for the **Future**

One day, perhaps, Dick Silva will walk into his kitchen and pour a steaming cup of java from the coffeemaker, which started brewing as soon as he pushed the snooze button on his alarm clock. If he runs in the last of the milk, the refrigerator scanner will automatically note its absence and add milk to an electronic shopping list, which will be e-mailed to a grocery store for delivery later that day. The ever-attentive computer in the upstairs office will display a reminder message on the flat-screen monitor next to the sink. Grab a raincoat (the on line weather forecast is predicting showers) and come home early for your anniversary dinner.

Although these innovations seem fantastic, it may not be long before they become everyday realities. But if Dick is ever to enjoy such conveniences, his house will have to be wired for them.

Wiring is the infrastructure that enables electronic gadgets to work. It should be as crucial to the design of the house as the plumbing and heating systems. But what type of wiring should one install? No one wants to bury something in the walls that will be as obsolete as a Model T in a couple of years. Although it's hard to predict the direction technology will take, it's fairly safe to assume that for the next 20 years, at least, no single wire will be able to handle all the changes in computers, home theater, communication, lighting, security, and comfort control. Dick will be wise to have three types of wire running through his home.

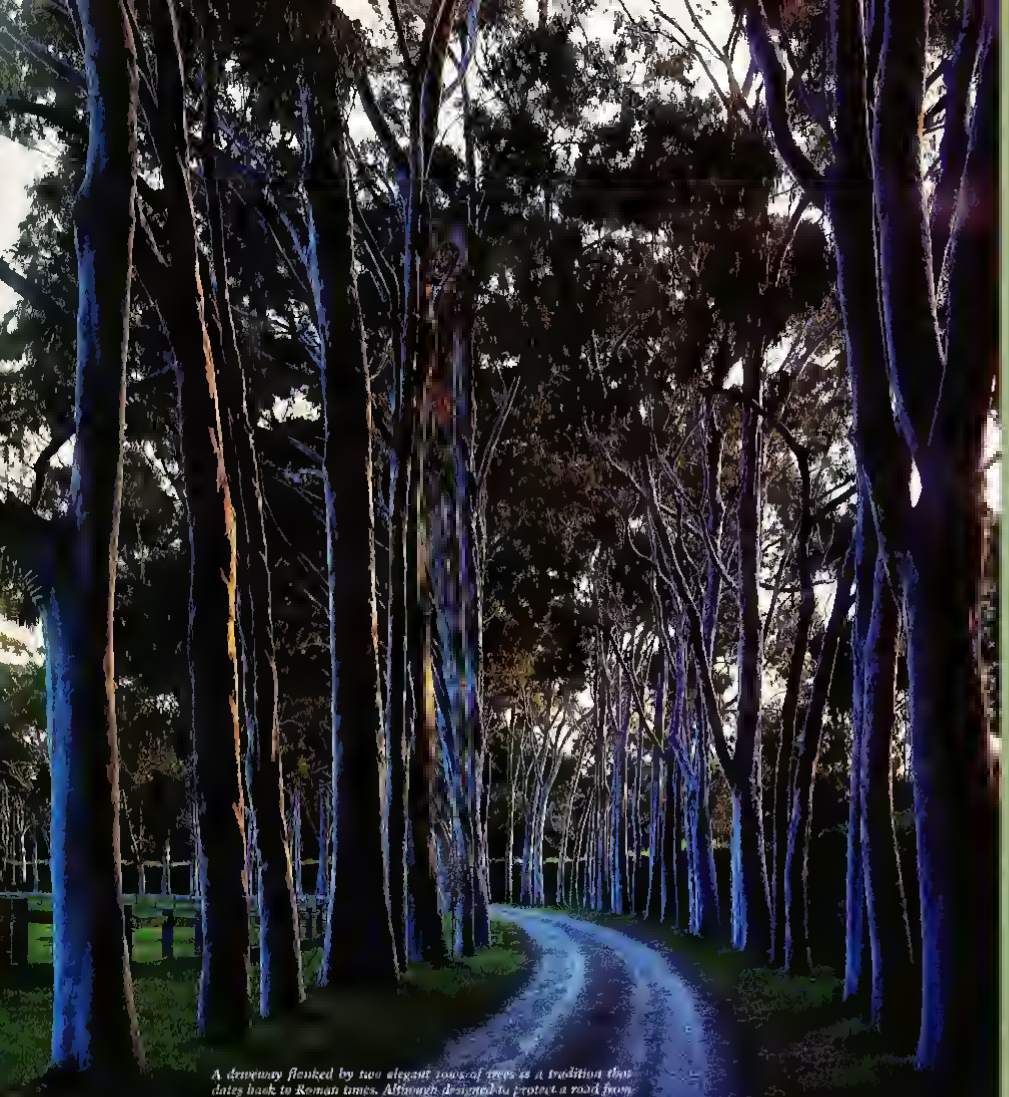
A good starting point is Category 5, or Cat5, phone wiring. It has the capacity to transfer voice communication and digital data (the sort favored by high-speed computer modems, as well as security and comfort-control systems), and it can do so simultaneously, if need be. At 20 cents a foot, Cat5 costs a bit more than common twisted-pair phone wiring, but the price is easy to justify. The experts recommend at least two of these lines throughout the house, if one wire has a problem or is overloaded, the second wire can take over.

Coaxial, or coax, cable is the natural choice for connecting video, and will likely be the primary conduit for all sorts of audio, video, and computer services in the future. The best cable—RG-6QS—runs 20 to 35 cents per foot. As with phone wiring, it's a good idea to string twin coax lines.

Coaxial cable may one day also send sound to speakers, but it's not yet time to abandon dedicated speaker wire. Just get the good stuff: thick 8- to 14-gauge stranded copper wire that's well-insulated in a tough plastic or PVC jacket. It costs from about 50 cents to a dollar per foot. Those on the leading edge talk of two-way fiber-optic cable for future audio and video systems, but the general feeling right now is to let the phone company worry about fiber; good speaker, coax, and Cat5 wires will do plenty.

All wiring ought to run directly from a central panel to every room, a hub-and-spoke arrangement that makes finding and correcting problems easier. And wherever new wire or cable runs, the electrician should install them so they can be readily replaced when they're obsolete. Inevitably, they will be. —Chris O'Malley

ILLUSTRATION: DAVID BUTLER



A driveway flanked by two elegant rows of trees is a tradition that dates back to Roman times. Although designed to protect a road from the wind and weather it also creates an impressive entrance. These lemon-scented gum trees thrive in southern locations, but many column-shaped types, such as the pin oak or linden, can have a similarly dramatic effect when used in abundance and spaced no more than 20 feet apart.

WITH INSPIRED PLANNING, TREES CAN BEAUTIFY, DEFINE, AND FOCUS A PROPERTY

Trees

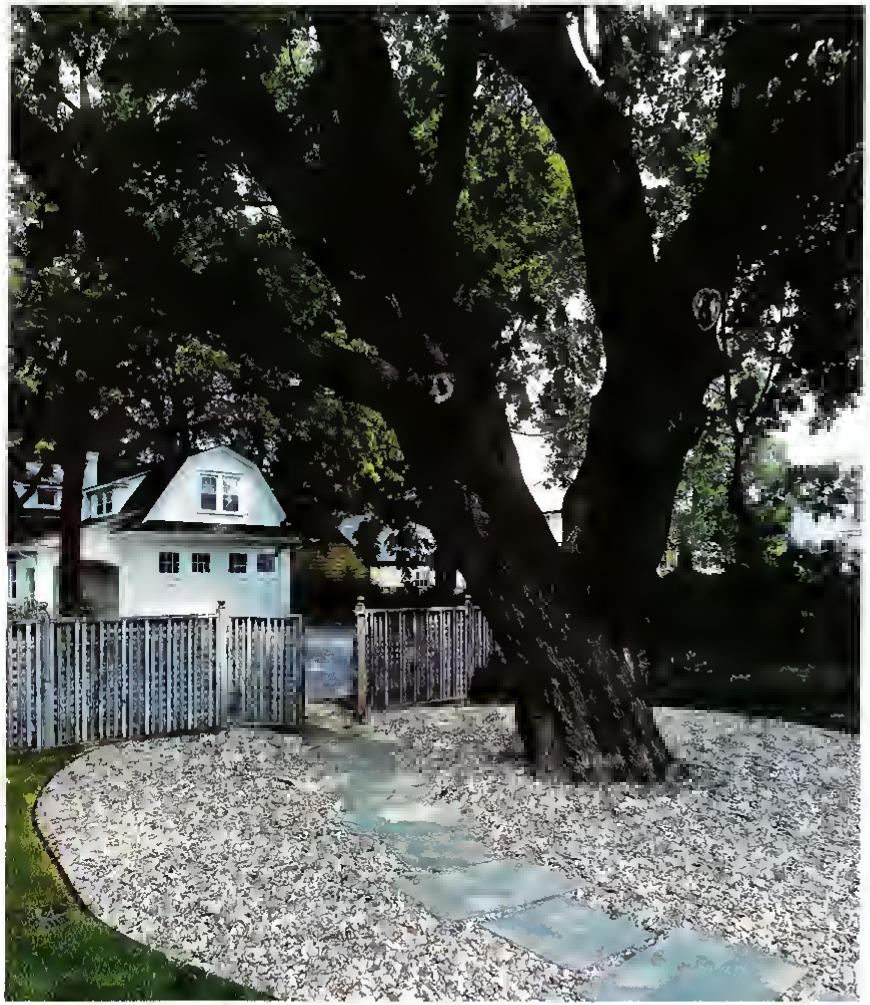
BY CURTIS RIST

In the woods, nature chooses random places for trees But in a yard a more methodical approach is required The placement of trees determines how well different sizes, shapes and colors harmonize with one another and flatter your home A run of white pines frames a field, turning it into an outdoor room A single gorgeous copper beech becomes a focal point for a yard A few well-placed elms provide a graceful canopy over a house and cast a dappled light "With trees, it's as much where you plant as what you plant ' says John Geiger, a landscape architect based in Greenwich, Connecticut

The key to successful treescapes is envisioning the height diameter and silhouette of each species in 10 to 20 years' time In their zeal to soften a house's sharp angles and fill out a yard many homeowners make the mistake of planting young trees without considering how their roots and branches will spread As the years go by and the trees mature they crowd one another, and some may have to be thinned But when trees are positioned properly they fulfill their mission and provide years of delight "Trees make all the difference," says Ozzie Bateman, a horticulturist from Rhinebeck New York "No matter what the architecture, they give a property a towering sense of life "

A grove of oaks and maples gives this house in Larchmont, New York, the appealing intimacy of a woodland cottage. Although large deciduous trees take up to 100 years to grow to their mature height, a home built on an undeveloped lot can achieve a canopy effect sooner with careful siting. A rule of green thumbs: Plant each tree as far from a structure as the tree is tall. For example, an elm that is likely to reach 40 feet should be 40 feet from a house. Otherwise, spreading roots can undermine the foundation, and a falling limb may tear through the roof.

PHOTO: KEN BRUSH



A tree isolated within a moat of shrubs, rocks, pavers, or flowers adds majesty to an otherwise nondescript patch of land. Positioning a single tree or a cluster of dainty white birches in the middle of a circular drive or other island will give it a dramatic centerpiece. You can also landscape to draw attention to an impressive tree. The shallow root system and shade thrown by this Norway maple in Bergen County, New Jersey prevented grass from growing beneath it. The homeowners made a virtue of the problem by setting the tree off with a gravel surround and footpath

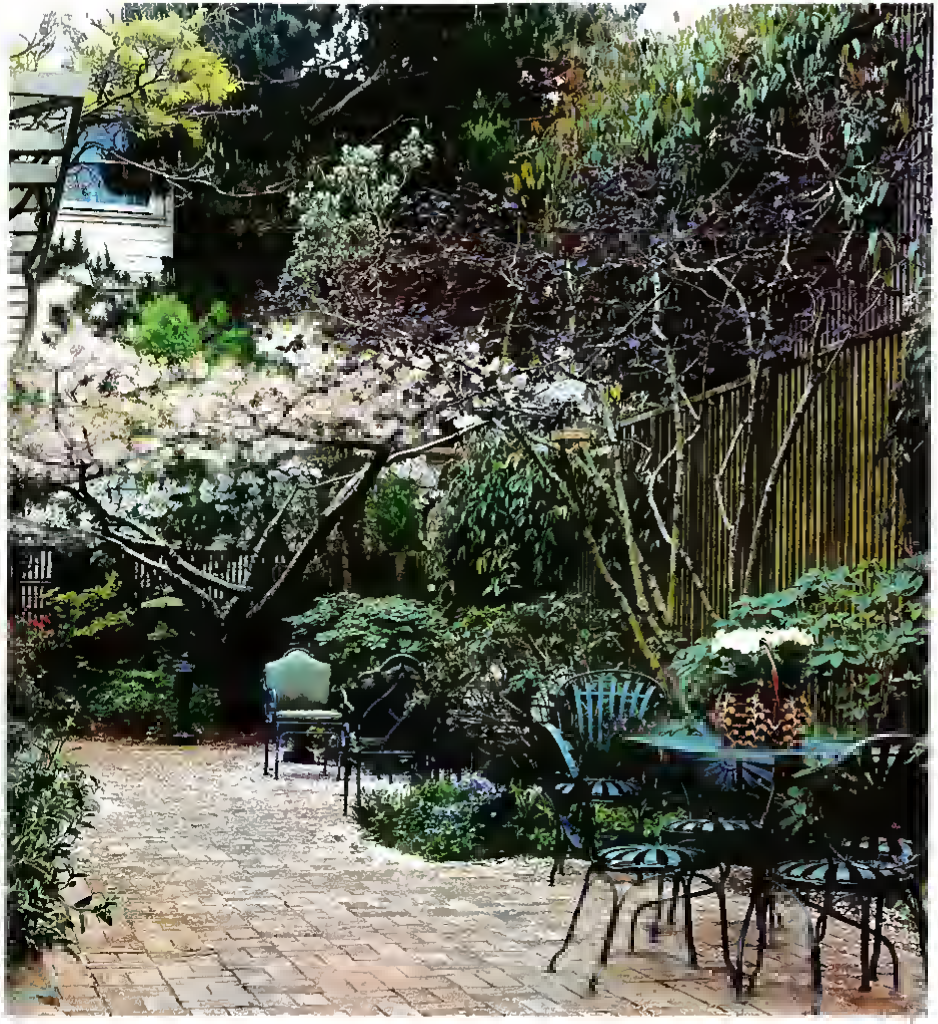
SCREEN

At this suburban house near Madison, Wisconsin, a cluster of sugar maples provides privacy from neighbors more gently than any fence. But because a string of maples planted 40 feet apart might take 20 years to fill out, consider interspersing them with fast-growing poplars. With a lifespan of only 20 or so years, poplars can be removed as the maples mature. For year-round screening, evergreens spaced 12 feet apart will do the job.

SCULPTURE

Planted in the right spot, a specimen tree, such as this apple tree in Westchester County, New York, can turn a greenspace into a harmonious composition. When arranging the elements of a landscape, remember that perfect symmetry is not necessary; a tree becomes more compelling if slightly off center. Balanced by open space, a species can function as a living object of art, particularly if it's of great stature or if, like a white hickory, it reveals spectacularly gnarled branches in the winter.

PHOTOS: KEN DRUSE



You can plant small ornamental and dwarf varieties as close as 6 feet to a home or patio without worrying about spreading roots. Still, small trees, such as this cherry in a San Francisco courtyard, need pruning to keep branches from brushing up against the house, which could cause mildew and other damage. Typical plantings include dogwood, crabapple and—for brilliant accent color—exotics such as the Japanese red maple. "But if you're looking for low maintenance," says Geiger, "native species are the best because they're naturally adapted to a particular climate."

PHOTO: KEN DRUSE

back together again

A devastating fire in an 18th-century farmhouse gives its devoted owner a chance to restore more than his home

"No way," declared Norm Abram.

America's uber-builder stood in the charred living room of a burned-out saltbox in Ipswich, Massachusetts, shaking his head at the prospects for making it livable once again. But when Norm delivered his assessment to the owner, Charles "Chubb" Whitten, the 40-year-old industrial property developer just smiled. Compact and muscular, and a buzz-saw of a man—"I'm Type A-plus," he says cheerfully—Whitten had already decided to rebuild his circa-1720 house when Norm and Steve Thomas dropped by in the spring of '98 to size it up as a potential TV project. He listened politely to Norm's rationale. Not only would the renovation take far longer than the show's six-month production schedule, it was most likely doomed to fail. "I worked a fire job once, and swore I never would again," Norm told him. "You'll never get the smell out. . . . Pull it down and start over."

But even as Norm demurred, Whitten squinted at a blackened chestnut beam and imagined himself sawing off the lumpy black char. Now, just one year after the show passed on the project, Whitten stands triumphant in his restored post-and-beam living room. He points at the meticulously plastered ceiling. "A year ago, you could see right through to the sky from here," he says. "We lost most of the house, but now it's better than new."

And the smell? "None," says Whitten, and he's right. Throughout the 4,200 square-foot house, once again a glory of hand-planed beams, pine paneling, and tightly mitered trim, not a whiff of smokiness remains. In the living room, only the tang of fresh wax on the newly laid floorboards hangs in the air.

