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MARCH 2001

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Roger Cook, T.O.H.
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Stairway to Heaven

As Steve Thomas looks on, Tom Silva gets his hands dirty in Charlestown, cutting back an original attic staircase to make room for the new roof deck. See "The Outsiders," page 78.
BY JEFFERSON KOLLE

features

The Outsiders

The Charlestown project's new roof deck and patio provide invaluable outdoor living space. BY JEFFERSON KOLLE

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cover

At work on his ninth project for the T.O.H. show, landscape contractor Roger Cook lays down keystone-shaped concrete pavers for the nearly completed Charlestown house patio. Cook and his crew cleaned up and leveled the backyard, dug a foot-deep trench for a concrete retaining wall, and planted numerous trees and shrubs. For a look at the process, see "The Outsiders," p. 78. PHOTOGRAPH BY PASCAL BLANCON

PHOTOS: CLOCKWISE FROM TOP: KOLIN SMITH; DAVID ALBANESE; DAVID CARMAC; ALLEN KENNEDY

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C O N T E N T S

"This is an old house. I didn't want it to be too perfect. I like it a little rustic."
—Michael Noll, homeowner

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PHOTOS: COUNTERCLOCKWISE FROM TOP: PASCAL BLANCO; DAVID PRINCE; NEJLIRI MATUDA
ILLUSTRATION: RON BARNETT

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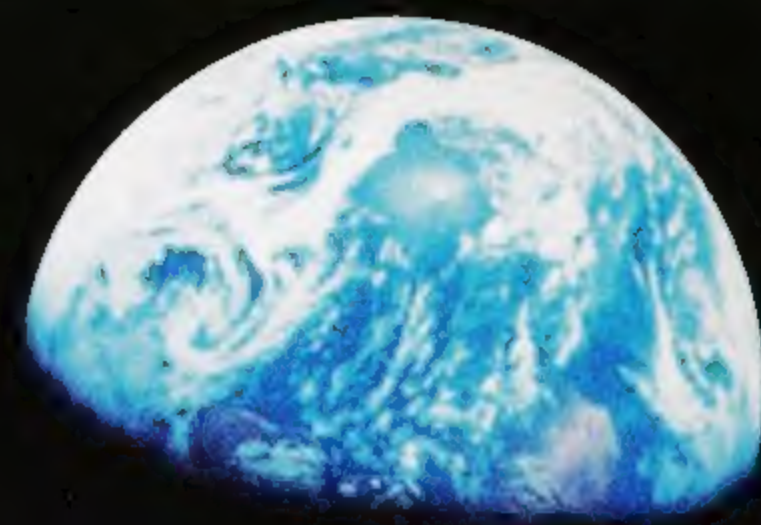
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MARCH 2001



Noted author **ANNIE PROULX** loves the small town in Wyoming where she lives, but she's less enthusiastic about her large log house. "If I had my druthers, I'd build a house with one enormous room and thousands of miles of bookshelf space," says the writer, who envisions her dream home in

"Pie-in-the-Sky House" (page 90). Proulx is the author of *The Shipping News*, for which she won a Pulitzer Prize and a National Book Award. Her latest story collection is *Close Range: Wyoming Stories*.

"I'm always interested in seeing how people change their homes," says **GORDON BOWYER**, an English architect who has worked for the U.K.'s National Gallery and the British Museum. Bowyer's illustrations appear in "The Outsiders" (page 78), "Little Old Ranch From Pasadena" (page 97), and "Canadian Maple" (House Calls, page 20). He and his wife, Ursula, own a 1750 Georgian town house in Greenwich, England.



CHARLES WARDELL, who wrote the Homeowner's Handbook on installing baseboards (page 99), was a carpenter and remodeler for 10 years before turning to writing. "Tom Silva makes baseboards look easy," he says. "But it takes some practice to get it right." Back in 1993, Wardell spent a year constructing his own farmhouse on

Martha's Vineyard; he now lives in a cottage on the island. He also writes for *Popular Science* and *Builder*.

DOMINIQUE VORILLON photographed "Little Old Ranch From Pasadena" (page 97). "I like how Deborah Rachlin added modern elements," he says. "My house has a strong character that I can't change," he adds, referring to his 1929 Spanish Eclectic home in Los Angeles. Having grown up in a "cube of cement" in Sologne, France, Vorillon enjoys shooting architecture and interiors. His work has appeared in the *Los Angeles Times*



Magazine, *Architectural Digest*, and *Saveur*.

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PHOTOS: VITO STANISLAVSKI/AND DAILY HERALD (TOP); TOM GREENFIELD (SECOND FROM TOP)



Two of a Kind

We just wanted to let you know how much we related to the article, "Saving Graces" [December 2000], about the Shingle Style house. We are renovating a similar home in Kewanee, Illinois, that also has the "haunted" stigma, especially as it was abandoned for 30 years until we purchased it in 1997. We're working on it project by project and have a lot left to do, but seeing this article spurs us on. Thanks for giving us the inspiration.

ELAINE LUND, OCALA, FLA., VIA E-MAIL

Torch Song

I've used a torch or heat gun to remove or repair putty on about a dozen windows and doors. I've yet to complete one without breaking at least one pane of glass. Is breakage to be expected, or is there a technique to avoid overheating the glass?

ROSS HUNTER, ORANGE, VA., VIA E-MAIL

To reflect the heat away from the glass, try covering each pane that's exposed to the heat with a piece of tin or aluminum flashing. When using the heat gun (we recommend it rather than a torch), direct the hot air stream parallel to the paint or putty surface, heating one small area at a time evenly and gradually with a continuous back-and-forth motion, to avoid shocking the glass with too much heat.

Stack It Up to Experience

I may have an answer in response to "Where's the Leak?" [Ask Norm, December 2000], based

on my experience with a plumbing vent stack several years ago. There was a leak above the front bathroom of our single-story ranch-style house. It turned out that the vent stack—in order to not protrude from the front of the roof and to avoid the structural elements associated with the hip roof—passed over the bathroom ceiling, twisting, turning, and weaving its way to the rear main stack. Apparently it was also insufficiently inclined to allow any incidental moisture in the system to properly pass through. Precipitation that entered the stack was therefore trapped until it found its way to—and out of—a cracked PVC U-joint directly above the middle of the bathroom ceiling.

E. C. REIFF, CENTERVILLE, OHIO

15,000 Pounds of Prevention

We have subscribed to *This Old House* since the first issue, and have researched back issues as well as many books and Web sites for information on finishing our basement. While many of your articles are extremely informative, sometimes we feel that you leave out important information. In "Notes From Underground" [December 2000], Tom Silva uses homasote as a first layer over the concrete floor. Sounds good, but what was used under the homasote to keep the moisture from coming up through the concrete? Lack of moisture control could certainly lead to wet homasote, and possibly mold and mildew.



What type of underlayment or coating do you suggest to control the moisture?

ANDY AND JUDY MACKO, FENTON, MICH., VIA E-MAIL

In this case, no moisture barrier was needed between the concrete and homasote because Tom and his crew were careful to prevent moisture from reaching the concrete by first laying a 6-mil vapor barrier over the basement soil, then dumping and leveling 15,000 pounds of sand over that, before pouring the cement. For advice on finishing an existing concrete floor, see *Silva Solutions*, "Keeping Your Basement Dry," November 1999, page 45.

Pleasure Points

I particularly enjoyed the December 2000 issue, as it contained many items close to home. I especially liked seeing the artist's ren-



dition in Outtakes of the beautiful Bellevue row house. I had one done for my converted bank building to see what adding a sunroom would look like and to check the effect of moving the vault alarm to the front and making it into a clock. I found it extremely helpful. Also in Outtakes is "Clean Machine," and here all I can say is: Where were you when I started my mess? Then, in "Notes From Underground," I was reminded of how heavy concrete really is when one is smooching around 18 yards of the stuff—which reminded me of why we decided to stay with the exposed brick and use surface-mounted electrical wiring in our basement apartment. A nice issue indeed. Thanks.

DOUG ROBINSON, BUCKSPORT, MAINE, VIA E-MAIL

Fire Smarter

As a student in the plumbing curriculum at my local community college, I found the article "Installing a Pedestal Sink" [Homeowner's



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LETTERS

Handbook, November 2000] to be quite informative and entertaining. I do, however, have a couple of questions. First, because the torch flame is so close to the drywall when sweating the water-supply stops, would it not be advisable to provide a heat shield between the drywall and torch to protect the drywall from potential burns and/or discoloration? And if so, what material would you suggest for the shield?

CHRISTOPHER H. DROZDOWSKI,
WINSTON-SALEM, N.C., VIA E-MAIL

You are absolutely correct—the use of flame near building materials is ever dangerous. A piece of tin or aluminum flashing can be held in place with another set of hands or a clamp; or look for Torch Guard, a nonasbestos shielding fabric, at a plumbing supply store. You could also use a torch fitted with a shield that clips onto the tip. Thanks for your fire safety awareness!

Burning Right

I was pleased with your article on masonry stoves ["Keeper of the Flame," Luxuries, November 2000]. I have had my Kachelofen for over eight years, and there is nothing like the gentle, unobtrusive heat it radiates. Although masonry stoves are often large, elaborate, and expensive, they can be small and just as efficient. Mine is 3 feet wide by 5 feet high and faced with stucco. The mantel ledge is large enough to accommodate three snoozing cats. It vents into a Metalbestos



PHOTO: BRIAN VANDEN BRINK

LETTERS



writing is not to praise you. I have some problems with your article on home theaters, "Coming Attractions" [December 2000]. Your primer was so generalized as to be of little use to me. What might have been more useful is an article strictly on the structural foundations of home theaters (or, better yet, an article on someone who added a home theater to their house). The part of your article covering structural issues was decent and would have been better fleshed-out had you not taken the space to attempt to review selective home theater components.

PRICE JESSUR, SAN FRANCISCO, CALIF.,
VIA E-MAIL

We appreciate your feedback and recognize that some of our readers might like more comprehensive cover-

age. Our intention in the report, as in most of our technology articles, was to offer a basic overview for the person starting from scratch, provide a launchpad for more in-depth investigation, and familiarize the homeowner with the vernacular that would help them work with salespeople and expert installers.

EDITH G. MONTGOMERY, ASHLAND, OREG.

All Hands on Deck

In "Saving a Scarred Deck" [Ask Norm, December 2000], Paul Murray asked how to repair a wood deck damaged by pressure washing. You explained how to fix a damaged deck and said that wood should not be pressure-washed, but you didn't say how a deck should be cleaned. We had a pressure-treated wood deck built about five years ago, and it has turned gray and collects green mildew. We were going to have it pressure-washed, but because it was late in the season, we decided to wait until spring; I guess that was fortunate! How should the deck be cleaned and refinished?

RHEA MAHLE, MENTOR, OHIO

See "Clearing the Deck," Upkeep, June 2000, for a full description of cleaning and restaining a deck. Hand-cleaning once a year using brushes and detergent is the best treatment. A mild household bleach solution can be used, if necessary, to kill stubborn mildew; oxalic acid (wood bleach) works on rust stains around nails. Follow with an oil-based stain.

Two Thumbs Down

I enjoy reading T.O.H. every month and have for some time. Unfortunately, my motive for

Master Class

The faculty at Dedham Country Day School recently completed an exercise entitled "Teaching is like..." I chose *This Old House* as my root metaphor, because I am a teacher and home restorer who loves working with my hands as much as with my mind. Needless to say, T.O.H. is one of my favorite TV programs.

PETER RAPELYE, DEDHAM, MASS.

Following is the final paragraph of Mr. Rapelye's essay: "Teachers and carpenters share a noble profession. Whether bringing back the original molding in the entryway of a Victorian classic or having one's students grasp the significance of the Bill of Rights, teachers and carpenters are both skilled craftsmen in their own right. The teacher and the carpenter are both thoughtful individuals who care deeply about both the process and the finished masterpiece. The classroom and T.O.H. are the arenas where they can do their best work and find peace of mind."

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OUTTAKES

BEHIND THE SCENES AT THIS OLD HOUSE

BY JORDAN REED



They're a different kind of power tool, and they go where the action is: *This Old House's* video cameras face myriad construction hazards each time they're put to use. On any given day, materials ranging from sawdust to foam insulation can clog delicate (and costly) electronics and scratch vulnerable lenses.

Diehard Cam

Then there are the camera stunt days, like the one executive producer and director Russ Morash orchestrated last fall while filming the TV show project in Charlestown, Massachusetts. In order to get a cinema verité perspective of materials being carted up to the third-floor bathroom addition, he strapped an unmanned camera onto a power platform hoist attached to a ladder, risking a 40-foot drop for the sake of a good shot. It's not the first time a camera has been placed in such a pre-

carious situation. During the 1999 Billerica project, the crew swathed one in a fireman's jacket in order to film inside a burning building (see Outtakes, March 2000). At Belmont in 1993, Russ plopped a camera in front of a spewing wood chipper, protecting the lens with a piece of plexiglass. He did the same during the Milton landscaping in 1997, when a camera at ground level received a splattering of soggy green hydroseed mixture. "We try to get the camera as close to the action as possible to give people a sense of being there, but not at any cost," says Russ, for whom crew safety is a primary concern. So far, none of these exploits has caused any video malfunctions, he notes, but "better to risk an \$80,000 camera than subject humans to possible injury."

PHOTO: KOLIN SMITH

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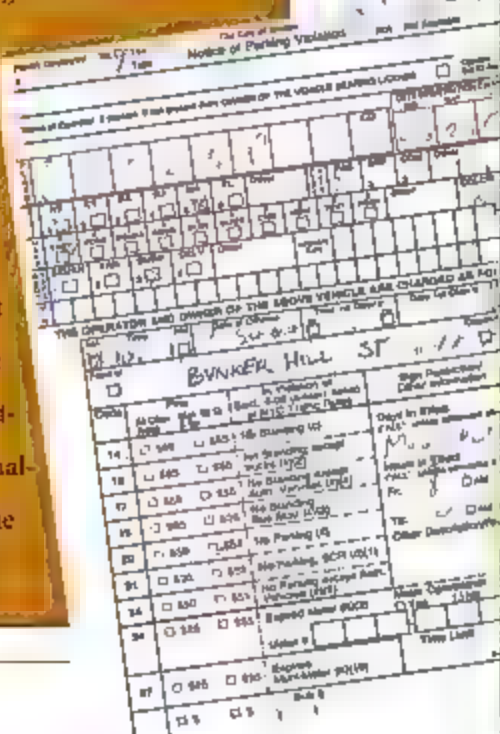
Fans in the Firehouse

The flashing lights and wailing sirens of emergency vehicles come and go regularly in city life, but on a crisp evening last autumn, when their noise and strobes converged at the house of Charlestown-project homeowner Dan Beliveau, he guessed that something was amiss. Opening his front door to take a look, he came face to face with eight Boston fire fighters, axes in hand. ("If they'd knocked down my mahogany door it would have been a whole new episode," Dan jokes.) A neighbor had seen smoke coming from the Beliveaus' chimney and called 911 to report a fire—not without reason, as the now restored fireplace had been out of use for decades until that night, when Dan lit it to keep warm. Soon he found himself answering a barrage of questions from the firemen, who'd noticed the *This Old House* sign on the door. "They asked whether Norm was here all the time, and do I get to work with Tom Silva," recalls Dan. The crew seemed eager to chat all night. "I told them if they wanted a tour to come by any time, but only when their fire trucks weren't blocking the middle of the street."

Parking Pitfalls

Viewers may remember a recent episode of the show at the Charlestown project in which host Steve Thomas ribbed Dick Silva, brother and coworker of *T.O.H.* contractor Tom Silva, about a \$25 parking ticket on his truck. Unfortunately this was not the first citation for a *T.O.H.* crew member. Urban parking problems have beset the show from Savannah to Santa Barbara, as contractors and production crews compete with residents for scarce space. Charlestown's proximity to downtown Boston caused particular angst. "People park there and then take the bus downtown," says Tom. "They'd rather get the occasional ticket than pay for city parking." It's not just the scarcity of legal spaces that dents the urban renovator's wallet. Renting the sidewalk space for the staging cost homeowner Dan Beliveau \$375 a month, and the police department charged \$127 for an officer to direct traffic while the wallboard was unloaded from the truck. Tom cut costs by using mobile dump trailers instead of paying \$180 a month to park a 16-foot Dumpster. But even this veteran isn't immune to parking tickets. He received at least six citations at the Charlestown site—including one the same day as Dick's—totaling more than \$150 in penalties. "It was worse than usual, but I just accepted it as part of the project," says Tom, with characteristic equanimity.

ILLUSTRATION: IRON BARRETT (TOP)



March 2001 Calendar

TOM SILVA

March 3: Lenawee County Association of Homebuilders 2001 Home Show, Sema Heights University Fieldhouse, 1267 East Sema Heights Drive, Adrian, MI 49221. Details: 517-264-2545

March 10: Southern Ideal Home Show, Special Events Center, Greensboro Coliseum, 1921 West Lee Street, Greensboro, NC 27403. Details: 800-849-0248 or www.southernshows.com.

March 24-25: New Haven County Home Show, New Haven Coliseum, 275 South Orange Street, New Haven, CT 06508. Details: 800-294-7469 or www.redstonepromotions.com.

March 31: Southern New Jersey Home & Garden Show, Atlantic City Convention Center, 1 Ocean Way, Atlantic City, NJ 08401. Details: 877-663-6186 or www.showtechnology.com.

STEVE THOMAS

March 2: Fort Wayne Home & Garden Show, Memorial Coliseum, 4000 Parrell Avenue, Fort Wayne, IN 46805. Details: 800-870-7885 or www.homegardenshow.com.

March 3-4: Orchard Supply Hardware How-To Fair 2001, Alameda County Fairgrounds, 4501 Pleasanton Avenue, Pleasanton, CA 94566. Details: 925-426-7600 or www.osh.com.

March 23-24: GMC Builders Home & Garden Show, Cobo Center, 1 Washington Boulevard, Detroit, MI 48226. Details: 248-862-1019 or www.builders.org.

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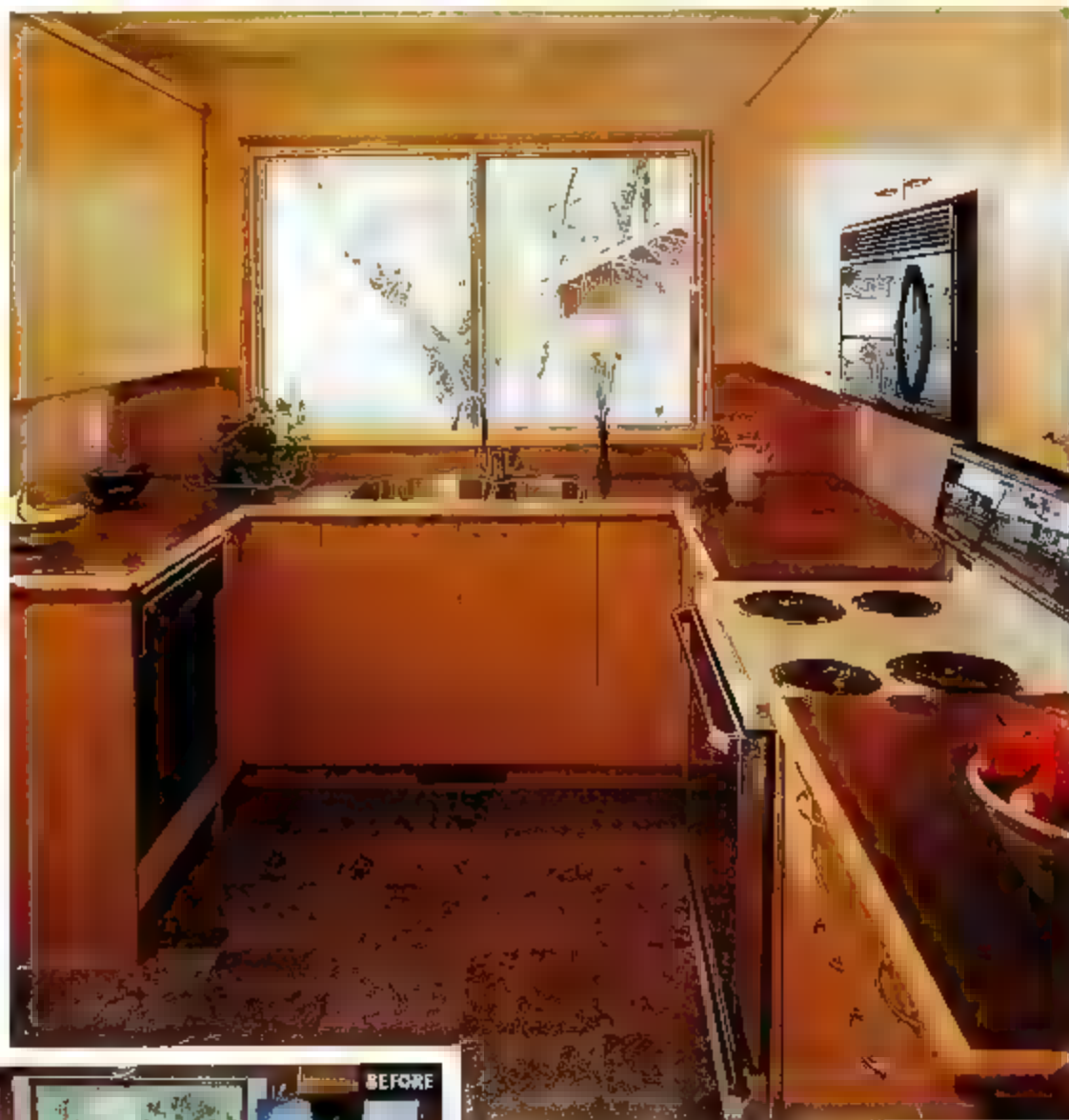
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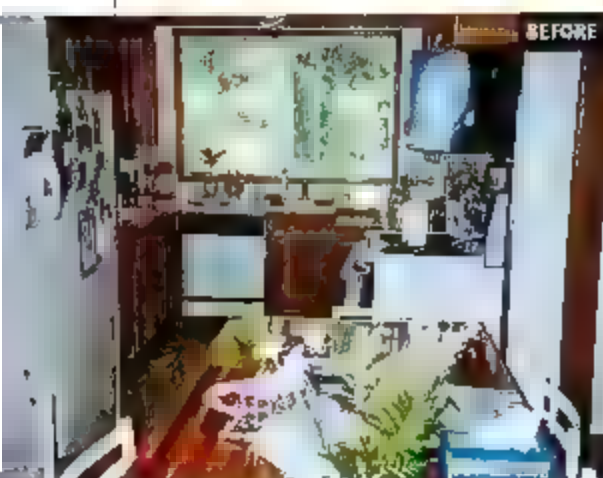


HOUSE CALLS WITH STEVE



Canadian Maple

Pale, clean-lined cabinetry highlights a kitchen update



TOP: Light maple cabinets are an upgrade from the dark veneered oak ones that were installed when the house was built (BEFORE, INSET). Their clean lines echo those of the existing window that Eugene trimmed out in matching maple. High-quality vinyl flooring sheathes the floor.

A

According to the National Kitchen and Bath Association, the cost of a kitchen renovation averages about \$27,000, which makes Canadian pharmacist—and longtime *This Old House* fan—Eugene Baron's remodeling price tag of under \$17,000 (\$26,000 Canadian) all the more impressive. "This is a kitchen on an unbelievable budget," says *This Old House* host Steve Thomas admiringly. "Luckily, Eugene already had some building experience, so he could do some of the work himself."

Woodworking has been a lifelong hobby for Eugene—ever since he was encouraged to build a cabinet from scratch to showcase his prized rock collection in an eighth-grade shop class. For years he contented himself with relatively modest improvement projects on the single-story bungalow, built in 1971, that he shares with Gwen Satran; he was particularly proud of the table he made that perfectly fit the alcove in their kitchen.

But five years ago, Eugene felt ready to progress beyond the table, and he decided—as he wrote Steve Thomas—to tackle a remodel of the entire room. A pharmacist's salary would

BY RHODA MURPHY PHOTOGRAPHS BY CHAD HOLDER

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HOUSE CALLS WITH STEVE

go only so far, but he figured he'd avoid excessive labor costs if he did part of the work, such as demolition, himself. To further offset expenses, the couple received an unexpected tax rebate: Their home city of Winnipeg offered \$1,500 (\$500 a year over a three-year period) to homeowners who made capital improvements to qualified dwellings over 25 years old that were appraised for less than \$100,000, the project fit both criteria.

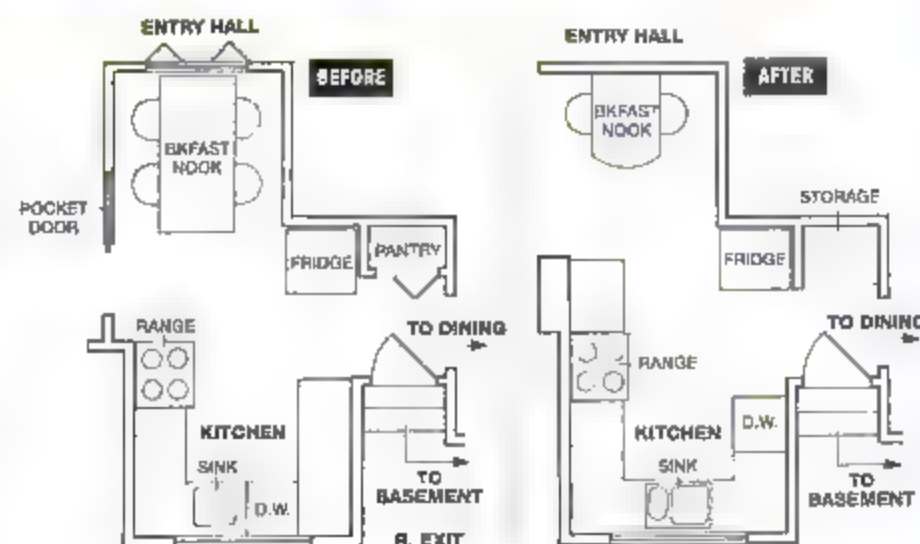
PROBLEM

Except for a pantry closet constructed by Eugene and a recently purchased range and refrigerator, the kitchen had remained untouched since the house was built. With a tile-patterned, tan-and-gold linoleum floor and ugly oak veneered particleboard cabinets, the room looked its age. The breakfast nook featured a large, square, shuttered interior window that took in a view of the entry hall and front door. And the dishwasher couldn't be opened at the same time as the cabinet it adjoined.

SOLUTION

Gwen and Eugene visited over a dozen showrooms but couldn't find cabinets that satisfied both their aesthetic and price requirements. Then, they hired a designer whose solution didn't please them. Finally, in 1998, they stopped in at Gemini Kitchens. The couple liked the clean-lined cabinetry featured there, and they felt an instant rapport with the company's owner and resident designer, Alan Cheung. "Even though Eugene and Gwen had a tight budget, they took the right first step," says Steve. "They got design expertise."

"Cheung faced a daunting task," he adds. "He couldn't move the



In the old kitchen, a shuttered window punctuated the wall between the entry hall and breakfast nook, and a pocket-door wall impeded traffic flow. Without it, the nook—and kitchen—feel more spacious and private.

plumbing, nor could he increase the footprint." Considering his options (or lack of them), Cheung decided to focus on maximizing the available space. He first recommended that Eugene fill in the interior window in the eating area so it would feel more private. His next suggestion—to remove a wall and pocket door between the nook and a side hall—not only improved traffic flow throughout the kitchen but also offered easier access to a home office across the hall. As a bonus, the new opening allowed Eugene to add a set of cabinets, with countertop, to the right of the range. The stove and fridge were still serviceable, and stayed put; a new dishwasher was relocated to the end of a perpendicular cabinet run.

Once Eugene removed the old flooring and replaced the subfloor, Gemini Kitchens came in and installed the custom maple cabinets. Because they were so well made, Eugene allotted almost two-thirds of his budget for these. "Eugene made a good decision here," Steve says. "Light-colored maple helps enlarge the space visually. Oak, like they had before, would have made the room feel much smaller."

OVERCOMING THE OBSTACLES

Eugene's project had its share of aggravations. After removing the wall between the nook and hall, he discovered that it was load bearing. "The drywall was to come the next day, so I had to work until 2 A.M. installing a new 2x10 joist and sistering 2x4 posts to support the opening."

The toughest chore—installing the built-in microwave over the range—should have been one of the easiest. "A friend and I had to take out a medicine cabinet in the bathroom behind, put in a sheet of ½-inch plywood, attach a mounting plate to the plywood, then remount the cabinet—all before hanging the microwave," Eugene says. "An hour-long job wound up taking five." Was the effort worth it? Eugene says he knew it was when his wife's uncle came to visit. As he watched her show off the kitchen, he listened to the pride in her voice, and he could only smile.



Gemini Kitchens installed all-new cabinetry, adding additional storage and workspace above and to the right of Eugene and Gwen's microwave and range. Maple bullnose trim accents the stone-look laminate countertops.

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HOUSE CALLS WITH STEVE



WHERE TO FIND IT - SEE DIRECTORY - PAGE 123

PHOTOS: KUDAM



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ASK NORM

Help for wet basements, sinking steps, and old showers

HUMIDIFY, OR DEHUMIDIFY?

I have a humidifier on the furnace and also own a floor dehumidifier. What time of the year should I switch from one to the other, and is there anything else I should know about the changeover? Also, would the use of a ceiling fan help to decrease the humidity inside my house?

GERALD SEMRAU, ROSEVILLE, MICH.

The time to think about humidifying is in the fall, after you turn on your furnace. Waiting until you notice the dryness isn't good for you or your wood furniture. Once you turn off the furnace in the spring, you probably won't have to turn on the dehumidifier until late June or so, depending on the weather. By the way, whenever you turn off your furnace, don't forget to close the water valve leading to your humidifier, drain its reservoir, and clean it with white vinegar to remove any mineral buildup. If you let water sit in the reservoir all summer, you'll provide a breeding ground for mildew and bacteria to grow.

To get the best performance out of your dehumidifier, gently dust off the unit's intake fins using a vacuum cleaner with the soft-brush attachment. You should do this once or twice during the season. Working together, these appliances should be able to keep the inside humidity level at a comfortable 35-40 percent all year round.