"This whole experience proved that you should never give up on something just because it looks hopeless," says Jane Alaimo, Whitten's ex-wife. The remark bears not only on the reconstruction effort, to which she devoted many long hours herself, but to the couple's relationship. She and Whitten had already begun a reconciliation before the fire, which the ordeal helped strengthen.

Whitten was on a skiing vacation in Utah when the blaze broke out. It was March 1, 1998, and, following a soak in the hot-tub, his house-sitter and four

BY BRAD LEMLEY PHOTOGRAPHS BY ERIC ROTH

OPPOSITE: A fire that started in the living room did most of its damage to the second floor, burning through several rooms and most of the roof. THIS PAGE: Making the house livable took more than a year of hard work, but it also gave Chubb Whitten and Jane Alaimo time to work through some problems in their relationship. They play with their Lab, Whitey, in the backyard.

New framing for the top floor and the roof adhered to old methods of post-and-beam construction. The owner's insistence upon authenticity even led to the use of cast-iron cut nails, just like the ones used nearly 300 years ago.

of her friends had heaped a dozen four-foot logs in the living-room fireplace, and luxuriated in front of it before heading upstairs to bed. But while they slept, the blaze grew. A wooden lintel over the hearth—which had seen, and survived, tens of thousands of fires over nearly three centuries—ignited and sent flames up through an interior wall and into a pair of second-floor closets. Smoke roused the sleepers, who dashed onto the lawn.

"Within two minutes of their getting out, the whole place was roaring," says Whitten. Flames burst through the roofs of both the original saltbox and its circa-1900 gambrel addition. Trucks from three towns dumped water on the blaze for eight hours. When the last flame was doused, the entire roof was either black or gone, the second floor was a charred shell, and the first floor had been devastated both by fire and by water that buckled the maple flooring and soaked the plaster. "Basically, the upstairs was gone. Add in the water damage, and 70 percent of the house was ruined," says Whitten.

By pure coincidence, Alaimo, 36, was spending the night at a friend's house nearby. The fire was still roaring when a neighbor called with the news. Alaimo rushed to the house. "She basically took charge," says Whitten; she even went inside with a fireman to retrieve her ex-husband's fishing logbook, which contained a lifetime of notes and remembrances. Then she put in a call to Whitten, who immediately flew back.

Wasting no time on recriminations or regrets, Whitten tore into the house with characteristic gusto, prying loose and stockpiling any remaining usable pine paneling, wide plank floor boards, and old clay brick. "Jane and I tossed about 55 tons of material into the Dumpster, but we also saved quite a lot," Whitten says. "The plan was to incorporate the salvage into a new house that we'd build on the site. But as we kept removing material, going up and down the stairs, I started thinking, 'Hey, maybe we can rebuild this thing.' After about a week, I was sure."

Which is when Doubting Norm entered the picture, although he was far from the only skeptic. "Everyone said I was nuts," recalls Whitten. Mike Doiron, who signed on as the general contractor, remembers his first visit to the site: "My overwhelming inclination was to run away screaming."

But Whitten brought relentless optimism, energy, and tenacity to the task, as well as two other big plusses: a $575,000 full-replacement-cost insurance settlement, and his experience in construction. "I know how to manage a project," he says. "The Boston real estate market was getting crazy anyway, so I took a year's leave of absence to do this."

Working with three crewmen, Whitten and Doiron continued hoarding every scrap of reusable material. "We were pretty psycho about saving everything we could," says Whitten. "I wanted to be true to the house." But as the men attacked with crowbar and reciprocating saw, they found nasty surprises daily, sometimes hourly. "The house was burned above and rotted below, and the space in between was all torn up by earlier remodeling efforts," says Doiron. "When previous owners wanted to add bathroom plumbing and a beam was in the way, they'd just cut through it or take it out."

Since buying the house in 1992, Whitten had updated the plumbing, heating, and electrical systems, but he'd never found the time or money to fix the foundation. "Under the living room, it was just four or five big boulders sitting on the ground. There was no footing and no crawl space at all," says Doiron. "The whole house was sinking.

It was a minor miracle that in the room where the blaze began, the wood paneling around the fireplace was barely damaged and only needed cleaning and refinishing.

furnishing the fireplace

After rebuilding his house, Chubb Whitten had to refurnish it, too, since almost everything had been consumed in the fire. Working with Whitten and Alaimo, *This Old House* called on local antiques dealer Andrew Spindler to help outfit a few rooms with period pieces and Oriental rugs. In the living room (opposite page) a 19th-century Pennsylvania German farm bench and two matching slipper chairs create a graceful seating area around the hearth. Here are some other chairs that would pair perfectly for evenings beside a fire.

Mitchell Gold's classic over-stuffed club in chocolate leather

Button-back with rolled arms and a loose seat cushion, from Milling Road

A Stickley Morris chair with an oak frame, from E.J. Audi

Milling Road's streamlined wing with brass nailhead trim and casters

Ethan Allen's Art Deco–inspired reading chair with damask upholstery

Like the rest of the house, the new kitchen has its share of salvaged materials. The island was made from an old workshop table found at a flea market and then topped with a fresh slab of butcher block. The slate sink came from a home that was being renovated, brought in by a workman who guessed, correctly, that Whitten might want it.

around the fireplace, and there was dirt just two inches under the living-room floor. We dug it out with shovels and five-gallon buckets." After jacking up the house, Whitten poured a concrete foundation, complete with crawl space, for the living room, then rechinked and repointed the granite foundation under the rest of the house.

From the start, Whitten was confident he could vanquish the residual smell, which, as Norm had noted, is where most burn-renovations fail. "My industrial construction background really helped on that one," says Whitten. "You're supposed to scrape off the char by hand, but that takes too much time. I had one of my guys come in and sandblast for six weeks. There was sand everywhere, but it really worked great." After each charred framing member or wall panel had been blasted back to clean wood—or as near to it as possible—painters sealed the surface with shellac to encapsulate any remaining odor.

With the foundation solid, the second floor torn off, and the smell sealed in, Whitten and Doiron began rebuilding the upstairs frame. "We decided what could stay and what had to go based on common sense and advice from a structural engineer," says Doiron. Using red oak beams brought in from western Massachusetts, Doiron, Whitten, and timber framer Robert Weatherall began grafting a new structure onto the old, creating a forest of posts to gird the new roof and its 27-foot-long rafters. After framing the upstairs, the trio worked their way through all the rooms of the first floor. "Every wall in the house except the front wall of the first floor was either replaced or repaired," says Doiron.

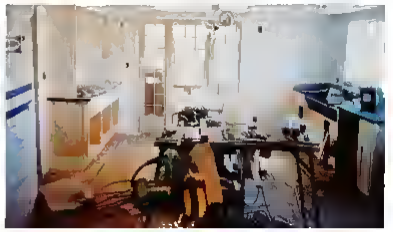
Only partially damaged by the fire, the screened porch off the kitchen just needed a new roof and a coat of paint to resume its role as a warm-weather dining room. The French doors and sidelights, once installed at a nearby prep school, bring more light into the kitchen.

Throughout the job, Whitten shunned almost all modern construction materials; the house is a paean to 18th-century technology and aesthetics. One example: Though the sheathing—sandwiched between the clapboards and the plaster walls—is invisible, Whitten and Doiron made it entirely of inch-thick pine boards rather than plywood. That's anachronistic enough, but they also fastened those boards to the framing with cut nails, exactly like the ones used in the original construction.

"That's just nuts," says Whitten proudly.

"But we were both into it," adds Doiron with a grin. "We kept thinking, when some guy tears this place apart 100 years from now and tries to date the construction, this will really confuse him."

With the skeleton and sheathing in place, the men moved on to the daunting finish work. Doiron, though a veteran of dozens of major renovations, had never tackled an interior quite this challenging. He recalls reassembling the front stairs. "I laid out a zillion random, unmarked pieces on the living-room floor and stared at them for 45 minutes before I started. I had to match them nailhole by nailhole." Whitten caresses a hand-carved pine banister. "We just had to keep these stairs."



While the blaze destroyed the second floor, water from firemen's hoses did its own damage downstairs. In the kitchen, the plaster ceiling and walls, as well as the wood floor, were beyond repair, and the 1960s cabinets weren't worth saving. So the room was gutted, refloored with oak planks, replastered, and fitted with face-frame cabinets that were more in keeping with the house's style.

That reverence for history guided virtually every decision. When laying the wide-plank oak and pine floors, Whitten and Doiron carefully placed the most-worn boards on the paths between doorways to reflect what 290 years of foot traffic might have done. Many windows are new, but they're glazed with antique mouth-blown glass. The window screening is old-fashioned bronze net. It glows gold in the late afternoon sun, but in a few years the salt air from nearby Ipswich Bay, Whitter predicts, "will make it green up nicely." Throughout the house, wherever he couldn't replace visible woodwork with a piece from his personal salvage stash, Whitten used reclaimed wood purchased from a Vermont dealer to get the appropriately aged look. New pieces were treated to look old (see box).

The near-total destruction of the second floor allowed for some layout changes when it was rebuilt. Relocating the bathroom to the site of a former bedroom gave this clawfoot tub a larger, brighter home.

Despite his obsession with historical accuracy, Whitten did install some modern materials and systems, such as R-19 insulation in all the exterior walls and radiant floor heating in the kitchen and exercise room. "This house was so drafty. We always froze in winter," he says. "But now that it's all closed in and insulated, the place stays warmer with four radiators than it used to with 20."

Construction ended in March 1999, almost exactly a year after the blaze, and Whitten, ever the hard-charging project manager, spent only $15,000 more than he got in the insurance settlement. "The whole thing was a positive experience," he says. "Before it burned, the house needed a good $200,000 in work, and who knows when I would have gotten to it? Now all of that and more has been done."

Another positive result transcends honey-toned patinas and hand-planed woodwork. As Whitten and Alaimo worked side by side to bring back the house, they also began reconstructing their relationship. "Rebuilding the house was very metaphorical," says Alaimo. Will she be moving back in with Chubb? "We're talking about it," she says.

making new wood look old

When Chubb Whitten conducts a house tour, he likes to play "spot the new wood," challenging visitors to identify which wall panels are original and which are not. In fact, about half the panels are new, but, he says with a grin, "people can't tell them apart."

To begin the deception, builder Mike Doiron took a hand-plane to some 18th-century pine Whitten had bought, adding authentic-looking striations. After all the pieces were installed, master refinisher David Taubeneck washed all the panels with a solution of trisodium phosphate—two tablespoons to one gallon of water—to even out the color. When the panels were dry, he sanded them with 150-grit paper and brushed on a coat of clear shellac. "Pine is so porous," he says. "It sucks up too much stain unless you seal it."

Then Taubeneck made four stains—each a different mixture of shellac, denatured alcohol, and pigment—that ranged in color from weak tea to strong coffee. "I'd wipe on a color, and the shellac in the mixture would seal it," he says. "The alcohol dries in two minutes, so you can add layers until you get the tone you want."

When the colors were right, "the sheen still looked patchy," says Taubeneck. So he brushed on two coats of orange shellac, rubbing the second coat with fine steel wool. Finally, he applied two coats of floor wax. "Chubb wanted the walls dull, so we buffed the wax lightly to create a soft sheen," says Taubeneck. "It's the right look for the house."

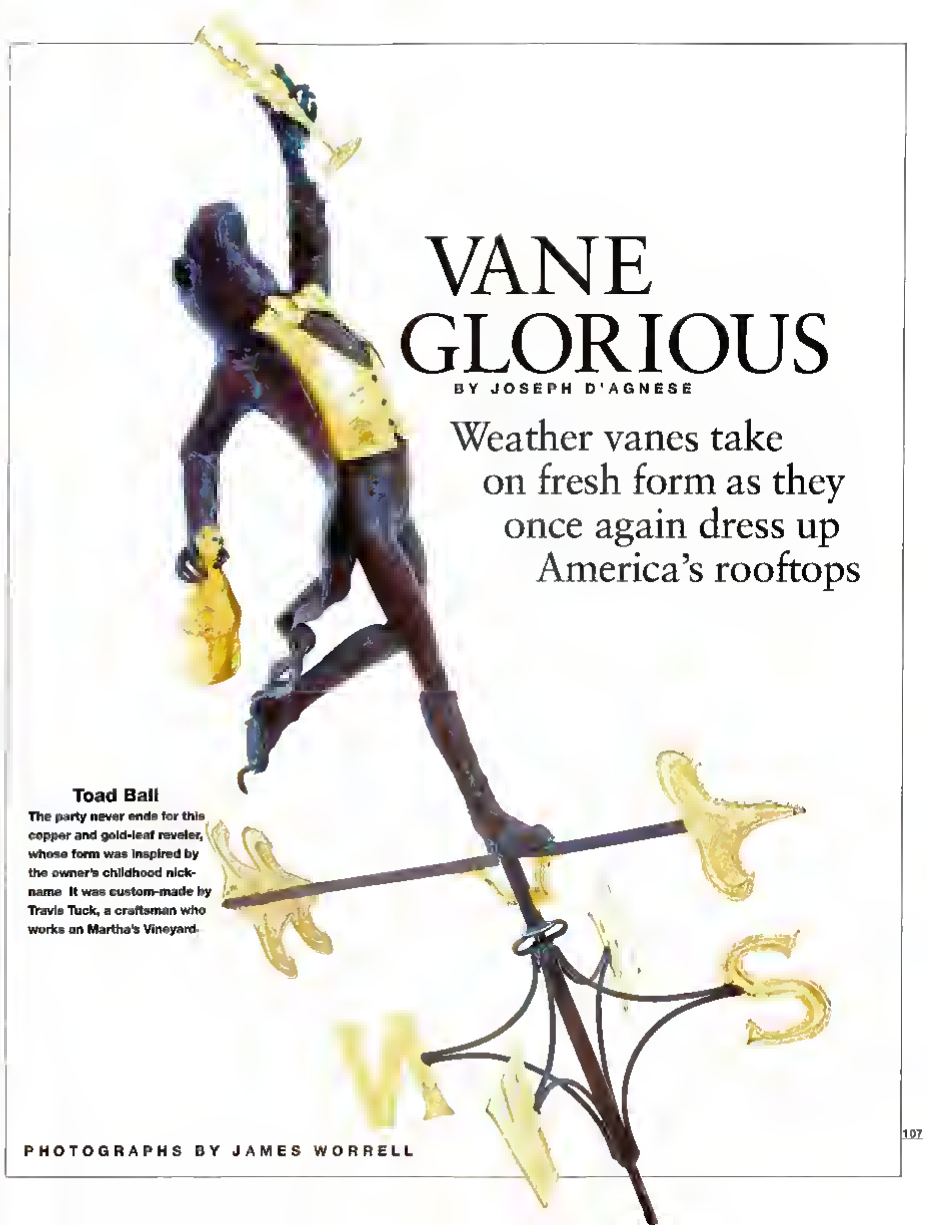
After the fire gutted the dining room, LEFT, the owner took down several first-floor walls and rebuilt the entire central chimney, creating a brick-and-mortar monolith that measures 16' by 16' at the base. It contains flues for five fireplaces as well as the heating system boiler.

With its wide-plank flooring, raised panelling, and old-wood beams, the dining room looks as though it has barely been touched by time, much less gutted by fire.

VANE GLORIOUS

BY JOSEPH D'AGNESE

Weather vanes take on fresh form as they once again dress up America's rooftops



Toad Ball

The party never ends for this copper and gold-leaf reveler, whose form was inspired by the owner's childhood nickname. It was custom-made by Travis Tuck, a craftsman who works on Martha's Vineyard.

PHOTOGRAPHS BY JAMES WORRELL

Two turrets rise majestically above the rooftop of Stuart and Linda Hellman's new Colonial in Cold Spring Harbor, New York. But when they were still on the architect's drawing board, Stuart felt they needed something extra, and he knew precisely what. A serious baseball fan who attends 15 to 20 Yankees home games every year, Hellman had long coveted an object mounted on a flagpole behind left center field—a weather vane shaped like a ball and bat—and he dearly wanted one just like it twirling above their house. Linda liked the idea of a weather vane but had a different idea about what it should be. "I thought it would be nice to do a banner with an H." The twin turrets resolved their impasse, and a pair of vanes were installed.

The Hellmans, like most home owners with a yen for a weather vane, weren't motivated by meteorology. Just as we admire the star on a Christmas tree, we love weather vanes for the crowning touch they provide.

Much of the weather vane's charm undoubtedly lies in its rich history. The earliest known one—shaped like the sea-god Triton—sat atop the Tower of Winds in ancient Athens. The most familiar motif—the rooster—first adorned church steeples and reminded the faithful of Saint Peter, who denied Christ three times before the cock crowed. The message was simple: Behold the rooster, all ye sinners, and come to church.

In the New World, tradesmen of the 18th century began using weather vanes as advertisements. Horsemen approaching towns could scan the skyline for the goods and services they needed. The hammer and anvil led them to a blacksmith. Shoemakers worked below the boot. In time, everyone from the tobacconist to the dairyman displayed recognizable emblems. Besides their commercial uses, weather vanes were designed to express everything from superstitions (a witch on a broomstick was common) to noble beliefs (a dove carries an olive branch atop George Washington's Mount Vernon).

Today, the weather vane's main function is a decorative one, but 18th- and 19th-century designs remain popular. Horses, eagles, pigs, and fish abound, although commissioned weather vanes are just as likely to communicate an individual's passion as his profession. Travis Tuck, a weather vane craftsman on Martha's Vineyard, Massachusetts, once built a stork for an obstetrician. But he's also made models of an airplane, a rower in a single scull—an image inspired by a Thomas Eakins

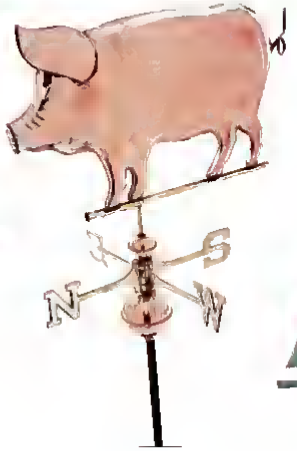
PEAK CHIC: A WEATHER VANE SAMPLER

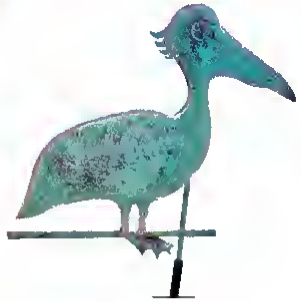
Custom

Hand-crafted weather vanes can reflect any personal taste, hobby or historical example. Denninger Weather Vanes' copper and brass dragon, left, and their stained-glass arrow, right, recall Victorian-era works. For one client, metalsmith Michael Saari modeled this copper piece, below, on a submarine surveillance plane from the 1940s.

Catalog

Catalog operations like Wind & Weather (purveyor of the pine trees, pelican, and dolphin pieces) and Sign of the Crab (the pig and rooster) stock a variety of ornamental copper and aluminum weather vanes. The available styles range from traditional symbols to purely contemporary inventions.





THE $79,500 WEATHER VANE

That was the final bid on this 19th-century molded copper Indian—part of the famed Americana collection of dealer John Gordon—when it was auctioned off at Christie's New York last January. But even at that price, our Indian didn't get close to setting a record. That title is held by a circa-1860 vane that sold for $770,000 to Boston folk-art dealer Stephen Score in 1990. Already a legend in collector's circles, this "fabulously detailed" mini-sculpture in gilded copper depicts a man dressed in a top hat and tailcoat astride a prancing stallion, with the man's buttons and the strands of the horses' mane clearly articulated.

What's made weather vanes such valuable folk art? Although they were as common on houses and barns in the 1800s as two-car garages are now, most vanes have suffered 100 or more years' exposure to the elements and served as targets for generations of amateur marksmen. "They're often full of bullet holes," says Susan Klackner, director of American folk art at Christie's. "Quilts don't have that problem." In addition to good condition, desirable attributes include size (at almost 45 inches high, both the Indian and the horseback rider were unusually large for their time); pattern (nonrepresentational vanes that have an abstract, graphic design are rare); and the quality of the surface (collectors look for beautiful verdigris and traces of original paint or gilding). The most sought-after vanes have not been restored. Says Score: "Folk art is about showing the life an object has lived."—*Hope Reeves*

PHOTO: CHRISTIE'S IMAGES

Top Job

A weather vane may respond to the slightest breeze, but it also has to withstand the fiercest gale. The unit must be sturdy, and the installation secure. Proper placement is the all-important first step. Vane maker Al Denninger says a weather vane should be mounted on a point "as high and unobstructed as possible. That will give you the most accurate reading." For vanes installed over an attic, drill a hole equal to the spindle diameter through the ridge beam and a collar tie, slide in the spindle, and fasten it with plumber's flanges, making sure the spindle is perfectly plumb. Where the spindle emerges from the roof, seal asphalt and wood shingles with tar or caulk, and cedar or slate shingles with copper flashing. When a through-the-roof mount isn't possible, the weather vane can be installed atop a bracket that straddles the ridge. The directionals—which, of course, do not turn—should be set so that "N" points toward true north. Not an Eagle Scout? Magnetic or compass north will do just fine.

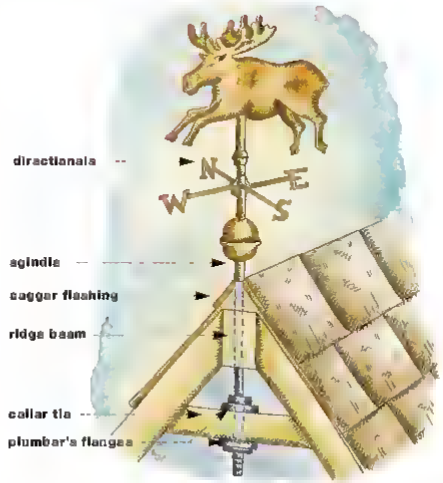


ILLUSTRATION: JENNIFER THERMES

painting—and scale models of a pair of America's Cup winners. His most memorable recent commission: a four-foot-tall velociraptor for Steven Spielberg.

To pull off such a varied repertoire, a master vane maker must be part metalsmith, part folk artist. Al and Beth Denninger, who have been fashioning weather vanes from sheets of copper for more than 11 years, created the Hellman's pair in their Middletown, New York, workshop. For every commission, Beth, a former milliner, starts by sketching the client's idea, while keeping one basic principle in mind. To properly read the wind, two-thirds of a vane's surface area must be behind the spindle, the sturdy, stationary rod that's fastened to the roof (see "Top Job"). When the wind hits, say, a rooster vane, the two-thirds behind the spindle receives the greatest force of the gust, spinning it in the direction the wind is blowing. That leaves the head pointing into the wind, which makes sense considering that we express wind direction in terms of its source—a northerly, for example, blows south, not north.

Working from Beth's sketches, Al—a onetime farrier—snips the pattern out of copper sheets. For the most common type, a "swell-bodied" weather vane, he softens the metal with an acetylene torch, and uses hammers and chisels to give the metal depth, detail, and texture—a technique called repoussé. After pounding out both sides of the figure, he solders them together and welds the piece to a horizontal brass support frame, which is usually incorporated into the design, it may be, for example, the shaft of an arrow that an eagle stands on. When it's installed, the finished piece turns on a stainless steel spindle rod topped with a single ball bearing. To ensure that it can spin freely, the vane's fore and aft must be perfectly balanced around the spindle. Because the front is smaller, Al usually adds weight to it by using heavier-gauge copper, welding brass rods or bars to the frame, or pouring molten lead inside the figure.

The craftsmanship practiced by Tuck, the Denningers, and a dozen or so other American artisans commands prices that range from $1,000 to as much as $10,000. And in today's robust economy, well-heeled clients may have to wait two years for their commission to be executed. For smaller budgets, there are weather vanes that can be shipped within weeks, if not days, of an order. Flat aluminum vanes made to look like blackened wrought iron cost about $100 and last for many years. Be careful, however, with imported, machine-stamped copper vanes; unless they're manufactured under strict specs for reputable American distributors, wind and weather can pick them to pieces in just a few years. Hand-hammered, heavily soldered copper vanes that cost from $250 to over $1000 are available in dozens of designs from several mail-order catalogs and can spin in the wind for 50 years or more.

Whether it's a sailboat, a spruce tree, or a handsaw, almost every vane looks great up close. But, says Al Denninger, "people forget that they look a lot smaller when they're on a roof." That's why size, not style, is his toughest sell. "They think we're just trying to talk them into a bigger vane." The traditional size guideline is an inch of height or length, depending on the shape, for every foot of elevation. Denninger routinely goes even further, tacking on another 25 to 30 percent, sometimes more. For the Hellman's 28-foot-high turret, he fashioned a bat that was 4 feet long, and a baseball 6 inches in diameter, large enough to show off its soldered stitches. And although Linda's stylish banner flies over the front turret, it's the sport model that wins raves. "We were both trying to put a little bit of ourselves into the house," says Stuart, eyeing the turrets. "The weather vanes definitely do that." ■

FITTING TRIM

In a house that sings with style, moldings supply the grace notes

Trim is the balm of architecture. Wherever the junction of two planes results in a ragged edge or an unsightly gap, a length of molding—nicely shaped and carefully installed—closes the breach. Trim can also play visual tricks, such as giving the illusion of height to a room with a low ceiling or adding drama to a bland expanse of wall. At *This Old House* magazine's Dream House in Wilton, Connecticut, the delightful profusion of trimwork—rendered inside and out in wainscoting, paneling, cornices, arches, brackets, and other superbly executed details—makes the

BY BRAD LEMLEY
PHOTOGRAPHS BY ANDRÉ BARANOWSKI

Diagonal corners that echo some of the Dream House's roof lines also soften the paneled passage between the master bedroom and a second-floor hallway.

MOLDING MADE TO ORDER

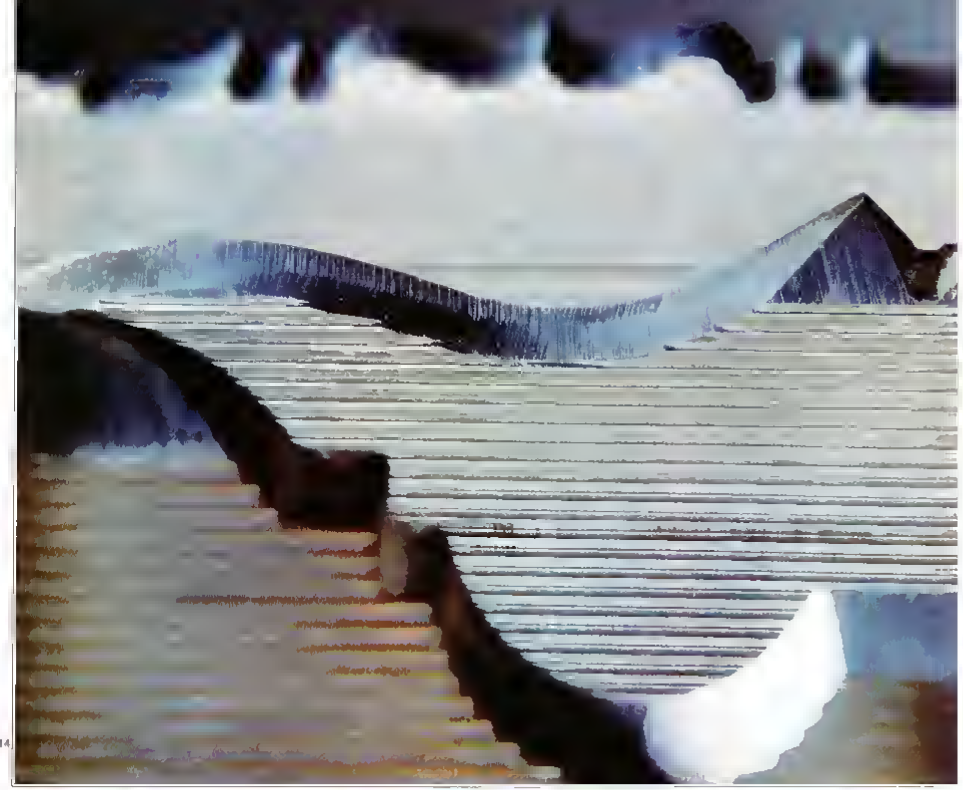
"Custom trim" sounds expensive, so much so that many homeowners don't explore the option. Big mistake, particularly in renovations where new trim should match what's already in the house. "People don't realize that custom trim is no big deal," says Dream House architect Gary Brewer.

Not surprisingly, Alexander Hamilton at Hamilton Woodworking agrees, and he's got the numbers to prove that a custom order can be affordable. "Making a set of knives costs $150 to $300," he says. "If you buy more than a couple hundred feet of molding, at $2 to $3 a foot, it's more than worthwhile." (If you need less, consider using stock moldings; see "Stock Options".)

Custom molding starts with a profile—it can be an architect's drawing, a simple traced outline, or even a few inches of original trim pried from a wall. A millwork uses the profile to cut out a template on sheet steel or thin plexiglass. That, in turn, guides a blade grinder, which works like a gigantic key-copying machine, cutting the identical profile into a steel blank.

Depending on the complexity of the molding, up to six four-blade knife sets may be needed to shape it. Mounted on cutter heads in milling machines the size of a small car, the knives whirl at 6,000 rpm, sculpting trim at about 30 feet per minute. Different machines produce the same results on curved moldings for round windows and arched doors.

Inset, above: A piece of custom molding and the blade (left) and template used to produce it. This page: A close-up of hand-made knives.



PHOTOS: ERIC ANDRE (LEFT, INSET); ANDRÉ BARANOWSKI (RIGHT); ILLUSTRATION: PETER HAU INC.

place a showcase of fine craftsmanship.

"I know from my experience that trim is crucial—it's literally what sells the house," says owner Walter Cromwell, who builds high-end homes throughout western Connecticut. "It has to be right."

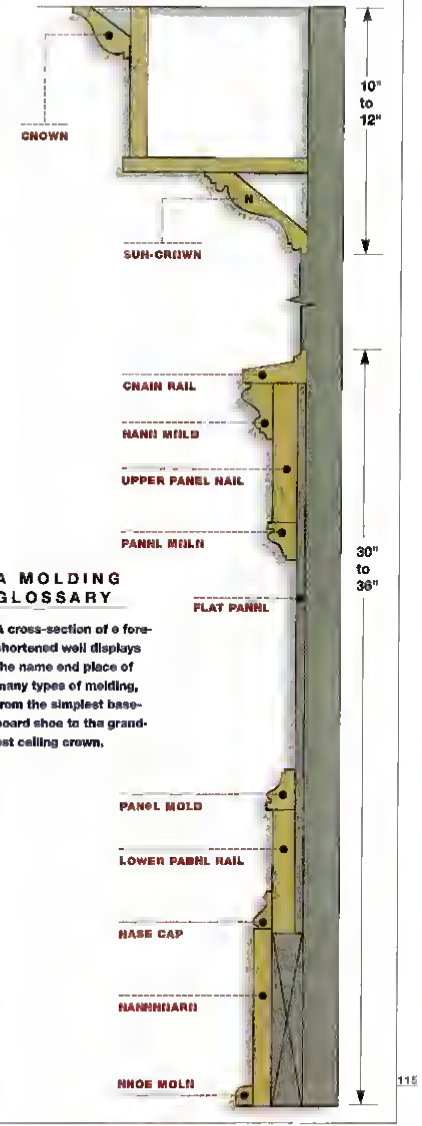
And here, right means abundant. Finish carpenter Mike Davis and his crew have pneumatically nailed more than a mile of machine-carved poplar along walls and around doors and windows. The 6,000-square-foot house is divided into 21 rooms, plus hallways and closets, all of which use great quantities of casing, crown, baseboard, and other types of molding chosen from a vast repository of profiles.

Yet despite the amount of trim—detailed in 20 pages of Dream House blueprints—it doesn't seem excessive. Each corner turn or sidelong glance yields an unexpected pleasure: the ogeed chair rail, the bull-nosed window seat, the bead-board sunburst in the tower ceiling—all of it richly varied, yet completely coherent. That's because Dream House project architect Gary Brewer bases his trim designs on centuries-old rules of balance and harmony.

Special treatments: The casings around doorways are topped with crown molding. In an upstairs hallway, even the ceiling was trimmed out with lengths of casing.

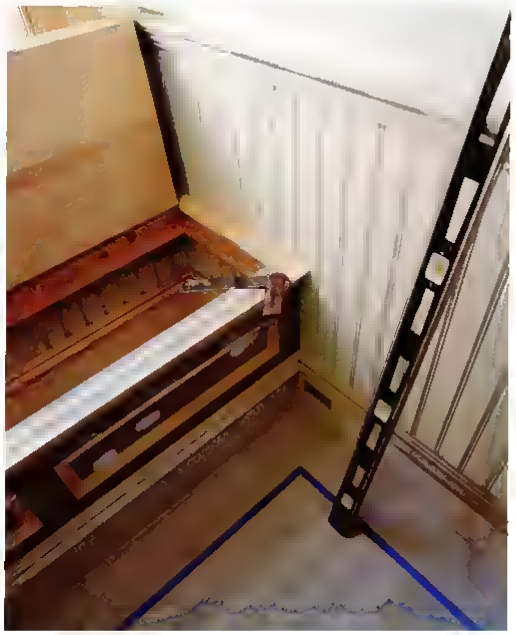
"Up until the 1930s," says Brewer, "virtually all of the trim in American houses was based on the classical orders: Doric, Ionic or Corinthian." Those formal orders grew from ancient insights about what people find beautiful and well-proportioned, which is why "even middle-class bungalows from the 1920s feel right," says Brewer. He believes that modernism, with its emphasis on simplicity, has deprived architects of an understanding of trim detailing. "I see a huge number of houses where the trim was just thrown on the walls," he says. "It's vaguely Dutch Colonial, or Cape Cod, or some other traditional style, but it doesn't really look like anything." The only remedy, says Brewer, is study: digging into old pattern books and touring historic houses to learn which styles and profiles were used for which kind of architecture. Homes built in the Shingle style, for instance (the predominant influence on the Dream House), used trim that is primarily in the classical tradition. And so does this one.

Brewer places great emphasis not only on the profile but also the placement of trim. One guiding principle establishes a visual hierarchy. The most elegant, detailed pieces should cluster at the most important parts of the house. A visitor will never confuse a room's main entrance with a closer door if each is appropriately trimmed. Reserving complex patterns for significant spaces can also save money. At the Dream House, Brewer says, "We have a lot of detail in the



A MOLDING GLOSSARY

A cross-section of a foreshortened wall displays the name and place of many types of molding, from the simplest baseboard shoe to the grandest ceiling crown.



more important, public rooms " Because the children's bedrooms are much simpler, the materials and labor costs for trimming them are much lower.