Ceiling fans, by the way, won't change the humidity level in your house one bit. Their job is to keep air circulating—that's what makes you feel more comfortable when the weather is warm.

OLD LOCKS FOR NEW DOORS

I'm currently in the process of replacing the doorknobs and locksets on 12 of the doors in my new "old house." The ones I'd like to put in are vintage mortise locks, which fit into long, deep slots cut into the edge of the door. But drilling holes and chiseling them square would take too long. What else can I do?

FRANK TAYLOR, HUMBLE, TEX.

The traditional method you describe for making mortises is time-consuming work that calls for patience and care. But all you need is a few common tools: a drill with an auger bit and a chisel. The hardest part is making sure each hole you drill is exactly parallel to the face of the door.

You can do the same job a lot quicker with a power lock-mortiser. It's a metal jig that clamps to the edge of the door and holds a router mounted on short tubular guides. As the router is gradually lowered and moved along the guides, a long carbide-

tipped bit excavates a perfectly centered mortise. I used this ingenious rig on the doors at our San Francisco project and it worked great. Speed does have its price, however. The machine retails at \$1,000 or so—router included. But if that's too steep, you may be able to rent one. Even with this tool, you'll still have to go in with a sharp chisel to square the corners and make the mortise for the latch plate.

Be sure to measure twice—or more—before you make any holes. The door stiles have to be wide enough and thick enough to accept the door hardware. Two more things: Unless the location of the old doorknobs lines up exactly with the new hardware, you'll first have to plug the old holes and sand them flush before you cut the mortise; the same goes for the strike plates, where the locks' latches fit in the door jambs.

WET BASEMENT WOE

Our 1840s house has a fieldstone basement with a dirt floor that never completely dries out but never puddles, either, even after big rainstorms. We'd like to insulate the floor above the basement, but everyone has a different opinion about how to do it. Some say this is a good idea; others say it will trap moisture and rot the joists. What do you think?

ANDREA MISCHEL, GROTON, MASS.

An insulated floor will be good for your comfort and for your wallet, but first you've got to solve that moisture problem. If this basement is simply a tall crawlspace and is not used for storage or subject to foot traffic, cover the floor with 6-mil polyethylene sheathing followed by 2 inches of pea gravel. This will hold the moisture in the soil, although you'll have to be careful not to rip the plastic any time you're down there for some maintenance.

A more durable solution would be to bury the vapor barrier under 2 or 3 inches of sand and then pour a 4-inch-thick slab, the way we did in the basement of the Charlestown project (see "Notes From Underground," December 2000, p. 94). Just make sure there's enough headroom to satisfy local building codes. (You could get away with a 2-inch-thick slab if you don't plan to use the basement for living space.) Repointing any gaps and cracks in the stone walls will help to keep moisture, as well as mice, from getting in.

If you do pour a slab, you will probably have to wait a few months before you insulate because concrete releases a lot of water as it cures, and the joists will need a chance to dry out. You can shorten the drying time by ventilating or dehumidifying the space, just wait seven days for the pour to cure, and monitor the dryness of the wood with a moisture meter until it gives a reading of 11 percent or so. At this point, it will be fine to install any



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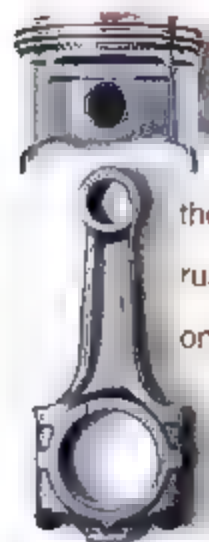


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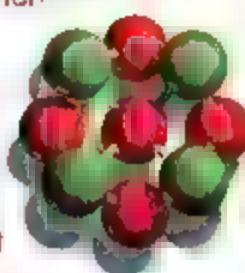
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THE ACTIVE LUBRICANT.

ASK NORM



type of insulation because the wood won't be damp enough to rot.

WATCH YOUR STEPS

I live in a brick house that was built in 1940. It's in pretty good shape, but the concrete steps leading to a door on one side of the house seem to be sinking. Should I have them leveled or should I leave things alone?

CATHY BULLITT, WICHITA FALLS, TEX.

Steps that tilt not only look bad, they're not safe. And judging by your photos, they are also channeling water directly toward the foundation of your house. You'll need to take care of this soon.

The basic problem is that soil around a foundation is never compacted as much as soil farther away; anything not anchored to the foundation simply settles into the relatively softer dirt. Your steps appear to have been cast in place, but they're probably still not so heavy that you can't coax them back where they belong. First, dig out an area 1 or 2 feet wide in front of the steps and next to the foundation so you can slip a crowbar underneath, and lever them upward. Lift them slightly higher than the position you want to end up with, and wedge concrete pavers underneath to hold them up. Continue lifting and wedging until the steps are level from side to side and slope slightly away from the doorway. Now you can begin to pack fine crushed gravel (not pea gravel) underneath. I wouldn't recommend using concrete; it will bond to the underside of the steps and make your work even harder if you ever have to level them again.

STRIPPING SHINGLES

I own a 1913 Arts and Crafts bungalow with cedar-shingle siding and roof brackets that have been painted many times. Originally, I

believe, the shingles had been dipped in green stain. I'd like to strip the paint off the shingles, then stain them again. I've already stripped a few areas with a power washer because I was worried about sanding—the house surely has lead paint in some of the layers. But am I going about this the right way?

CAROL CHASE, SIOLX CITY, IOWA

Power washing isn't a good way to remove paint from cedar shingles, or any other kind of wood. Not only does it damage the surface, it can drive water into the wall cavities and wash lead residues into your soil.

We've encountered many painted-shingle houses on *This Old House* and have found that there really is no cost-effective way to strip them. And since you want to stain the wood, the job will be even harder because you'll have to remove every last bit of paint. Experience has taught us that it's easier and faster to remove the shingles and install new ones—I'd use clear R&R (resquared and rebuffed) western red cedar shingles and dip them in stain before you nail them up.

You can take the paint off your roof brackets by wet-scraping or with a chemical paint stripper. Just take the necessary precautions to avoid contaminating your self or the surrounding environment with lead. See "Got Lead?" March 1999, p. 55.

THINKING OUTSIDE THE BOX

We've been renovating our 1820s saltbox in order to get more space, but we can't quite figure out how an addition would fit in. We don't want to lose the beautiful lines of the house. What can you suggest?

NEIL AND LAURIE HUDDLESTON, COLUMBIA, N.J.

The saltbox, which was quite popular in colonial New England, actually owes its origin to remodeling. It's just a standard two-story Colonial, with gable ends and a central chimney, and a one-story addition extending out all along the back. The long, sloping roof connecting the back of the house to the addition is the most noticeable feature of this style. By doing a little homework—studying some of the books on saltbox architecture—I'm sure you'll get some ideas that look good from the outside. But if the new floor plan is poorly arranged, even the best-looking addition won't be successful. This is where an architect (or

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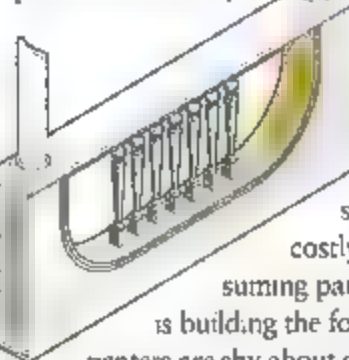
architectural designer) comes in. I'd lean toward hiring one on this project, and make sure he or she is familiar with and has experience designing Colonial styles.

GLUING UP A CURVE

I am restoring a 110-year-old Queen Anne house. A porch on the second floor has a piece of curved wood trim that caps a low wall, and I can't seem to find anyone who knows how to replace it. How would you tackle the replacement?

DEBBIE KARLE, NORWOOD, OHIO

To get wood to curve like that, I'd laminate it in one piece using pliable 1/4-inch-thick red cedar strips epoxied together against a curved mold or form. That way, there would be no joints for water to get in. Once you paint it, nobody will know it isn't a solid piece of wood. Any good carpenter or wood worker with a band saw and a planer can make the strips, the most costly and time-consuming part of this project is building the form. If local carpenters are shy about doing this work, try millwork companies, or builders of custom furniture or wooden boats; they tackle these kinds of projects all the time.



"One-offs" like this can get expensive. After going through all the trouble of making a form, you might as well laminate an extra set of parts and tack them away somewhere. The next person who has to replace this trim will be very grateful!

THAT SINKING FEELING

As a home inspector, I find that the floors in homes over 50 years old are rarely level. But why do the second-story floors so often slope downward toward the chimney?

DAVID BIGGERSTAFF, CATLIN, ILL.

In many old houses, it's not uncommon to find the end of a floor beam resting in a pocket in the side of a chimney. So when the chimney settles, as most usually do, it takes the floor framing with it. Even if the masonry hasn't moved a millimeter since the day it was built, the floor still might slope toward a chimney if the joists in contact with the damp stone or brick have rotted.

You can thank the building codes for putting an end to this practice; framing now has to be at least 2 inches away from the chimney, and about the only thing you'll notice when the chimney settles is that the hearth drops a bit.

SHOWER PAN REPLACEMENT

The fiberglass base in my shower has cracked, and I'm planning to replace it. I have several questions about the procedure, however. For one thing, I'm not sure how to remove the shower door—it's sealed to the tile with some sort of hardened caulk. I'll also have to remove some of the ceramic tiles around the bottom of the shower where they overlap the fiberglass. Do you have any hints for removing the tiles without breaking them? And what's the best way to support the new shower base? The old one flexed in spots when it was being used.

RALPH SIMERMEYER, DERWOOD, MD.

Rest assured that there's more than caulk holding that shower door in place; I suspect you have a metal frame with a gasket or caps hiding the screw heads. After taking the door off the frame, pry these covers up carefully to find the screws beneath. Before removing them, cut through the hardened caulk or grout with a utility knife so that you don't damage the tiles or the substrate when you pull the doorframe away.

Unless the tiles are glued to water-resistant drywall (also called greenboard), I doubt that you'll be able to get them off in one piece. But saving the tiles should be the least of your concerns—you can always replace them with new tiles of a contrasting color. They'd provide a decorative accent next to your new base, or pan, as it's called.

The hard part is getting the old pan out. First, chisel two courses of tile off the bottom. (If its substrate is cement backer board, chisel carefully to avoid damaging it.) Then cut away just enough of the substrate with a utility knife so that you can remove the old fiberglass pan and put in a new one. Bedding it in a few blobs of stiff mortar will help to stiffen the pan and forestall future cracks. Just be sure to lay the mortar on top of a 4-mil polyethylene sheet; this ensures a proper cure and keeps the subfloor dry.

If the substrate is sound, make a clean, straight cut along its bottom edge at a level above or below where the tiles' horizontal grout line will be. This reduces the chance

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that a crack in the grout will let water through. Next, staple a layer of 15-pound builder's felt to the framing, letting it extend down over the lip of the pan. (By first cutting a kerf in the back side of the old substrate with a keyhole saw, you can tuck the top edge of the felt up behind it.) Then screw strips of cement backer board the same thickness as the original substrate into place over the pan's lip. Finally, seal the joint between the old and new substrate with acrylic caulk and mesh tape, in that order, and cover with thinset adhesive. The day after the joint sets, you'll be ready to tile.

If you do harm the substrate, or if it's already water-damaged, you'll have quite a time fixing it and waterproofing the joints. I've tangled a time or two with shower stalls and have often found that it's better to rip out the old work entirely and replace it with new.

Most novices in this situation will find it easier to work with a modular shower unit, which has a single-piece fiberglass wall with interlocking waterproof joints where it connects to the pan.



LOOKING FOR THE WRIGHT ROOF

My wife and I are living happily in a 1952 Frank Lloyd Wright Usonian house with 4,000 square feet of flat roof that will soon have to be replaced. One contractor recommends removing the old tar-and-gravel roof down to the decking and replacing it with a 4-ply tar-and-gravel roof similar to the old one. A second roofer recommends a rubber membrane roof with decorative gravel spread over the top. We're getting different stories on insulation, too. Right now, there's about 3 inches of fiberglass tucked into the rafter bays, but we'd like to add more. Can you steer us through these decisions?

JIM HARDIN, ST. MARYS CITY, MD.

Wright was fond of flat roofs because their low profile emphasized horizontal lines and helped the house blend in with the landscape.

Unfortunately, leaks are also rather fond of flat roofs, so you'll want to find a roofing contractor who has experience with them and won't cut corners. Strike off your list any roofer who just wants to cover the existing roofing. The old roof should be removed first so the sheathing can be inspected and repaired (if necessary) and so the flashing can be replaced, preferably with copper.

Restoration perfectionists might argue for another tar-and-gravel roof, also called a built-up roof. It consists of layers of heavy roofing felt stuck to each other with hot asphalt, then covered with pea gravel to protect it from UV radiation. Wright, however, was an innovator, and if he were still with us, I'd bet he would cover his flat roofs with a synthetic rubber membrane.

These single-ply roofs use a layer of gray-black EPDM (ethylene propylene diene monomer) just 45 or 60 mils thick. In residential work the rolls are often glued down with a special type of contact cement. This is no job for the weekend roofer; installing EPDM calls for meticulous craftsmanship.

But the result is a continuous, flexible, UV-stable membrane that shouldn't leak for at least 15 years; that's 5 to 7 years more than a built-up roof. And it can be patched and repaired indefinitely. That's why a grave topping is a bad idea—it would interfere with inspection and repair and may actually damage the roofing. This Old House contractor Tom Silva, who recently had a 60-mil EPDM membrane applied over the roof deck at the Charlestown

project, says that it's especially important to secure the membrane's edges so that the wind can't pull it up and suck moisture underneath. (See "The Outsiders," p. 78.)

If you can't find a local contractor who's experienced with EPDM, don't hesitate to look outside the area, especially among companies that work on commercial roofs. This product is well worth your effort.

As for insulation, both single-ply and built-up roofs can be placed over rigid boards of foam insulation laid on top of the sheathing. Check with your local building code to see what the board's R-value should be for your climate.

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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Open and Shutter Case

Wooden window dressings add personality to virtually any style home



Victoria L. Roemer was initially drawn to her 73-year-old Georgian-style house because its classic architecture conveyed a sense of refinement and permanence. Those qualities resonated with the pride she felt both in her well-established Winston-Salem, North Carolina, neighborhood and in her profession as a district court judge. To her eye, though, the house's seemingly flawless facade looked oddly unfinished. Something was missing, but she couldn't put her finger on it. One day, shortly after Tori had moved in, a friend discovered the answer under a rear deck: wood shutters that had been stored there for years. These—original to the dwelling—had rotted from exposure to the damp, but they made Tori think that adding shutters might make a significant difference in the appearance of her home. A dedicated preservationist, she decided to have them duplicated.

So she forwarded two to Wayne Austin, a cabinetmaker and designer associated with DeVenco, a Decatur, Georgia-based maker of historically accurate wood shutters and blinds. Austin, who had fashioned some interior shutters for Tori's house, saw immediately that the samples she sent were exact reproductions of two styles—a solid panel and a combined solid/louver version—that

The deep-green shutters on Judge Victoria Roemer's 1927 Georgian-style home are exact replicas of ones that once accented the windows.

BY MERVYN KAUFMAN PHOTOGRAPHS BY KYLE HOOD

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were popular in the Georgian period. Using these as templates, he created new sets in durable incense cedar for all 15 windows, solid panels for the first floor and combined solid/louvered for the second level.

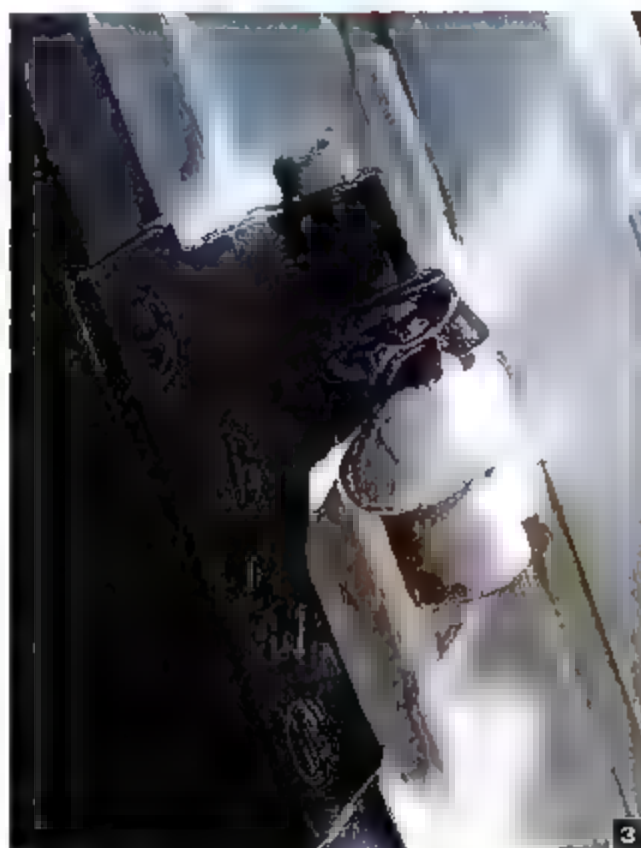
Today's shutters are primarily ornamental, but initially they were devised to protect window glass from breakage, control light without cutting off fresh air, and create a first line of defense against intruders when securely locked from within. They were also an early form of insulation—particularly in northern regions, where solid panels were used for protection against wind and cold. Primitive shutters were fashioned of boards and battens, while those developed during the Georgian period, which saw a flowering of English styles in this country, featured raised or recessed panels, often decorated with ornamental cutouts. Tori's each have an urn-shaped cutout near the top that mimics the wrought iron urns at the corners of her portico.

Partially louvered shutters—and wholly louvered styles, such as Bermuda shutters—are often seen in the Deep South and in the Caribbean. To deflect the sun's rays and still allow air to circulate throughout a room, such shutters, when

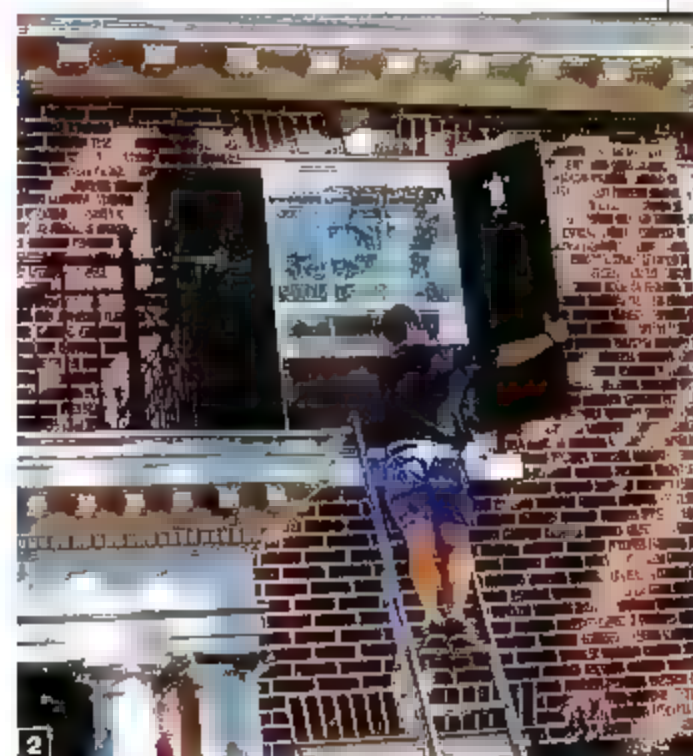
closed, tilt out from clips at the top of the window; some versions hinge halfway up so the lower half can swing up and out.

The method of installation depends upon the house's siding material. Before brick veneer came into wide use in the 1850s, masonry houses were made of solid brick, with walls up to 12 inches thick; shutters were mounted on the interior of the house and swung into a pocket called an embrasure, located within the side walls of recessed window frames. By contrast, frame houses wore their shutters on the outside.

Either way, shutters are secured with hinges. Those in an H configuration are mortise hinges, which operate much like ones used on doors. One side is set in a mortise on the inside of the jamb, and the other in a mortise on the edge of the shutter. L-shaped hinges and "straight leaf" hinges fall into the category of strap hinges.



"Tori's hinges are a basic lift-off style used in the Georgian era," says DeVenco's Wayne Austin. "Here, one side of the hinge simply slides in place over the other." 1) On Tori's house, the pintle side of each hinge was already affixed to the outside casing of each window. 2) A carpenter secures a shutter to the pin on its pintle. 3) Each of Tori's hinges has a self-stop mechanism, which locks once the shutter is in position against the facade; for this reason she did not need shutter dogs.



These attach to the back stile and rail on top and bottom corners of the shutter. Straight-leaf hinges stretch across the face of the shutters and connect to a pintle, a hinge incorporating an upright pin, which may be attached to the house's siding or to the face of the window trim.

"Wayne told me the hinges I'd sent him were hand-forged wrought iron in beautiful condition, so we reused them," Tori says. Recycling them meant that the hinges could slide over existing pintles attached to the window jambs. To install the hinges on the brick would have required jamb repairs and boring into the brick—a needless expense.

During the 18th and early 19th centuries, shutters would also have been held in place by a pivoting tieback shaped like a straight or curved rat-tail or paddle, called a shutter dog, that was usually placed at the bottom center of the shutter. "To release the shutter dogs, you'd reach out and turn them sideways," Austin explains.

In the days before telephones, shutters served another, subtler function. When people came to call, they'd check out the shutters' position before knocking. If open, it meant the family was receiving; closed indicated that the caller should return at a more convenient time. Tori Roemer regards her newly installed shutters as both a welcome—and welcoming—architectural addition.

The good news is you won't need help scrubbing your back.

The bad news is you won't need help scrubbing your back.



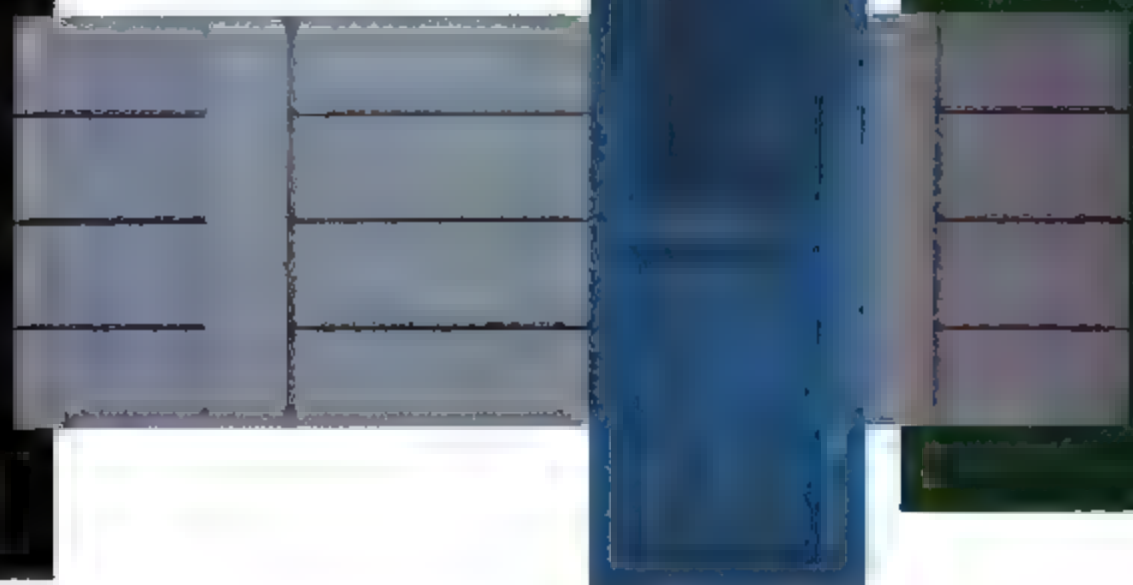
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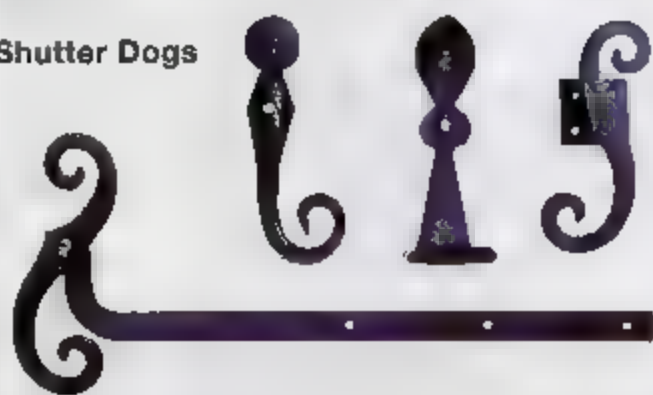
Shutter Styles

Although shutters come in two basic configurations, paneled or louvered, there are many variations on both styles. As these examples show, shutters are usually painted, to stand up to inclement weather. A copper cap—a strip of copper affixed to the top edge of the shutter—protects the most vulnerable part of the shutter from the moisture of rain and snow.



FULL CLOSURE

Shutter Dogs



Also called shutter fasteners, this hardware, which is often shaped like a rat-tail, a wedge, or an S (with or without a long arm), is used like a curtain tieback to hold a shutter in position against the facade of the house. Although many people believe the S style to be an authentic colonial design, "it actually had no precedent prior to the early 1900s," says DeVenco's Wayne Austin.

Hinges



Because they are attached to the shutter's inside edge, most hinges—such as those based on the H-style or simple pin-style hinges seen above—are barely visible when shutters lie flat against the facade. By contrast, L-style and straight leaf strap hinges like the one at top can be affixed to the front or the back of the shutters, depending upon whether or not you want to see them. A slide bolt (bottom), installed on shutter faces, locks them together when closed.

PHOTOS: DAVID HANSLEY

THE BEST THINGS IN LIFE ARE BASIC

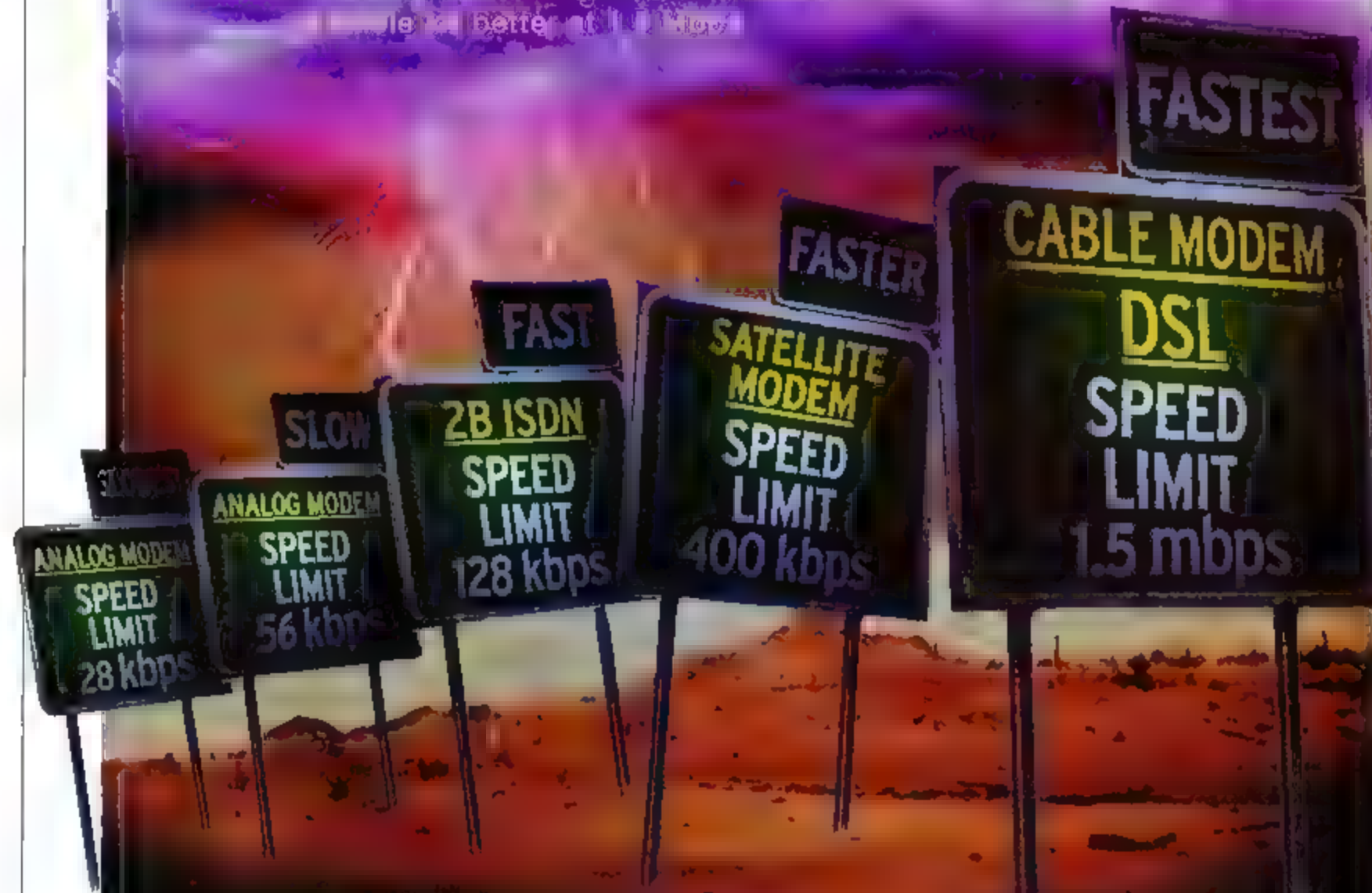


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Down to the Wire

The Information Superhighway is finally here. And it's better than you think.



In the early days of surfing the Net from home, many of us were so wowed by the technology that we didn't care how many times the dial-up connection failed or how slowly Web pages loaded. We'd wait as long as it took, simply because the end result was so cool. Not any more! As we have come to depend on the Net for e-mail, news, shopping, and stock quotes, pokey modems have become major impediments. Now bandwidth—data-transmission capacity—is everything. The bigger it gets, the faster and more convenient it is to

send and receive information. But before you rush to toss out that old modem, consider your options. All the new high-speed technologies for online cruising come with caveats, and if you don't shop knowledgeably you may find yourself still disappointed but paying a lot more.