Just as trim can segregate and highlight, it can also unify different elements For example, in the master bathroom, which has no fewer than four doors, a massive, apparently seamless casing knits three of the openings into a beautiful whole Similarly, because the house is situated on a slope, some dining-room windows are not on a level with others. Putting higher casings on the lower windows makes them appear even with the others

Topped with a tightly fitted chair rail, wainscoting passes neatly by a window seat The base and panel moldings help integrate the bench into the design.

Still, the most aesthetic trim decision will be wasted if the material shrinks, bends, dings, or rots. That's why choosing high-quality wood ranks as the top priority in trim selection Lumberyards typically fill their racks with baseboards and crown moldings made of new-growth, wide-ring pine, but the pros laboring on our Dream House insisted on superior stock

"Redwood, mahogany, and Spanish cedar are the best choices for outside use because of their rot-resistance, " says Alexander Hamilton, whose millwork in South Norwalk, Connecticut, supplied most of the Dream House's complex, curved trim elements "Poplar is best inside because it's fairly stable, relatively inexpensive, machines well, and is

STOCK OPTIONS

"Stock molding" hrings to mind the pre-made lengths of, say, chair rail, sold at lumberyards and home-supply stores. But clever homeowners can create their own beautiful profiles by borrowing an old architectural trick: layering inexpensive stock components—available in dozens of shapes in pine, oak, maple, and other species—to create distinctive, sumptuous detail. To give it a try, *T.O.H* editors went to a Connecticut lumberyard to find some moldings that could be combined to make a fireplace mantel. The result, shown at right, mixes pine crown moldings with slightly more expensive maple casing, all for about half the price of a custom-made job. "Don't consider stock pieces individually," says Dream House project architect Gary Brewer. "Think of them as parts of a kit."

Another way to economize is to have moldings cut from knives that a millwork already has in stock. Since millworks incorporate each knife from a custom job into their inventory—Hamilton Woodworking, which made much of the Dream House trim, has more than 1,800—there's an enormous array of molding samples to choose from "Our suppliers had so many profiles," says Brewer, "in many cases we didn't need custom since we could get very close to the look we wanted with stock"—and got it at significant savings.

PHOTOS BY ANDRÉ BARANOWSKI

A PERFECT SET-UP

At 17 by 22 feet, the Dream House kitchen is a large one, but for Mike Davis, who's installing the cabinets, it's the sixteenths of an inch that really matter. Starting with a truckload of uppers and lowers—tradespeak for wall and floor cabinets—he and his crew work like tailors, making each unit fit precisely.

First Davis figures out how level the floor is. "There's always a high point, and I have to find it," he says. A level leads him to a spot that's a mere, but critical, ¼-inch higher than the lowest area. He marks the wall exactly 36 inches above the high point and draws a level line from there around the entire kitchen. The back edges of all the countertops will kiss that line and, with the help of a few cedar shims, sit dead level. To position the uppers, Davis measures up 55 inches from the same high point and scribes another level line.

But before any cabinets can go in, some of them must be centered. The sink cabinet, for example, has to sit smack in the middle of the window that opens over it. The cabinet that carries the cooktop must align with the family-room fireplace, 30 feet away. "It keeps the architect and the decorator happy," Davis quips, wielding a tape measure and a chalk line to establish the right relationships.

Now the room is ready for its cabinets, which will need trimming here and there to conform to the wall's inevitable bows and bends. Then there will be moldings galore, countertops, sinks, and appliances, all riding on the enfolding accuracy of a few pencil lines, each of them true to 1/16 of an inch.

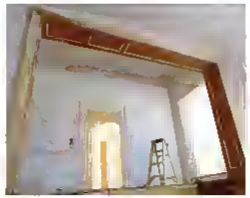
NEXT ISSUE:
BEAUTIFUL BUILT-INS

When the Dream House is finally finished, many of the recesses, nooks, and recesses will be filled with superb, custom-built-ins. From cabinets to window seats to benches beside the fireplace. In the October issue, you'll see why built-ins are a space-smart way to accomplish this task.

hard. The baseboard won't dent when the vacuum cleaner bumps it. But poplar's biggest virtue is that it takes paint beautifully."

But even with good wood, shrinkage is a potential problem. To minimize the risk, a given length of trim should be composed of one continuous piece of wood, have no knots, and contain no more than 6 percent moisture (as measured at the lumberyard by a moisture meter). Finger-jointing, a factory technique for splicing short sections of wood together, "can look all right for a while, but those pieces won't expand and contract at the same rate," says Hamilton. "Eventually, you'll see the joint-lines. I wouldn't use finger-jointed trim inside my house, and no one should use it outside."

Solid, 16-foot pieces of trim are the key to a quality job because they will cover all but the longest walls with a single, continuous piece—if the house is designed properly. "Architects just need to remember this: Make a room 15 feet, 6 inches long, not 16 feet, 6 inches," grumbles Bill Shaw, whose Ridgefield, Connecticut, millwork made the Dream House's straight molding. "If you have to go longer, go all the way to 20 feet or more. It's just a shame to have to make a joint because a wall is a few inches too long."



Casing and panel molding frame the entryway to the second-floor stair hall.

If possible, the molding should be back-primed at the shop; the next best method is to do it at the job site. In any case, "if you don't seal all sides with primer, moisture will get in," says Davis. "That's asking for trouble."

At the site, trim should be coddled. "If you get it in the humid summer, you've got to keep and install it in an air-conditioned space," notes Davis. "Otherwise, it's going to shrink in the winter and gaps will open."

Davis also joins trim pieces end-to-end and at mitered corners with wafer-like wooden biscuits, which are glued and inserted into slots made by a special cutter. Where two lengths of baseboard or crown molding meet at a corner, the end of one piece should be coped—that is, cut so that it mirrors the profile's hollows, bumps and slopes and fits tightly against the other piece. "A mitered inside corner will always open up eventually, particularly with stock more than three inches wide," says Hamilton. "You have to cope."

Those who can't deal with the complexities and demands of trim may end up in boring houses, says Brewer. "It's a common budget trade-off: People opt for more square footage and accept less interesting trim. But in a place like that, in five minutes, you've seen the whole house. Here," and he takes in the Dream House's collection of curves, beads, quarter-rounds, and ogees with a grand sweep of his arm, "there's always something new to catch your eye." ■

PHOTOS (CLOCKWISE FROM TOP RIGHT): ARNIE RASKAUSKAS; KOLIN SMITH

The Charge of the Tool-Belt Brigade

This Old House and a team of community volunteers overhaul an ailing Colonial in Connecticut

This Old House *team members Jim Cronin and Miriam Silver tackle the clapboard alongside professional painter Trinidad Sarreno and landscapers (from left) Salvadore Orlando Aguirre, Michael Taylor, and Carlos Cabrerra.*

Shortly before 9 a.m. on a warm spring Saturday, most of the residents on Ohio Street in Norwalk, Connecticut, are probably pouring their second cup of coffee. But not Lynette and Gregory Brayboy. Their quaint Colonial has people crawling all over it—hanging off ladders, crouching on eaves, poking around the basement, climbing attic stairs, testing outlets, hooking up appliances. Stacks of 2x4s and cans of white paint fill the driveway. Somewhere a boom box is playing Marvin Gaye. The Brayboys stand on their front lawn, watching the throng grab brushes and scarf doughnuts. "Thank you," Lynette says, beaming and shaking her head. "Thank you for coming."

BY JOSEPH D'AGNESE PHOTOGRAPHS BY KOLIN SMITH

With its distinctive gabled facade and white picket fence, the Brayboys' three-bedroom home exudes a cottagelike charm. But peeling paint, a leaky roof, and faulty wiring have made the house increasingly uncomfortable and even hazardous. Today, *This Old House* contractors Tom Silva and Richard Trethewey are on a mission to restore the house to livability—with the help of 30 staffers from the magazine. They're all volunteering for AmeriCares HomeFront, a charity serving Connecticut, New York, and New Jersey. Every year, on the first Saturday in May, AmeriCares dispatches fix-up teams drawn from local churches, civic groups, and businesses to help elderly, disabled, and low-income homeowners in communities all over the region. "We fixed up one woman's house, and her kids kept hugging me all day," recalls Deonis Brown, the organization's associate director, who solicits donated labor and supplies—from lumber to toilet seats—from corporations nationwide. "You really feel good after that. You're giving someone back their home."

Homeowners Gregory and Lynette Brayboy, with daughters Leticia, 10, and Lakia, 3 months, cherish their spruced-up house. "It's lovely," says Gregory. "We're going to keep the house maintained. We're enjoying it, and it's a nice feeling."

The Brayboys had known for a year that the place could use some work, how urgently the house needed it wasn't clear until Lynette opened a closet after a rainstorm and found water seeping in. But money was tight. Lynette had recently lost her secretarial job. The couple had one young daughter and a second on the way. Gregory, a security guard, had little left of his salary once their basic needs were met. When a friend told her about AmeriCares, Lynette submitted an application and prayed. "Even if they had agreed to do just one job—the roof," she says, "that would've been fine."

But AmeriCares doesn't do things halfway. Brown and his workers went over 600 applications and whittled them down to 180 projects that were best suited for site visits. After visiting the Brayboys' house, Brown's team decided many more repairs—not just the roof—were needed to achieve the organization's goal of making each home "safe, warm, and dry." The day Lynette got a call informing her that they'd made the cut, she was overjoyed. Says Gregory, "All we needed was a little help, you know? And now here it was."

One week before the Saturday repairathon, *This Old House*'s team of volunteers prepped the house, scraping paint and cleaning surfaces. In the following days, professional tradesmen donated their services. Roofers stripped, sheathed, and reshingled the front pitches; an electrician updated the wiring for switches, outlets, and lights; and landscapers removed overgrown vegetation, including a dead maple hovering precariously over the garage.

Now, a week later, another team of volunteers has arrived to put on the finishing touches. In the kitchen, two technicians hook up a new electric self-cleaning oven and a refrigerator. Outdoors, landscapers shape beds and plant hydrangeas, Japanese holly, azaleas, and rhododendrons, while professional painters handle tricky spots requiring near-acrobatic skill. In the attic, two editors stabilize a wonky railing and add a banister. An advertising sales director replaces a loose lock on the back door. On one side of the house, six people from the magazine's circulation and marketing departments work together, paintbrushes lapping away. Out front, 10-year-old Leticia Brayboy, working alongside her parents and wearing oversize gloves, loads her brush and takes a two-handed swipe at the garage door. "Before, the house was all messed up," she says. "Now, I feel good."

Still, the volunteers are not about to put the experts out of work. On the back patio, Silva coaches an eager crew through the construction of a porch platform with railing and steps. "Uh, don't swing a hammer with your wrists," he tells one helper. "Swing with your arm and don't look at anything but the nail. If you don't look at the nail, how can you hit it?"

"Hey, Tom," says an AmeriCares organizer. "Looks like you got your top crew out today."

"Yeah, right," Silva deadpans.

Deputy editor Laura Fisher Kaiser steadies a board as Tom Silva screws together a section of the deck with a drill; advertising director Gregg Boersma looks on.

Production director Carolyn Blackmar White pulls a Tom Sawyer, persuading Lothorian Hamet and Patrick Mackay, friends of the magazine, to join her on fence-painting duty.

Time for lunch and group shot: Minutes after this photo was taken, the refuse bin [illegible] was [illegible] by the volunteers' [illegible].

When the team breaks for lunch, Trethewey and Silva hit the road to inspect other AmeriCares jobs, as *T.O.H.* host Steve Thomas has done all morning. They look on, impressed, as amateur handymen—teachers, businesspeople, doctors, and lawyers—reframe entire rooms, hang windows and doors, and lay down floors. In a depressed section of Bridgeport, Connecticut, Silva meets Alma Smith, a grandmother and foster parent in her 80s who sits wrapped in a blanket on a neighbor's front porch. More than 100 parishioners from her church toil away on her home across the street. "I'm watching them work, and I do appreciate it," Smith tells Silva. "I raised 37 children in that house."

By the time the blitz wraps up, the *T.O.H.* crew—together with 233 other teams—have restored 151 houses and 28 community centers. They've gone through 10 trailers of plywood, 5,200 gallons of paint, and 5,000 square feet of flooring. By late afternoon, 9,000 volunteers are packing their tools and heading home with paint spattered clothes, a few aching limbs, and a palpable feeling of accomplishment.

Back in Norwalk, with the Brayboys' yard cleared of people and debris, the view of their house is startling. A freshly shingled gable sweeps down over spanking white clapboards. The house presides over a manicured yard brightened by plants in bloom. Gregory hangs black shutters at the windows. "I just want to get these up and take a look," he says. "It feels like a different house."

His wife seems moved beyond words. "We couldn't have done it without them," Lynette finally says. "They were like angels." ■

OTHER PROJECTS

MT. VERNON, NEW YORK

Carl Peterson strips old plaster down to the lathe in Trinity Church's former rectory. Vacant for the last 12 years, the 1892 building will serve as a support center for teenagers, grandparents who raise grandchildren, and victims of domestic violence.

GREENWICH, CONNECTICUT

Twenty members of the Byram Cos Cob Rotary Club—including a lawyer, an architect, and a funeral director—reshingle the roof, paint the exterior, and install new sinks, kitchen cabinets, and a toilet.

BRIDGEPORT, CONNECTICUT

"You're going to make me cry," Lillian Harp says, accepting flowers from the crew—30 volunteers from a local bank and a home-supply center. They painted her house's interior, resheathed the roof, replaced windows, hooked up new appliances, and installed a kitchen sink.

SPLENDOR IN THE GRASS

IN THE LAND OF SHINGLED ROOFS, THATCH FINDS A HOME

Bill and Kathy Kluge's romance with thatch started on a barge trip vacation up England's River Ouse. At each landing, they saw clusters of houses topped with thick mats of reed trimmed as neatly as beards. Totally smitten by thatch's rustic charm, they decided to do the same thing to a stone outbuilding next to their 17th-century New Jersey home. When they returned, they asked their architect, Ed O'Brien, if he knew of

BY JIM MORRISON

PHOTOS: ANDRÉ BARANOWSKI

Thatch makes a perfect topping for this quaint stone cottage (opposite), which once was capped with wood shingles. To shed water well, the lightweight bundles of water reed Phragmites communis (above), need to be used on roofs pitched at no less than 45 degrees.

a thatcher As it happened, he did. A soft-spoken Irish chap named William Cahill had been through the area five years earlier and seeded some local offices with his cards O'Brien still had one.

That chance encounter landed the 37-year-old Cahill, one of this country's few working thatchers, on the Kluge's steep-pitched cottage roof, where he has spent the better part of a month tying down, shaping, and trimming bundles of fragile reed stalks into a vision out of a fairy tale Cahill has done hundreds of thatching jobs, both in this country and his native Ireland, but he still appreciates the material's elemental appeal "Thatch is romantic," he says, his lilting brogue transforming "thatch" to "t'atch " "It's a direct link to the past being done in the present "

Thatch has been a fixture on roofs in Europe and Africa since the Stone Age Peasants used whatever grass was abundant, cheap, and easily harvested by a sickle, including sedge, flax, straw, or water reed (Cahill's favorite) No expensive nails were needed, it was simply tied to purlins—horizontal roof members—with lengths of bog grass Although early settlers brought the skill to the New World, thatching died out in America as soon as the colonists learned to make wood shingles (One place to see how it was used here is at the historic re-creation of Virginia's Jamestown settlement, where Cahill thatched a church roof.)

Ireland and England, however, still have tens of thousands of thatched homes, and the Irish government runs a program that includes training in this almost-lost art. Cahill, a Galway native, enrolled in the course after high school and found himself drawn irresistibly to the craft "I think it was the solitude of it," he says "And I liked the pace " As an apprentice, he journeyed along Ireland's west coast, discovering the different techniques used by the old-timers and developing his own In 1986, he and his two brothers, Michael and A J , landed a job thatching a Cape Cod barn, and spent the next three years working as itinerant thatchers When his brothers flew home, he stayed behind to scratch out a living in the land of shingled roofs By 1991, he had settled down in Cincinnati with his wife, Mary, and started a family—but demand for his skills

BELOW. With his leggett and Dutch mallet close at hand, William Cahill drives a hook through a bundle of thatch, temporarily holding it to the lath underneath Before he covers the roof peak, he will whack off the overhanging reed ends with an electric hedge chipper

Many of Cahill's tools are modern adaptations of those that thatchers have been using for centuries. He forges his own steel hooks (1) on a farrier's anvil, these keep the bundles of reed and his tools from sliding off roofs. The leggett (2) and the Dutch mallet (3) are both used to drive the reed tightly under the rod that holds thatch to the roof. This leggett's broad face is rough with brass rings; the mallet is bumpy with upholstery tacks. Cahill splits and sharpens witch hazel branches into staple-like spars (4) with a hooked-blade knife, known in Gaelic as a *slane*. (5) He hammers the spars into the peak with an ordinary rubber mallet (6).

PHOTOS: KARI KOCH

TOP: Most people don't notice the subtle shift in the angle of the reed projecting over the eave, but Cahill still climbed down from the roof again and again to make ground-level inspections, and then went back up to make adjustments. "I like the aesthetics of thatch, the softness of it," he says. "I never get tired of looking at it."

can pull him away for weeks at a time. Despite the pressures of his schedule, the rhythm of his labor remains gentle, unhurried, deliberate. "A lot of people today like things done instantly," he says. "This is slow work."

That's an understatement. Just acquiring the material takes weeks. To prepare for this job, for instance, Cahill and a couple of helpers headed into the marshlands of southern New Jersey to harvest the reed and tie it into long thin bundles. They had to gather enormous amounts. The Kluge's little 1,000 square-foot roof required about 1,000 bundles, or roughly ten acres of reed. "Landowners are happy for me to go in and take it," says Cahill. "It's very invasive, and grows back quickly." Then there's structural prep work. Before Cahill could start on the Kluge's roof, he had a carpenter lay a grid of 2x2 lath over the plywood and tar paper. The lath ventilates the underside of the thatch and provides a place to attach the bundles.

Now, on a spring morning midway through the Kluge job, Cahill is carefully arranging seven or eight bundles across the roof, with their cut ends down and their stalks lined up with the slope. He explains that each reed also has to line up with its neighbor so that rain will shed evenly and not pool. Using forged iron hooks to hold the bundles in place, he lays a three-foot length of ¼-inch stainless steel rod across them, every eight inches or so, he loops a wire (anchored to the lath) over the rod. With a hook on a ratcheting handle, he turns the loop a few times, which pulls the rod tightly against the thatch.

Next he picks up a short-handled tool called a leggett, and packs the reed firmly under the steel rods. As he moves methodically up to the ridge, each new layer compacts the thatch tighter and tighter, until it's as hard as a gymnast's mat. While thatch can be groomed as finely as a thoroughbred's coat on race day, Cahill prefers a rougher finish. "My formula is to keep it simple," he says. "If you overdo it, it takes away the cottage look."

For the final dressing, he uses the leggett and his hands to smooth the surface. Band-Aids cover two of his fingertips, which have been sliced by the sharp rushes. "I ought to have stock in Johnson & Johnson," he cracks as he heads back to his truck for another bandage. Each night, he sits down for half an hour or so with a pair of tweezers and plucks out splinters. But he refuses to use gloves. "I need to feel the material," he says.

Three days later, Cahill begins work on the peak, packing straw beneath a prefabricated reed mat that conceals the top layer of steel rods. The mat is secured with hazel spars—pointed, water-soaked sticks twisted into the shape of a giant staple. These are shoved through the mat and into the straw. (He'll return a few weeks later to decorate the ridge with cattail leaves from the Kluge's pond.) Finally, he sprays the roof with a chemical fire retardant. Treated this way, his roofs boast the same fire rating as ones with wood shingles.

In Ireland, a thatcher will hide a small bottle of whiskey among the reeds, a little treat for whoever replaces his work. On this roof, Cahill has substituted a few Irish coins. "I put them in a place where I know they'll find them," he says—although he figures no one will have a chance for about 25 years (in moist climates, a thatched roof will last half that time, in dry climates, double). In the meantime, the roof will need a gentle scraping with a stiff wire brush every three years to remove surface decay, followed by another spritz of fire retardant.

Ironically, what was once the roofing for poor peasants now commands princely sums. The Kluges paid $24 a square foot to thatch their little cottage, a price double that of most slate and tile. But it was worth the price to Bill and Kathy Kluge, who now own an authentic piece of handmade history. ■

PHOTOS: KEN KOCHEY (TOP), COURTESY OF WILLIAM CAHILL

A WEE BIT O' THATCH

Topping a playhouse, gazebo, or garden shed with a miniature thatched roof is a charming way to enjoy the aesthetic of thatch—without shouldering the steep price tag. William Cahill works with thatch on small structures about 80 percent of the time. "It's my way of sharing the splendor of the material with the average person," he says. "The more jobs I can do, the more I can spread the craft." For a garden house in Indiana, right, Cahill used full-length water reed but scaled back the number of overlapping layers. Thatcher Colin McGhee of Charlottesville, Virginia, offers an array of mini-thatch designs through his Web site (www.thatching.com), including a Tudor-style half-timbered dog kennel and an Irish-cottage mailbox. For that laid-back, Robinson Crusoe look, try a reed-topped beach umbrella, custom-made by Safari Thatch & Bamboo. —*Meghan Anderson*

window dressers

THE POSTER

BY PETER JENSEN
PHOTOGRAPHS BY BRUCE WELLER

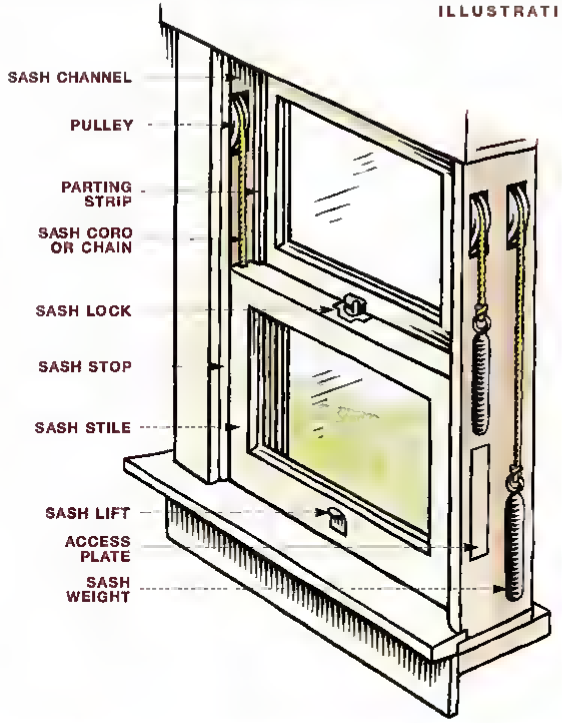
Compared to their predecessors, the windows we buy today are marvels of high tech, low-maintenance efficiency. Gone are the rattling sashes so easily prone to sticking, replaced by tight, smooth-sliding units that need little more than occasional cleaning. But in the evolution of the window we've also surrendered a bit of beauty.

The locks and lifts needed to secure, raise, and lower windows once celebrated both mechanical innovation and eye-appealing craftsmanship. By the Victorian age, plain loop or hook shapes had evolved into richly embossed reflections of the style of the times. Sash locks became equally elaborate, not only in appearance but also in the way they worked. Like the proliferation of Victorian mousetrap designs, dozens of ingenious, patented mechanisms came and went. The work they did was simple, but those lifts and locks offered a bit of pleasure every time they were used.

Today's windows come with hardware built for function, not looks. But plain fittings can be replaced with fine reproductions available from several manufacturers and mail-order companies. The result can turn an ordinary moment—the whoosh of a rising sash followed by a waft of fresh air—into something special.

FIXING A WEIGHT-LOSS PROBLEM

ILLUSTRATION BY GREGORY NEMEC



When one of its sash cords breaks, a window simply can't stay put, but fixing this little problem is easy.

1. Pry off the sash stop, a strip of wood that holds the sash in its channel; lift out the sash; pull the broken cord out of the groove in the sash stile.
2. Remove the wood parting strip that separates the upper and lower sashes; find and remove the weight-pocket access plate near the bottom of the sash channel.
3. Replace the cord with new rope or a length of sash chain, running it up through the pulley and securely knotting it to the weight; adjust the length so the weight hangs 2 to 3 inches above the sill when the sash you're working on is raised as high as possible; refasten the cord or chain's other end to the groove in the sash stile.
4. Replace the parting strip, put the sash back in its channels, and move it up and down; if it works well, replace the access plate and the stop, taking care to allow enough room for the sash to slide freely.

Oldies but Goodies

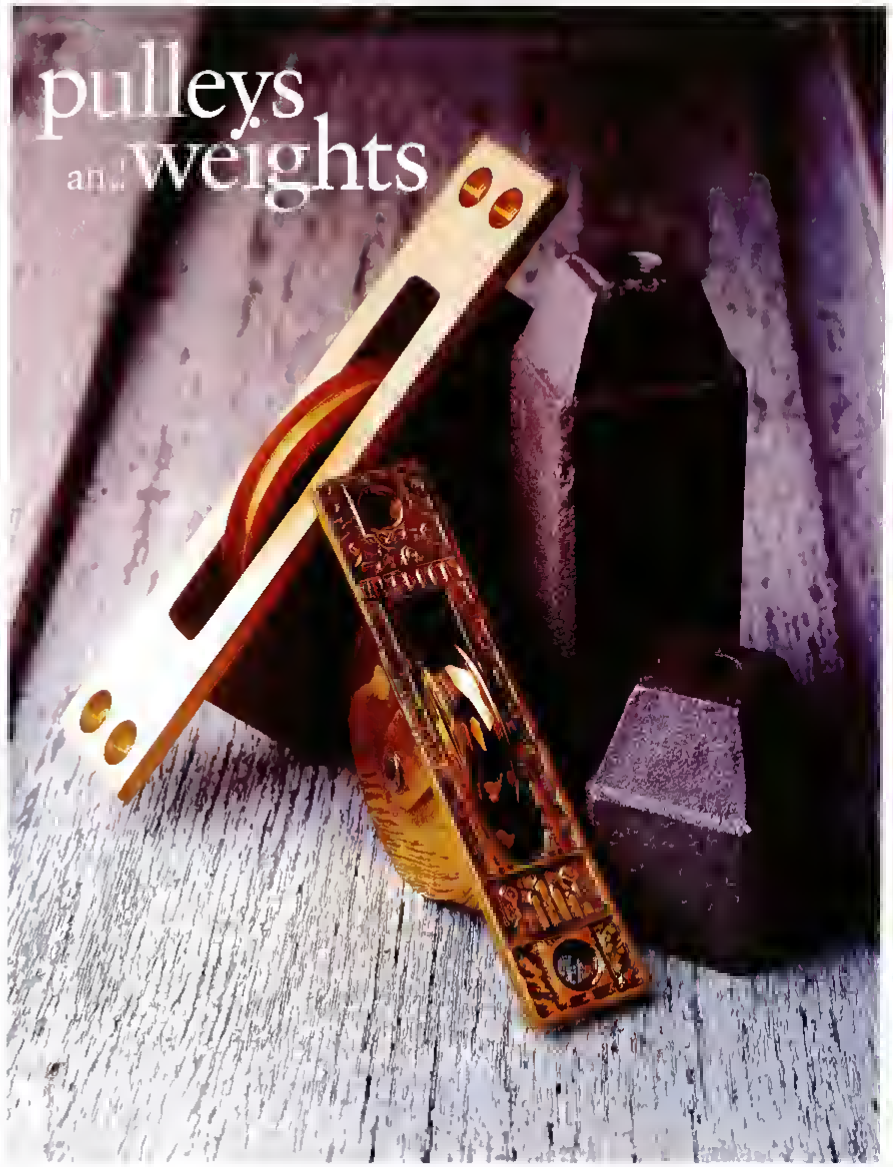
If the only kind of vintage window hardware you've ever seen has been rusty, paint-encrusted, and heaped unceremoniously in junk-store bins, don't despair. Intricately detailed lifts and locks are available at many antique stores, and their lower cost—compared to top-quality reproductions—makes them worth the search.

You may even find a range of period styles to choose from. Most of the hardware sold by Lance Dobson of Eugenia's Antique Hardware in Chamblee, Georgia, has been salvaged from Victorian-era windows, but he also finds Arts & Crafts and Art Deco designs. "We take in equal quantities of cast iron, brass, and steel," says Dobson. "Some Art Deco stuff is made of Bakelite, which has held up better than some of the metals."

Bringing back the old luster may require a quick dip in paint stripper and a buffing, but Dobson urges caution: "I'll polish a lot of pieces by hand because if the metal's at all brittle, a buffing wheel can break it." To preserve a shine on brass, spray the piece with clear lacquer. If the metal is left untreated, people's hands will do the polishing, preserving one of the great charms of old hardware: the patina that comes with age and use.

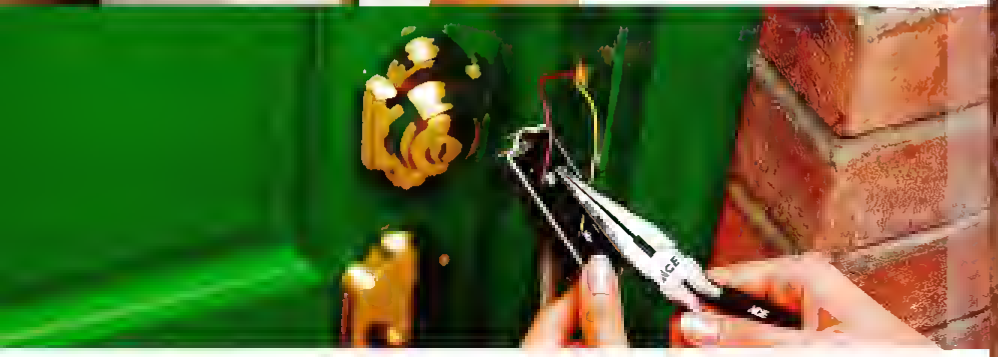
ILLUSTRATION ©GREGORY NEMEC PHOTO: BRUCE WELLER

DETACH HERE




locks


The Old House
MAGAZINE
lifts and pulls



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BIRMINGHAM
WBIQ, Thu. 1:30 p.m., Sat. 1 p.m.
● WLJT Sun. 6:30 a.m.
● WJSU, Sun. 6:30 a.m.

DUNCANVILLE
WBIQ Thu. 8:30 p.m., Sat. 1 p.m.

DOTHEN
WBIQ, Thu. 8:30 p.m., Sat. 5 p.m.

FLORENCE
WBIQ Thu. 8:30 p.m., Sat. 5 p.m.

HUNTSVILLE
WHIQ Thu. 8:30 p.m., Sat. 1 p.m.
● WYLE, Sat. 1 p.m.

LOUISVILLE
WGIQ, Thu. 8:30 p.m., Sat. 8:30 p.m.

OXFORD
● WALA, Sat. 5 a.m.
WEIQ, Thu. 8:30 p.m., Sat. 6 p.m.

MONTGOMERY
WAIQ, Thu. 8:30 p.m., Sat. 6 p.m.

SHOALS CINEMA
WCIQ Thu. 8:30 p.m., Sat. 6 p.m.

ALASKA

ANCHORAGE
KAKM, Mon. 7 p.m., Thu. 1:30 p.m., Sat. 8:30 a.m.
● KIMO, Sun. 1 p.m.

FAIRBANKS
KUAC, Fri. 1 p.m., Sat. 5 a.m.
● KATN, Sun. 3 p.m.

JUNEAU
KTOH Fri. 8 p.m., Sat. 8 a.m.
● KJUD, Sun. 5 p.m.

ARIZONA

FLAGSTAFF
KAET, Thu. 2 p.m. and 7:30 p.m., Sat. 11 a.m. and 3 p.m.
● KNAZ, Sat. 10 a.m.

TUCSON
KUAT, Sat. 11 a.m. and 8:30 p.m.
● KTTU, Sun. 9 a.m.

ARKANSAS

FAYETTEVILLE
KAFT Sat. 12:30 p.m.

JONESBORO
KTEJ Sat. 10:30 p.m.

LITTLE ROCK
KETS, Sat. 12:30 p.m.
● KTHV Sun. 10:30 a.m.

MOUNTAIN VIEW
KEMV Sat. 12:30 p.m.

CALIFORNIA

BAKERSFIELD
● KUVT, Thu. 1:30 p.m., Sat. 1 a.m.

CHICO
● KHCB, Sat. 5 p.m.

EUREKA
KHUT Wed. 7:30 p.m., Sat. 10:30 a.m.
● KAEE, Sun. 1 p.m.

FRESNO
● KFSN, Fri. 1 a.m.
KVPT Sun. 9:30 p.m., Sat. 7 p.m.

HUNTINGTON BEACH
KOCE, Sat. 4:30 p.m., Thu. 9 p.m.

LOS ANGELES
KCET Sat. 1:30 p.m.
● KAZU, Sun. 1 a.m.

MONTEREY/SALINAS
● KCBA Sun. 8:30 a.m.

PALM SPRINGS
● KPSP Sun. 6 a.m.

REDDING
K HF Sat. 10:30 a.m.

SACRAMENTO
KVIE, Thu. 9 p.m., Sat. 8:30 a.m.

SAN BERNARDINO
KVCR, Thu. 7 p.m.

SAN DIEGO
KPBS, Sat. 11:30 a.m.
● KCTV, Sun. 11:30 a.m.

SAN FRANCISCO
KQED, Sat. 4 p.m.
● KPIX, Sun. 5 a.m.

SAN JOSE
KTEH, Sat. 1 p.m., Sun. 8:30 p.m.

SAN MATEO
KCSM, Thu. 6:30 p.m., Sat. 11 a.m.

SANTA BARBARA
● KSBY Sun. 1 a.m.

COLORADO

DENVER
KMGH, Sat. 2 p.m., Sun. 5:30 p.m.
● KCNC, Sun. 1 a.m.

GRAND JUNCTION
● KJCT Sat. 1 p.m.

OXFORD
KTSC, Thu. 7:30 p.m., Sat. 2:30 p.m.