The technology most people use to access the Internet is the 56K computer modem. While theoretically capable of transmitting data at 56,000 bits per second (Kbps) over standard copper phone lines, its actual top speed is limited by the F.C.C. to 53 Kbps so it won't

BY TRAVIS NEIGHBOR WARD PHOTO ILLUSTRATION BY J.W. TAYLOR

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SONY

GETTING THE BIG PICTURE

An Internet service provider may advertise jackrabbit throughput, but actual speed may be significantly slower. To check if your rate is more tortoise than hare, you can instantly test your bandwidth for free on several Web sites, including webservices.cnet.com and www.computingcentral.com. If the speed's not up to snuff, complain to your ISP.

A rough idea of content delivery per second via these types of connections



interfere with voice communications. In practice, however, moisture, antiquated phone wiring, and poor modem quality can reduce connections to a snail's pace. "Most people at home are getting 28 to 45 Kbps," says Joe Hartman, vice president for information technologies and resources at the University of Central Florida. Even 14 Kbps is not unheard of. The costs are relatively modest—a regular access fee to the ISP (Internet service provider) and per-minute or local charges by the phone company. If you want to surf the Net and use the phone or fax at the same time, however, you have to pay \$200 or so for another phone line. In short, unless you're content to just send and receive e-mail, the slowness and unreliability of a computer modem make it the option to avoid.

The next step up is ISDN (integrated services digital network). It can transmit data at up to 128 Kbps—about twice the speed of a 56K modem—using wiring engineered for digital transmission. The most common type of residential ISDN, *basic rate interface*, or BRI, includes two ("bearer-service") B-channels, each of which can simultaneously transmit 64 Kbps of video, fax, phone, and computer data. Most people pay to have both channels dedicated just to the computer, which yields a 128 Kbps connection. This modest increase in bandwidth comes at a relatively high cost: a line-installation fee of approximately \$125, a new ISDN modem for \$125 to \$250, and an ongoing line charge ranging from \$30 to \$100 per month. You also have to pay \$60 to \$100 for an Internet service provider that supports ISDN access—and not all of them do. Daryl Schoolar, an industry analyst at Cahners In-Stat, a technology consulting firm in Scottsdale, Arizona, believes that ISDN doesn't have much of a future. "With the superior alternatives out there, there's no reason to get it."

For homeowners, those superior alternatives include cable modem, DSL, and satellite. All three promise speeds many times higher than a 56K modem, and they don't tie up your phone line. But all are subject to limitations that a careful consumer

CAVEAT COMPUTER

What to ask the ISP before signing up:

1. Will any fees be imposed for service cancellation or missed appointments?
2. Is new wiring or equipment required? If so, is it compatible with your current computer, and how much does it cost?
3. What restrictions apply to the duration of the connection, the number of computer hook-ups, or the size of e-mails?
4. Can e-mail and Web pages on the account be accessed remotely?
5. Are rebates available for service shortcomings or interruptions?

should factor in before signing up.

Cable modems work with the same fiber-optic/copper coaxial network that feeds cable TVs. They can download data at up to 1.5 million bits per second (Mbps), the same speed as the dedicated high-speed T-1 lines found in many offices. And as with a T-1 line, you don't spend time logging on or off; the modem is always connected. Also, because the cable modem functions on a separate wire, you can use the modem and watch television at the same time. Whether you have cable TV or not, a technician will need to run wire to your computer from the neighborhood cable circuit and install the modem, related software, and an ethernet port if your PC or Mac doesn't have one already. A complete installation runs about \$100 on average, and the service

costs around \$40 per month (on top of your cable TV bill). Plus, there's a \$10 or so monthly rental fee for the modem. (Or you can buy one for around \$100.)

While cheaper and theoretically much faster than ISDN, cable modems can get you stuck in online traffic jams. That's because users are hooked up to what is essentially a party line; they actually share bandwidth with all the other subscribers in the neighborhood. The more people who tap into the Net at any given time, the slower the speed. In addition, Schoolar says, "there's usually only one or two cable companies per city, so you don't have much choice of an Internet service provider." And that can mean fewer options in rates and features.

DSL (digital subscriber line) is the phone companies' answer to high-speed cable. Like cable, this technology offers a continuous, no-log-on connection that can download data at up to 1.5 Mbps. But because DSL uses traditional copper phone wire, the provider doesn't need to come to your home; service is activated over your existing phone line. The beauty of DSL is that all the bandwidth is for your use only; there's no sharing to cause slowdowns.

The other advantage of DSL is that you can actually choose how much bandwidth you want. "If you don't need maximum

speed, you can get slower service and pay a lower fee," Schoolar says. The fastest residential DSLs, which cost about \$100 per month, download (retrieve data) at 1.5 Mbps and upload (send data) at a maximum of 128 Kbps. (DSL is asynchronous, which means you download at a different speed than you upload.) "Typically, home users don't need to worry about upload speed, which applies only when you're sending e-mail, posting pages to a personal Web site, or gaming online," says Schoolar. Most people pay \$40 a month for downloads at a maximum of 640 Kbps and uploads at a top speed of 90 Kbps. Generally speaking, there are no additional fees. You can hire a company technician for approximately \$200 to come install the software, modem, and ethernet port. The parts furnished to run DSL are easy to load into your computer. Some companies sell the modem for \$100, others offer it free. A line splitter, which allows the use of a phone or fax when you're online, is usually provided at no cost.

The main reason most people haven't switched to DSL is that many companies don't offer it yet. And even if they do, a home has to be within 3.3 miles (18,000 feet) of a DSL facility to get service. A call to your local phone company or a look on its Web site can tell you if your home falls within the required radius. Unfortunately, the explosive demand for DSL has left phone companies in some areas struggling to find the technicians and equipment they need to keep up. Long waits (3 weeks or more) for the service to start and overloaded tech-help lines have left some customers frustrated and angry. There's one more hurdle to clear: Even after activation, out-of-date phone wires can interrupt connections and drastically reduce speeds. Then you'll have another wait for a new line to be installed. Schoolar is optimistic that these growing pains will pass as companies rush

to expand their infrastructure. "I predict that by 2002, DSL will overtake cable modem in consumer popularity," he says.

Those living beyond the reach of cable and DSL shouldn't despair. Faster Internet access is still possible via satellite. Downloads up to 400 Kbps are possible—more than seven times faster than your standard 56K modem, and uploads, which only became possible this year, are a reasonable 128 to 256 Kbps. Until recently, there has been just one space-based service provider: DirecPC. To access it, you buy a 29-inch DirecPC satellite dish (\$144) and the software to install in your computer. Then you pay for unlimited service, which includes an ISP. (The price of the software and the monthly two-way service charge were not available at press time.) A complete installation runs about \$150 to \$200 if you hire a technician, but the components are no more difficult to hook up than the kits for satellite TV. Now that competitors are launching their own orbiting Internet services, costs should tumble. But this space-based technology still faces some challenges: In many locations, a dish can't clearly "see" a satellite, and even where it can, the ability to maintain a good connection may be affected by weather and "latency," the inevitable pause needed for a signal to make its 22,500-mile journey into space and back to Earth.

No matter what form it assumes, the pace of Internet access is bound to keep accelerating. A ready-made talk of 40 Mbps fiber-optic cable and 55 Mbps phone line, which can download entire DVDs in minutes. And one service with orbiting satellites is promising 155 Mbps by 2002. All of which brings you up against the final cybershopper's caveat: To keep up with all this burgeoning bandwidth, you'll ultimately face the need to plunk down more money for an even faster computer. ■

BANDWIDTH ON THE RUN



PHOTO: NEDJE LIKO MATURA

With all the extra bandwidth being piped into houses, product developers are busy dreaming up new ways to capture every last kilobit. Thus, witness the advent of Web appliances: computers, sans hard drives, designed to accomplish a single task such as retrieving e-mail or downloading music. And because they utilize only a small portion of the available capacity, they don't interfere with the phones, faxes, and full-fledged computers running over the same lines at the same time.

That's not to say that they lack ambition. The Kerbango Internet radio (right, \$299) connects to thousands of radio stations around the world through a constantly updated Internet database. Stations are categorized by genre (classical, jazz, sports) and favorites can be programmed into memory; plus there's a traditional AM/FM tuner—in case you miss the static. You can listen to the Kerbango through its two built-in speakers, headphones, or by hooking it up to an existing sound system.

The Gateway Connected Touch Pad (left, \$599) allows users to surf the Web, send and receive e-mail (via a wireless keyboard), and network with a home PC. Its sleek, stand-alone design fits any room—even the kitchen. Browse through pages of Julia Child's recipes (www.pbs.org/juliachild), then shop online for potatoes and leeks; any errant vichyssoise simply wipes off the 10-inch touch-sensitive screen. —Ryan Robbins

It's not a minivan.



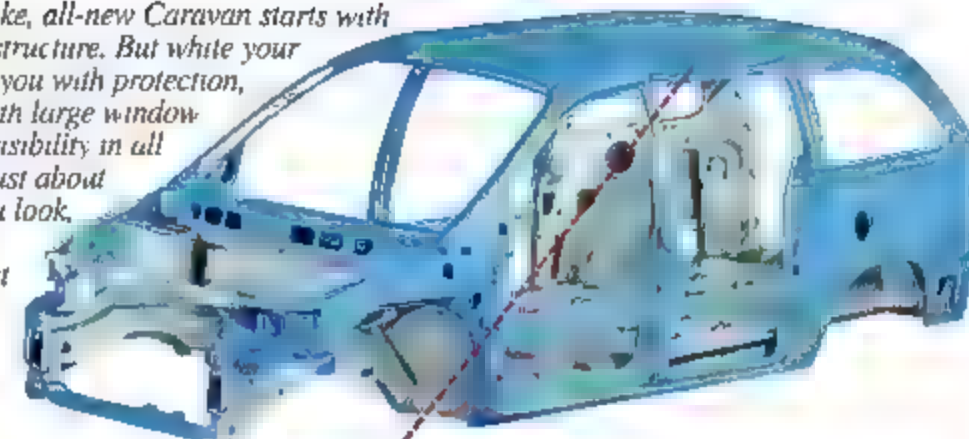
The Next Generation multistage driver and front passenger airbags in the all-new Dodge Caravan are so smart, they deploy at different levels, depending on crash severity. In addition, Caravan watches out for you with improved head impact protection.

Additional peace of mind comes from the all-new Caravan's available front-seat supplemental side airbags. In the event of a side impact, they offer extra protection to not only the head, but the chest area as well. We've even redesigned the armrests in the doors to improve side impact protection.



Of course the all-new Caravan features seat belt height adjusters for front and intermediate seats to help make it safe and comfortable for different size drivers and passengers. Plus, front seat belt pretensioners and constant-force retractors to help minimize the force of an impact.

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In addition to the available integrated child seat, the all-new Caravan features a quick and easy child seat anchor system that attaches directly to the seat itself rather than the seat belt.*



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TALKING SHOP



Taming of the Screw

"A screw holds better than a nail; it's a fastener that's got bite."

—TOM SILVA

W

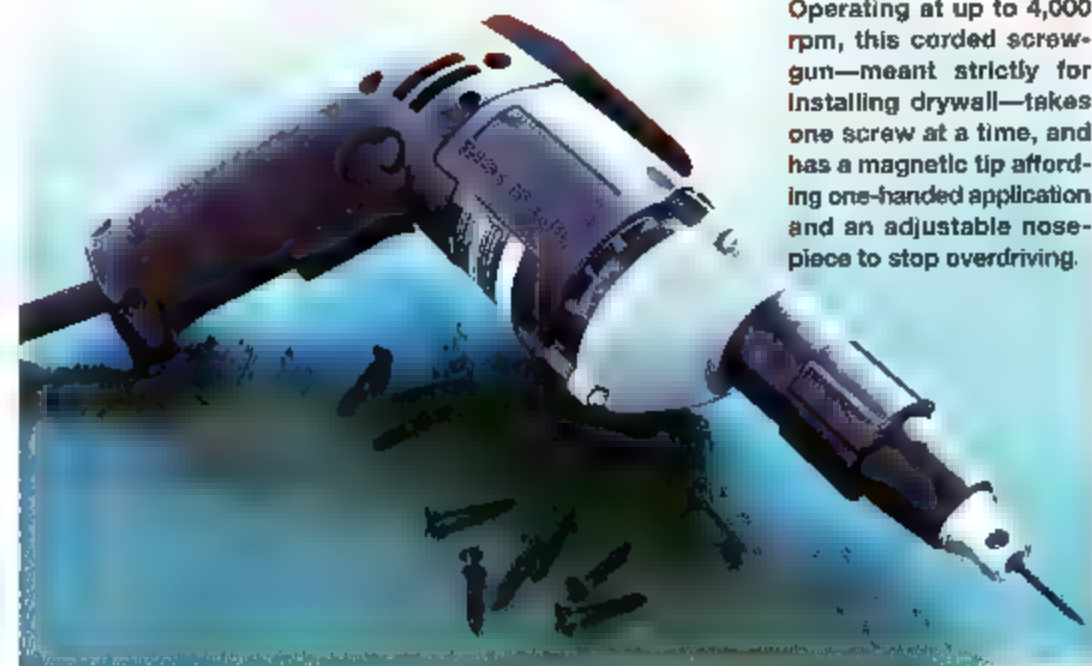
BY JORDAN REED

hen young Tom Silva and his brothers started their building careers 35 years ago, nearly everything was fastened with nails. Screws, while far stronger, took too much time and effort to twist into wood. "We'd never use screws on a subfloor or drywall," he says. "Nailing was much faster." Besides, all they needed to drive nails was a hammer. To turn screws, they used either screwdrivers, which soon left hands and forearms screaming for mercy, or a cumbersome U-shaped crank called a bit brace—a tool with an antediluvian pedigree and all the speed of a Galapagos tortoise.

But with the arrival, about 15 years ago, of Phillips-head bits for power drills, screwdriving became as commonplace on job sites as hammering. These days, Tom's array of power drivers ranges from a jack-of-all-trades 9-volt cordless drill to a self-feeding screwgun that sinks screws in drywall as fast as he can pull the trigger. But Tom still carries a four-way manual screwdriver with him for delicate work, such as attaching door hardware, and for spots where a power tool won't fit. "And once in a great while, I'll even break out the bit brace," he says. "Just for old times' sake."



ABOVE: For emergencies and routine chores, every homeowner needs to keep a couple of manual screwdrivers on hand, one with a straight bit (right) for slot-head screws and one with a Phillips bit (left) for most others. Their ergonomic handles allow a more powerful grip for improved control.

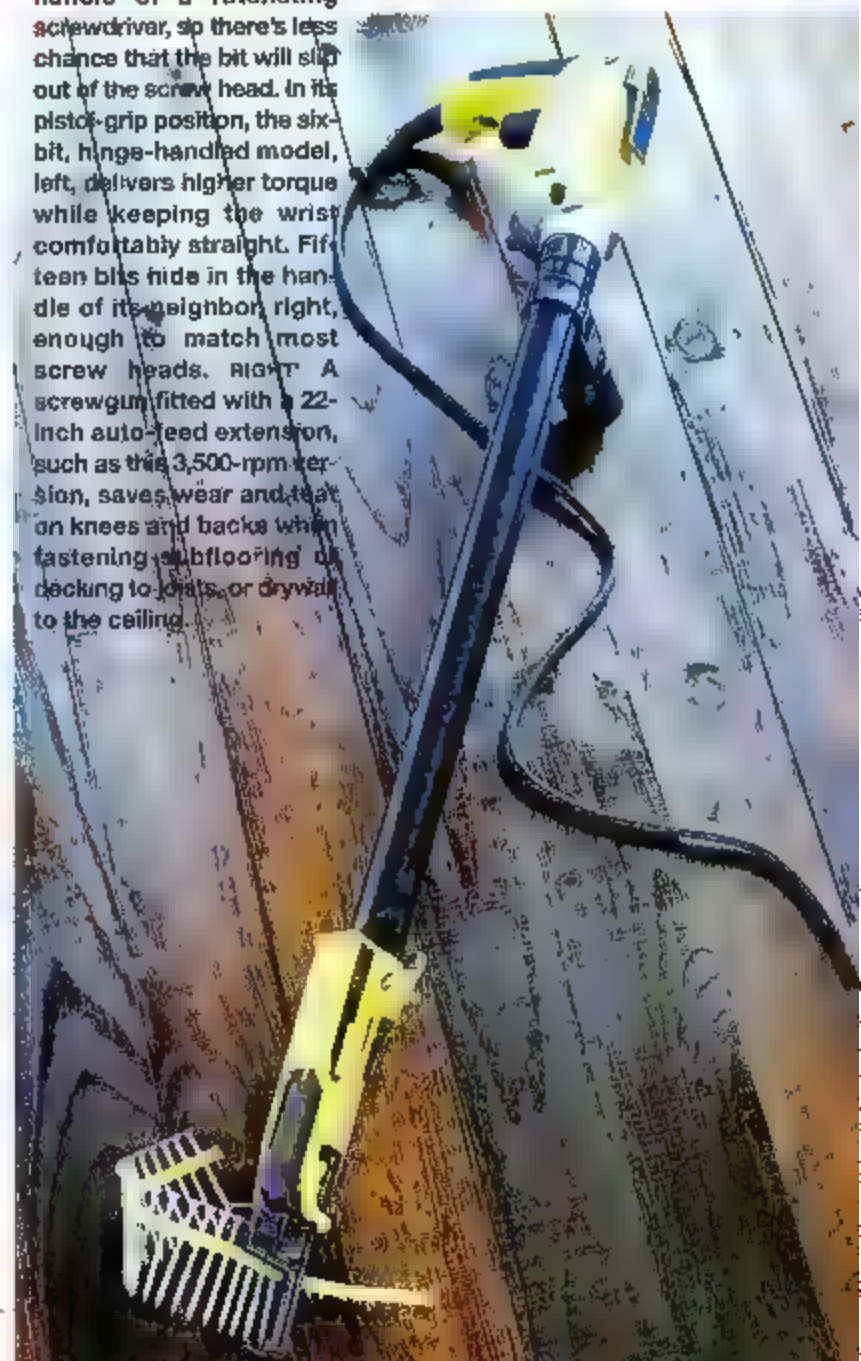


reduced slipping. BELOW: Operating at up to 4,000 rpm, this corded screwgun—meant strictly for installing drywall—takes one screw at a time, and has a magnetic tip affording one-handed application and an adjustable nose-piece to stop overdriving.



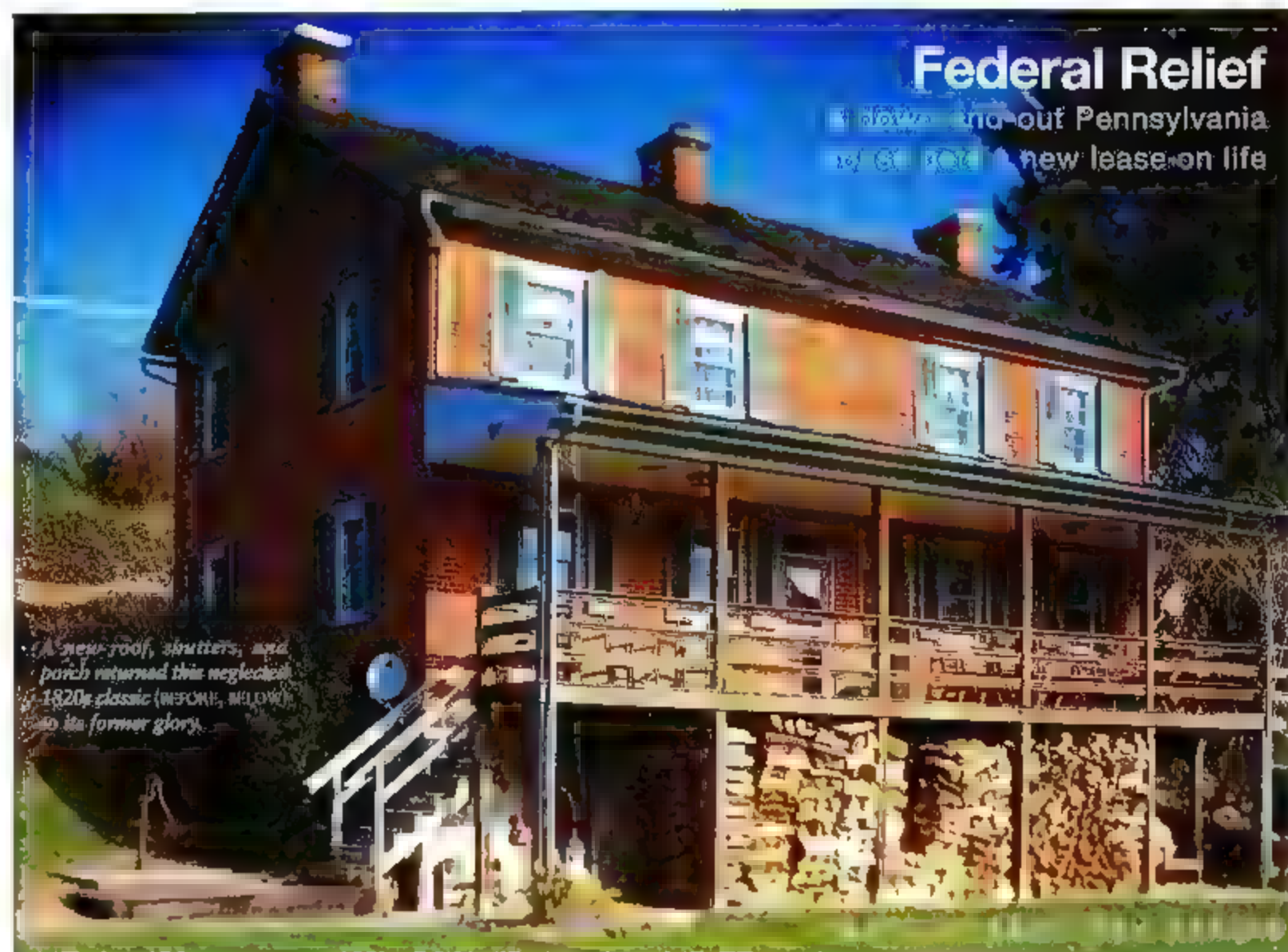
ABOVE: You never have to clean your drill of the

handle of a ratcheting screwdriver, so there's less chance that the bit will slip out of the screw head. In its pistol-grip position, the six-bit, hinge-handled model, left, delivers higher torque while keeping the wrist comfortably straight. Fifteen bits hide in the handle of its neighbor, right, enough to match most screw heads. RIGHT: A screwgun fitted with a 22-inch auto-feed extension, such as this 3,500-rpm version, saves wear and tear on knees and backs when fastening subflooring or decking to joists, or drywall to the ceiling.



ONE GOOD TURN DESERVES ANOTHER Tom Silva's Screwdriving Tips

- 1. DRILL FIRST.** "The best way to put a screw into wood is to drill a pilot hole first," Tom says. Because of this hole, which should be a hair smaller than the screw shaft, "the screw drives easier, holds better, and is less likely to split the wood."
- 2. LATHER UP.** If working with a manual screwdriver, Tom lubricates screw shafts with soap or paraffin wax to help twist them in. "You need all the help you can get driving a screw with your wrist or arm," he says. "And you're less likely to damage or strip the work if the screw is lubed."
- 3. ENGAGE THE CLUTCH.** Tom recommends that power-driving novices take advantage of the drill's clutch, an adjustable feature that stops the chuck from spinning if the bit encounters too much resistance. "This reduces the possibility of stripping the head," says Tom, "which is a particular problem with smaller screws."



Federal Relief

How a couple in Pennsylvania
found a new lease on life

A new roof, shutters, and porch returned this neglected 1820s classic (BEFORE, BELOW) to its former glory.

“Y

ou might as well burn that house down,” the Waynesboro, Pennsylvania, township inspector told Michael Noll. Mike was thinking of buying the dilapidated brick building across the stream from his parents’ house in the Cumberland Valley of south-central Pennsylvania, but there wasn’t much left to buy. The roof was a shambles, the plaster was crumbling, the windows were drafty, and most of the rooms were filled with debris. A final glitch: The house needed a septic system—there was only an outhouse on the property—but the soil wasn’t passing the inspector’s drainage test. “You can’t get a permit to build it,” the inspector told Mike, “and nobody’s going to want a house without one.”

Mike and his wife, Pamela, bought the old place anyway. Where everyone else saw a money pit, they saw a fine example of 1820s Federal-style architecture. “Let’s just do it,” Mike recalls saying to Pam, who wholeheartedly agreed. With zealous energy, they ripped the guts out of it—tearing it down to its bare shell—then carefully rebuilt a 2,400-square-foot. They did virtually all the work themselves, from demolition to framing to finish trim, contracting out only specialized jobs such as roofing and plastering. To save money and promote authenticity, they scavenged many of the materials and fixtures, including



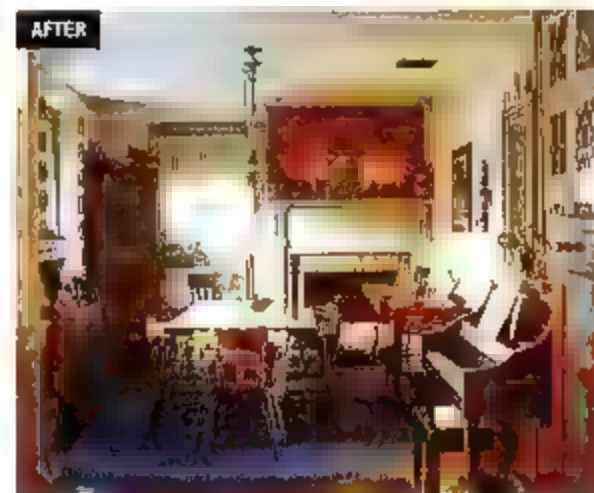
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One of the many fireplace-adorned spaces is the long living room/dining room (ABOVE AND BOTTOM RIGHT), which has a hearth at either end. When the plasterers arrived, they built themselves platforms along the full length of each room (shown TOP RIGHT, the master bedroom with a layout that matches the living room) to reach the 8 foot-high walls and ceiling.

bricks for the walkways and the bathrooms' pedestal sinks. All in all, Mike and Pam took a basket case and turned it into a showcase—for less than \$100,000. The biggest line item in the budget was the \$10,000 purchase price.

The deal was fairly easy to close because Mike's father, who has since passed away, happened to be the seller. Having given his son and daughter-in-law fair warning that, at \$10,000, the house was no bargain, Kenton Noll was more than willing to get it off his hands. He had thought so little of the house that he used it for scrap lumber and target practice, leaning out the bedroom window of his house across

the stream to shoot at the pigeons that perched on the roof and windowsills. "The slate roof was full of bullet holes," recalls Mike.

Mike and Pam figured they could keep costs down by doing most of the work themselves. Regardless of his low opinion of this particular house, Kenton Noll had instilled in his son a feel for remodeling work; from the age of 8, Mike had worked alongside his father doing odd jobs in the evenings. Although by day he's an electrical inspector for the Commonwealth of Pennsylvania, the experience he got from working with his father made him confident in his building skills. It also provided him with a sure design sense: Ask Mike where the blueprints for the house are and he just taps his temple.

The Nolls spent the first several months of their renovation giving the heave-ho to the old. Mike tore off a collapsing porch and shoveled tons of debris out of the ground floor so he could pour a new slab. In one of the third-story bedrooms, Pam shoveled out the pigeon dirt piled six inches deep. "I had to hold my breath, ran to the window, and gasp for air," she recalls. At least it was a group effort: half a dozen of their friends attended a demolition day, and their two sons, Jason and Marshall, helped with most of the cleanup work.

After hiring a contractor to put new cedar shingles on the roof, Mike began some basic reconstruction on the inside. The ceilings had come down in the demolition (Pam pulled thousands of old square nails out of the joists), and Mike could see termite damage to the ends of the old joists between the ground floor and the second story. He added a concrete block wall against the rear foundation wall on the ground floor—



The Nolls tore off the bullet-ridden slate roof themselves, then replaced the 1x4 roof lath and the wider starter boards. A contractor laid the hand-split cedar shingles.

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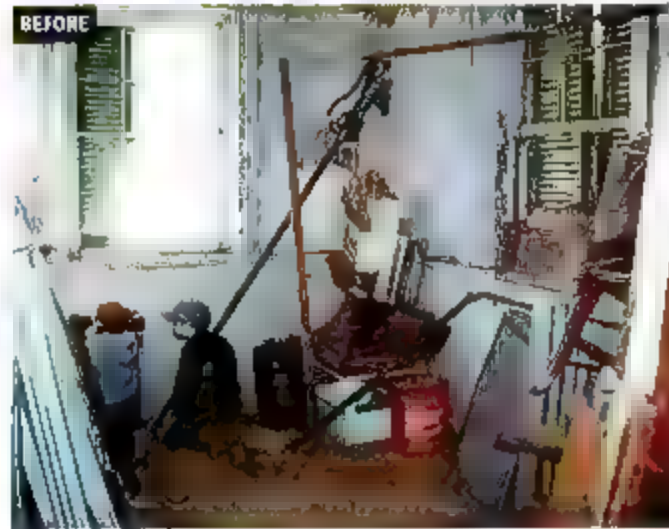
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As children, the Nolls' sons, Jason and Marshall, inspected the junk left in a decrepit bathroom (ABOVE). Restored wainscoting complements salvaged Victorian-style fixtures in the renovated lavatory (LEFT)

white pine tree he had cut down at his grandmother's house and had been storing for a decade in his garage. New, energy-efficient six-over-six windows with double-glazed panes replaced the beat up, drafty old ones.

Although the old windows had to go, the Nolls wanted to salvage what they could of the house's original architectural details, such as the six panel doors, the fireplace mantels, and the window shutters. "Old is harder to deal with than new," admits Mike. "But I guess I'm a pretty sentimental guy." Pam shares his

where the house sits against the side of a hill—to support new 2x8 joists. The other ends of the joists rest atop a foot-square hand-chunked pine beam that runs the 44-foot length of the center of the house.

Mike decided to leave the old plaster on the inside face of the rest of the exterior walls and build out new walls in front of these. First he screwed down 2-inch rigid board insulation, then erected new 2x4 stud walls on top. After roughing in the plumbing and electrical work, he filled the stud bays with fiberglass batt insulation. Finally, he closed it all in with rock lath—old-fashioned 16 by 48-inch boards, 1/8-inch thick, that serve as underlayment for the new plaster. To prep for new plaster ceilings, he screwed expanded wire mesh to the joists with fender washers and drywall screws.

Mike and Pam wanted the authenticity of plaster, despite the extra cost and bother. "You have to leave it unpainted for six months," says Mike. "How many people want to live with that anymore?" They found a craftsman in his late 60s who still practiced the dying art, to do the job on a time-and-materials basis. "I didn't even ask him what he charged," says Mike. The job cost \$4,000, and that was with Mike and Pam acting as helpers to the crew, constantly hand mixing new batches of mud so the crew could work nonstop. Mike and Pam watched as the plasterers applied first the brown coat, then the white finish coat, with blades 6 feet long.

Because the layer of framing and plaster added 6 inches to the 16-inch brick exterior walls, Mike had to fit the house's 28 windows with new sills and molding—work that didn't seem too burdensome given his plan to install replacement windows anyway. For the deep windowsills, he edge glued boards he made from a

respect for the past, she heat-stripped every inch of molding in the house. Mike's resourcefulness when it came to preserving things even made him a bit inventive: He cleaned up and painted an old iron hook he found buried in the yard and recycled it as a nifty towel hook for the ground-floor bath.

Though the Nolls hated to have to replace it, about one-fourth of the old pine flooring couldn't be saved. But rather than install new flooring that would look out of place in this rustic house, Mike bought rough-sawn yellow pine boards from a local lumber mill, then planed them, ripped tongue-and-groove joints into the edging, and installed them with 6d flooring screw nails. With a light oak stain, they matched the existing floor perfectly.

The crowning glories of the house are the seven lovingly restored brick fireplaces, which the Nolls liberated from their plaster shrouds. After Mike tore the plaster off the brick, Pam scrubbed it clean. Then they sealed the porous old clay by spraying on a coat of satin-finish polyurethane to eliminate brick dust. Now the fireplaces give built-in period accents to the rooms, and they certainly look warm and inviting, although, unfortunately, not one of them is a working hearth. "We were a little leery of the brickwork up through the chimneys—there might be exposed wood," says Mike. "Plus, there are no dampers. So I capped off the chimneys to keep the heat loss down." The fireplaces fed into three chimneys, Mike used the center one as a chase for the flue of his wood furnace. He also ran his plumbing vents up through another chimney, "so I didn't have to put it up through the middle of the roof, as in so many houses you see."

All of this hard work would have been for nothing if the Nolls

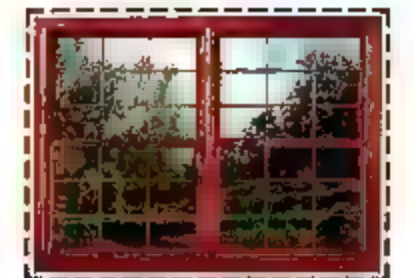
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A cavernous early-19th-century cooking hearth, big enough to fit several boiling pots over the fire, suffered a sad fate for many decades, having been covered over and fitted with cabinets by previous owners (ABOVE). After tearing away bricks, plaster, and wood, the Nolls restored the 7-foot-wide fireplace, delighted to find within its limestone walls an original beehive oven (LEFT).

couldn't solve the issue of the septic system that the inspector warned them about. Mike hired a town engineer, who devised a two-part plan that would meet code requirements. First Mike installed a septic tank 30 feet from the house to handle the sewage from the toilets. That tank, plus the house's separated graywater—the waste water from sinks, laundry, and baths—leeches into a 30-by-50-foot sand-mound septic field 440 feet away that Mike's house shares with his late father's. There, a matrix of perforated 2-inch PVC pipes allows the water to filter through a 12-inch layer cake of sand and limestone that's covered by building paper, fill dirt, and topsoil. The design and construction of the system cost \$7,000, and would have cost more if Mike hadn't done the backfilling himself.

After two and a half years, and roughly 3,000 hours of work at night and on Saturdays, the Nolls moved into their house. By then the two upper floors were finished. It took another year to finish off the ground floor. Among the projects, installing brick-shaped quarry tile over the poured-concrete slab. Mike deliberately didn't use spacers when setting the tile. "This is an old house," he says. "I didn't want it to be too perfect. I like it a little rustic."

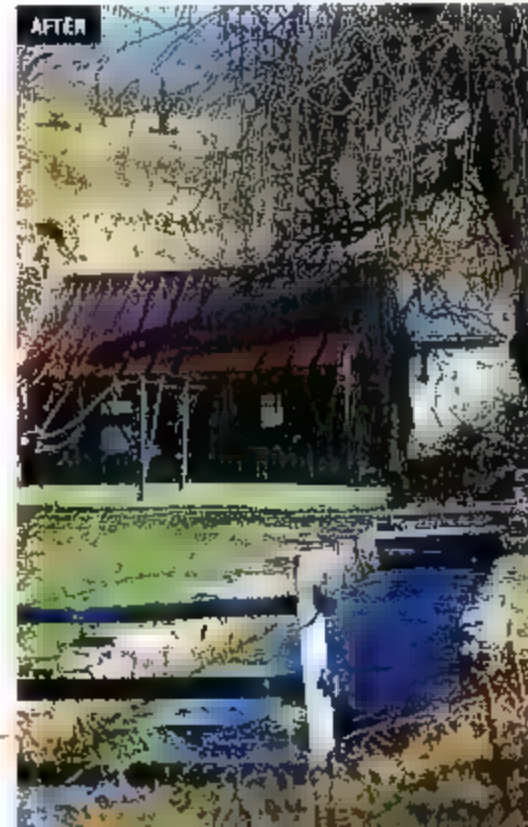
Nearly eight years after he bought the old place, Mike finally got around to his last project, a ceiling for their front porch. He had intended to use authentic beadboard but, in the end, he went with easy-to-install vinyl. "It's the only plastic in the whole house," he says apologetically. "I was kind of burned out." ■

UP A CREEK



The little spring-fed stream that flows through the Nolls' front yard is actually the headwater of Antietam Creek, 35 miles upstream from the famous Civil War battlefield. As it's no run-of-the-mill waterway, Mike Noll wanted to give it an extraordinary touch. So he and his brother, Paul, lined more than 300 feet of its banks with stone wall. He had plenty of rocks on hand from the crumbled foundation of a torn-down barn and cut-limestone curbstones found in nearby Waynesboro. (These had been pulled out in the early 1980s to make way for poured-concrete curbing, and Mike's father, Kenton, then the town's building inspector, happily stockpiled them.)

A decade later, Mike and Paul strung a line between two stakes, then laid the curbstones directly on the creekbed as the wall's first course. The top of that course was above the water level, so the Noll brothers mortared the rest of the 3-foot-high wall, capped it with more curbstones, then backfilled with rocks and soil. Six years later, moss has taken root, and orange jewelweed blooms there every July. It looks like it's been there since, oh, the Civil War.



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When a clear finish is showing off the beauty of mahogany, white oak, walnut, or antique pine, it's definitely worth the effort," says painter John Dee, who applied three coats to the entry doors at This Old House's Charlestown project.

In the Clear

Like sunscreen for wood, the best clear finishes keep siding, decks, and doors looking young and beautiful.

"G

uaranteed to prevent graying. Restores wood's moisture content and helps it stay flexible. Stops cupping, cracking, curling, and warping." Judging by the labels on the cans of exterior-grade clear finishes at paint stores and home centers, the job of keeping wood looking good seems downright easy. Just brush one of these products on a mahogany entryway, a redwood deck, or cedar siding, and the wood will stay as fresh and bright as the day it was cut. The trouble is, though, that shielding wood from the elements without resorting to an opaque blanket of paint is no easy task. As the sun's ultraviolet light and milder

spores while they try to cope with wood's natural tendency to rot. Toxic finishes peel like sunburned skin or are like more than solvents that just evaporate into the air. Fortunately, advances in coatings technology have created new formulations that actually live up to their billing, at least as they are lovingly maintained. Clear finishes work in one of two ways: either by forming a hard film over wood or by penetrating it. The film-forming products—both classic varnishes and modern urethanes—are unmatched in their ability to bring out the beauty and depth of a wood surface while guarding against wear and

BY JEANNE HUBER

ILLUSTRATION BY DANIEL J. KERRICK

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tear. But they're often demanding to apply and always intorgiving of neglect. If not lightly sanded and recoated every one to three years, the film will begin cracking and peeling, and then must be stripped down to bare wood. Penetrators, on the other hand, preserve wood by soaking into its fiber and so don't peel or require scraping or sanding; the finish simply wears away. Compared with hard coatings, they do a better job of letting damp wood dry out, and they can be recoated without elaborate surface preparation. But even the best ones need a routine reapplication, which is often as ftime-formers—and do little to guard the wood's surface from dirt and wear.

In recent years the distinctions between the two types of finish have begun to blur as manufacturers develop formulas that offer the protection and gloss of a film with the maintenance ease of a sealer. Many of these improvements can be traced back to the 1950s when researchers at the federal government's Forest Products Laboratory, in Madison, Wisconsin, created a new category of finish: the penetrating sealer, which offered more waterproofing than any penetrating finish before it. This blend of linseed oil, earth pigments, mildewicides, and paraffin, called the Madison formula, inspired coatings technologists around the world. "A lot of companies, particularly in Europe, took the Madison idea and built on it," says Johannes Boonstra, technical support specialist for Sikkens Wood Finishes. The result has been a host of effective, durable new coatings for decks, siding, fences, and log homes.

For all the sophisticated chemistry, the basic ingredients of every exterior finish remain remarkably similar. That's because the three main agents of wood decay haven't changed. Most of these coatings rely on oils—natural linseed and tung or synthetic resins—to resist

moisture, on preservatives containing zinc, iodine, borates, and other compounds to scavenge mildew, moss, and mold from taking hold, and on a combination of UV absorbers and blocking ingredients for the toughest task of all—blocking UV degradation. UV breaks down lignin, the natural glue that holds wood fibers together, and eventually turns all wood left outdoors as gray and rough as barnboard. In paints and stains, the pigments block UV the same way a long-sleeve shirt protects exposed skin from sunburn. Clear coatings behave more like sunscreen. They contain chemicals that absorb UV radiation for a time, then stop working. "The organic molecules can only handle so many photons before they fall apart," says Mark Knaebe, a chemist who researched paint formulas for 13 years at the Forest Products Laboratory. Once the chemicals lose their ability to absorb UV—in as little as a few months in sunny climates—the rays pass through unhindered and start to deteriorate

the wood surface. Then it's only a matter of time before the wood starts rotting, causing the finish to lose its grip.

Adding pigment is the surest way to block UV over the long run. If it closely matches the natural color of the wood and is used in limited quantity, it isn't noticeable. Add too much, however, and the coating begins to darken the grain and resemble a stain. Still, a new class of pigments, first developed for automobile paint in the 1970s, provide UV resistance without compromising clarity. Called transoxides, or transparent iron oxides, they are particles ground so finely that they literally fit between the wavelengths of visible light. In effect, the rays we can see pass through virtually unimpeded, while most of the shorter UV waves reflect back and scatter before they reach the wood.



The toughest job for a clear finish isn't keeping out water; it's preventing the sun from breaking down surface fibers, as it has done on this varnished wood panel in Washington.

Despite the dozens of clear finish choices on home-center shelves, there are basically two types—those that soak into the wood fibers like stain and those that form a shell on top like paint. 1. Urethane. Forms a hard film; choose an acrylic product. 2. Penetrating sealer. High solids content improves durability. 3. Hybrid. The first coat soaks in; the second provides a protective film. 4. Varnish. This ancient film-forming product requires 6 to 10 coats. 5. Penetrating oil. Nut extracts soak deeply into dense wood.

Knowing how finishes work is all well and good. The problem is, manufacturers zealously cloak their ingredients in secrecy, so there's no way for consumers to know or compare how much or which kind of pigments, UV absorbers, or preservatives there are in the can. To make matters worse, labeling requirements are maddeningly lax. For instance, the word "preservative" on a label means only that the government approves the relative safety of the fungicide and accepted evidence that it killed some organisms in whatever concentration it was tested. Manufacturers don't have to use this same concentration in their formulas, nor do they need to meet any standard for overall effectiveness.

About all a consumer can do is roughly infer a finish's quality. You can do this by getting hold of the Manufacturers' Safety Data Sheet (MSDS), available from the retailer, and subtracting the solvent content (which has to be listed) from the total product amount. That will give you an approximate idea of the amount of solids—the ingredients that do the work—that will be left after the solvents evaporate. Solvents are important for delivering good penetration or a smooth film, but the product should be more than just evaporative liquids. Another way to judge quality is to look at the price tag. A cheap finish won't have a lot of the expensive ingredients that ensure durability.

Still, that leaves a lot of unanswered questions about which product to buy. Sam Satterwhite, a log home builder in Longview, Texas, became so frustrated and confused that in the mid-1980s his com-

pany teamed up with Texas A&M University to test clear and lightly pigmented finishes on a series of log walls, milled siding, and rough plywood. They found that TWP (a penetrator) and Cetol (a two-layer product with a penetrating sealer followed by a hard coat) came out best of 13 others tested. Satterwhite favors Cetol because the film helps bridge the cracks that develop in wood as it dries. Peeling can occur if the required maintenance coats aren't applied according to manufacturers' suggestions. "But the finish doesn't come off in sheets like some products do," he says. "If it's caught early on, when there are just little cracks, a minor amount of sanding will remove the loosened material and prep the wood surface for reapplication." Cetol, however, should be applied by brush. If his customers want a coating they can maintain by spraying, Satterwhite recommends TWP.

John Dee, a Massachusetts painter who has worked with *This Old House*, has never used TWP, but he's seen Cetol in action on decks. Although many paint experts say using film-forming finishes doesn't make any sense on these heavy-wear horizontal surfaces, Dee's not so sure anymore. "I've watched two decks with the film coating—one that wasn't maintained, and it peeled, and one that was maintained, and it looks great," he says. "That maintenance coat actually sort of melts whatever's underneath so that you don't get heavy buildup year after year."

In the end, the decision of whether a clear coating is worth the trouble is one of aesthetics versus effort, says Dee. "You need to really like the look of natural wood to be willing to do the maintenance." ■

SPARRING PARTNER

When you want the warm, welcoming look of a nicely varnished front door, nothing beats the real thing. Marine spar varnish is the best type for outdoor use. Its key ingredients are linseed oil (pressed from flax seeds) and alkyd resin (made by reacting linseed oil with alcohol and acid). The film is flexible enough to move with wood as it shrinks and swells with shifts in humidity. Mark Knaebe, of the Forest Products Laboratory, recommends selecting a spar varnish with UV absorbers and applying up to six thin coats for maximum protection. To keep the wood looking good, sand lightly and brush on a fresh coat every year. Otherwise, the varnish will become brittle and crack. And once that happens, you'll have no choice but to scrape it all off and start over. —J.H.



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A Roof Over Their Heads

What you need to know about housing options for elderly parents



BY MAGGIE MAHAR

Once upon a time, extended families lived Waltons-style, in single-family homes. But today even close-knit families rarely nest together. Take Kathy Nolan: She and her six siblings live in seven different states, and their 78-year-old mother in another. They each visit their mom a couple of times a year, but her doctor says she can no longer live alone. Helen Nolan has become increasingly disoriented—sometimes she forgets to turn off the burners on the stove. Kathy and her siblings have talked about asking their mother to move in with one of them, but who would take care of her? Kathy, her sisters, and sisters-in-law all have full-time jobs.

The Nolans (whose names have been changed to protect their privacy) face the heart-wrenching dilemma that many members of the “sandwich generation” know well. Torn between the needs of aging parents and those of their own children, spouses, and ca-

reers, they try to sort out their responsibilities. Sometimes the parent is seriously ill. Other times he or she just requires assistance with the ordinary activities of daily life: cooking, getting in and out of the shower, climbing stairs. In either case, the parent can't function independently day after day. So what's a family to do?

“Years ago, the elderly had only two choices—go into a nursing home or move in with the family,” says Lauren Jones, a senior program coordinator of independent living and long-term care at the American Association of Retired Persons (AARP). “But things have really changed.” Nursing homes (live-in facilities where the majority of residents may be seriously ill or infirm) are increasingly viewed as a last resort. And moving elderly parents in with extended families is hard at a time when 60 percent of women work outside of the home. Many working families who attempt to hire part-time help for parents who live with them find

ILLUSTRATIONS BY MICHAEL KLEIN



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that "it's very expensive and piecemeal. Sometimes the person has to leave early, other times she doesn't show up," says Donna Phillips, director of communications at the Asbury Methodist Village, a not-for-profit retirement community in Gaithersburg, Maryland. That puts a tremendous strain on everyone.

Meanwhile, seniors themselves have become increasingly vocal about their rights to independence, dignity, and privacy. Their message is often the same: They love their children and grandchildren, but they don't want to live with family. When the AARP polled members over 75, more than 80 percent said that they wanted to stay in their own home.

KEEP THEM AT HOME BY REVERSING THE MORTGAGE Many parents dream of growing old in the house where they raised their family. Reverse mortgages can help them do just that. This kind of loan allows seniors to tap the equity in their property without moving, and anyone over 62 who has paid off the mortgage on his home or condo can qualify. Instead of sending monthly payments to a bank, the borrower receives money from the bank in the form of a lump sum, a line of credit, or a monthly check.

This amounts to a loan—with interest rates that are 3 to 5 percent higher than standard 30-year mortgages—but the bank is paid back only when the owner dies, sells, or moves out. At that point, the money borrowed, plus fees and accrued interest, is repaid from the sale of the home. If the net value of the house exceeds the amount owed, any difference goes to the borrower or the estate. But if the house winds up selling for less than the loan amount, neither the owners nor their heirs will ever owe the bank money. This is the risk that the bank takes when it makes the loan. For seniors, the upside of a reverse mortgage is that it provides cash and requires no monthly payments; the downside is that a bequest can't be made of the house itself.

The amount of the payouts will vary based on the home's value, current interest rates, and the borrower's age. In Minnesota, for instance, a 75-year-old who owns a \$150,000 house could expect to receive continuous monthly payments as high as \$650 or a lump sum or credit line of \$75,000, according to the National Center for Home Equity Conversion. Depending on how much care is required, that amount could be enough to pay for the part-time household help that would allow an aging couple to remain in their own home, or just enable them to meet their living costs. (For more information on reverse mortgages, write the AARP Home Equity Information Center, 601 E Street, NW, Washington, D.C., 20049, or visit the National Center for Home Equity Conversion's Web site at www.reverse.org.)

CONSIDER NEW RESIDENTIAL CARE OPTIONS

Marguerite Miller's 93-year-old mother-in-law lives in Asbury Methodist Village, and when Marguerite describes the facilities, she sounds almost envious. "She has a three-bedroom apartment, a beautiful kitchen, and her meals and housekeeping are provided

They're even putting in a theater and swimming pool," she says. "My husband and I always joke that we can't wait to move in!"

Asbury Methodist Village is just one of many excellent live-in communities that can be found in every state. There are two types: *Assisted-living centers* (ALCs) allow patients to live "on their own but not alone." Residents live in independent apartments with options that range from meals and housekeeping to laundry service and nursing care. If a resident becomes severely ill, however, he or she will have to leave the ALC. That's why a new breed of facility has become the option of choice for families that can afford its higher costs: *Continuing-care retirement communities* (CCRCs), like Asbury, provide a continuum of care ranging from independent living to full-time nursing services. Their campuses contain several different types of living facilities—residents can live in an apartment or even a single-family residence with their own furniture. Then, as needs change, the CCRC will provide whatever care is required, from nurses who visit the apartment to relocation to an on-site live-in nursing home. To create a like-minded community, some CCRCs have membership requirements, such as a specific religious, ethnic, or professional background.

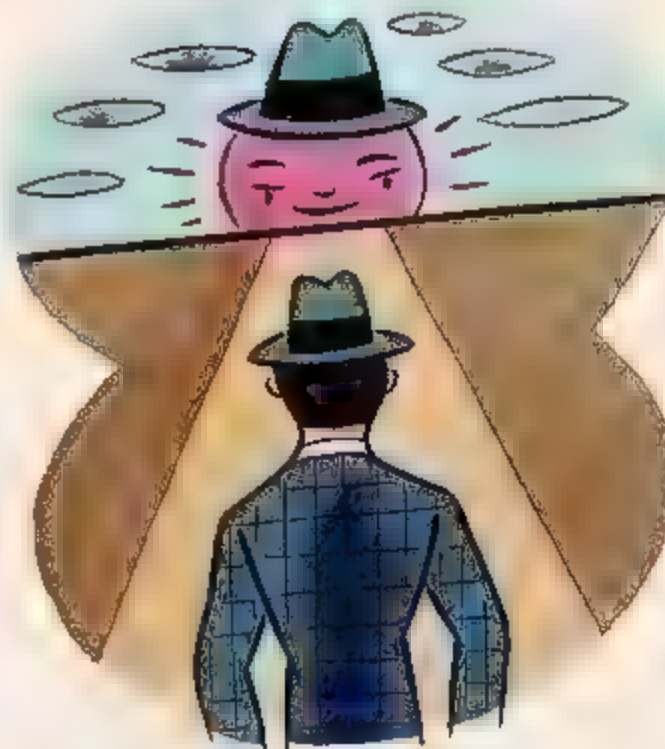
It pays to shop early for a residential care center because the best ones tend to have long waiting lists. The Consumer Consortium on Assisted Living suggests making surprise visits to the prospective facilities, eating a meal there, and staying overnight—much as you would when choosing a college. Their Web site, www.ccal.org, provides an excellent checklist of questions to ask about costs, contracts, and services (for a printed copy, which costs \$5, call 703-533-8121).

Buyers do need to beware. "Families should read the contracts very, very carefully," says the AARP's Jones. "For instance, if a parent goes into a hospital for a medical crisis, can he come back to an assisted-living center?" Centers will be worried about the resident's safety—and their exposure to lawsuits. Continuing-care retirement communities are unique in that they promise lifetime shelter, but if you run out of money in either an ALC or a CCRC, you may be asked to leave. "There can be a big difference between for-profit and not-for-profit centers," points out the not-for-profit Asbury's Phillips. "If a resident can no longer meet the monthly fees, our foundation helps pay. No one is ever asked to leave." That may not be the case at a for-profit institution. (The American Association of Homes and Services for the Aging, in Washington, D.C., can provide information on other not-for-profit ALCs and CCRCs, and their Web site, www.aahsa.org, offers a listing of facilities nationwide.)

BE PREPARED FOR THE COSTS INVOLVED

Can middle-class seniors really afford assisted living or continuing care? The answer is yes—up to a point. Most residents sell their homes when they enter either type of center, using the proceeds to pay up-front charges. At Asbury, for instance, entrance fees range from \$44,000 (for a studio) to \$215,000 (which fetches a three-bedroom apartment). In addition, residents pay monthly fees, which

MONEYCLIP



INSURING YOUR OWN FUTURE

Investing has become the national pastime. But in addition to funding that IRA or 401k, there's another crucial step baby boomers can take now to prepare for retirement: Buy the best long-term-care insurance you can afford. One of these plans will cover you for life, providing \$100 to \$500 a day for health care, including assisted-living centers. Annual premiums are set for life when you buy in, and doing so while you're in your 50s keeps the fees down. "The cost increases by about 8 to 10 percent a year," points out Denise Kilgman of the Owens Group, an insurance brokerage in Englewood Cliffs, New Jersey. For example, according to the AARP, a typical lifetime policy that would pay benefits of \$100 a day in today's dollars (with an inflation kicker raising those benefits by 5 percent annually) would cost \$1,680 a year if you purchased the plan when you were 50; \$2,203 if you waited until you were 60; and \$4,306 if you took out the policy when you were 70.

An extra annual payout of \$1,680 per person is not a small sum for 50-something couples, yet many middle-class boomers put \$2,000 a year into a 401k or an IRA, and a quick cost-benefit analysis suggests that they might be better off putting the same money into long-term-care insurance: A 50-year-old investor who puts \$1,680 a year into a retirement savings plan earning 8 percent a year for 15 years will wind up with \$45,615, which will generate taxable income of just \$3,649 annually. If, on the other hand, he begins paying premiums of \$1,680 a year for LTC insurance, he will immediately own a policy that will pay tax-free benefits of \$36,500 a year—plus 5 percent compounded annually—whenever he needs it, for as long as he lives. —M.M.

vary depending on the cost of care in the region and the range of services provided. But the fees rise dramatically when an elderly person needs full-time specialized care. At Asbury, monthly fees begin at \$900 (for a studio with one meal daily) and rise to \$58,000 (for help with bathing, dressing, and eating, plus three meals, housekeeping, and laundry).

"Many families are shocked to discover that Medicare and supplemental Medi-Gap insurance pay for only very limited long-term care," reports Enid Kassner, a senior policy adviser at the AARP. Once Medi-Gap coverage dries up, parents have only their savings to rely on. After those are depleted, Medicaid kicks in, but it usually pays only for nursing homes (in some cases home care is covered)—one reason why so many seniors wind up in these facilities, whether they need to be there or not.

To help pay for the high cost of aging, more and more people are buying long-term-care (LTC) insurance. For those with income and assets, these policies provide a good way to supplement health insurance by covering services such as visiting nurses, assisted-living centers, and nursing homes. The plans pay benefits for a lifetime, ranging from \$100 to \$500 a day when a patient becomes physically or mentally disabled through old age, illness, or accident. "Pre-existing conditions are not usually a barrier," says Denise Kilgman, who heads up the Life and Health Division of the Owens Group, an insurance brokerage in Englewood Cliffs, New Jersey. "Only a handful of conditions make a parent uninsurable: Alzheimer's, hepatitis C, or Parkinson's, for example. A person can get insurance even if he has had a heart attack, quadruple bypass, a stroke, liver cancer, or lung cancer," she explains. "The insurance company just wants to be assured that the illness has been controlled and that the person is seeing a physician, and isn't in need of long-term care at the time the application is made."

Benefits kick in if a parent suffers severe cognitive impairment (such as Alzheimer's or senile dementia) or is unable to perform any two "activities of daily living," such as bathing, dressing, eating, or going to the bathroom. The best policies allow the money to be used to hire in-home care, or to pay for services in an assisted-living center, continuing-care community, or nursing home. But not all policies are created equal. Your parents' policy should probably include an inflation rider (which raises benefits 5% annually from the time they sign up—for a higher premium, of course). Also, check that the policy is "tax-qualified," which ensures that benefits will be tax free; that their doctor, not the company, decides when they are eligible for benefits; and that benefits will remain the same whether they stay in their own home, an ALC, a CCRC, or a nursing home. A guide published by United Seniors Health Cooperative helps analyze policies (\$18.50 from 800-637-2604), while Weiss Ratings, a company that rates insurers' financial stability, will provide a customized comparison of policies (\$49 from 800-289-9222).

LTC insurance is not cheap (see "Insuring Your Own Future," at left), and in many cases children chip in to cover the cost. If parents resist the expense, saying, "What if I never use it?" try to gently point out that this is like worrying that your insured house will never burn down. Moreover, odds are better than 50-50 that, at some point, seniors will need nursing care. Finally, emphasize that they're not just paying for benefits, they're buying peace of mind for the whole family. ■

BY RICHARD WEIR

Drip Dry

Richard Trethewey makes fast work of repairing a leaky faucet.

For too long now, a stubborn drip-drip-drip has been descending from the one-handed kitchen faucet in the home of Richard Trethewey, *This Old House's* plumbing and heating consultant. Droplets from a two-handed laundry-room faucet have been falling with the relentless beat of a metronome, too. "Most people will ignore a dripping faucet out of fear or ignorance," says Richard. If they deal with it at all, it's usually by cranking the handle so hard they risk tearing a rubber washer or cracking something and making the leak worse. At his own Second Empire house, it's more the case of the cobbler's child whose feet go unshod.

When Richard does finally find a free morning to break out the wrenches, he stems the tide in both sinks within half an hour. A homeowner with a little wherewithal should be able to finish similarly simple repairs in less than an hour. "Fixing a faucet drip won't solve the world's water woes," says Richard. "But it will save the finish on your enamel sink and end your Chinese water torture."

PHOTOGRAPHS BY CRAIG RAINE



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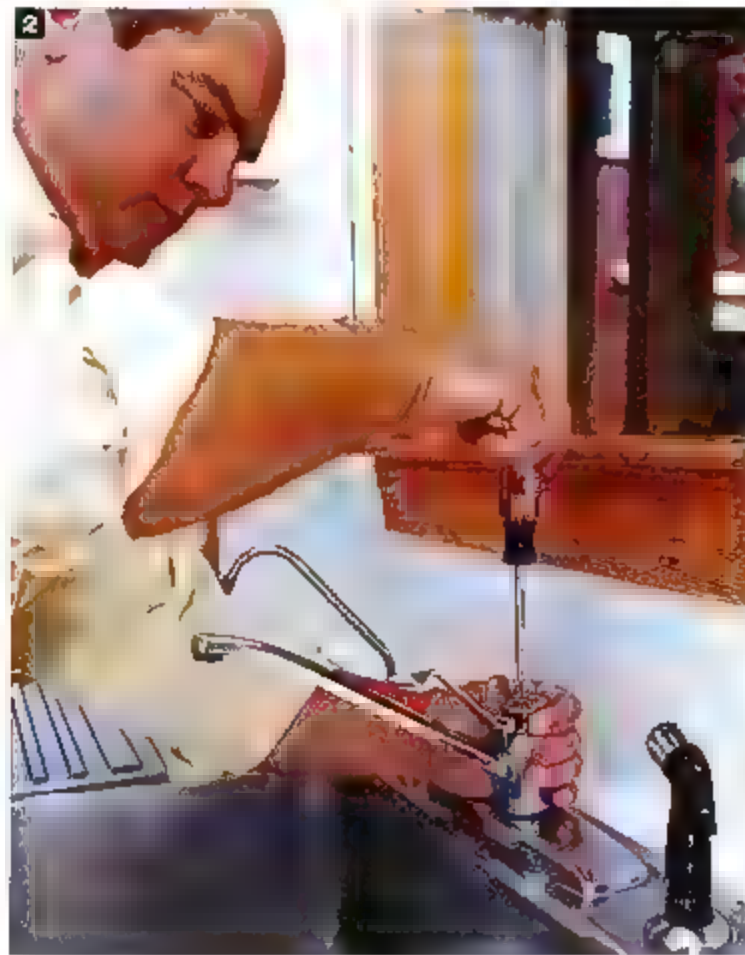


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SINGLE-HANDLED CARTRIDGE FAUCET



1) The first task in any faucet repair is to shut off the water feed by closing the valves under the sink, if there are none, Richard shuts the water main. He turns on the faucet to bleed the pipes of water, then plugs the sink's drain with a rag. "The smaller the part," says Richard, "the more it wants to take a dive down the drain."