COLORADO SPRINGS
● KRDO, Sun. 11:30 a.m.

CONNECTICUT

FAIRFIELD
WEDH, Thu. 11:30 p.m., Fri. noon, Sat. 1 p.m., Sun. 10:30 a.m.

HARTFORD
WEDH, Thu. 11:30 p.m., Fri. noon, Sat. 1 p.m., Sun. 10:30 a.m.

NEW HAVEN
WEDY Thu. 11:30 p.m., Fri. noon, Sat. 1 p.m., Sun. 10:30 a.m.

NORWICH
WEDH, Thu. 11:30 p.m., Fri. noon, Sat. 7 p.m. Sun 10:30 a.m.

DISTRICT OF COLUMBIA

WETA, Sat. 11 a.m.
● WRC, Sun. 5:30 a.m. and 1:30 p.m.

FLORIDA

BONITA SPRINGS
● WGCU Sat. 12 p.m., 12:30 p.m., Sun. 1:30 p.m., Sat. 5 p.m.

DAYTONA BEACH
WCEU, Thu. 8 p.m., Sat. 1:30 p.m.

FORT MYERS
● WEVU
● WTVK, Sat. 5:30 a.m.

GAINESVILLE
WUFT Sat. 9:30 p.m., 1:30 p.m.
● WCJB, Sat. 2 p.m.

JACKSONVILLE
● WJXT Sat. 8:30 a.m.
WJCT, Sat. noon

MIAMI
WLRN, Sun. 10 p.m.
WPBT Sat. 11 a.m.
● WTHL, Sat. 6:30 a.m.

ORLANDO
● WKCF Sat. 1 a.m.
WMFE, Sat. 1 a.m. and 1 p.m., Sun. 1 a.m.

PENSACOLA
WSRE, Sat. 12:30 p.m. and 1 p.m.

SARASOTA
● WWSB, Sun. 12:30 a.m.

TALLAHASSEE
WFSU Sat. 6:30 p.m. and 1 p.m.

TAMPA
WEDU, Sat. 11:30 a.m.
WUSF Wed. 9 p.m., Sun. 5:30 p.m.
● WWSB*

WEST PALM BEACH
● WPTV Sun. 1 a.m., 12:30 p.m.

GEORGIA

ALBANY
● WGVP, Sun. 1 a.m.

ATLANTA
WGTV Thu. 9:30 p.m., Sat. 1:30 p.m., Sun. 1 p.m.
WPBA, Mon. 9 p.m., Wed. 2 p.m., Sat. 1 p.m.
● WXIA Sat. 5 a.m. and 2:30 p.m.

AUGUSTA
● WRDW*

CHATTAHOOGA
WCLP Thu. 6:30 p.m., Sat. 1:30 p.m., Sun. 1 p.m.

COCHRAN
WDCO, Thu. 6:30 p.m., Sat. 5:30 p.m., Sun. 1 p.m.

COLUMBUS
WJSP Thu. 8:30 p.m., Sat. 1:30 p.m., Sun. 7 p.m.

DAWSON
WACS, Thu. 8:30 p.m., Sat. 5:30 p.m., Sun. 7 p.m.

MACON
● WMAZ, Sat. 1 p.m.

PELHAM
WABW Thu. 1:30 p.m., Sat. 6:30 p.m., Sun. 6 p.m.

SAVANNAH
WVAN Thu. 8:30 p.m., Sat. 1:30 p.m., Sun. 1 p.m.

WAYCROSS
WAGA, Thu. 8:30 p.m., Sat. 1:30 p.m., Sun. 7 p.m.

GUAM
WGTD, Thu. 8:00 p.m., Sat. 1:30 p.m., Sun. 1 p.m.

HAWAII

HONOLULU
KHET, Sat. 7:30 a.m.
● KMNL, Sat. 4:30 p.m.

IDAHO

BOISE
KAID, Sun. 1:30 p.m.
● KTRV Sun. 4:30 a.m.

COEUR D'ALENE
KCDT Sun. 1:30 p.m.

MOSCOW
KUID Sun. 1:30 p.m.

POCATELLO
● KPVI-Mon. 4:30 p.m.

TWIN FALLS
K PT Sun. 4:30 p.m.

ILLINOIS

CARBONDALE
WSIU, Thu. 7 p.m., Fri. 12:30 p.m., Sat. 12:30 p.m.

CHAMPAIGN/URBANA
● WAND Fri. 5:30 a.m.
WILL, Thu. 7:30 p.m., Sun. 5:30 p.m.

CHARLESTON
WEIU Sat. 6:30 p.m.

CHICAGO
WTTW, Tue. 7:30 p.m., Thu. 1:30 a.m.
● WFLD, Sun. 11:30 a.m.

JACKSONVILLE
WQEC, Thu. 11 p.m., Sun. 1:30 p.m.

MACOMB
WMEC, Thu. 11 p.m., Sat. 1:30 p.m.

QUINCY
WQEC, Thu. 10 p.m., Sat. 1:30 a.m.

ROCKFORD
● WTVO, Sun. 6:30 a.m.

SPRINGFIELD
● WICS Sat. 7:30 a.m.

INDIANA

BLOOMINGTON
WTIU Thu. 11 p.m., Sat. 12:30 p.m.

EVANSVILLE
WNIN Sat. 12:30 p.m. and 1 p.m.
● WFIE, Sun. 1 a.m.

FORT WAYNE
WFWA Sat. 11 a.m.
● WPTA, Sun. 8 a.m.

INDIANAPOLIS
WFYI, Sat. 11 a.m., Sun. 3:30 p.m.

MUNCIE
WIPB, Sun. 1:30 p.m.

NOTRE DAME
● WNDU Sun. 8:30 a.m.
WNIT Wed. 7 p.m., Sat. 2 p.m.

TERRE HAUTE
● WNDU-LP*

VINCENNES
WVUT Sat. 12:30 p.m.

IOWA

CEDAR RAPIDS
● KFWU, Sun. 11 a.m.

COUNCIL BLUFFS
KTIN, Fri. 6:30 p.m., Sat. 1:30 p.m.

DAVENPORT
1 QCT, Tue. 1 p.m., Sat. 5:30 p.m.
● WQAD Sat. 11 a.m.

DES MOINES
KDIN, Fri. 11:30 p.m., Sat 1 a.m.
● WHO, Sat. 5 a.m.
Sun. noon

IOWA CITY
KIIN, Fri. 6:30 p.m., Sat. 1:30 p.m.

MASON CITY
KIIN, Fri. 6:30 p.m., Sat. 1:30 p.m.

SIOUX CITY
KSIN, Fri. 6:30 p.m., Sat. 1:30 p.m.
● KTIV*

WATERLOO
KBIN, Fri. 1:30 p.m., Sat 1:30 p.m.

KANSAS

HAYS
KPTS, Sat. 10 a.m., Sun. 1 a.m.
● KSNW Sat. 8:30 a.m.

KENTUCKY

ASHLAND
WKAS, Sun. 5 p.m.

BOWLING GREEN
WKGB, Sun. 1 p.m.
WKYU Tue. 1 p.m. and 6:30 p.m.
● WBKO, Sun. 6:30 a.m.

COVINGTON
WCVN, Sun. 5 p.m.

ELIZABETHTOWN
WKZT Sun. 5 p.m.

HAZARD
WAHA, Sun. 5 p.m.

LEXINGTON
WKLE, Sat. 1 p.m.
● WTVQ, Sat. 1 a.m.

LOUISVILLE
WKMJ, Fri. 9:30 p.m.
WKPC, Sat. 5 p.m.
● WAVE, Sat. 6:00 a.m.

MADISONVILLE
WKMA, Sun. 5 p.m.

MORehead
WKMR, Sun. 1 p.m.

MURRAY
WKMU, Sun. 1 p.m.

OWENSBORO
WKUH, Sun. 1 p.m.

PADUCAH
WKPD, Sun. 1 p.m.
● WMKA, Sun. 11 a.m.

PIKEVILLE
WKPI, Sun. 5 p.m.

SOMERSET
WKSO, Sun. 1 p.m.

LOUISIANA

ALEXANDRIA
KLPA Tue. 10 a.m.

BATON ROUGE
1 LPB, Tue. 11 a.m.
● 1 WB, Sun. 1 p.m.

LAFAYETTE
KLPB, Sun. 6 a.m.

LAKE CHARLES
KLTL, Sun. 9 a.m.

MONROE
KETM, Sun. 11 a.m.

NEW ORLEANS
WYES, Sat. 1:30 a.m.
● WVUE, Sat. 1 a.m.

SHREVEPORT
KTTS, Sun. 10 a.m.
● KTBS, Sun. 6:30 a.m.

MAINE

BANGOR
WMEB, Sat. 1:30 p.m.

CALAIS
WMED, Sat. 1:30 p.m.

LEWISTON
WCBB, Sat. 1:30 p.m.

PORTLAND
WMEA, Sat. 1:30 p.m.
● WFXT Sun. 8:30 a.m.
● WCSH, Sun. 1 a.m.

PRESQUE ISLE
WMEM, Sat. 1:30 p.m.

MARYLAND

ANNAPOLIS
WMPT Sat. 4:30 p.m., Sun. 6:30 p.m.

BALTIMORE
WMPB, Sat. 4:30 p.m., Sun. 6:30 p.m.
● WMAR, Sat. 11:30 a.m.

FREDERICK
WFPT Sat. 4:30 p.m., Sun. 1:30 p.m.

HAGERSTOWN
WWPB, Sat. 1:30 p.m., Sun. 10:30 a.m.
● WJAL

OAKLAND
WCPT Sat. 4:30 p.m., Sun. 8:30 p.m.

SALISBURY
WCPB, Sat. 4:30 p.m., Sun. 1:30 p.m.

MASSACHUSETTS

BOSTON
WGBH Thu. 8 p.m., Sat. 5:30 p.m.
WGBX, Sun. 1 a.m.
● WFXT Sun. 10 a.m.

SPRINGFIELD
WGBY Thu. 8 p.m., Sat. 5:30 p.m.

MICHIGAN

ALPENA
WCML, Sat. 2:30 p.m.

BAD AXE
WUCX, Thu. 12:30 p.m. Sun. 5 p.m.

CADILLAC
WCMW Sat. 2:30 p.m.
● WWTV/WWUP Sun. 12:30 a.m.

DETROIT
WTVS, Thu. 5:30 p.m., Fri. 1 a.m., Sat. 11 a.m.
● WDIV, Sat. 6:30 a.m.

EAST LANSING
WKAR, Thu. 1 p.m., Sat. 1:30 p.m., Sun. 5 p.m.

FLINT
WFUM Thu. 8:30 p.m., Sat. 1:30 p.m.
● WEYI, Sat. 10:30 a.m.

GRAND RAPIDS
WGVU, Thu. 6:30 p.m., Sat. 10 a.m.
● WOOD-TV/WZTV*

KALAMAZOO
WGVK, Thu. 8:30 p.m., Sat. 11 a.m.

LANSING
● WILX, Sat. 5 a.m.

MANISTEE
WC MW Sat. 2:30 p.m.

MARQUETTE
WDMQ, Sat. 1:30 p.m.

MOUNT PLEASANT
WCMU Sat. 2:30 p.m.

UNIVERSITY CENTER
WUCM, Tue. 12:30 p.m., Sun. 1 p.m.

MINNESOTA

APPLETON
KSMN, Sat. 1:30 p.m., Thu. 8 p.m.
KWCM, Sat. 12:30 p.m., Thu. 8 p.m.

DULUTH
KSMQ, Thu. 1 p.m., Sat. 12:30 p.m.

MANKATO
KAWE, Thu. 1:30 p.m., Sat. 12:30 p.m.

MINNEAPOLIS
KAWE, Thu. 7:30 p.m., Sat. 12:30 p.m.

ROCHESTER
KWCM, Sat. 1:30 p.m.
● KTTC, Sun. 7:30 a.m.

ST. PAUL/MINNEAPOLIS
1 TCA, Wed. 1:30 p.m., Sat. 6:30 p.m.
● 1 TPT, Sat. 6:30 a.m.
● KSAX, Sat. 6:30 a.m.
● KSTP, Sat. 1:30 a.m.

MISSISSIPPI

BILOXI
WMAH, Sat. 6:30 p.m.

CLEVELAND
WMAH, Sat. 6:30 p.m.

GRENADA
WMAH, Sat. 6:30 p.m.

COLUMBUS/STARKVILLE
● WCBI, Fri. 1:30 a.m.

GREENWOOD
WMAO, Sat. 6:30 p.m.

JACKSON
WMAH Sat. 6:30 p.m.

MERIDIAN
WMAH Sat. 1:30 p.m.

MISSISSIPPI STATE
WMAH, Sat. 1:30 p.m.

OXFORD
WMAH Sat. 6:30 p.m.

MISSOURI

COLUMBIA
● KRCG, Sun. 8 a.m.

JOPLIN
● KOAM Sat. 5 p.m.
KOZJ, Sat. 12:30 p.m.

KANSAS CITY
KLRT/Dec. 1 p.m., Sat. 12:30 p.m.
● 1 MBC, Sat. 1:31 a.m.

ST. LOUIS
KETC, Wed. 12:30 p.m., Sat. 6:30 p.m.
● KTVI, Sat. 12:30 p.m.

SEDALIA
KMOS, Sat. 10:30 p.m.

SPRINGFIELD
KOZK, Sat. 12:30 p.m.
● KSPR, Sat. 7 a.m.

MONTANA

BILLINGS
● 1 LEE/KUTF, Sun. 8:30 a.m.

BOZEMAN
KUSM, Wed. 11:30 p.m., Sat. 11:30 a.m.

MISSOULA
KUFM Wed. 11:30 p.m., Sat. 11:30 a.m.

NEBRASKA

ALLIANCE
NETV Sat. 11 a.m. and 5:30 p.m.

ASHETT
NETV Sat 11 a.m. and 1:30 p.m.

HASTINGS
NETV Sat 11 a.m. and 1:30 p.m.

LINCOLN 1
KLNE, Sat. 11 a.m. and 1.30 p.m.

LINCOLN
NETV Sat. 10 a.m. and 5:30 p.m.
● KHAS, Sat. 5 p.m.
● HGBC/KTVG*

MERRIMAN
NETV Sat 10 a.m. and 2:30 p.m.

NORFOLK
NETV Sat. 11 a.m. and 2:30 p.m.

NORTH PLATTE
NETV Sat. 10 a.m. and 1:30 p.m.

OMAHA
● WOWT Fri. 5 p.m., Sun 1 a.m.
NETV Sat. 10 a.m. and 6:30 p.m.

NEVADA

LAS VEGAS
KLVX Sat. 1 a.m. and 10:30 p.m., Sun. 1 p.m.
● KTNV, Sat. 6:30 a.m.

RENO
KNPB, Sat. 10:30 p.m., Sun. 5 p.m.
● KAME, Sat. 11 a.m.

NEW HAMPSHIRE

DURHAM
WENH, Thu. 1:30 p.m., Sun. 10 a.m.

KEENE
WEKW, Thu. 11:30 p.m., Sat. 11 a.m.

LITTLETON
WLEB, Thu. 8:30 p.m., Sun. 11 a.m.

MANCHESTER
● WMUR Sat. 6 a.m.

NEW JERSEY

CAMDEN
WNJS, Thu. 5 p.m., Sat. 8 p.m., Sun. 5:30 p.m.

MONTCLAIR
WNJN, Thu. 8 p.m., Sat. 1 p.m., Sun. 1:30 p.m.

NEW BRUNSWICK
WNJB, Thu. 5 p.m., Sat. 5 p.m., Sun. 2:30 p.m.

TRENTON
WNJT Thu. 8 p.m., Sat. 1 p.m., Sun. 1:30 p.m.

NEW MEXICO

ALBUQUERQUE
KNME, Sun. 1 a.m. and 10 p.m., Thu. 7 p.m.
● KOB, Sun. 6:30 a.m.

LAS CRUCES
KRWG, Sat. 11:30 a.m.

PORTALES
KENW, Wed. 10:30 p.m., Sat. 4 p.m.

NEW YORK

ALBANY
● WXXA Fri. 11:30 a.m., Sun. 11 a.m.

BINGHAMTON
WSKG, Sat. 1 p.m., Sun. 7 p.m.
● WBNG, Sat. 6:30 a.m.

BUFFALO
WNED, Sat. 6:30 p.m.
WNED, Sun. 7 p.m.
● WIVB, Sat. 8 a.m.

ELMIRA
● WSKC*

LONG ISLAND
WLIW Sat. 10:30 p.m., Sun. 5 p.m.

NEW YORK CITY
WNET Sat. 8:30 p.m.
● WCBS, Sun. 7:30 a.m.

ROCHESTER
WNPE, Sat. 10:30 a.m.

PLATTSBURGH
WCFE, Sun. 11:30 a.m.

ROCHESTER
WXXI Sat. 10:30 a.m., Sun. 5:30 p.m.
● WHEC Sun. 1 a.m.

SCHENECTADY
WMHT Sat. 10:30 a.m.
WMHQ, Sun. 8:30 a.m.

SYRACUSE
WCNY Sat. 10:30 a.m.
● WSTM, Sun. 1 a.m.

WATERTOWN
WNPI, Sat. 10:30 a.m.