2) To figure out the next step, "look at the faucet and try to understand how it was put together, then go in reverse," advises Richard. This single-handled kitchen faucet has a cartridge under the handle. The cartridge has holes that mix the hot and cold water to deliver different temperatures depending on how the handle is turned. If it's worn or cracked, water will seep through to the spout. To remove and replace it, Richard first uncovers it by using a pocket knife to pry off the decorative plastic cap—similar to those on two-handled "hot" and "cold" units—to expose the screw that holds the handle in place. Richard removes the screw; then he gently wiggles the handle back and forth to loosen it and slides it off.



3) The faucet handle isn't the only thing between Richard and the cartridge; he must unscrew the bonnet—being careful not to scratch this chrome cover for the cartridge assembly—with a pair of slip-joint pliers. Then he uses needle-nosed pliers to grab the U-shaped retainer clip, which slides through the faucet base and around the cartridge to secure it in place. As he takes out the pieces, he carefully lines them up to the side so he's sure not to lose anything or mix up the order of the parts when it's time to reassemble the faucet.

4) Richard grips the stem of the exposed cartridge with his pliers. To overcome the suction resistance of the rubber O-rings at the top of the cartridge, he pulls up firmly, sliding the unit straight out without any side-to-side twists. Had the leak been coming from the base of the handle, Richard would have known that the O-rings needed replacing. But since this is a case of a dripping spout, he's already surmised that the cartridge is the problem. He installs a new one, making sure that he places it in the same position as the one he just pulled out, so the holes in its side that deliver the hot and cold water to the spout will not be mixed up. He then fits the retainer clip snugly into its slot and reassembles the bonnet and handle.



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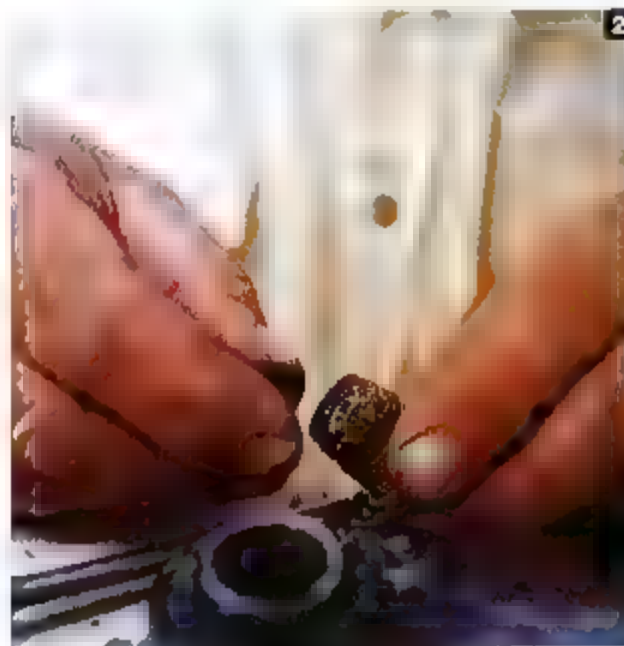
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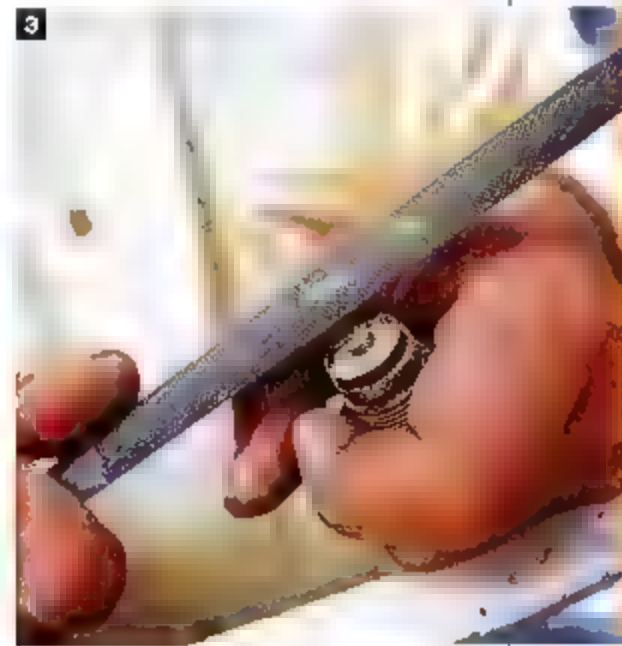
TWO-HANDLED STEM FAUCET



1) Richard turns his attention to his two-handled laundry faucet. Here, the dripping spout indicates that the problem's in a handle, so he pops the cap off the cold-water handle to reveal an encrusted screw. To get it off, "push down with all your might—if you strip the head, you're up a creek," he says. But the fused handle is another matter, requiring the finesse of a faucet-handle puller. (See "Tool Box," this page.)



2) Next Richard has to remove the packing nut, which secures the stem into the faucet body. He loosens it with an adjustable wrench and pulls out the entire stem assembly with needlenosed pliers. The seat washer—a rubber disk on the stem's underside and the usual suspect in a spout drip—looks scarred, and its fastener screw is badly corroded. He's able to twist the screw off without snapping its shank, though he was prepared to drill it out and rethread the hole with his "tap and die" kit, if necessary.



3) Before replacing the washer, Richard performs a little surgery on the protruding edge into which the washer fits. He files away the pitted wall and replaces it with a nickel/copper-alloy retainer bowl, which will be held in place by a new washer screw. "Sometimes it's better to rebuild the stem than to rush out for a new part," he says. "Replacement parts for older faucets can be hard to find."



4) Richard finds an identical-size replacement washer in his collection and fastens it on with the new brass screw. "For a short-term fix—in a pinch—you can flip the washer over if it's smooth on the other side," he suggests. Before placing the stem back on the valve seat (the cylindrical piece that butts against the washer and creates a seal with it when the faucet is off), he removes the seat with counterclockwise turns of a special seat wrench and checks it for burns caused by scraping and corrosion. "If the seat is badly mangled," he says, "you could replace the washer every four days, but it'll just keep leaking." This one is undamaged, so he doesn't replace it; he just seals it with pipe joint compound and reassembles the handle.

TOOL BOX: FAUCET-HANDLE PULLER

Trying to free a corroded and fused handle from its stem can be a struggle of twists, pulls, and whacks that may cause more damage than the cracked washer that started it all. The pros solve this problem with a faucet-handle puller, a simple screw tool that forcefully lifts the frozen handle off without scratching its finish. "It's kind of like uncorking a wine bottle with a corkscrew," says Richard Trethewey. Richard slides the puller's shaft into the screw hole on the faucet handle and positions the puller's two arms under the base of the handle. As he twists the puller's handgrip clockwise, as if he were tightening a screw, the arms rise along the shaft and lift the handle free of the faucet stem.



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LETTER FROM **THIS OLD HOUSE**



Norm Abram, This Old House master carpenter, admires builders whose creativity on the job translates into high-quality craftsmanship.

Building Outside the Box

BY NORM ABRAM

Last fall, *This Old House* visited a factory in Denver that makes doors out of MDF (medium-density fiber board). Steve Gomez, the owner of the small plant, turned out to be an unexpected inspiration. He had come up with the idea of attaching a solid wood strip to the hinge side of MDF doors because, over the years, he recognized that this would improve the product enormously given the composite material's key drawback: an inability to grip screws firmly.

I got to thinking after meeting Steve that it's usually the craftsman on the factory line, and not the person who sits in an office, who comes up with the best ideas; the hands-on worker is the one who develops better tools and techniques. And it struck me that this applies to house construction and renovation as well. Like the builders in the early 19th century who simultaneously devised a house plan and implemented it, renovation carpenters today often innovate as they work because they can't just go down the street to a home store and pick up the ideal tool for creating a faithful restoration. It wouldn't be profitable for a manufacturer to make and sell such a specialized item. Instead, a good craftsman spends the time to develop a simple tool or technique that preserves the house's integrity.

These craftspeople should not only be appreciated for the

caliber of their work; they should be recognized and praised as inventors. When Tom Silva fixes chipped decorative trim, he scribes and cuts its shape on a plastic putty knife so he can quickly and cleanly match the form as he applies filler. And because the local lumberyard usually doesn't stock 100-year-old designs, he orders special knives so he can mill historically accurate duplicates of vintage molding profiles himself.

Homeowners reap huge benefits from such ingenuity. They don't get a mere reasonable facsimile of a particular detail, or a limited renovation solution prescribed by the available tools. Rather, they get a perfect replacement or repair because the craftsman bothered to break away from convention (and convenience) and use his hard-won expertise to construct the right tool for the job.

Houses are not meant to last one generation. The quality of the effort that goes into making one, whether it's being built from the ground up or being renovated, should make longevity a priority. The craftsman's inventiveness and dedication to adapting his skills to the task at hand boils down to taking pride in what he does. And this results in generations of homeowners who are able to take pride in their homes. Striving to find a better way to do things pushes the art of building forward—and it's the mark of a true craftsman. ■

PHOTOGRAPH BY CRAIG RAINE

THE OUTSIDERS

CREATING THE OPEN-AIR RETREATS FOR THE TV SHOW PROJECT

FALL TV PROJECT/CHARLESTOWN

Roger Cook plants decorative shrubs, including a Hinoki cypress, behind the retaining wall on the north end of the shared backyard patio. Four stories up, with the Boston skyline in the distance (opposite), Tom Silva lays the composite planks for Dan and Heather Bellevue's private roof deck.

Check out www.thisoldhouse.org for more information on the outdoor spaces at the Charlestown project. The site features articles by Roger Cook and David Hawk, a plant list, and a 360-degree virtual tour of the finished project, including the patio and deck.

On a cold November day just before Thanksgiving, there's a feeling of snow in the air at the TV-show project in Charlestown, Massachusetts. But it's rain that's on the mind of *This Old House* contractor Tom Silva as he prepares to install the artificial-wood planking on the roof deck of Dan and Heather Bellevue's brick row house. "Any time you have an outdoor living space over an indoor one, there's the potential for water problems," he says. "Last thing we want is to ruin all those new plaster ceilings."

On the ground in a back corner of the house, 40 feet below Tom, T.O.H. landscape contractor Roger Cook is also worrying about water infiltration. "We've got below-grade living space here," he says, pointing through a basement window to one of the rental apartment's bedrooms. "And if water runs off the patio and seeps through the foundation, there'll be trouble."

Tom and Roger's concerns with water spilling into living spaces are not endemic

BY JEFFERSON KOLLE PHOTOGRAPHS BY KOLIN SMITH



The backyard space, once piled high with construction debris, morphed from dump to refuge in a matter of weeks. A garden wraps around the perimeter of the house's ell. "Each seating area has a sightline down to a group of plantings, which makes the space seem larger," says David Hawk. BELOW: The retaining wall comes together quickly, thanks to preformed tongue-and-groove stones made from concrete.

to every renovation. But they have become an issue in Charlestown because the Beliveaus want to embellish their row house with a pair of urban oases: a 600-square-foot patio (to be divided between the Beliveaus and their first-floor tenants) and a 14-by-17-foot rooftop deck (which will be Heather and Dan's alone). Rather than merely plant a quaint garden out back or pave over the small patch of land for a parking space, the couple is trying to bring a little of the country to their town plot—the dream of most city dwellers. Building the spaces so they don't open the house to water damage requires great efforts in engineering and construction, and will run close to \$50,000. But in the confines of central Boston, where private outdoor areas of any size are a rarity, the Beliveaus feel it's worth the enlarged mortgage payment (especially since the patio will add to

the market value of the rental apartment). Says Dan, "Just imagine a spring morning before work, taking a mug of hot coffee up to the roof and seeing the whole city—how great will that be?"

Architect John French, working with Dan, devised a plan for the roof deck that involved lopping 4 feet off the structure's peak. He surrounded the deck with a decorative steel railing patterned after some of the exterior balustrades seen around Charlestown, and he provided access via an enclosed spiral staircase connecting the third-floor hallway to a roof hatch. For the back patio, landscape architect David Hawk envisioned transforming a desolate patch of overgrown brick into a sanctuary of greenery and stone walls, sheltered from the street by a wooden privacy fence. Here, a metal staircase spirals down from the homeowners'



ILLUSTRATION: TIMOTHY BLATNEY

and renters' kitchen balconies to the middle of the patio below.

Roger and crew started turning Hawk's design into reality in early November, as soon as they had Tom's assurance that no more construction debris would be raining down on the designated patio spot. They cleaned and leveled the backyard-cum-refuse dump with their Bobcat skid-steer loader and laid the serpentine retaining wall that runs along the path from the basement door to the sidewalk. Although the wall appears to be made of stone, it's actually made of blocks of colored concrete that have been tumbled for a rustic, hand-cut look (available in five different sizes). Each block has a rough tongue on the top and a mating groove on the bottom that allow it to be aligned and loosely locked in place while being stacked, like Lego pieces, up to 4 feet high. "The product is about 50 percent cheaper than stone—and can be installed in a third of the time," says Roger.

After he finished the wall, Roger turned his attention to the patio's surface. He covered the Beliveaus' section with keystone-shaped cast concrete pavers, laid in a sunburst pattern atop a 9-inch-thick bed of hard-packed ¾-inch stone, stone dust, and sand. (See "Concrete Paver Walkway," *Homeowner's Handbook*, July/August 2000.) The tenants' patio is also paved with concrete, though it's poured from a truck rather than laid one paver at a time. Roger and the concrete contractors spread the mix, making it 5 inches thick and pitched slightly—about 3 inches over 16 feet—to shed water away from the foundation. To dress up the dull slab, they sprinkled its wet surface with powdered hardener in various gray pigments—70 pounds per 100 square feet—mixed them in with a wide-bladed bull float, then imprinted the still-plastic concrete with a cobblestone pattern. From start to finish, the process took just five hours. "With a coat of sealer reapplied every two to three years, this product is totally impermeable," Roger says. "Once the concrete cures, there's no way water is going to get into the house."

Over the next few weeks, Roger planted a variety of trees and shrubs—magnolia, holly, and honey locust among them—around the retaining wall and patio beds. Tom and Dan poured a concrete footing, on which they installed the graceful spiral stair made of steel. A gracious picket-topped privacy fence steps up the sloped sidewalk, blocking out street noise and passersby. Although the plantings were dormant and leafless by the time Roger finished,



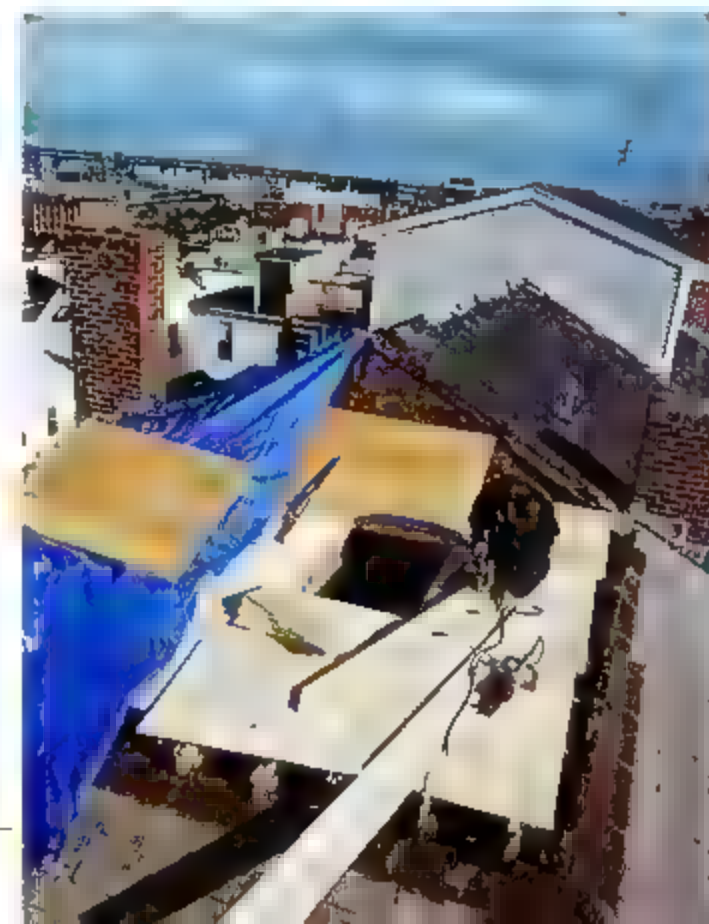
ABOVE: While tearing off the old roof, Tom Silva's crew and host Steve Thomas exposed the remnants of a small window's walk, where some long-ago owner once enjoyed the panoramic views. Tom surmises that the walk was covered over because it leaked so much, but its existence proves that a rooftop aerie was part of the house's original design scheme, not just a modern indulgence. **BELOW:** Dick Silva cuts the stringers for the stairway leading to the newly sheathed deck. The bird's-eye view (from the side of the house) shows how Tom sliced off the roof's peak to build the platform.

the little patio was already showing signs of the haven it would become. "It will be like a little corner of tranquility in a world of cement," says Roger, "a place where you can sit back and relax."

Tom began the process of building the roof deck back in August with a trip inside the house's attic crawl space. In its stifling confines, he located two support beams that run along the front and back of the house, halfway up the steeper pitch of the mansard roof. He drove four long nails through the roof just above the ends of both beams; the nails served as guides for the location

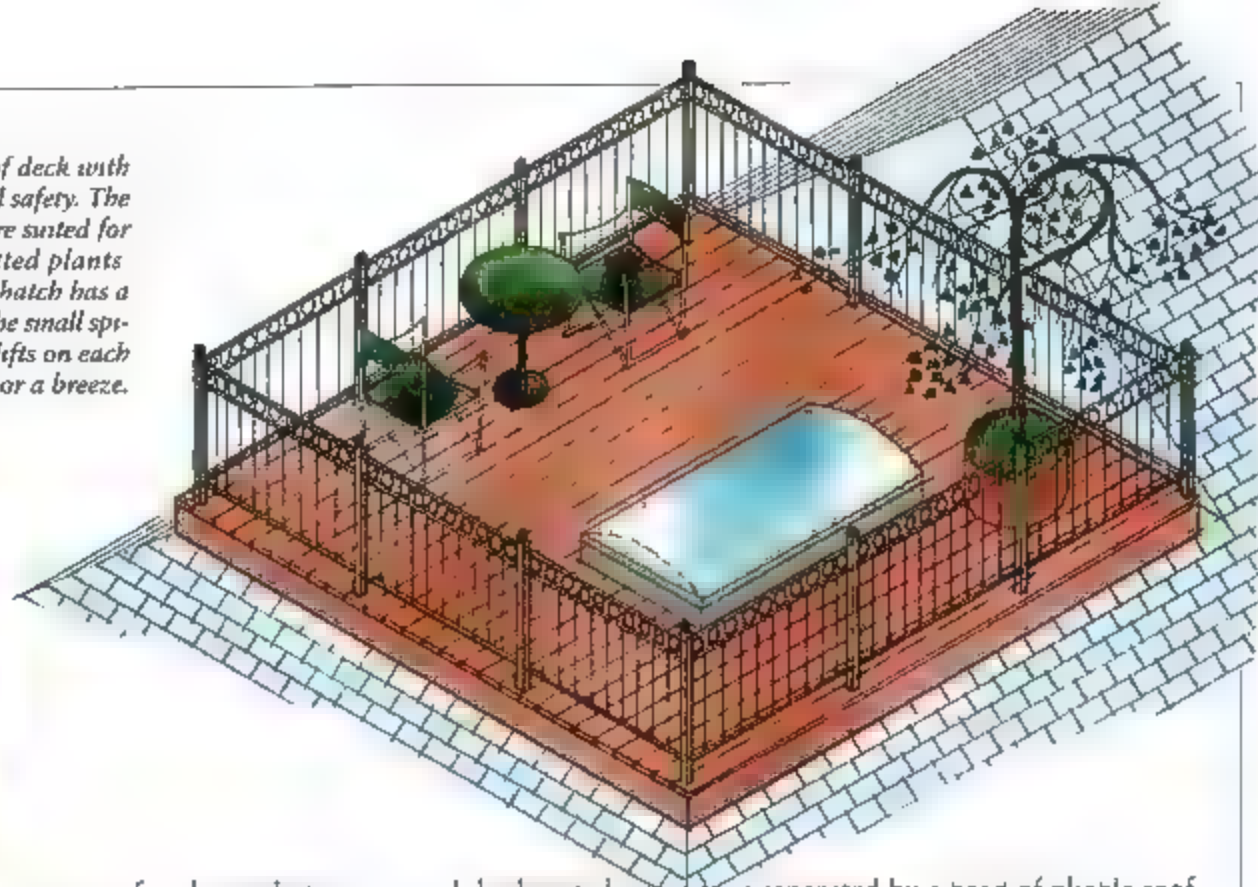
of the deck corners. Outside, Tom and his brother Dick snapped chalk lines on the asphalt shingles between the nail points so that Dick would have a path to follow as he sliced through the roof layers with his carbide-tipped circular saw blade. "Watch your eyes," Tom warned as Dick plunged the saw into the shingles. "We're cutting through lots of nails here."

After everyone helped rip off the shingles and sheathing boards to expose the framing, Tom and Dick sliced off the rafters at deck level with circular and reciprocating saws, and carried four 40-pound 2x10 LVL beams up several long flights of stairs. The beams, which bridge the roof opening at both ends and in the middle, support the I-joists holding up the deck sheathing. Tom then framed out the 3-foot-by-6-foot



RIGHT Dan Beliveau will finish off the roof deck with a steel railing meant for both decoration and safety. The small space, with full exposure, will be more suited for admiring the views than for growing potted plants.

BELOW The roof's aluminum-frame access hatch has a double plexiglass bubble that lets light into the small spiral stair beneath. Spring-loaded hydraulic lifts on each side make opening and closing the large door a breeze.



opening for the skylight, the horizontal doorway to the Beliveaus' little piece of rooftop heaven. "Shearling's next," said Dick. This time, they used a pulley to hoist the 50-plus-pound panels of 1/2-inch tongue-and-groove plywood up to the roof. Once the sheets were glued and nailed to the joists, the way was

clear for roofing contractor Mark Mulloy and his crew to install the deck's access hatch and leak-proof the platform.

For this job, they chose EPDM (ethylene propylene diene monomer) roofing, a waterproof, 60-mil-thick synthetic rubber that has been rolled onto flat roofs for a quarter of a century. "The stuff feels like an inner tube," says Mulloy. "In fact, it used to be made by tire companies." EPDM isn't cheap—the installed price runs between \$350 and \$800 a square (10 feet by 10 feet), compared to \$300 for hot-mopped tar-and-gravel. And it isn't forgiving of sloppy workmanship. But it goes on quick and clean and has a great reputation for durability. "This roof should easily last 30 years," he says.

In September, Mulloy prepared the deck for EPDM by screwing a cushion of 1/2-inch-thick fiberglass-faced gypsum roof board to the plywood. Meanwhile, his crew fit copper flashing around the perimeter of the deck. Next, they unrolled the 10-foot-wide EPDM, cut it to length, and overlapped each edge by 7 inches. Two strips of

special double-stick seam tape separated by a bead of pliable roofing mastic secured the lapped seams. "It's never the roofing itself that leaks," Mulloy says. "Ninety-nine percent of the time, it's going to happen at the seams and edges, so that's where we put most of our attention." With the membrane in place and the hatch flashed, the roof was watertight and Tom could turn his attention elsewhere as he waited for the decking to be delivered from Japan.

It has arrived, and today, on this November afternoon, as Roger lays the pavers below, Tom goes up on the roof to prepare a base for the planks. He pries open a bucket of gooey yellow contact cement and spreads it with a paint roller onto one face of some 2x4 pressure-treated sleepers and onto 4-inch-wide strips of EPDM. When the glue is dry to the touch, he lays the EPDM on the lumber; the adhesion is immediate. The sleepers lie on the roof—rubber to rubber and 16 inches on center—with the decking at right angles on top. "That way there won't be any penetrations into the roofing itself," says Tom.

At first glance, the deep mahogany red decking appears to be some exotic tropical hardwood. But it's actually a hollow composite made from recycled plastic and wood flour and embossed with a grain pattern. See "Trick of the Deck," this page. "The manufacturer says it's maintenance-free," says Tom. "That's got to be a lot better than lugging a can of sealer up here every year." Rather than nailing these planks to the sleepers, he fastens them with a fast-curing marine adhesive. (See "Hands-On Deck," November 1999, p. 88.) A few stainless steel nails hold the boards in place while the adhesive cures.

Just one detail awaits: the 3/4-foot-high railing that's still on order. "Great view," Tom says, admiring the skyline and the rivers he can see on all sides. "Now, let it rain—or snow—as the case may be." ■

TRICK OF THE DECK

"This stuff feels the same, looks the same, and cuts the same as wood," says Tom Silva, as he examines the material for decking the Charlestown rooftop. But looks, in this case, are deceiving. The planks are made of EinWood, a rot- and pest-proof composite of wood flour (pulverized sawdust) and recycled polypropylene. The brainchild of Sadao Nishibori, an environmentally conscious Japanese engineer, these extruded boards convincingly mimic mahogany in color, texture, and solidity underfoot. Installation is no different than for real lumber, except for one detail: Caps (made of the same material) have to be epoxied over the ends to hide the fact that hollow EinWood isn't what it looks to be. —Jordan Reed



ILLUSTRATION: GORDON BOWDER

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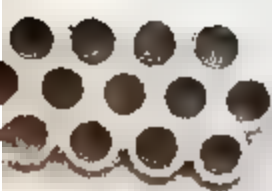
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Revival of the Fittest

This Old House travels south to tackle the renovation of a 1925 Mediterranean-style house in West Palm Beach, Florida



Built in 1925 in a former pineapple field, Rob Thompson's home has been virtually untouched since then. One exception: Stucco now seals the ventilation holes (the Olympic-logo-like clusters on the walls) that were designed to release heat from the attic crawl space. The flip book by

BY JEN CASANOVA
PHOTOGRAPHY BY DAVID ALBANESE

Months before West Palm Beach, Florida, gained national notoriety for butterfly ballots and pregnant chads, the town had captured the attention of *This Old House*'s Russell Morash and Bruce Irving. The producers were looking for a warm-weather location for the show's winter project, and as they asked around about interesting possibilities, they "heard a lot of buzz about a town on the east coast of Florida going through dynamic and positive change," says Bruce.

Not to be confused with its well-heeled neighbor to the east—where, as Bruce says, "the mansions start at \$15 million, and you can get run over by a Bentley at any moment"—West Palm is a city of modest homes and predominantly Spanish-influenced architecture that has suddenly become a renovation mecca. "Just a decade ago, many homes were neglected, and some abandoned buildings had become crack houses," says Bruce. As the structures are getting spruced up, 13 neighborhoods have created historic districts to protect their distinctive 1920s Florida flavor. Bruce was eager to share the rejuvenation of West Palm with a wide audience, but needed the right project to document.

Meanwhile, interior decorator Rob Thompson was house hunting in the West Palm neighborhood of Flamingo Park. A 1925 Mediterranean Revival building caught his eye. It was small at only 1,250 square feet, with two bedrooms and one and a half baths, but that was enough for this divorced father of two adult children. And the home had compelling features, such as an unusual diagonal entryway and big arched windows. He noticed something else, too: a For Sale sign that kept being removed only to reappear like a stubborn weed. In fact, three separate deals had fallen through by the time Rob decided to make a bid on the place. "It seemed like it was meant to be," he says. And the fates weren't finished with him once his offer was accepted; the very same day that happened, he noticed

an interesting article in the *Palm Beach Post* about *T.O.H.*'s search for a local renovation project.

Intrigued by the prospect of working with the show's expert craftsmen, Rob wrote in, and when Bruce paid a visit, the project stood out among the dozen being considered. The plans offered the complete package: an addition, high-end kitchen and bathroom remodels, the renovation of a garage in back, and major landscaping work. "He's creating a jewel of a compound in a wonderful historic district," says Bruce. The show brass admired the house's potential, Rob's low-key personality, and the team he had assembled: an architect, Roger Janssen, and contractors Harley Edgell and John Kern. Plus, the relatively small size of the project was ideal for the quick eight-week winter television season.

Rob's \$200,000 renovation will include a 200-square-foot bump-out for a new bathroom and an expanded eat-in kitchen. If the Flamingo Park Historic District allows it, he'll replace the wooden dou-

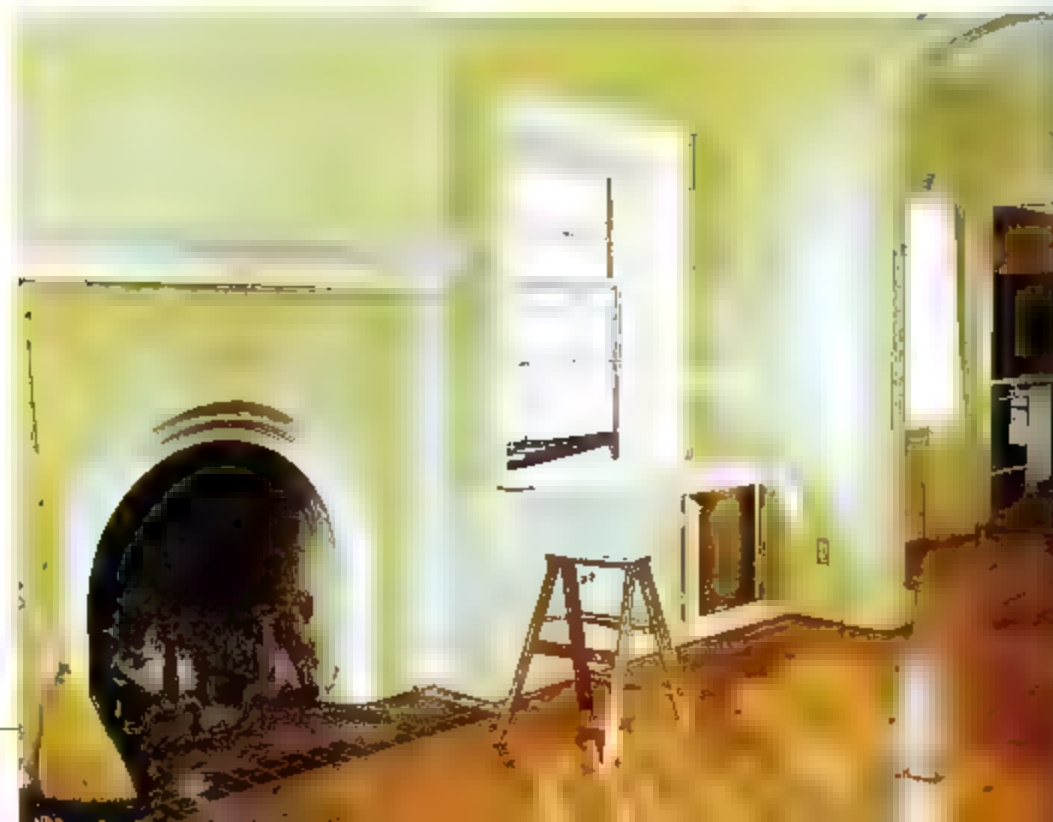


ble-hung windows—only a few are original and many are severely rotted—with identical-looking aluminum units built to withstand the assault of a hurricane.

The rest of the work will take place in the two-story, 1,100-square-foot outbuilding—a stucco garage with a rental apartment upstairs. It needs a major structural overhaul, and the apartment will become a guest suite. "That's where my kids will stay when they come to visit," Rob says. The first floor will be outfitted with swing-out carriage-style doors, a small study, and a bathroom with easy access from the new 12-by-40-foot lap pool planned for the terraced backyard.

Pools go hand-in-hand with Florida homes—unfortunately, so do termites, especially in wood-frame houses like Rob's. As Edgell and Kern open up walls, they may encounter sills or studs that have been hollowed out by these light-shunning pests. "Every old house in Florida seems to have termites, but maybe we'll get lucky," says Rob.

Whatever lies ahead, for now this experienced renovator is enjoying his newfound celebrity. Since his photo appeared in the paper with the *T.O.H.* crew, Rob is getting recognized around town. "I'm a star in the neighborhood," he says. "After all the election rancor, people are really happy for some good publicity for West Palm." ■



TOP: The original garage behind Rob Thompson's house is typical of those built in Florida's land-boom era, when the car culture began in earnest. It needs a major structural upgrade, renovations to the apartment upstairs, and new swing-out carriage-house doors. LEFT: The sunny living room is destined for only cosmetic surgery—the bookcases will be removed and a deeper crown molding installed.



THE LAWN RANGER

This Old House's venerable producer transforms his sandy yard into a lush greensward

BY CAT JORDAN

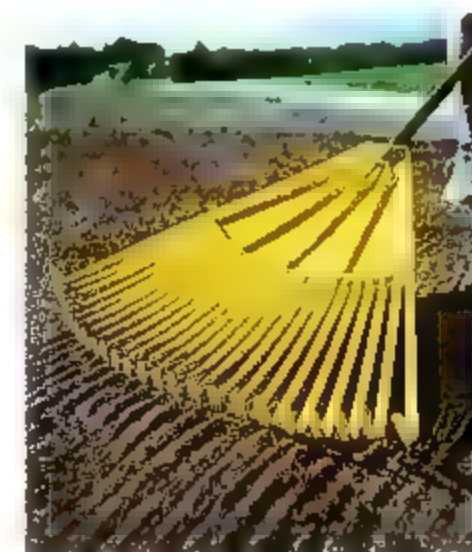
PHOTOGRAPHS BY DAVID LEMACK

Russell Morash likes to watch the grass grow. "It's restful and serene, like looking out to sea," he says from the porch of his Nantucket home. The spry 64-year-old executive producer of *This Old House* surveys the acre of turf he planted around his shingled cottage at the end of last summer and talks about lawns, their soothing effects on the psyche, their history, their practical uses, and, especially, how to grow them.

"I'll bet you didn't know that grass is the world's largest crop," Russ says. "And for some, it's a cash cow." The golfer Greg Norman, for instance, has a thriving turf business in Florida that supplies grass for Super Bowl playing fields as well as for fairways and greens. Which brings Russ to the origin of lawns. In Scotland, where, not coincidentally, the game of golf was invented. "The cool climate and abundant moisture of Scotland, Ireland, and England are most suited for grass," Russ says. Hot, dry countries such as Italy can't grow a really good lawn. "There's no water, the clay soil is inhospitable to grass, and the Italians don't understand lawns. They're primarily interested in growing things to eat. By contrast, the British consider lawns to be nature's artwork. If Italians want to look at art they go to a cathedral or museum." When it came to the grounds surrounding his newly rebuilt house, Russ didn't think twice—he knew he had to go for grass.

Russ came fairly late to his appreciation of the well-grown lawn. "When I was a kid, I cut my share of grass," he says, "but that was it." As a theater arts major at Boston University in the mid-1950s, he thought he'd become an actor or director. He took his first job as a trainee with WGBH, a public television station in Boston. There, at the age of 27, he created a cooking show hosted by a big, honking-voiced Cantonian named Jut-a-Child. "I didn't realize she'd be such a hit. I only knew she was a marvelous character with boundless energy," he says. After that phenomenal success, Russ had found his calling, and he's been producing for WGBH ever since.

In 1974, he created *The Victory Garden* and began working side-by-side with master gardeners like Roger Swain and the late Jim Crockett. "If it grows, they know it—from grass to cactus to giant sequoias." Along the way, Russ learned to love gardens and lawns. So much so that in his next show, *This Old House*, he incorporated landscaping work



OPPOSITE: Russ prefers an easy-to-use self-propelled mower that allows him to walk the grass looking for problem spots that need attention. TOP: Using a spreader to sow the seed. ABOVE: A plastic garden rake turned upside down makes easy work of covering seed with a bit of earth to prevent it from blowing away or drying out.



SPRING SEEDING

While the best time to seed a lawn may be fall, when the weather is cool and grass will germinate but weeds won't, most people seed in the spring. "You plant grass when you have to," says *This Old House* landscape contractor Roger Cook. "If the lawn is in bad shape, or the house has recently been renovated and there's nothing but soil, you plant." Short of laying sod—a nearly foolproof option—planting a lawn in spring requires extra vigilance to get lush grass without lots of weeds:

1. Consider hiring a contractor to hydroseed. He will spray seed combined with cellulose mulch and nutrients in a mix that's been optimized for speedy germination. With luck, the grass will beat the weeds.
2. However you seed, keep the bed damp at all times until germination. If the seeds dry out in the warm weather it could be fatal to the turf.
3. Crabgrass and other weeds are likely to flourish in the heat of early summer, especially in a well-watered, nutrient-rich bed without a mature lawn to block the sun. If this bothers you, hand weed the unwanted plants.
4. If weeds win out, pull them in fall and fill the gaps with a lawn-patch product, a hand-applied hydroseed-like mixture that gives seed a good start.



by contractors such as Roger Cook into each renovation project.

Through his many seasons working with these experts, Russ has seen lawns fall out of favor. "They've become politically incorrect because of the excessive chemical fertilizers and pesticides that are often used on them. In Nantucket especially, these chemicals can drain out to sea and affect the ecosystems." But when planted and tended correctly, a lawn is an attractive asset that can be maintained with a reasonable diet of nutrients, Russ says.

LAST SUMMER, AS THE FINISHING TOUCHES ON RUSS'S home were completed, the construction site looked like a moonscape of soil—ready for speedy transformation to lawn. Russ saw grass as historically consistent with human settlement on Nantucket. Before the island was inhabited, it had pockets of dense oak and pine forest surrounded by sea grass, rock, and sand. When the Indians came, they cleared land for agriculture and to provide

wood for shelter and warmth. Tall grasses took over the landscape. Later, the white settlers arrived and introduced nature's lawn mowers—flocks of sheep, whose constant grazing created a sea of short, rolling grassland.

When sheepherding ceased in the late 19th century, "a canopy of scrub brush began to rise," Russ says. That shelter enabled the proliferation of mice and white-tailed deer, which host ticks that can carry Lyme disease; one plus to a lawn is that it keeps ticks away from the parts of the yard walked by the family, Russ points out. His wife, Marian, contracted Lyme disease in 1980 when their former Nantucket home was surrounded by a tangle of brush. "It was so high in scrub, nettles, poison ivy, and vines, you couldn't walk in it," Russ says. "Slowly, I beat it back. If you mow scrub long enough and get it short enough, grass will grow. By the time my youngest daughter got married eight years ago, the ticks had diminished enough that we could safely hold the wedding in a tent outside."

FOR HIS NEW LAWN, RUSS FOLLOWED THE step-by-step advice of Roger Cook. That began with three simple words. "Timing is everything." The season when you seed has a lot to do with whether a lawn can thrive without competing with weeds; in New England, the ideal window of opportunity is from August 15 to October 1. "Of course, everyone in New England wants to garden in June," Russ says. "That's when people are anxious to get outside in the sun after their long, cold winters. By August they want to relax." But the warmer early summer weather allows dandelions, crabgrass, and other weeds to germinate with the grass (see "Spring Seeding," page 90). Most weed seeds don't sprout, however, from August to October and beyond. So waiting until early fall to plant makes it easier to grow a lawn that's free of crabgrass, clover, and dandelions, a definite plus for homeowners like Russ who would rather not rely on herbicides.

A new lawn needs three things to thrive: plenty of sun, moisture, and good, nutrient-rich soil—Nantucket's two-out-of-three ain't bad, but the sandy soil has to be fortified with organic matter. Russ added a 3-inch-thick layer of peat moss because sand drains water and nutrients like a sieve and peat moss absorbs them like a sponge. Then he turned the earth with a rototiller, raked the surface into a nice sweeping contour, and was ready to plant.

On August 20, Russ woke up early and headed outside. He began by laying down lime, "to sweeten the slightly acid soil,"



"I gave the seed just enough water to keep it moist," says Russ of his three-times-a-day routine (OPPOSITE). "It must never dry out until it has germinated." By five weeks after seeding, Russ was mowing regularly (ABOVE) to stimulate thicker growth.

using a spreader. (Soil samples tested at a mail-in laboratory had shown that the soil was too acid—an ideal level is a neutral pH of 7.0.) For the seeding, he began by using the spreader, but eventually just cast handfuls across the soil like a farmer feeding chickens—an easier technique.

Russ chose a mix of seed recommended by the guys at his local garden shop, because they know what grows best on Nantucket. "It's called 'Cape Cod Mix,'" explains Roger Cook. "It's nearly equal parts Kentucky blue, rye, and creeping red fescue." Combining varieties increases the yield because each type likes slightly different conditions, so there's a stronger likelihood that something will thrive under the conditions that unpredictable Mother Nature provides.

Next, Russ went back to the spreader to lay fertilizer over the seed. Roger recommended a product that was 12 parts nitrogen, 25 parts phosphorus, and 12 parts potash. It's the middle number that matters most for a young lawn, Roger says. "Phosphorus pushes the roots." Russ then performed what would be a three-times-a-day routine until germination. He watered. If a new lawn isn't kept wet, the strong island winds and sun will dry it out and kill it.

If all of this sounds like a lot of work, says Roger Cook, "consider that the sod sold at garden centers has been grown for 14 to 18 months in perfect conditions. So people should expect growing a lawn from seed to take at least as long."

Within 10 days, the lawn was up, and after 15 days, Russ began to cut it to keep it at his desired length of 3 inches. "Grass likes to be cut," he says. "Oh, I don't know if it likes it, but it grows better." Now that his new lawn is a soothing green carpet, Russ knows it won't stay that way for long. "I expect rabbits, crows, and grandchildren to use it. But I don't worry too much—the lawn is a living carpet. It's there to be enjoyed." ■

MAXIMUM LAWN

Want your grass to be plush, green, and weed-free? Roger Cook offers four steps for making lawns look their best:

1. Set mower blades 3 inches high, because tall grass grows deep roots and shades out weeds; keep blades sharp so the grass is cut rather than ripped. Mow frequently enough (averaging once a week, depending on the season) that you remove less than a third of the lawn's height and don't shock the plants. Mulching mowers (which require that grass is dry) leave chopped clippings on the lawn to turn into compost, feeding the lawn naturally.

2. Water (if it doesn't rain) at least 1 inch per week or the grass will turn brown. (This means only that it has gone dormant; it will quickly green up again when it gets the moisture it needs.) Watering early in the day means less evaporation from hot sun and less disease from overnight dampness on the grass.

3. Feed the lawn twice in the spring and twice in the fall with slow-release fertilizer. These products have three numbers that represent nitrogen, phosphorous, and potash, respectively; Roger recommends a 29-3-4 formula for an existing lawn.

4. In the fall, rent a power core aerator, a machine that makes holes in the sod to break up compact soil and thatch (accumulated clippings and detritus that settle into the grass). "Aerating is the most beneficial thing you can do for a lawn," because it allows air and nutrients to reach the roots and makes it easier for them to spread, says Roger.



6:47 P.M. Lawrenceburg, Kentucky.
Going over stock options.



Not the latest thing. The genuine thing.

pieintheskyhouse



BY ANNIE PROULX

Strong men are tearing the guts out of the mean little kitchen with its buckled beige tiles and big, head-to-ankle windows. Those east-facing windows let in such a cascade of high-altitude light it is necessary to wear Polaroid sunglasses when dining *à la carte* for the soup stock. Some people might think a total kitchen renovation a triumph of sorts, but for me it is an admission of defeat. The kitchen is only a single thorn in a thousand-pound cholla house. But living in a house that's awful refines one's ideas of a better place.

Although it is a handsome log building of more than 3,000 square feet, with fine views and many amenities, including a guest suite, three bathrooms, a full basement and an attic, it is the wrong house for me. When I bought it five years ago, I was somewhat pressed, in the middle of writing the novel *Accordion Crimes*. Buy in haste, repent at leisure.

When I first saw this house, in a small Wyoming town at 8,200 feet and abutting the Snowy Range of the Medicine Bows, the view of Sheep Mountain to the east was stunning enough that I paid little attention to defects. The location was terrific: only 30 miles from a university library, which I need for research, two and a half hours from Denver International Airport. I travel a great deal, and 10 minutes from superb skiing and biking in the Medicine Bow National Forest.

There were things I disliked—wall-to-wall white carpeting, dusty log walls, yards of louvered shutter doors, excessive wood, with tongue-and-groove knotty pine ceiling between exposed edgepole ratters and parings (horizontal supports), fussy-figured wallpaper

PHOTOGRAPHS BY ALLEN KENNEDY



Home overblown: Though she likes the Wyoming town where she lives, Proulx finds her large log house energy-inefficient and full of building missteps.

the few drywall sections, a dark north entryway, and enough floor-to-ceiling glass to fit out a bank.

The few ill-proportioned "built-in" bookshelves on the second-floor balcony/hall could never hold my thousands of books, and I looked enviously at the wasted space over the living room and thought how useful the house might have been with a full upper floor instead of the show-off cathedral ceiling.

Before I moved in, those built-ins were unbuilt and shifted to the garage and basement as storage units. They were replaced by new bookshelves covering every inch of wall adjacent to the tiny, cramped office with its sloping walls—the price paid for the wasteful, heat-sucking cathedral ceiling. With the exception of the lofty living room and the unfinished basement, all other rooms were on the pinched side.

The house was heated with three electric storage heaters, two wood-burning stoves, and numerous little electric wall heaters—adding up to uneven and expensive spot heating. Ugly light fixture-fans were supposed to waft the heat upward or downward, depending on trial and error, as the fan instructions gave no clue to the blade position functions. I worried that these devices could not cope with really cold windy weather (70 mph winter gusts are common at this altitude), especially in the living room with its 19-foot-high ceiling and yards of glass.

And so it proved. In winter the living room and kitchen temperature rarely crawls above 60 degrees unless the sun is blazing

in through those big windows. The minute the sun sinks behind the ridge or a cloud obscures the sun, the temp dives. Cold air flows in around every one of the big windows and through the scores of pinholes in the log chinking compound. Flies, too, can enter through these tiny holes and they do, along with moths and mites.

Before I moved in I had the overdone knotty pine ceiling drywalled and painted, which set off the dramatic big rafter logs and evened the light levels in the living room. The white carpet was torn out and replaced with pine flooring. There was neither time nor money enough to do anything about the beige kitchen. I began to make mental notes on the kind of house that would work for me.

One absolutely basic ground rule, when building, should be to fit out your house with the most muscular tech systems you can afford: heating system, water supply and plumbing, electrical carrying load, and good-quality appliances. In this three-year-old house, within the first year after I bought it, the well pump burnt out. The dishwasher failed irreparably. The washer and dryer died. The garbage disposal had to be replaced.

In a major design blunder, the driveway, garage, and front door had all been situated on the north wall of the house, where the sun never shines from September to April. In that first winter huge snowdrifts built up on the open and unroofed entry porch, and glaciers of ice formed on the smooth-finish cement pad to the garage. Cold air swept in from the porch to the dark entry hall.

The next year I had that front porch enclosed, cutting out the

snowdrift problem and reducing cold air seepage into the house, and providing a safe place for package deliveries. The next year the smooth-finish concrete pad in front of the garage was torn up and replaced with an underground electric heat system, the new concrete pad rough-finished, to prevent ice from clinging like a magnet) and slightly sloped to drain.

Despite these remedies and improvements, the kitchen remained as it was, beige (difficult to keep clean) and awkward, for I thought that selling the house and buying a piece of land nearby to build something better suited to my needs was the best solution. From the day I moved, I looked for this mythical property and constructed

it in my mind. Unfortunately, land in this town, which I like, simply is not available. This past summer I gave up searching and decided it would be sensible just to improve the existing house. Perhaps, I thought, there is no realized dream house for anyone.

I would want my dream house to be as unobtrusive as possible, to melt into the landscape.

dream houses in my mind. Unfortunately, land in this town, which I like, simply is not available. This past summer I gave up searching and decided it would be sensible just to improve the existing house. Perhaps, I thought, there is no realized dream house for anyone.

But if I found the right property (and could afford it), my workable house would be very different. Basically, what I need is a well-lit warehouse with bookshelves and a few of life's amenities. I would stay in Wyoming, in the mountains I love.

What follows is necessarily sketchy, for a real house cannot be designed or planned except to fit a particular site. The landscape, the place, the site determine the shape and function of a house. Because place is such a major part of my writing and life, it is essential that this house breathe in and out of the landscape, a house not vainglorious and proud, but down on its knees and subject to the mountain's shadow that unrolls darkness every evening.

I would absolutely work with an architect. Many of the houses in this part of Wyoming, including the one I live in at the moment, are designed by the builder and the homeowner without benefit of a trained architect. While this flatters the western claim to independent thinking and character, it results in some quirky problem houses.

I would want my dream house to be as unobtrusive as possible, to melt into the landscape. The current vogue in the West for massive log houses on skyline ridges is vulgar and obtrusive—personal statements, perhaps, of the common American belief that it is man's destiny to dominate nature. Over the 20th century the ranch house that is the model for contemporary western homes changed from a long, narrow one-story log dwelling with a plank porch to a romanticized lodgepole mansion with balconies and arched windows, the fictionalized "ranchito deluxe," as architectural historian Alan Hess calls it in his book of the same name. In this inflated style the work tools of ranchers and cowboys are transformed into decorative elements that glorify our national mythology of a Golden West. A thousand paintings and western films have reinforced the romanticized clutter-style of Indian rugs (much red color), skulls and antlered heads, cowhide sofas, wagon-wheels, chandeliers, cactus and bronco art, antique spurs.

Although the log house is a regional style well suited to moun-

tain life both for wind resistance and because, where I am, lodgepole logs are an indigenous and beautiful material, I would only want to live in one again if most of the interior was drywalled, or the house built Quebec style, pièce-sur-pièce, with squared logs. The uneven interior log wall is a bear if you wish to hang art, a cruel dust collector, and makes dark rooms. Because I spend my life in a shifting welter of papers, books, letters, maps, and schedule sheets, I long for a clean minimalist look. My imaginary house would have as its core one very large room lined with bookshelves, with three or four worktables strategically placed. In this house there would be no "living room" or "dining room."

It is not possible to arbitrarily assign a size to an imagined house until the site is known. But in this imaginary house I would try to achieve the serenity of the Langston Hughes Library in Canton, Tennessee, designed by Maya Lin, and the practicality of Larry McMurry's Building Number 4 in his Booked Up bookstore complex in Archer City, Texas. The Hughes Library is the deeply beautiful interior of a rebuilt 1860s barn with much natural light, sky lights, and a north picture window, sleek hardwood surfaces; roomy maple bookshelves; and large worktables. The muted colors and natural light make an almost perfect place for research and study. Building Number 4 is a large, plain room furnished with well-lit, long white bookshelves and one or two big tables. In my imaginary house the light would come from above, sky lights and high north windows, to prevent the fading of book spines and to give an even spread of cool light.

Because I deal with a flood of incoming and outgoing mail and

because my writing work is a small corporate business, the big room needs an alcove to hold office machines and filing cabinets, a mail-sorting and package-wrapping desk, and a lighted, walk-in storage closet for office supplies.

At one end of the big room would be the kitchen, not a separate room, but part of the library/workroom, full of strong color, and with sofas and wine racks and tables contiguous to the cooking counters and tables. There would be ample space for my cookbooks and the big dining table built from old bridge timbers. Company always ends up in the kitchen, so why not plan for that pleasure from the beginning? I enjoy serious cooking and need room for chopping and braising, for crocks and platters. A south door would open onto a small garden or cold frame where chives and herbs and leaf lettuces grow. And why not a raised hearth in this kitchen, for roasting peppers and toasting crumpets?

A kitchen also needs a north door that opens into a big pantry with floor-to-ceiling shelves, a freezer, a second refrigerator, a wine rack. Here is the extra glassware, the giant coffee-maker, cases of beer, oversize platters, cheeses, such little-used items as cocktail shakers, bamboo skewers, the mandoline slicer.

I would have a separate but modest bedroom with a smooth ceiling and walls (no hulking beams), and a tatami-mat meditation alcove looking onto the landscape (no furniture at all save for a single low



Basically, what I need is a well-lighted warehouse with bookshelves and a few of life's amenities.

An artist's interpretation of Proulx's vision: a large central room with plenty of space for books and worktables, and an open kitchen at one end.

table) There would be a well-lit walk-in closet with superb ventilation and a stupendous number of shelves and drawers.

A restful and private guest suite is important, as I have a stream of visitors, my four children and their mates, writer and editor acquaintances, photographers and film people, friends from many compass points, perhaps two bedrooms and a shared living room with its own tall bookshelves, removed from the action-center of the house and with a private door to the garden or open landscape. A tiny kitchenette with coffee-making appliances, some basic crockery, and a little bar would be pleasant and agreeable for guests with midnight or early habits.

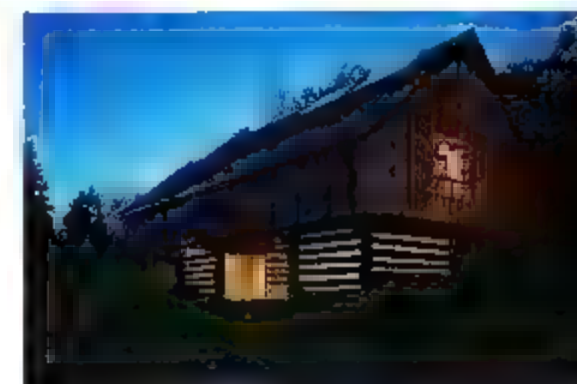
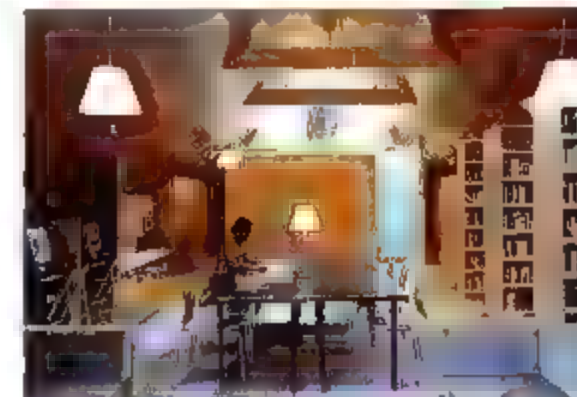
All bathrooms would be commodious and equal (no ego-riddled Master Bath mentality) and perhaps feature a Greek tub, a square, deep tub with a bench in it that allows the water to come up to the sitting bather's neck, very nice after a hard day of skiing the high country, more spatially efficient than a Jacuzzi. A skylight in a bathroom is a real pleasure, especially out here where cloud formations are remarkable.

There are necessary adjunct rooms in this dream house. I can see an entire room for sports equipment for family and visitors (a corner in the garage will not do)—ski boots (downhill, telemark, and cross-country), pants, sweaters, backpacks, hiking boots, vests and jackets, binoculars, cameras, caps and waxes, walking sticks, GPS devices, compasses, scores of maps. The skis and snowshoes can go in the garage (ideally located on the south or east side of the house), which will be deep enough to accommodate trash bins and mouseproof containers for birdseed. It would be wonderful to have a shop building for my son's building projects and bicycle storage and repair, a metal one with a concrete floor for welding and brazing. My children and I are all serious about bicycles and skis.

A big utility room with tile floor and good natural lighting will house hot-water heaters, a water softener, various timers and systems regulators, as well as a cupboard for touch-up paints and brushes. This is the place to keep a set of house plans (it's surprising how often one needs to consult these during renovation projects or outside work involving underground power lines, water pipes, sewage system, and other support ganglia, and file cabinets holding information on everything to do with the house systems and their workings. Here is the home of the washer and dryer, drying racks, a large work table, fold-down ironing board, the central linen cupboard, the sewing machine, mending basket, fabric and button storage, a cedar blanket chest. It is the logical place as well for extra light bulbs, the vacuum cleaner and its various attachments, cleaning aids, and mops. So it is obvious that the planning of a house (once we get past site, shelter, interior climate control, and occupational function) is all about storage.

I'd like to have a solar/wind-turbine energy system since we have year-round brilliant sunshine and constant streaming of the famous Wyoming wind. If you've got it, use it. I'd want to work with "green building" construction people and avoid formaldehyde-impregnated and toxic preservative-treated wood, plastics, and grouts and finish materials that give off noxious vapors.

I doubt this house will ever move off paper, but perhaps the beauty of dream houses is precisely that—they can be changed and enlarged and reshaped endlessly, built anywhere in an imagined terrain. ■



Proulx is inspired by the serenity of Maya Lin's Langston Hughes Library (TOP AND ABOVE), in Clinton, Tennessee.

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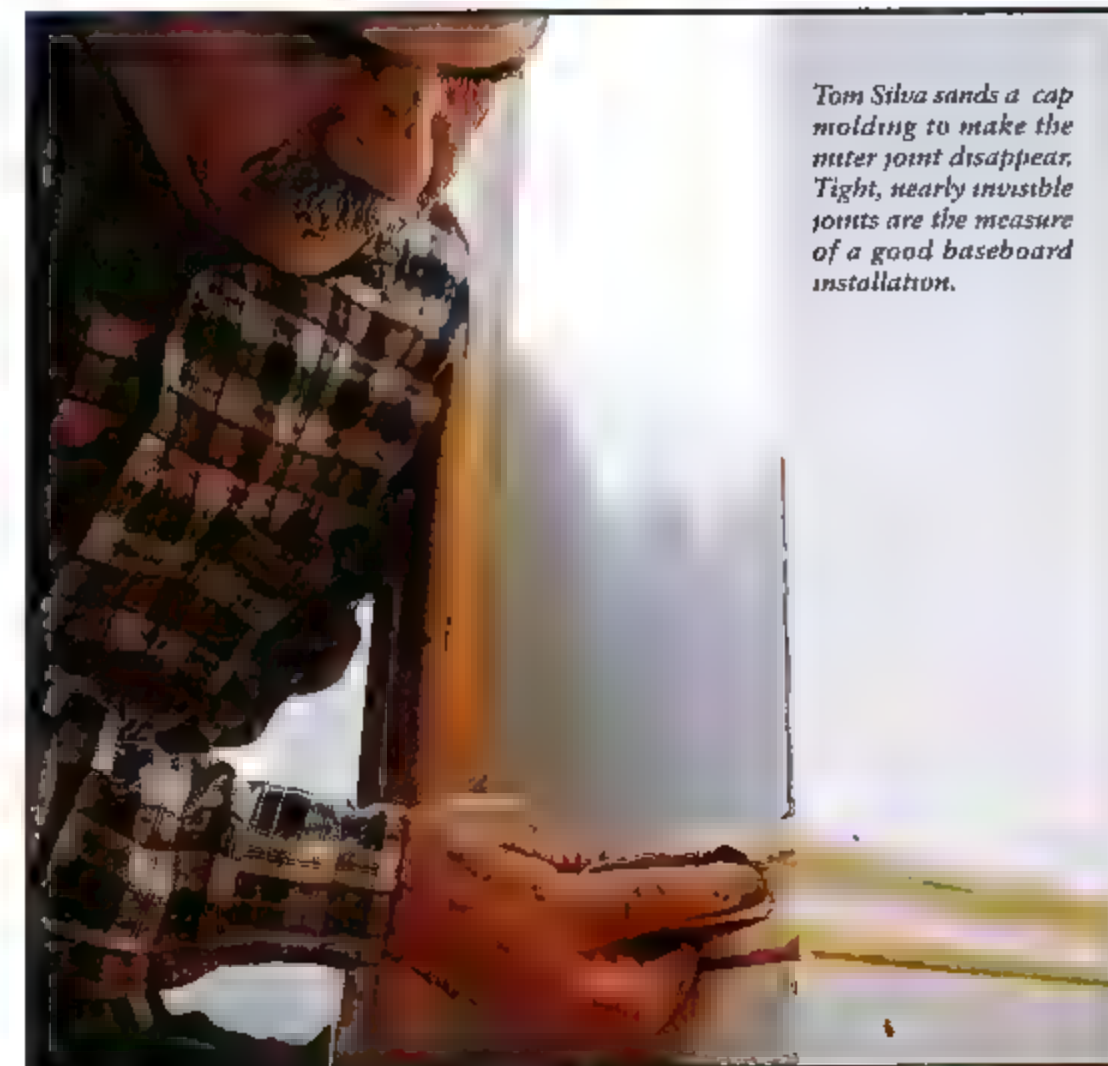
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HOMESOWNER'S STEP-BY-STEP PROJECT SERIES HANDBOOK

RUNNING BASEBOARD



Tom Silva sands a cap molding to make the miter joint disappear. Tight, nearly invisible joints are the measure of a good baseboard installation.