NORTH CAROLINA

ASHEVILLE
WUNF Sat. 1:30 p.m., Sun. 1 a.m.

CHAPEL HILL
WUNC, Sat. 8:30 p.m., Sun. 9 a.m.

CHARLOTTE
● WAXN, Sat. 12:30 p.m.
● WSOC, Sat. 8:30 a.m.
WTVI, Thu. 1 p.m., Sat. 5 p.m., Sun. 11 a.m.
WUNG Sat. 1:30 p.m., Sun. 1 a.m.

COLUMBIA
WUNP Sat. 5:30 p.m., Thu. 8 p.m.

GREENSBORO
● WGHP Sat. 6:30 a.m.

GREENVILLE
WUNK, Sat. 1:30 p.m., Sun. 1 a.m.
● WLOS Sat. 7 a.m.

JACKSONVILLE
WUNM, Sat. 5:30 p.m., Sun. 9 a.m.

LINVILLE
WUNE, Sat. 1:30 p.m., Sun. 1 a.m.

LUMBERTON
WUNU Sat. 5:30 p.m., Sun. 1 a.m.

RALEIGH
● WTVD, Sat. 6:30 a.m.

ROANOKE RAPIDS
WUNR, Sat. 5:30 p.m., Sun. 9 a.m.

WILMINGTON
WUNJ Sat. 2:30 p.m., Sun. 1 a.m.

WINSTON-SALEM
WUNL, Sat. 1:30 p.m., Sun. 1 a.m.

NORTH DAKOTA

BISMARCK
KSRE, Thu. 7 p.m., Sat. 8 p.m.

DICKINSON
KUSE, Thu. 7 p.m., Sat. 5 p.m.

ELLENDALE
KDSE, Thu. 7 p.m., Sat. 1 p.m.

FARGO
KFME, Thu. 1 p.m., Sat. 1 p.m.
● WDAY, Sun. 6:30 a.m.
● WDAZ Sat. 8:30 a.m.

GRAND FORKS
KCPS, Thu. 7 p.m. Sat. 1 p.m.

MINOT
KSRE, Thu. 1 p.m., Sat. 5 p.m.

WILLISTON
KWSE, Thu. 7 p.m., Sat. 6 p.m.

OHIO

AKRON
WEAO Sat. 10:30 a.m. and 1 p.m., Sun. 1 p.m.

CLEVELAND
WVIZ, Sat. 1 p.m., Sun. 12:30 p.m.
● WKYC Sun. 6 a.m.

COLUMBUS
WOSU, Thu. 1 p.m., Sat. 6:30 p.m.
● WSYX, Sat. 6:30 a.m.

DAYTON
WPTD, Thu. 1 p.m., Sat. 9:30 a.m.
● WHIO, Sat. 1:30 a.m.

LIMA
● WLIM-L

OXFORD
WPTO, Mon. 7:30 p.m. Sun 12:30 p.m.

PORTSMOUTH
WPBO Thu. 1 p.m., Sat. 4:30 p.m.

TOLEDO
WGTE, Thu. 1 p.m., Sat. 1 p.m.
● WTVG, Sun. 1 a.m.

WHEELING (WV.)
● WTRF

YOUNGSTOWN
WNEO Sat. 10:30 a.m. and 5 p.m., Sun. 1 p.m.
● WFMJ Sun. 10 a.m.

OKLAHOMA

CHEYENNE
KWET Sat. 9:30 a.m. and 12:30 p.m.

ENFAULA
KOET Sat. 8:30 a.m.
● KTUL, Sat. 12:30 p.m.

OKLAHOMA CITY
KETA Sa 2:30 a.m. and 12:30 p.m.
● KOSC, Sat. 6:30 a.m.

TULSA
KOET, Sat. 8:30 a.m. and 10:30 p.m.
● KTUL, Sun. 12:30 p.m.

OREGON

ONAI
KOAB, Thu. 8 p.m., Sat. 1 p.m.

CORVALLIS
KOAC, Thu. 8 p.m., Sat. 1 p.m.

EUGENE
KOPB, Thu. 8 p.m., Sat. 2 p.m.
● KMTR Sun. 1 a.m.

KLAMATH FALLS
KFTS, Thu. 8 p.m., Sat. 10:30 a.m.

LA GRANDE
KTVR, Thu. 8 p.m., Sat. 5 p.m.

MEDFORD
KSYS, Thu. 8 p.m., Sat. 10:30 a.m.
● KOBI/KOTI, Sun. 4 p.m.

PORTLAND
KOPB, Thu. 1 p.m., Sat. 5 p.m.
● KATU, Sat. 1:30 p.m., Sun. 12:30 p.m.

PENNSYLVANIA

ALLENTOWN
WLVT Fri. 7:30 p.m., Sat. 12:30 p.m.

ERIE
WHLM, Sat. 5:00 p.m.
● WJET Sat. 6:30 a.m.
● WSEE Sun. 6:00 a.m.

GRANTSBURG
WITF Thu. 1 p.m., Sat. 1 a.m. and 9 p.m.
● WGAL, Sun. 11:30 a.m.

JOHNSTOWN
● WATN, Sun. 10:30 a.m.

PHILADELPHIA
WHYY Sat. 11 a.m. and 1 p.m., Sun. 7 p.m.
● WPVI Sat. 5 a.m.

PITTSBURGH
● KDKA, Fri. 5:30 a.m.
WQED Sun. 5 p.m.
WQEX Sat. 1 p.m.

PITTSTON
WVIA, Thu. 8 p.m., Sat. 1 p.m. and 5:30 p.m.

UNIVERSITY PARK
WPSX, Sat. 1 a.m. and 5:30 p.m., Sun. 8:30 p.m.

WILKES-BARRE
● WYOU

RHODE ISLAND

POST 1 INCE
WSBE Tue. 5:30 p.m. Sat. 1 p.m.
● WLNE, Thu. 1:30 a.m.

SOUTH CAROLINA

ALLENDALE
WEBA, Sat. 1 p.m.

BEAUFORT
WJWJ, Sat. 4 p.m.

CHARLESTON
● WCSC, Sat. 7:30 a.m.
WITV Sat. 4 p.m.

COLUMBIA
● WLTX, Sat. 5:30 a.m.
WKLK Sat. 1 p.m.

FLORENCE
WJWJC, Sat. 4 p.m.

HILTON HEAD/BEAUFORT/BLUFFTON
WJFM Sat. 1 p.m.
● WJWJ, Sun. 1 a.m.

GREENVILLE
WNTV, Sat. 4 p.m.

GREENWOOD
WNEH, Sat. 1 p.m.

MYRTLE BEACH
WJPM Sat. 1 p.m.
● WPDE, Sun. 1 a.m.

ORANGEBURG
WJWJ Sat. 4 p.m.

ROCK HILL
WNSC, Sat. 4 p.m.

SPARTANBURG
WRET Sun. 1 p.m.
● WSPA, Sun. 1 a.m.

SUMTER
● WPMI, Sun. 1 a.m.

SOUTH DAKOTA

ABERDEEN
KDSD Sat. 1 p.m.

BROOKINGS
KESD Sat. 1 p.m.

EAGLE BUTTE
KPSD, Sat. 4 p.m.

LOWRY
KOSO, Sat. 1 p.m.

RAPID
KZSD Sat. 1 p.m.

VERMILLION
KTSD Sat. 1 p.m.

RAPID CITY
KBHP Sat. 4 p.m.
● KCLO, Sat. 4 p.m.

SIOUX FALLS
KCSD, Sat. 1 p.m.
● KELO, Sat. 5 p.m.

WATERTOWN
KUSD, Sat. 1 p.m.

TENNESSEE

CHATTANOOGA
● WDSN, Sat. 11 a.m.
WTCI, Sat 11:30 p.m.

COOKEVILLE
WCTE, Sat. 12:30 p.m.

KNOXVILLE
WKOP Sat. 1:30 p.m.
WSJK, Sat. 1:30 p.m.
● WATE Sa 7:30 a.m.

LEXINGTON-MARTIN
WLJT Thu. 9:30 p.m., Sat. 12:30 p.m.

MEMPHIS
WKNO Thu. 1 p.m., Sat. 6:30 a.m.
● WPTY Sat. 1 a.m.

NASHVILLE
● WATN, Sun. 10:30 a.m.

PHILADELPHIA
WHYY Sat. 11 a.m. and 1 p.m., Sun 7 p.m.
● WPVI Sat. 5 a.m.

PITTSBURGH
● KDKA, Fr. 5:30 a.m.
WQED Sun. 5 p.m.
WQEX Sat. 1 p.m.

PITTSTON
WVIA, Thu. 8 p.m., Sat. 1 p.m. and 5:30 p.m.

UNIVERSITY PORT
WPSX, Sat. 1 a.m. and 5:30 p.m., Sun. 8:30 p.m.

WILKES-BARRE
● WYOU

RHODE ISLAND

POST 1 INCE
WSBE Tue. 5:30 p.m. Sat. 1 p.m.
● WLNE, Thu. 1:30 a.m.

SOUTH CAROLINA

ALLENDALE
WEBA, Sat. 1 p.m.

BEAUFORT
WJWJ, Sat. 4 p.m.

CHARLESTON
● WCSC, Sat. 7:30 a.m.
WITV Sat. 4 p.m.

COLUMBIA
● WLTX, Sat. 5:30 a.m.
WKLK Sat. 1 p.m.

FLORENCE
WJWJC, Sat. 4 p.m.

HILTON HEAD/BEAUFORT/BLUFFTON
WJFM Sat. 1 p.m.
● WJWJ, Sun. 1 a.m.

GREENVILLE
WNTV, Sat. 4 p.m.

GREENWOOD
WNEH, Sat. 1 p.m.

MYRTLE BEACH
WJPM Sat. 1 p.m.
● WPDE, Sun. 1 a.m.

ORANGEBURG
WJWJ Sat. 4 p.m.

ROCK HILL
WNSC, Sat. 4 p.m.

SPARTANBURG
WRET Sun. 1 p.m.
● WSPA, Sun. 1 a.m.

SUMTER
● WPMI, Sun. 1 a.m.

SOUTH DAKOTA

ABERDEEN
KDSD Sat. 1 p.m.

BROOKINGS
KESD Sat. 1 p.m.

EAGLE BUTTE
KPSD, Sat. 4 p.m.

LOWRY
KOSO, Sat. 1 p.m.

RAPID
KZSD Sat. 1 p.m.

VERMILLION
KTSD Sat. 1 p.m.

RAPID CITY
KBHP Sat. 4 p.m.
● KCLO, Sat. 4 p.m.

SIOUX FALLS
KCSD, Sat. 1 p.m.
● KELO, Sat. 5 p.m.

WATERTOWN
KUSD, Sat. 1 p.m.

TENNESSEE

CHATTANOOGA
● WDSN, Sat. 11 a.m.
WTCI, Sat 11:30 p.m.

COOKEVILLE
WCTE, Sat. 12:30 p.m.

KNOXVILLE
WKOP Sat. 1:30 p.m.
WSJK, Sat. 1:30 p.m.
● WATE Sa 7:30 a.m.

LEXINGTON-MARTIN
WLJT Thu. 9:30 p.m., Sat. 12:30 p.m.

MEMPHIS
WKNO Thu. 1 p.m., Sat. 6:30 a.m.
● WPTY Sat. 1 a.m.

NASHVILLE
WDCN, Sun. 10:30 a.m.
● WATN, Sun. 10:30 a.m.

PHILADELPHIA
WHYY Sat. 11 a.m. and 1 p.m., Sun 7 p.m.
● WPVI Sat. 5 a.m.

PITTSBURGH
● KDKA, Fr. 5:30 a.m.
WQED Sun. 5 p.m.
WQEX Sat. 1 p.m.

PITTSTON
WVIA, Thu. 8 p.m., Sat. 1 p.m. and 5:30 p.m.

UNIVERSITY PORT
WPSX, Sat. 1 a.m. and 5:30 p.m., Sun. 8:30 p.m.

WILKES-BARRE
● WYOU

RHODE ISLAND

POST 1 INCE
WSBE Tue. 5:30 p.m. Sat. 1 p.m.
● WLNE, Thu. 1:30 a.m.

SOUTH CAROLINA

ALLENDALE
WEBA, Sat. 1 p.m.

BEAUFORT
WJWJ, Sat. 4 p.m.

CHARLESTON
● WCSC, Sat. 7:30 a.m.
WITV Sat. 4 p.m.

COLUMBIA
● WLTX, Sat. 5:30 a.m.
WKLK Sat. 1 p.m.

FLORENCE
WJWJC, Sat. 4 p.m.

HILTON HEAD/BEAUFORT/BLUFFTON
WJFM Sat. 1 p.m.
● WJWJ, Sun. 1 a.m.

GREENVILLE
WNTV, Sat. 4 p.m.

GREENWOOD
WNEH, Sat. 1 p.m.

MYRTLE BEACH
WJPM Sat. 1 p.m.
● WPDE, Sun. 1 a.m.

ORANGEBURG
WJWJ Sat. 4 p.m.

ROCK HILL
WNSC, Sat. 4 p.m.

SPARTANBURG
WRET Sun. 1 p.m.
● WSPA, Sun. 1 a.m.

SUMTER
● WPMI, Sun. 1 a.m.

SOUTH DAKOTA

ABERDEEN
KDSD Sat. 1 p.m.

BROOKINGS
KESD Sat. 1 p.m.

EAGLE BUTTE
KPSD, Sat. 4 p.m.

LOWRY
KOSO, Sat. 1 p.m.

RAPID
KZSD Sat. 1 p.m.

VERMILLION
KTSD Sat. 1 p.m.

RAPID CITY
KBHP Sat. 4 p.m.
● KCLO, Sat. 4 p.m.

SIOUX FALLS
KCSD, Sat. 1 p.m.
● KELO, Sat. 5 p.m.

WATERTOWN
KUSD, Sat. 1 p.m.

TENNESSEE

CHATTANOOGA
● WDSN, Sat. 11 a.m.
WTCI, Sat 11:30 p.m.

COOKEVILLE
WCTE, Sat. 12:30 p.m.

KNOXVILLE
WKOP Sat. 1:30 p.m.
WSJK, Sat. 1:30 p.m.
● WATE Sa 7:30 a.m.

LEXINGTON-MARTIN
WLJT Thu. 9:30 p.m., Sat. 12:30 p.m.

MEMPHIS
WKNO Thu. 1 p.m., Sat. 6:30 a.m.
● WPTY Sat. 1 a.m.

NASHVILLE
WDCN, Sun. 10:30 a.m.
● WATN, Sun. 10:30 a.m.

PHILADELPHIA
WHYY Sat. 11 a.m. and 1 p.m., Sun 7 p.m.
● WPVI Sat. 5 a.m.

PITTSBURGH
● KDKA, Fr. 5:30 a.m.
WQED Sun. 5 p.m.
WQEX Sat. 1 p.m.

PITTSTON
WVIA, Thu. 8 p.m., Sat. 1 p.m. and 5:30 p.m.

UNIVERSITY PORT
WPSX, Sat. 1 a.m. and 5:30 p.m., Sun. 8:30 p.m.

WILKES-BARRE
● WYOU

RHODE ISLAND

POST 1 INCE
WSBE Tue. 5:30 p.m. Sat. 1 p.m.
● WLNE, Thu. 1:30 a.m.

SOUTH CAROLINA

ALLENDALE
WEBA, Sat. 1 p.m.

BEAUFORT
WJWJ, Sat. 4 p.m.

CHARLESTON
● WCSC, Sat. 7:30 a.m.
WITV Sat. 4 p.m.

COLUMBIA
● WLTX, Sat. 5:30 a.m.
WKLK Sat. 1 p.m.

FLORENCE
WJWJC, Sat. 4 p.m.

HILTON HEAD/BEAUFORT/BLUFFTON
WJFM Sat. 1 p.m.
● WJ

Bi-Coastal Builders

Fresh from wine country, the guys head back to New England

BY JORDAN REED

Steve and Norm sit a spell on the back steps off the kitchen of the finished Napa house. "It was a great region to work in," says Steve, "I really enjoyed the project and being so close to the heart of wine culture."

Week 7 (September 4–8)

Despite all the rain, work continues at the Napa Valley farmhouse with just two more days to go. Norm helps solid surface fabricator Kare Raymond install an island countertop in the nearly completed kitchen. Richard Tratheway points out the ingenuity of an earthquake proof water heater and meets with specialist Bill Dodd to examine the home's state-of-the-art water softener. Steve marvels at electrical contractor Al Curtice's fearless installation of a three way dimmer switch. Then visits a beautiful private estate and winery on sale for a paltry $4.5 million.

Watch and learn: Leveling and sanding a countertop

Over 50 inches of rainfall in one month "did a number on the crew," says T.O.H. producer Bruce Irving, "but they got it done on time. That's a real testament to their ability." And the home owner's camellia bushes flourished after they were moved away from the porch.

Resources: Solid-surface countertops: Avonite, 1945 Highway 304, Belen, NM, 87002, 800-428-6645. Solid-surfacing installers: Surface Technology Corp., 370 Industrial Way, San Carlos, CA 94070, 650-595-2976. Circulating pump: Grundfos 3131 N Business Park, Fresno, CA 93727, 559-292-8000, www.us.grundfos.com. Water softener: Culligan Diversified Water Systems, Inc., 110 Dodd Ct., American Canyon, CA 94589, 707-558-1000. Light switches: Maestro by Lutron Electronics, 7200 Suter Rd., Coopersburg, PA 18036, 800-523-9466, www.lutron.com/maestro.