BY CHARLES WARDELL

Despite their lowly position at the juncture between floor and wall, baseboards are one of a house's defining features. If they have stature, a room becomes regal; when they are skimpy, featureless, or non-existent, that same space can look dowdy.

At one time, baseboards were often three-piece affairs consisting of a flat plank (as much as a foot wide in some grand houses), a rounded shoe molding to cover any gaps between the plank and the flooring, and a cap molding milled with decorative, eye- and light-catching profiles. "In old houses, you often see the fanciest baseboard in the front room downstairs," says *This Old House* contractor Tom Silva.

In houses built after World War II, however, fancy gave

way to cheap, and the vital floor-to-wall transition became the domain of thin, visually weightless, one-piece trim. Fortunately, it's easy to replace modern moldings with taller, thicker, two- or three-part baseboards and, by so doing, transport a room to an earlier, more elegant era.

Running baseboard is also a good project for perfecting carpentry skills, Tom says. The joints required are simple butts, miters, and copes, and the same basic installation steps apply to all trimwork. The hardest part may be to pick a favorite baseboard design. "Just make sure you like whatever you choose," Tom advises, "because you'll see it every time you enter the room."

—Shannon Brady Marin

PHOTOGRAPHS BY CRAIG RAINE

DETACH HERE



HOME
SAFETY



OUTDOOR
LIVING



HOME
ORGANIZATION



HOME
BASICS



ANSWERS



PAINT &
DECORATING

Life is an ongoing project.



When starting from scratch with baseboard, Tom Silva prefers the look of a base that's at least 6 inches high and $\frac{1}{2}$ to $\frac{3}{4}$ inches thick, topped with a separate, deeply profiled cap molding. But if he's remodeling a house graced with good-looking baseboard, he tries his best to match the new trim to what's already there.

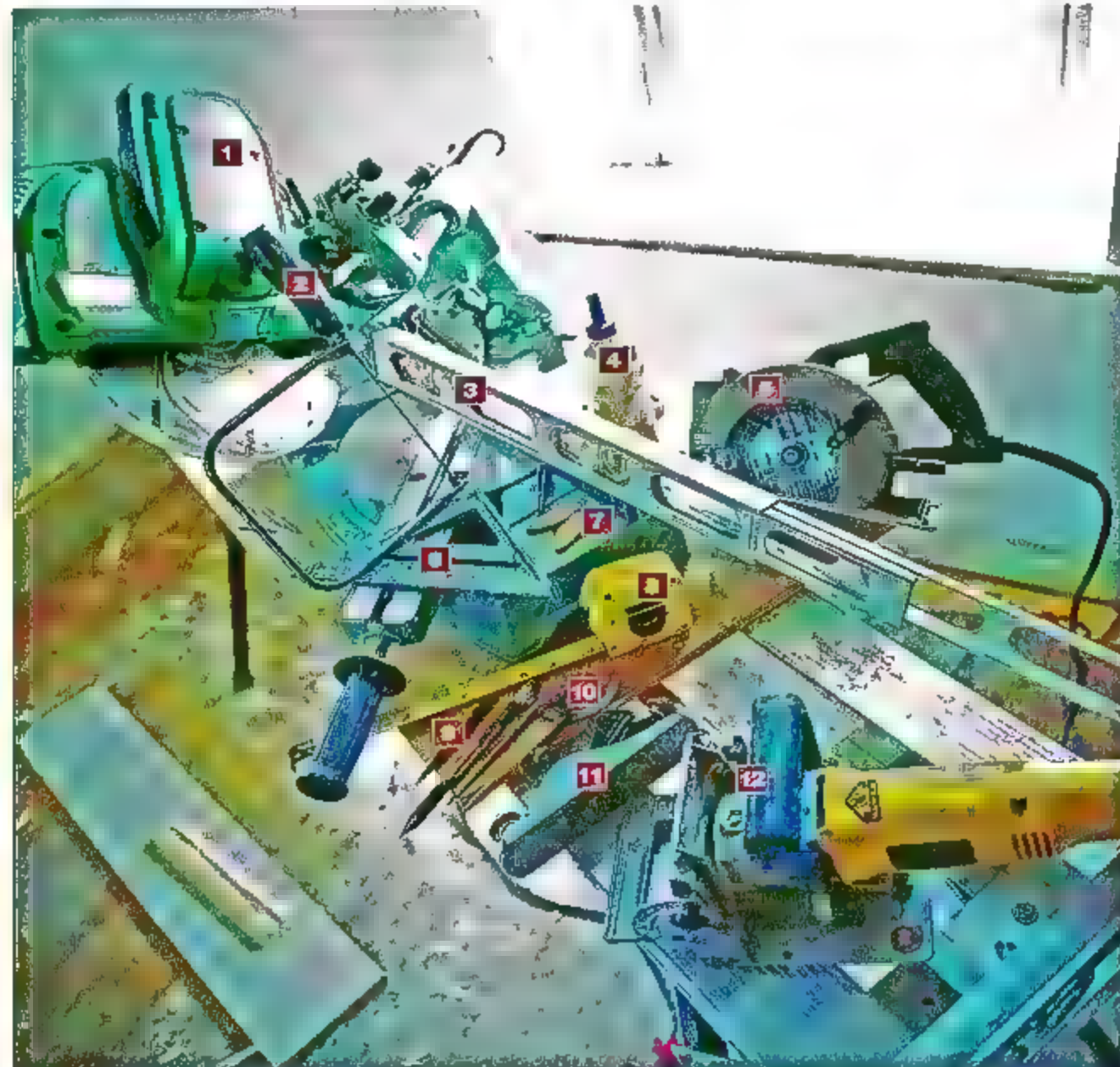
Making a new baseboard the same height as the original isn't difficult; finding a cap molding with the same profile can be, especially on an old house. Sometimes he'll get lucky and locate the profile he needs from the 100 or so that good millwork shops keep in stock. Sometimes he'll combine two or more of those moldings to create a shape that's close enough. But when an exact replica is required—as was the case with this project—he'll have a custom molding milled up.

HOMEOWNER'S HANDBOOK

The easiest, most accurate way to match an existing profile is to give the shop a piece to copy. If that's not possible, use a compass to scribe the profile onto a piece of stiff paper (see "Trim Fits," Upkeep, December 2000, p. 78). The shop then orders a set of custom knives, which can cost anywhere from \$75 to \$400, depending on the complexity of the profile. You also pay for their time and material to run the wood through a cutter. The more molding they cut, the less it will cost per foot. Going the custom route requires planning: Turnaround time for new molding usually runs two to eight weeks, even though a set of knives takes just 48 hours. "That's why I bought a molding cutter for my own shop," Tom says.

"You'd think it was the most inconspicuous detail, but baseboard can make or break a room." —TOM SILVA

Tools & Materials



TOOLS

1. Compound miter saw: for straight and angled crosscuts
2. Coping saw: for cutting copes in the ends of molding
3. 4-foot level: for finding low spots on floor and marking height of baseboard on wall
4. Carpenter's glue: for holding joints together
5. 6-inch circular saw: for ripping back-bevels in trim
6. Speed square: for guiding crosscuts made with a circular saw
7. Biscuits: for holding together baseboard miters
8. 25-foot tape measure
9. Nail set: for driving nail heads into the wood
10. Compass: for scribing
11. Block plane: for tuning the fit of a scribed piece
12. Biscuit joiner: for cutting slots in miter joints

NOT SHOWN

Chalk box: contains string for snapping the horizontal lines that establish baseboard height around the room
Hammer or nail gun: for driving nails

Installation



STEP 1: GET READY

- Measure and cut the baseboards for each wall. Boards that meet outside corners should be a few inches longer than the wall to allow for miter cuts. Number the back of each board and write that same number on the wall where the board will go.
- Find and mark the locations of the studs in the wall; they'll serve as the firm base for nailing the baseboard (ABOVE). On drywall use a stud finder, or tap the wall with a hammer until you hear a dull thud. On thick plaster, drive a finish nail into the wall every inch or so until you hit a stud.
- Studs are usually (but not always) placed 16 inches on-center, so after finding the first one you can usually locate others with a tape measure. On older homes, verify each location with a nail, as above.



STEP 2: ESTABLISH THE BASEBOARD HEIGHT

- Set a 4-foot level on the floor next to the wall to see if the floor is level. If not, move the level across the floor to find its lowest point. At that point, tack a scrap piece of baseboard to the wall with a nail.
- Using the top of this baseboard piece as a benchmark, make horizontal marks every few feet at the same level on the walls around the room (ABOVE). The tools of choice for this task are a builder's level, a laser level, or a water level. Snap a chalk line between the marks around the perimeter of the room to show where the top edge of all the baseboards should land when they're installed.
- Starting at an inside corner, hold the first board against the wall, level it, then tack it in place with a nail or two.
- Set your compass points to span the vertical distance between the chalk line and either of the board's top corners.



STEP 5: FIT THE JOINTS

- To make sure an outside miter joint stays tight, connect the two halves with glue and number 10 biscuits. First, hold the two boards tightly against the outside corner and pencil a mark in two places across the joint. The marks should be equidistant from each other and from the edges of the board. Then remove the boards, set the biscuit joiner perpendicular to the cut face, and adjust the depth of its fence so the cut will be nearer to the back side of the boards.
- Align the tool's centerline with a mark and plunge-cut a slot into the face of the cut (LEFT). Do the same thing at the next mark. Squeeze carpenter's glue into both slots and over the face of each half of the miter cut. Then slip a biscuit into each slot on one board and bring the two boards together (LEFT, INSET).
- Place the boards back on the wall, and drive two 8d finish nails into the wall on each side of the miter. Between these nails, drive a 4d finish nail through the joint and into the end grain of the opposite piece. Tap nail heads below the wood surface with a nail set.
- Where two boards meet on a straight run, make a scarf joint by mitering the ends in opposite directions at a point where there's a stud. Glue and overlap the miters, then nail through the piece that covers the joint (not through the joint itself) and into the stud.
- For inside corners, simply butt the baseboard ends together, then nail them to the wall.

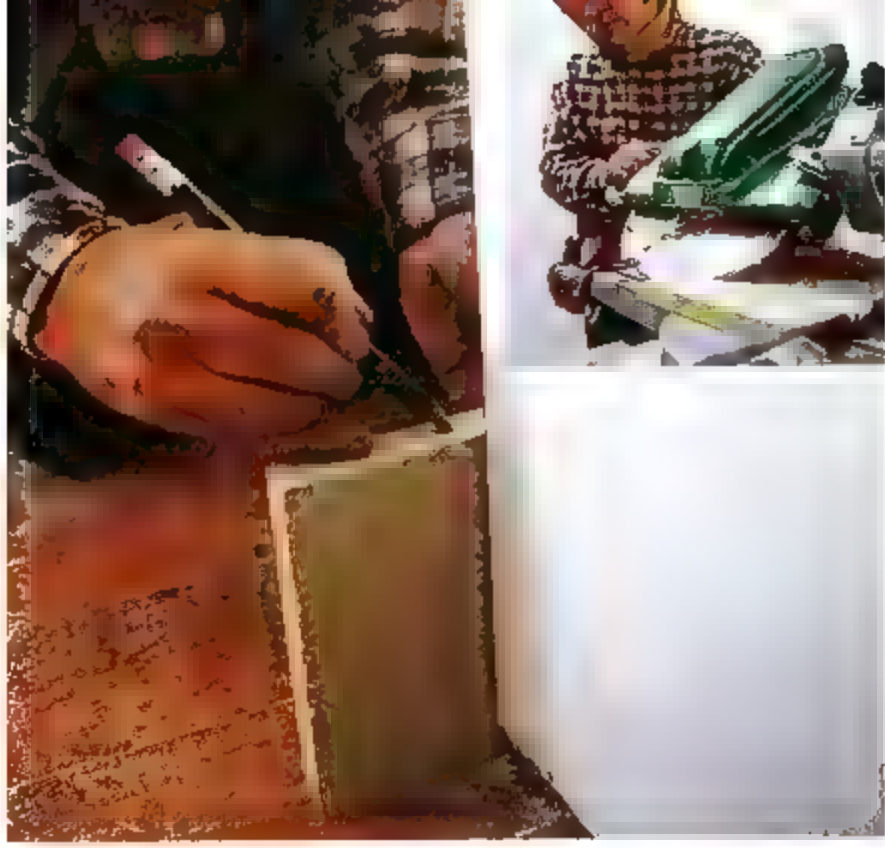
TIP When nailing into end grain, first blunt the tip of the nails with a hammer to avoid splitting the wood.



STEP 3: SCRIBE FOR A TIGHT FIT

- Without changing the spread of the compass's legs, hold the pencil end on the baseboard and the point against the floor. Drag the compass along the floor over the board's length, keeping the points aligned vertically (ABOVE).
- With a circular saw set for a 2- to 5-degree back-bevel, cut alongside the scribe line so the face of the cut will be on the side toward the wall. Trim the beveled edge down to the line with a block plane. When the scribed baseboard is put back on the wall, its top edge should line up with the chalk line snapped in Step 2.
- At each stud location, hammer two 8d finish nails through the board, at a slight downward angle, near its top and bottom edges. To avoid marking the wood, use a nail set to drive the heads just below the wood surface.

TIP: "Beveling the board's bottom edge makes it a lot easier to scribe fit," says Tom Silva.



STEP 4: MITER OUTSIDE CORNERS

- Fit one end of the board snugly against the inside corner (or casing), and at the other end draw a vertical line up the back of the board, using the edge of the outside corner to guide the pencil. Mark the top of the board to show the direction of the miter (ABOVE).
- Remove the marked board and place the one that will make up the miter's other half against the adjacent wall. Mark the same way.
- Lay the compound miter saw over 45 degrees and cut each miter just outside of the line. This way, the joint can be fine-tuned.
- Place both boards back against the wall and examine the joint. If it isn't tight on the side and top, go back to the saw or pick up a block plane and trim the wood until it is.

TIP: "You want to cut next to the line marking the joint," says Tom. "Then there's room to fine-tune and get it tight."

STEP 6: FIT THE CAP MOLDING

- When using a cap molding, place it on the base to see if the back of the molding fits snugly against the wall. Secure it at each stud with an 8d nail driven at a slight downward angle through the thicker parts of the molding (BELOW).
- If there are gaps behind the molding and no stud to nail into, squeeze a bead of construction adhesive on the back of the molding at those spots and nail the molding to the studs, as above. Then nail the molding to the wall between the studs to hold it in place until the adhesive sets.



- For a tight fit on inside corners, cope the joints (see "Cope Aesthetic," FAR RIGHT).
- Join outside corners with miters, marking and cutting as in Step 4. Glue miter joints together; adding biscuits or nails may cause the narrow molding to split.
- Where two caps meet on a wall, make a scarf joint (LEFT, INSET) as described in Step 5.
- Sand all the mitered corners lightly with fine sandpaper to remove any sharp edges. The baseboard trim is now ready to be primed and painted (RIGHT).



COPE AESTHETIC

When two pieces of molding meet at an inside corner, Tom Silva always cuts copes. "It's the best way to make a tight joint," he says, "but it takes patience."

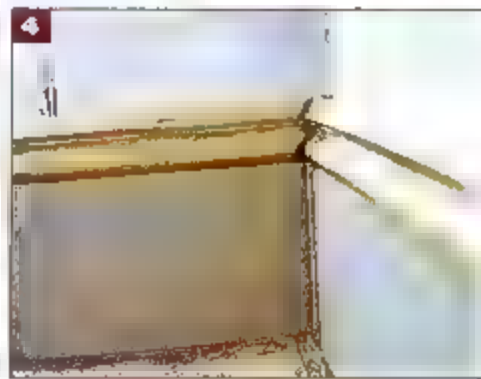
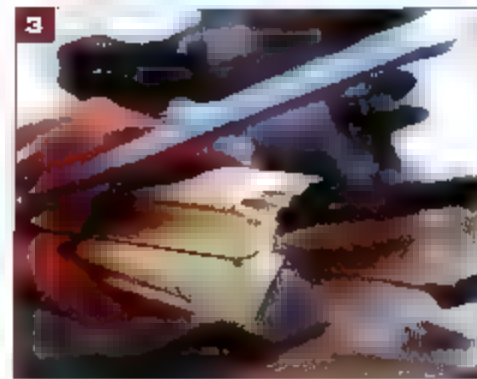
Coping joints is the time-honored carpentry trick in which the end of one molding is cut to fit against the contour of the adjoining piece. Done with care, this joint is a carpenter's best insurance against a gap opening up when the wood shrinks.

Tom cuts the end of the first piece of molding square and butts it tightly into the corner. Then he cuts the adjoining piece on the miter saw as if he were going to make an inside miter (1). With a pencil, he darkens the edge of the profile where it meets the face of the cut (2). Copes are cut with a coping saw, which has a narrow, flexible blade about 6 inches long mounted in a C-shaped steel frame.

Starting at the molding's top edge, Tom saws along the line, with the blade angled to cut away the wood underneath the line. He twists the handle to make the blade follow the molding's profile (3). The trick here is to let the saw do the work. "If you have a sharp blade, it's not hard to stay on the line," he says. "But if you force it, it will be harder to cut."

The reason he angles the blade, or back-cuts, is that it enables him to get a tight fit, particularly in corners that aren't square (4). "If I hold the saw at right angles to the molding, and the corner isn't 90 degrees, the two pieces won't come together tightly," he says.

If you're right-handed, it's easier to cut copes on the molding's right-hand end; if you're left handed, cut on the left-hand end. Tom advises against coping both ends of the same cap molding; there's no margin for error when fine-tuning for a tight fit.



PLANNING AHEAD

- To determine the amount of baseboard material you need, measure each straight section of the wall and round up to the nearest whole-foot dimension divisible by two. (Example: for a 5-foot wall section, buy a 6-foot piece.)
- A week before installation, bring the wood inside to acclimate.
- Start running baseboard against inside corners and work toward outside corners.

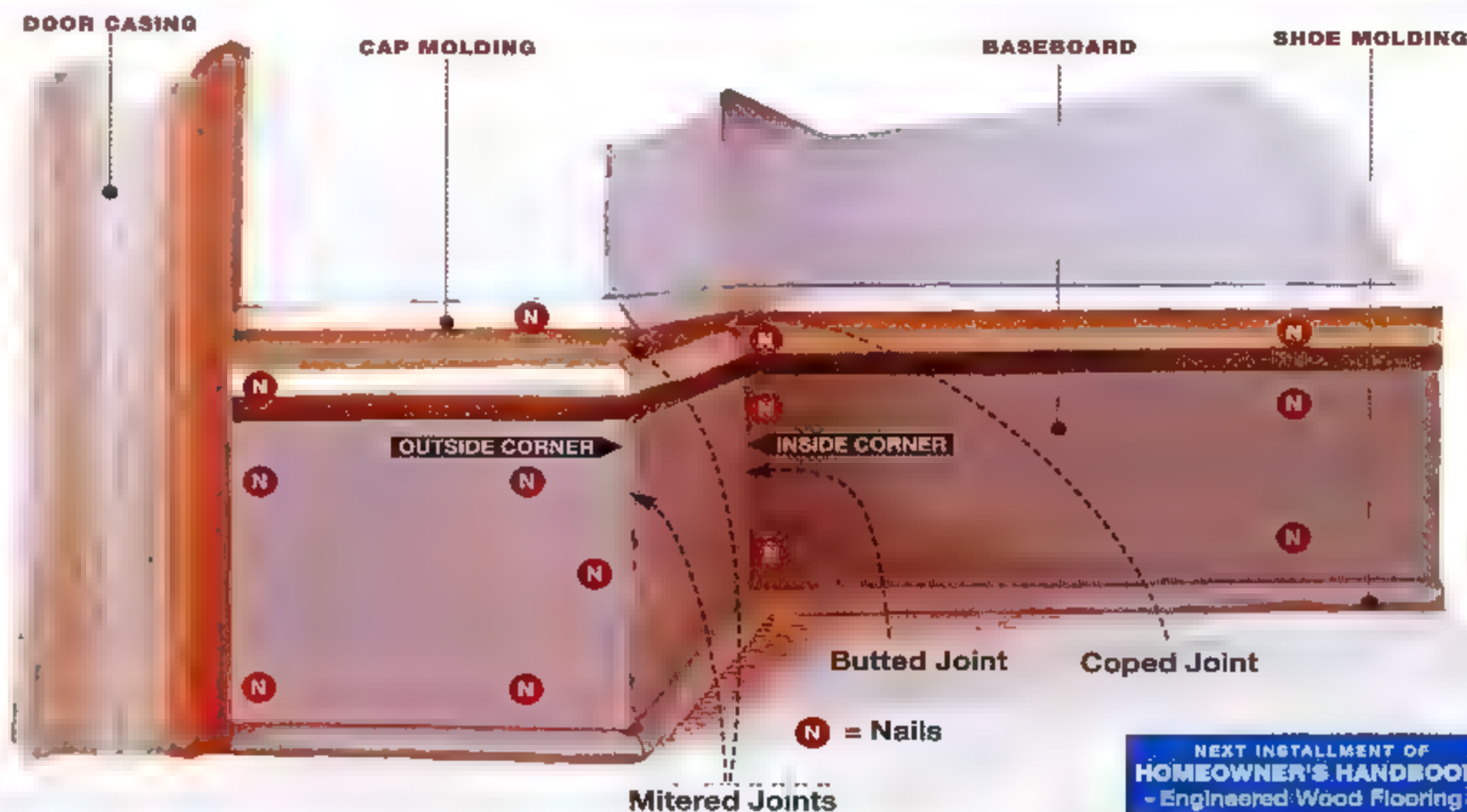


ILLUSTRATION: JW TAYLOR

NEXT INSTALLMENT OF
HOMEOWNER'S HANDBOOK
- Engineered Wood Flooring -

The renovation of a 1930s cottage respects its roots while honoring present-day needs

LITTLE OLD RANCH FROM PASADENA

Deborah Rachlin was worried. She was on her way to visit a house that she'd spent more than a year renovating as owner, designer, and general contractor. True, she'd sold it back in 1997, and moved to a bigger place, but she'd stayed in the same Pasadena, California, neighborhood and still felt protective of the place. The new owners, Brian Hershkowitz and Diana Miller, had called her from time to time for advice on small changes, such as refinishing the floors and adding security screens to the windows. She was curious to see what they had done.

A minute after ringing the doorbell, Rachlin relaxed. She could see that besides furnishing the home with their own pieces and hanging their own paintings, Brian and Diana had altered little else. The two loved the 1,800-square-foot house,

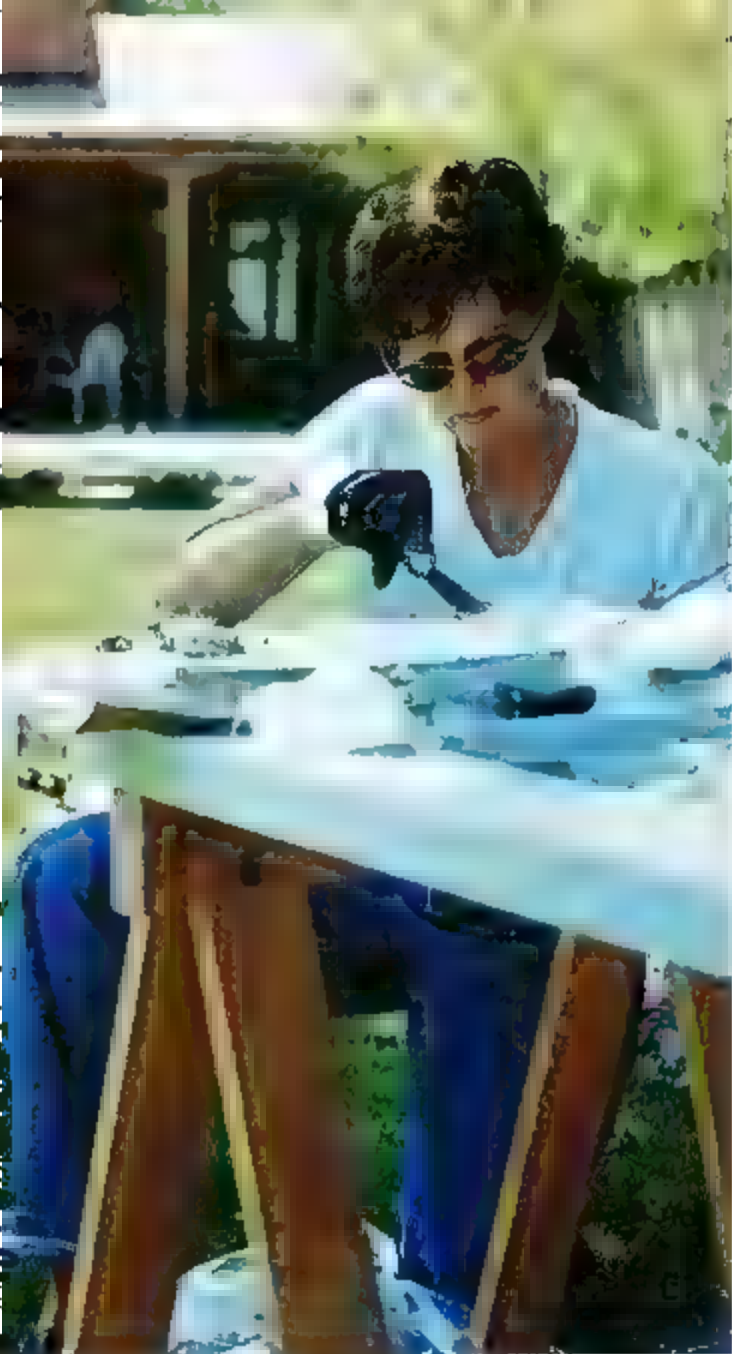
nestled in a well-established neighborhood a few blocks from the Rose Bowl, for the same reasons that Rachlin had: It had a cozy, cottagelike ambience and strong—but not kitschy—1930s interior details, mostly in the Spanish Colonial style. "When we bought the place, it immediately felt like home," Brian explains. Adds Diana: "There really wasn't anything for us to do."

Raised in Washington, D.C., Rachlin had relocated to Los Angeles in the '80s, but longed for a neighborhood with "more of an East Coast feel." In 1994, she found what she wanted in Pasadena, a town of historic houses on tree-lined streets only 15 miles from downtown L.A. A local realtor told her about a small house that had been commissioned by the original—and only—owners in 1934 from



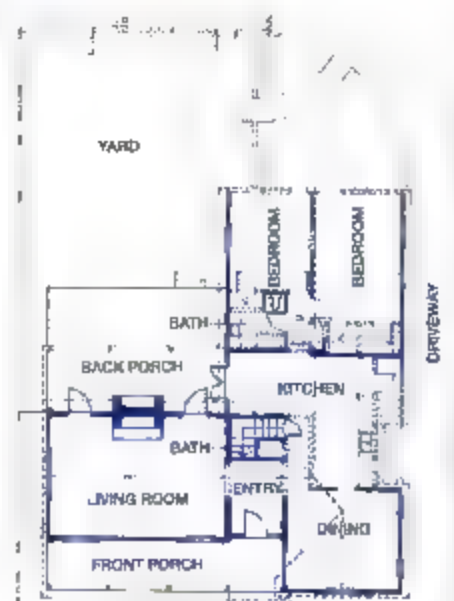
Deborah Rachlin's changes to the facade (BEFORE) were simple but dramatic: she added T-shaped posts, removed shutters, and stained board-and-batten siding. A bold concrete-and-pebble grid showcases trees in front (RIGHT).



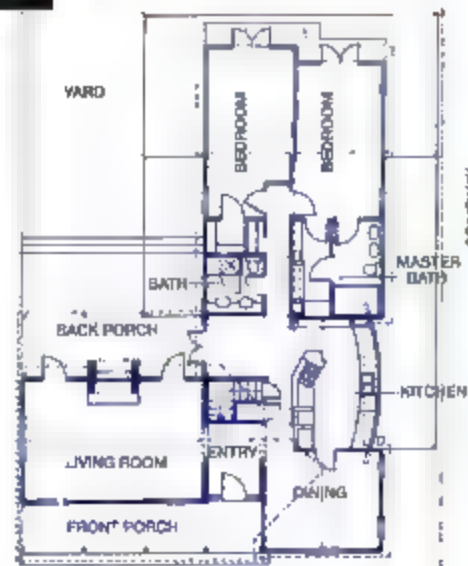


ABOVE: New homeowner Diana Miller embarks on a refinishing project: stripping and repainting one of the house's French doors. In the living room (RIGHT), original details such as the ceiling truss and fireplace surround remain. Plans BELOW show spatial adjustments Rachlin made to the layout, including bedroom extensions and a bathroom addition.

BEFORE



AFTER



one of Pasadena's esteemed architects of that era, Glenn Elwood Smith Rachlin, who creates retail and office interiors with her partner Rodney Ross, rushed to see it. "If a house has had many owners, it's probably been through a lot of changes," explains Rachlin, a veteran of two previous home renovations. "If there's only been one, you have a chance of inheriting the original details and flavor." When the contents of the house were removed prior to the sale, Rachlin could see that nothing in the house had been touched—an impression that was confirmed by the original blueprints, which turned up in the basement.