Week 6 (September 11–12)

The house is buzzing on the final day. Steve and Richard take a stroll through the completed utility room and kitchen, which includes a prize winning energy efficient refrigerator. Richard flashes back to his meeting with Chuck Imbrecht of the California Energy Commission who made sure the house met its strict qualifications. Steve recalls his visit to the Lamborn Family Vineyards in nearby Angwin, where owner Bob Lamborn took him on the VIP tour. Finally, before the wrap party, flagpole builder Tom Hennessy, Steve, and the crew set a pole straight, and home owner Dennis Duffy raises the flag.

Watch and learn: Installing door locks and knobs

Resources: De-leading contractor: Stan Reynolds, OEP Painting, 543 Andover St., San Francisco, CA 94110, 415-648-7193. Portable saw table: Sidekick by Delta Machinery Corp., 800-223-7278. Soffit fluorescent strips: H.E. Williams Inc. of Carthage, MO, 417-358-4065. Toilet, shower faucets, and sinks: Kohler Co., 800-456-4537, www.kohlerco.com. Under-sink water purifier: Culligan Diversified Water Systems, Inc., 110 Dodd Ct., American Canyon, CA 94589, 707-558-1000. Appliances: KitchenAid, 800-422-1230, www.kitchenaid.com. California Energy Commission, 916-654-4064, www.energy.ca.gov. Custom wooden doors with medium density fiber panels: Simpson Door Co., 800-952-4057, www.simpsondoor.com. Door hardware and milling: Santa Rosa Hardware Co., 4180 South Moorland Ave., Santa Rosa, CA 95407, 707-564-7033. Brass hardware: Baldwin Hardware Corp., 841 East Wyomissing Blvd., Reading, PA 19611, 610-777-7811. Wine storage unit, Under counter model: SWC by U-Line Corp., 8900 North 55th St., P.O. Box 245040, Milwaukee, WI 53224, 414-354-0300, www.u-line.com. Wooden flagpole: Hennessy House Wooden Flagpoles, P.O. Box 57, Sierra City, CA 96125, 800-265-2122, www.woodenflagpoles.com. Catering: Wild Thyme Catering, Walnut Creek, CA, 925-945-7939.

Week 1 (September 18–19)

After a brief tour of Salem, Massachusetts, Steve and realtor Betsy Merry check out the proposed project house, a 1764 Federal with a Victorian addition built in 1860. Inside are many fine details, including a hand-carved mantel, wainscot wall detail, and an old claw foot tub. Steve meets Kevin and Deborah Guinee, who hope to buy the property for considerably less than the $239,000 asking price. Meanwhile, Norm and Tom do a walk through and find that the cricket detail and counter-flashes around the chimneys need work, as does the slate roof. New plumbing, heating, electricity, insulation, and venting must be installed, and the shed roof and front room windows need replacing. On the plus side, the structure, sills, and joists are solid; the beams are well supported; and there's no bulging in the stone foundation.

Watch and learn: Where not to put a gutter

Resources: Realtor: Betsy Merry, Hunneman & Co./Coldwell Banker, 7½ Church St., Salem, MA 01970, 978-741-4404

The Guinee family had already been through two renovations before Norm, Steve, and company took on their Salem, Massachusetts, home. "But it was a dream come true to work with This Old House," says home owner Deborah (second from left).

Week 2 (September 25–26)

The Guinees have bought the house for $205,000. Steve and Deborah take a stroll through the Victorian addition which will be a rental property, and decide that all it needs are a heavy duty cleanup and work on one doorway. After taking a look around outside, Steve realizes that creating the off street parking Kevin hopes for will be a challenge. With Steve's help, Norm removes a front window to view its condition, then Steve heads out to the Peirce-Nichols House, the first commissioned work of famed architect Sam McIntire, built in 1782.

Watch and learn: Repairing an old sash

Resources: Truck: Ford F-150, Ford Motor Company, 800-392-3673, www.fordvehicles.com. Financing: bank: The Equitable Cooperative Bank, 67 Oxford St., Lynn, MA 01901, 781-599-5600, www.equitablebank.com

"The project proposed a challenge," says Steve (pictured here with Tom and Norm) of the Salem house. "We wanted to preserve the historic aspects of the place, but also provide efficient, modern systems to keep up with the times. It really became a matter of deciding what could stay and what had to go."

PHOTOS: COURTESY OF WGBH

ASK NORM
pp. 30–33

The Rohm & Haas Paint Quality Institute, www.paintquality.com

HOUSE CALLS
pp. 34–38

Designer: Baybrook Remodelers, West Haven, CT, 203-937-6400. Faucet: ProMaster by Kohler, 800-4-KOHLER. Flooring: Ann Sacks Tile & Stone, Portland, OR, 503-281-7751. Range: Model VGIS, Viking Range Co., 888-845-4641. Dishwasher: Kitchenaid, 800-422-1230. Dishwasher and stove available at Shoppers World, Hamden, CT, 203-281-3661. Cabinets: Yorktowne, 717-244-4011. Countertops: Connecticut Stone Supplies, 203-882-1000. Light Fixture: Zinc pendant, Ron Rezek Lighting, 310-836-1572.

TRANSFORMATIONS
PP. 40–42

Architects: Seigel Architects, Chatham, NJ, 973-635-2465. Builder: Hunterdon Builders, Whitehouse, NJ, 908-284-0221.

STALK MARKET
pp. 45–50

Bamboo suppliers: Bamboo Gardens of Washington, Redmond, WA, 425-868-5166. Bamboo Accents, 800-783-0557. Bamboo Hardwood, Seattle, WA, 206-264-2414. Plyboo products: Smith & Fong Co., South San Francisco, CA, 650-872-1184. Bambtex flooring: Mintec, 888-9-MINTE. TimberGrass, 206-842-9477. Safari Thatch & Bamboo Inc., 954-564-0059. Builders: EcoArchitects, Pata, HI, 808-572-3033. Bamboo Builders Northwest, 206-789-1330.

CLASSICAL GLASS
pp. 52–54

Town & Country, Chicago, IL, 773-506-8000. David C. Bishop & Co.,

Glenview, IL, 847-729-7212. Renaissance Conservatories, Lancaster, PA, 800-209-7033. Tanglewood Conservatories, Denton, MD, 800-229-2925. Gerrard & Tan Architects, New York, NY, 212-255-6300. Glass House, Pomfret Center, CT, 800-222-3065.

FINANCES
pp. 56–56

Builders: Dan Bawden, Houston, TX, 713-723-8850. Philben Construction & Remodeling, Crestwood, IL, 708-385-5780.

HOME OFFICE SOLUTIONS
pp. 61–64

Ellen Kolber, Diversified Ergonomics, New York, NY, 212-206-8925. Mark Dunka, InHouse Furniture and Design, Inc., San Francisco, CA, 415-554-1950. Brukoff Design Assoc., Sausalito, CA, 415-332-6350. Duo Dickinson Architects, Madison, CT, 203-245-0405. Further reading: *The Home Office Book*, by Donna Paul, Artisan Publishing, 1996.

WHAT YOU NEED TO KNOW
p. 67

Electrician: Allen Gallant, Waltham, MA, 781-893-4636.

TALL ORDER
pp. 66–66

Column bases and plinths: Wood: Cinder Whit & Company, 800-527-9064. Fiberglass: Melton Classics, 800-963-3060. Aluminum: A.F. Schwerd, Pittsburgh, PA, 412-766-6322.

THE DETAILS
pp. 71–76

Mailboxes: "Westchester" brass mailbox, $219.95; "Imperial Classic Contemporary Post," $229.95, from Custom Home Accessories, Fair Oaks, CA, 800-265-0041. Basket creel, $65, Orvis; 800-548-9548. "Red Swedish post box" by Transmarket Export, $39, through Restoration Hardware, 888-243-9720. Copper post mount by Still River Designs, $150–175, through Schieren Associates, 800-524-1270. Round top mailbox by Kemil Pepin, $69.95, through Craftsman Homes Connection, Spokane, WA, 509-535-5098. "Traditional Sienna" by Hinkley Lighting, $135.00, Restoration Hardware. "Retro" stainless steel mailbox, $149.00, Smith & Hawken, 800-776-3336. Matte black saddlebag, MB10, $55.00, Colony Metalsmiths, Inc., White Marsh, VA, 804-693-6848. "Mission Patina" by Hinkley Lighting, $149, Restoration Hardware. "Roycroft" copper wall mount by Joseph Mross, $159.95, Craftsman Homes Connection. Mailbox with flowers by Bradford McDougall, Baltimore, MD, 410-467-1381. Cast iron mail slot, $145, Liz's Antique Hardware, Los Angeles, CA, 323-939-4403.

BILLERICA: TV FALL PROJECT
pp. 62–66

Architect: Christopher Dallmus, Design Associates, Inc., Cambridge, MA, 617-661-3082; www.design-associates.com. Shingles: Authentic Roof, Crowe Building Products, Hamilton, Ontario, 905-529-6818. Siding: Hardiplank by James Hardie & Coy, 888-JHARDIE. Our thanks to, Steve Hayes, Custom Electronics, Inc., Falmouth, ME, 800-480-1988.

TREES
pp. 66–96

Horticulturist: Emerald Thumb, Ossbon (Ozzie) Bateman, 7 Fox Hollow Road, Rhinebeck, NY 12572. Landscape designer: John Geiger & Associates; 203-625-5599.

BACK TOGETHER AGAIN
pp. 98–105

General contractor: Michael Doiron Housewright, Beverly Farms, MA, 978-922-9963. Timber framer: Robert Weatherall, Ipswich, MA, 978-356-8679. Period architectural materials: Early Preservation, Charlotte,VT, 802-425-2956. Refinisher, Fantastic Finishes, Peabody, MA, 978-532-3364. Antiques: Andrew Spindler Antiques, Essex, MA, 978-768-6045. Kitchen: Crate & Barrel, 800-996-9960. Living room: Rugs, lamps, table, throw, wooden items, Mohr & McPherson, Boston, MA, 617-338-1288. Chairs (left to right): "Cole," Mitchell Gold, Taylorsville, NC, 828-632-9200. Button back, 581-34-9, Milling Road, Kohler, WI, 414-457-4441. Morris chair, E.J. Audi, Manlius, NY, 315-682-5500. Wing, 578-37-9, Milling Road-"Ansonia," Ethan Allen, 800-228-9229.

VAHE GLORIOUS
pp. 107–111

Page 107: Toad, from Travis Tuck, Martha's Vineyard, MA, 508-693-3914.

Page 108: Dragon, and arrow, from Denninger Products, Middleton, NY, 914-343-2229. Airplane, from Michael Saari, Woodstock, CT, 860-928-0257. Page 109. Rooster, H0191, $134, Pig, GB0852P, $198, Sign of the Crab, Rancho Cordova, CA, 800-843-2722. Trees, WV-625, $199; Dolphins, WV-639, $185; Pelican,WV-GD-509, $176, Wind and Weather, Fort Bragg, CA, 800-922-9463.

DREAM HOUSE: FITTING TRIM
pp. 112–116

Architect: Robert A.M. Stern Architects, New York, NY, 212-967-5100. Builder: Country Club Homes Inc., New Canaan, CT, 203-966-5550. Trim fitting and installation: Mike Davis, Lakota Builders, Inc., Fishkill, NY, 914-896-0296. Straight trim elements: Shaw Millwork, Inc., Ridgefield, CT, 203-544-8414. Curved trim elements: Hamilton Woodworking, Inc., South Norwalk, CT, 203-866-7715.

THE CHARGE OF THE TOOL-BELT BRIGADE
pp. 121–124

Americares Homefront, New Canaan, CT, 800-887-4673; www.americares.org

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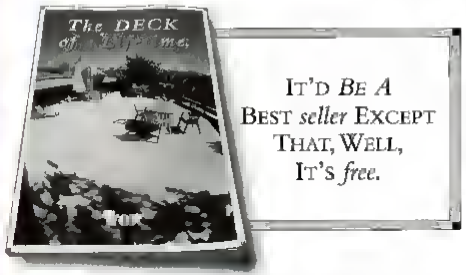

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SPLENDOR IN THE GRASS
p. 126-130

William Cahill, Custom Roof Thatching & Supplies, Cincinnati, OH, 513 772-4971. Nelson Sterner, Old Westbury Garden, Old Westbury, NY, 516-333-0035. Safari Thatch & Bamboo, Fort Lauderdale, FL, 954-564-0059. McGhee Custom Thatching, Charlottesville, VA; www.thatching.com

POSTER
p. 133

Operator. WLRB, Cirecast, San Francisco, CA, 415-822-3030. Oldies but Goodies. Antique hardware from Eugenia's Authentic Antique Hardware, Chamblee, GA, 800 337-1677. Big Pulley and Weights. SP2258B SE, Phelps Co. (for sale to architects, mill work fabricators, and contractors), Dummerson VT, 802-257-4314. Weights. CWOI and CWO5, Phelps. Decorative Pulley. A Carolina Craftsman, Anaheim, CA 92805, 714 776-7877. Sash Locks. (Clockwise from bottom left) 1. WLK, Cirecast, 2. LK284, Phelps, 3. LK181, Phelps 4. LK395, Phelps, 5. 4430, Architectural Resource Center 6. #4 Phelps, 7. WL123, Cirecast 8. WL128, Cirecast. Lifts and Pulls. (From left to right) 1. Decorative pull handle, Architectural Resource Center (ARC), 2. 4222, ARC, 3. 4465, ARC, 4. RSL108, Cirecast, 5. 4015, ARC, 6. SL101, Cirecast, 7. 4042, ARC, 8. RSL101, Cirecast

SAVE THIS OLD HOUSE
p. 158

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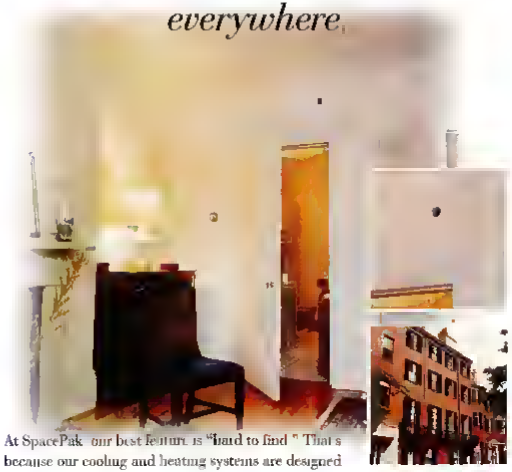

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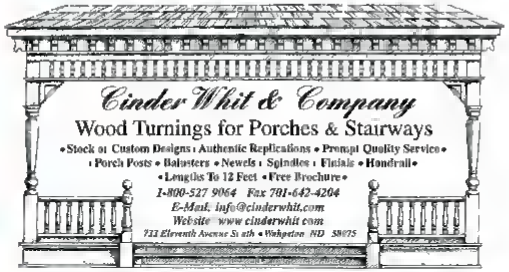

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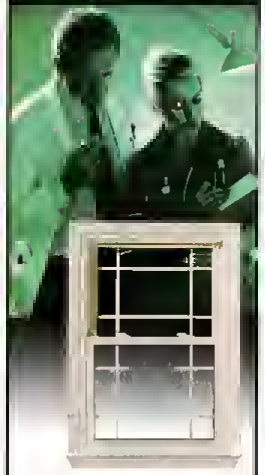

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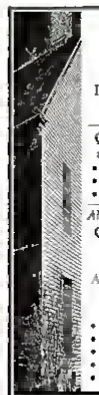

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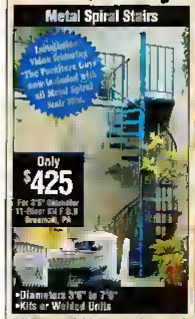

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Unoccupied for the last 39 years, the historic plantation house known as Marlborough rests on five acres of farmland about 45 minutes northeast of Richmond, Virginia. The original house, a 1½-story cottage with a half-gambrel roof, was built in the late 1700s. In 1839, a two-story addition with an English basement expanded the interior to 2,100 square feet.

In many respects, the house is like a time capsule from antebellum days. The surviving windowpanes are made from mouth-blown glass; the siding is thick, beaded cypress; and there are seven fireplaces, three of which boast Federal-era mantels. Twelve of the 13 original doors have been saved, complete with forged hinges. And the hand-hewn, pegged timber frame is still in good shape, thanks to a sound roof.

The current owner purchased the property hoping to prevent the old structure from being razed, but he hasn't been able to afford the fix-up. At present, the house has no electricity or plumbing, and both the foundation and the three double-shouldered chimneys need repair. "It's about $100,000 worth of work to make it habitable," says Sam Daniel, a preservation contractor based in Richmond. "But Marlborough is a cozy little house, and deserves to stay where it is."

CONTACT
Gaston W. Callum II
(804) 674-6106

TOP: Marlborough, a former tobacco plantation house in Virginia's rural Tidewater region, is surrounded by cornfields and hardwood forest. BELOW: In the parlor, the longleaf heart pine floors have resisted termites and decay for 160 years and are still in fine shape.

PHOTOS: GASTON W. CALLUM II

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