Glenn Elwood Smith was best known for comfortable homes that derived their vocabulary from picturesque historical styles, including English Tudor and—since this is Southern California—Spanish Colonial. He was renowned for rugged period architectural details such as exposed trusses and beams,

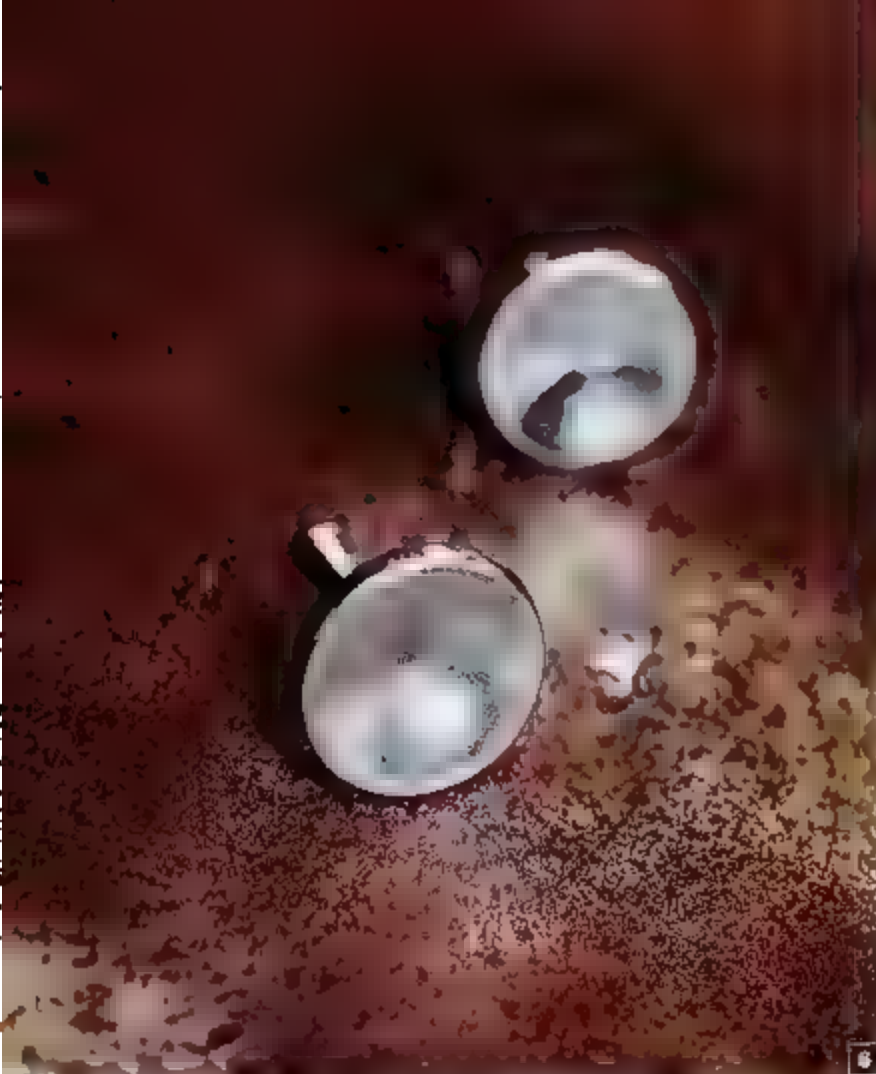
FROSTED GLASS

Rachlin's desire to let in as much light as possible while protecting her privacy on the street side of the house got her thinking about all the sandblasted glass she'd used in commercial interiors. Rather than spend the money to replace her glass panes, she turned to a company that tints car windows (a common auto upgrade in the Sun Belt); they came and installed a frosted film called Scotchshield, by 3-M, over the lower half of the windows. The cost came to about \$30 each. "It's the poor man's etched glass," says a satisfied Rachlin. Miller and Herschkowitz are equally delighted with the results.

"There are three things to be aware of before sandblasting wood for an aged appearance: Never do it if there's lead in the existing finish; overspraying sand can damage the surrounding area; and, finally, it's going to make a tremendous mess."

— THIS OLD HOUSE CONTRACTOR TOM SELVA





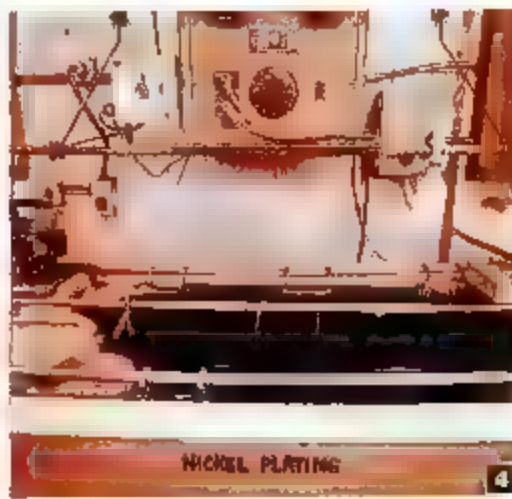
UP TO THE PLATE

Deborah Rachlin's decision to refinish, rather than replace, the nickel-plated hardware on her kitchen cabinets attests to her attention to detail. But the uses of metal plating in home restoration extend far beyond such minutia of interior design, as third-generation finisher Michael Vetrone well knows. President of the family-owned Empire Metal Finishing, in College Point, New York, Vetrone has revitalized everything from art deco chandeliers to French Empire-period mantel clocks to a set of exterior lanterns sent from England for an oil-rubbed bronze finish. Of course, more utilitarian items like door hinges, window latches, and faucets are still staples of his business; so, to replicate the process used on Rachlin's hardware, we sent Vetrone a pair of old cabinet knobs for a makeover. Made of solid brass, the two had been dressed up differently—one in antique copper plating, the other in satin-finish chrome—though years of service had rendered them equally worse for wear.

Plating knobs with a new antique nickel finish costs roughly \$10 per knob, but prices vary depending on the materials used. Silver, which is beginning to rival nickel as the custom metal of choice on most plating jobs, runs about 15–20 percent higher, as does bronze. Gold, the most expensive, costs at least 25 percent more than nickel.

1) Plating protocol differs from job to job, depending on the desired end result, but one principle always applies: Charged ions travel through an electrolytic solution from one metal to another—and the process always begins at the cleaning tank. The knobs are placed in an electrocleaning solution warmed to 110 degrees; the

action of a direct 100-ampere current causes surface electrons to move around, which, along with the heat, breaks down the accumulated grease and grime. After 20 minutes in the bath, the knobs are transferred to the stripping tank, where a reverse 200-ampere current removes the old plating, revealing the base metal.



2) The knobs are polished to prepare them for their new coating. This is where tricks of the trade emerge, as the size and stiffness of the various cotton polish wheels yield different preplating surfaces, which determines the look and feel of the final finish. To achieve an antique nickel appearance, a polish wheel first rubs off pre-existing nicks and scratches. Then a satin wheel delivers the grainy texture that distinguishes antique nickel from a high-polish or pewter finish.

3) A wet mop removes any residue that may be left from the polish wheels. Knobs are then washed and dried—and a mild acid applied—to prepare the metal before immersion in the plating tank.

4) As a direct 100-ampere current passes from the anode (a titanium basket filled with nickel chips that's suspended in the liquid medium) through the electrolyte (a nickel chloride and sulfate solution), it brings positive ions to the cathode (the knobs). The ions thus attach themselves to the knobs, forming a new nickel coating. The amount of time in the tank, combined with the intensity of the current, determines the thickness of the plating. Our knobs remain in the tank for 20 minutes before moving to the oxidation tank, where an acid corrodes the surface metal in a controlled manner, accelerating the "aging" process.

5) The knobs dry in a vat filled with ground corn cob.

6) Finally, a rough compound polish (called a "dirty color-up") removes some, though not all, of the oxidation residue, to reveal the soft, dark antique nickel finish. —Dan DiGlerico



and those in this house were testimony to his artistry: In the living room, the trusses dramatize an otherwise spartan space. Rachlin noted and appreciated other Smith embellishments: the terra-cotta tiles with raised flower designs that accented the mantelpiece and hearth, ziggurat-shaped archways between the main rooms, and on the back porch, a fireplace—a boon to outdoor entertaining.

The plan of the L-shaped house was refreshingly uncomplicated. The short leg contained the living room; the long one held two bedrooms and a bathroom entered from a shared hallway. The legs were linked by that hallway and the kitchen, with a dining room in the corner. Rachlin knew she could extend the bedroom leg, which ran along the driveway, toward the lot line at the back of the property; this gave her enough space—300 square feet—to enlarge the bedrooms and add a private master bath, without sacrificing too much of the backyard.

But it wasn't just the opportunity for expansion that attracted Rachlin to the house. The simplicity of Smith's details meant "this was architecture I knew I could match," she says. And so she bought the house and got to work.

As planned, she extended the back of the bedroom wing and reconfigured the yard, relocating the garage to a far corner of the lot and replanting the area where the garage had stood. But Rachlin didn't just build out; she also went up, raising the bedroom ceilings, cathedral style, to the roofline and adding exposed beams, which she designed to echo those in the living room. She also opened both rooms to the yard via French doors.

Rachlin claimed a closet and vanity from the master bedroom plus a mudroom that was part of the kitchen to carve out a sleek, up-to-date 6-by-10-foot master bath. Here and in the guest bath she exercised artistic license: in the first by applying subtly hued tile in the shower and over the vanities, in the second by designing a three-paneled mirror, attached to the wall with cantilevered steel brackets so that it appears to float, like a minimalist sculpture.

The desire to shape a more interesting space also inspired Rachlin's approach to the kitchen. A 10-by-15-foot rectangle, the room had a single storage wall composed of painted cabinets accented by a typically mid-20th-century pink tile countertop. Rodney Ross, Rachlin's design partner, suggested that by bowing out the exterior wall ever so slightly—about three feet—she could create an intriguing architectural volume, a partial cylinder, and enlarge the kitchen without impinging on the narrow driveway that



runs alongside the house

To precisely plot the wall's curve, Rachlin worked with an AutoCAD computer design program, "so I didn't have to do the math," she explains. Since there isn't much of a view—the neighbors' house is all of 15 feet away—Rachlin went with five 12-by-48-inch windows rather than one large one. This decision also allowed her to build out the wall with conventional framing, since the windows fit between the studs. Eye-catching aluminum sconces accent the spaces between windows. Built into the lower half of the curve—and installed elsewhere in the kitchen—are sleek, custom whitewashed oak cabinets, adorned with nickel pulls dating from the 1950s that Rachlin salvaged from the original kitchen. These she sent out to be replated, along with the house's doorknobs and hinges (see "Up to the Plate," page 108).

In the living room, Rachlin's work became an exercise in mindful restoration, rather than reinvention. The trusses traversing the vaulted ceiling had been partly obscured by acoustical tile and were coated in dark stain. After pulling off the tiles, Rachlin found that the only way to remove the dreary finish was to sandblast the wood. The subcontractors, she recalls, "blew the sand through a big old fire hose, so it got into everything. I was still finding it months later." On the plus side, the technique not only altered the wood's color, it also softened its appearance: The surface is now textured, Rachlin



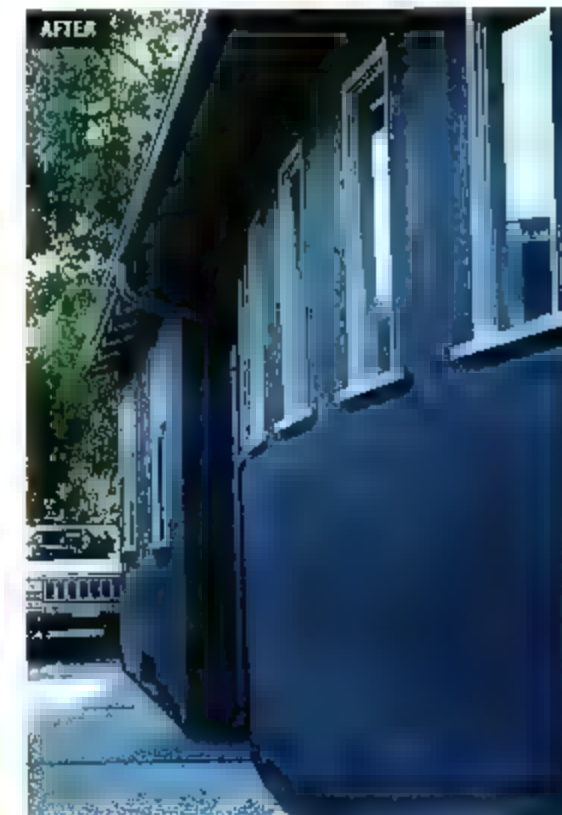
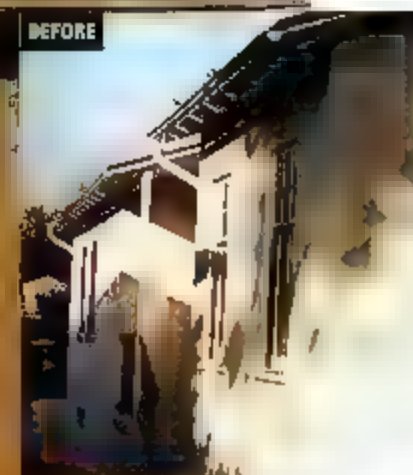
One of Rachlin's space-enhancing ploys in the guest bath was to set a trio of overlapping mirrors away from the wall; they appear to float in the room, and they also deflect light from the windows into otherwise dark areas, such as the tiled shower stall.

says, "as if the wood had been left outside in the wind and rain for decades." The room's other highlights, the tiled fireplace and matching hearth, were in perfect condition, so she left them alone.

Rachlin reserved plenty of ingenuity for the exterior of the house. First, she replaced the 4-by-4-inch posts that supported the front and back porches with rough-hewn T-shaped 6-by-6-inch beams, which she had sandblasted to match the interior woodwork. To accentuate the horizontal lines of the single-story structure, she replaced two small concrete stoops with steps that are as long as the porches are wide. She also removed the shutters.

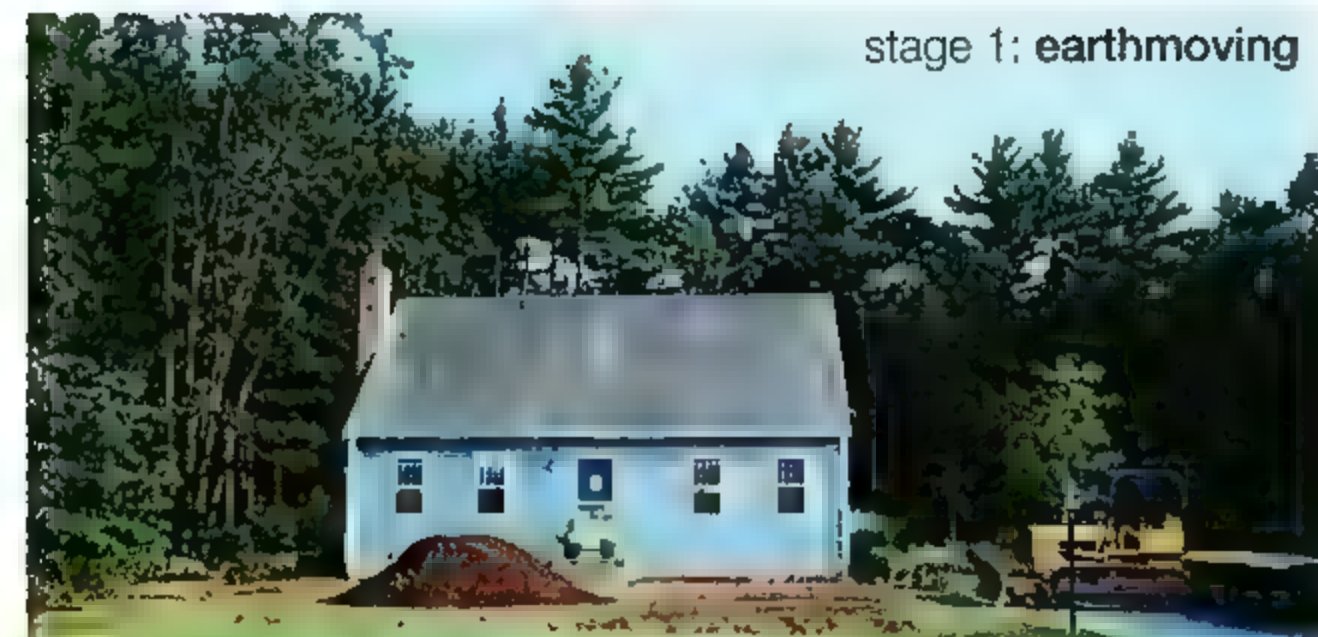
One of Rachlin's most artful endeavors involved the design of the front yard. She loved the group of sycamores that stand in its center so much that she framed them to show them off. First, she cleared away unruly hedges and shrubs. Then, in a move that first mystified—then delighted—her neighbors, she surrounded the base of the tree trunks with 4-inch-wide, 6-inch-high concrete curbs poured in forms so that they interlock like a tic-tac-toe board. Each of the nine squares was filled with sand and covered with weed-cloth (nylon mesh that prevents vegetation from popping up) and a layer of river rock. The outside corners of the 12-foot-square grid are elevated concrete stools, which conceal spotlights that illuminate the trees.

You don't even have to venture inside to see that Rachlin has reinvented the cottage, boldly yet gently. Maybe that's why Brian and Diana don't have a single complaint. Nor does Rachlin. "Brian and Diana have been very sensitive to my work," she says, with pride in her voice. Pasadena should be proud, too—such respect from homeowners for a house's architecture is a gift to the entire community. ■



BEFORE (AND DURING), LEFT: An existing indentation in the driveway-facing facade allowed Rachlin to bump out the window wall in the kitchen, for visual drama, she did this by bowing the wall rather than filling in the space entirely (ABOVE).

stage 1: earthmoving



GROWTH SPURTS

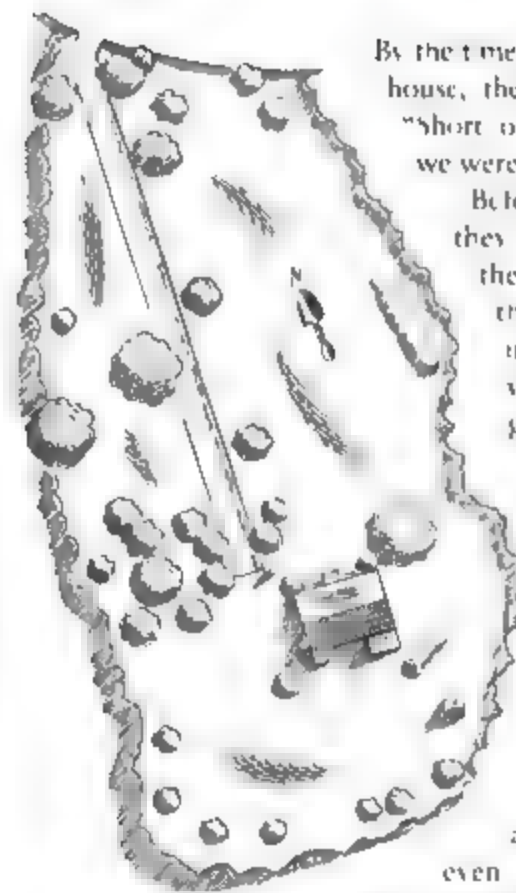
For Monique and Chris Allen—landscape designer and horticulturist, respectively—a barren yard is a field of possibilities. They imagine vibrant islands of color and meandering pathways that help nestle a house into its setting and offer intriguing views in every season. It's no surprise that when the Allens went house hunting in Franklin, Massachusetts, back in 1997, it was the flat 2½-acre property—not the Cape Cod it surrounded—that attracted their attention. As the realtor sorted through a giant key ring and walked toward the front door, they didn't follow her. They instead began exploring the land. "It had such great potential," says Monique. "We were like kids in a candy store."

BY JEFF COX

How to make a major
landscape job manageable
by staging the work
over several years

stage 3: topsoil and plants

By bringing in topsoil (OPPOSITE) that would give the flat yard contours and make the distinctive Cape Cod look larger, the Allens also provided rich earth for their garden beds. In front of the northeast corner of the house (THIS PAGE), a border of minuscule, clumpy, blue-flowered plants, Montauk blue spruce, and small, ball-shaped shrubs created visual appeal with staggered heights, differing textures, and variety of color.



By the time the couple looked inside the 1980 house, their minds were a bit but made up. "Short of finding a condemned structure, we were going to buy it," she admits.

Before the Allens even moved in, they began devising a master plan for the property. They would transform the uninteresting lot into an inviting dreamworld, complete with a fishpond, lots of perennial gardens, and a new driveway. An overhaul of such magnitude was well beyond their immediate means, so they broke the job into three phases, with the intention of being off manageable chunks over a three-year period. Staging a landscape project in multiple phases is something Monique frequently does for her clients, and she heartily recommends it, even when the budget can handle doing everything in a single season. "The

genius of a multistage plan is that over time, you have the chance to change, enrich, and broaden your ideas," says Monique, who counts *This Old House's* Norm Abram, Steve Thomas, and Richard Trethewey as regular customers. She likens the experience to moving into a house. "It takes time to get accustomed to the place," she says. "Once you've lived there for a while and you're familiar with its strengths and shortcomings, you may decide to turn a window into French doors, move a stairway, or make other changes so the space suits you. It's the same learning process with a yard."

Still, as all projects should, this one started with a vision for what the landscape could become—albeit a flexible one. "You need to dream

before you start moving earth around," says Monique. "Dreams are cheap. Moving earth is expensive." To begin developing a plan, she advises her clients to tear appealing pictures out of home and garden

TOP LEFT Aside from some mature shade trees, the landscaping was essentially just grass when the Allens bought the property in 1997. **TOP RIGHT** To create a focal point at the back of the land, Chris planted a multistemmed river birch, part of a woodland garden to be finished the next year. **MIDDLE LEFT** Creating the shade garden was a three-year process. In the first, Chris prepared the soil and relocated two dogwoods from alongside the driveway. The next summer, the Allens added shrubs and trees. Finally, they filled in with low-light plants and created a gravel path seen here from the back.



tree planting



stage 1: soil prep/transplanting



stage 2: tree and shrub



stage 3: ground cover and path

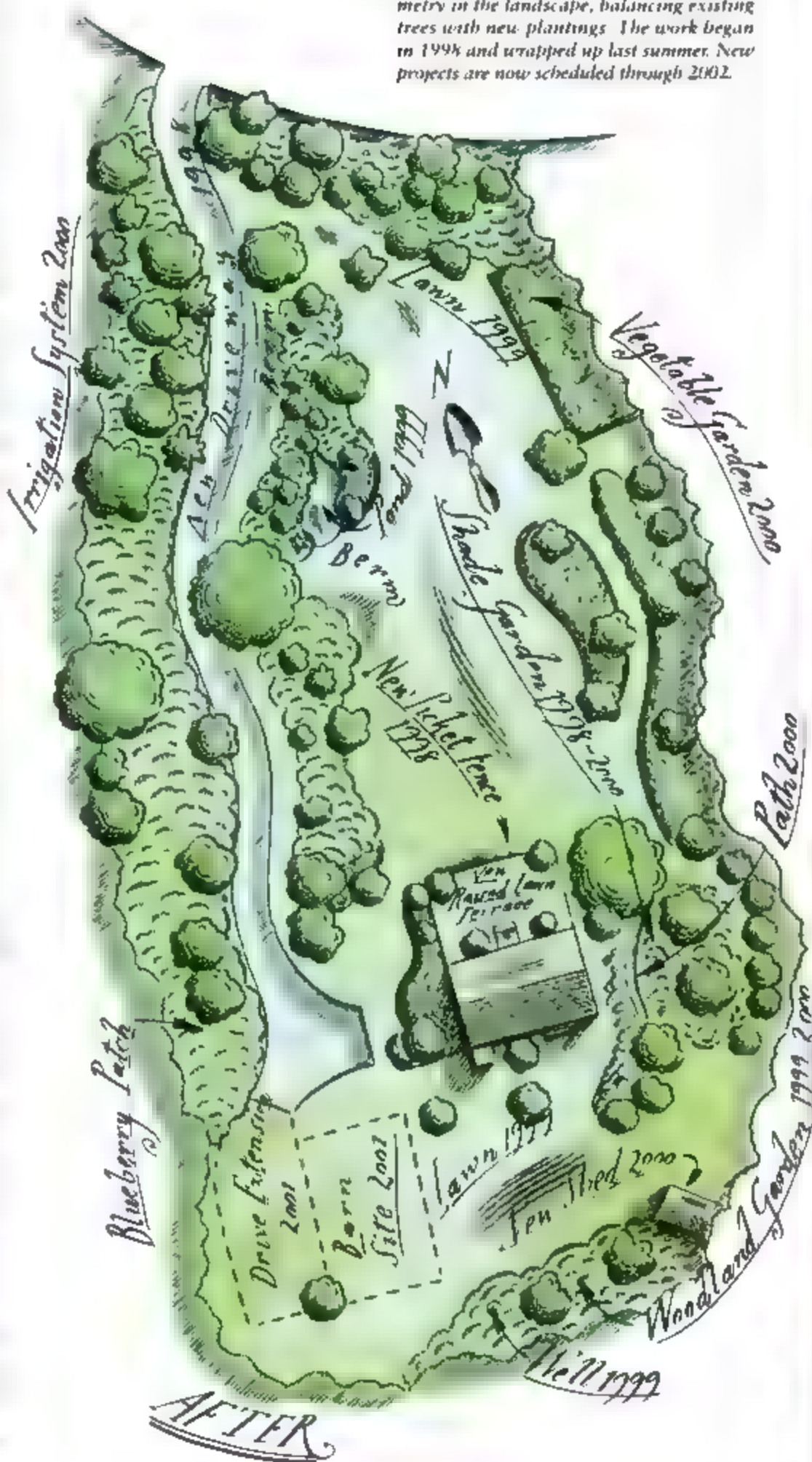
magazines. "Pin them up on a bulletin board and create a visual buffet of ideas." Then see what recurs. Those features will be the ones you want. "I had a client who did this, and every photo she pinned up included cobblestones. She hadn't ever thought about cobblestones before." Allen also recommends looking at other people's properties for ideas. Then, preferably with the help of a professional, these fantasies can be turned into a strategy that breaks the work into individual stages and establishes a timetable for each, says Monique. Like a typical single-phase project, the job should proceed from large-scale work—earthmoving, a new driveway, relocation of existing trees—to the creation of focal points (ponds, gardens, walks) and finally to mass planting (perennial beds, spring bulbs, hedgerows). And while the entire scheme is carried out over a number of years, each distinct job should be completed in the same season it starts. Determining the scope of individual phases is a matter of budget; the Allens broke their project into three essentially equal chunks.

Stage 1: Earth Shaping and Drainage

Monique calls the work that she did the first summer "structural," an apt metaphor for the topographic changes she made. "We had 300 feet of road frontage, with the house sitting on the land like a peanut," she says. "We wanted to make the building seem bigger by defining a smaller space around it." So the Allens raised the grade over a 24-by-36-foot area in front of the house (two times the footprint of the building is the proper proportion, she says) and enclosed it with a pocket fence to create a distinct front yard.

Next they turned to the 30-yard-long driveway. "It was straight as a runway, right down the middle of the property, and chopped the landscape into two pieces," she says. They removed it and created a graceful, curving gravel track along the side of the property. Then they partially screened this new drive from the house by creating sloping mounds, called berms, along its edge and in other key spots throughout the landscape. This required a bulldozer and 30 cubic yards of topsoil, and the work proceeded from the back of the property to the front. "A good idea is that you don't paint yourself into a corner and have to drive machinery over your work," Monique says. In other words, resist the urge to start in the front yard. "These berms gave the land a variety of heights and forms, and therefore more features to catch the eye and more intimate zones where people can interact with nature, making the property appear bigger." Although the Allens' landscape didn't have drainage problems, berms help alleviate such issues because water flows down and away from elevated areas.

Monique's three-year plan called for symmetry in the landscape, balancing existing trees with new plantings. The work began in 1998 and wrapped up last summer. New projects are now scheduled through 2002.



ILLUSTRATIONS BY ANTHONY SIDWELL

"People should always improve drainage as part of the first stage. Most plants don't like soggy soil, and dealing with the problem later would mean tearing up and landscaping you've already installed." If grading isn't sufficient, drywells might be in order. And any work that will disrupt other parts of the yard because of heavy equipment should be conducted in the first stage, says Monique. That includes removing dead trees and planting large shade trees (anything larger than 30 feet).

FOCAL POINTS

The following year, Monique and Chris created the focal points of their landscape, including a pond, clusters of ornamental trees (typically under 30 feet tall), a blueberry patch, and a vegetable garden. "Over time we found that when we walked the land, we'd go back to the same places again and again." They located the "vignettes" in these especially appealing spots.

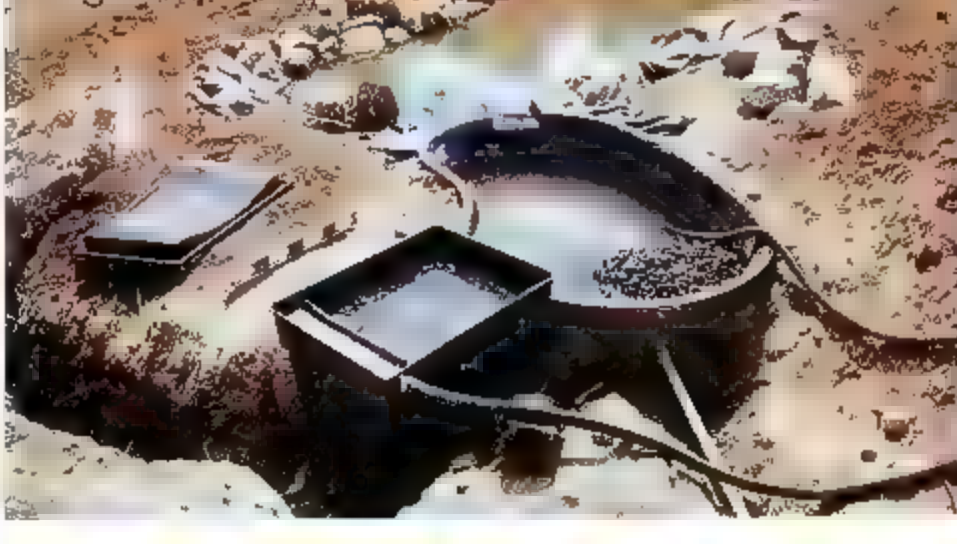
They also found a way to bring to life the least used part of the property—the wooded east side of the house. "Every landscape has at least one of these underutilized spots, and following a multistage plan gives you the chance to find it." The Allens turned their forgotten shady spot into a garden of low-light plantings. They had transplanted a few ornamental trees into the location in phase one, but in phase two, they transformed the space completely. "We felt that would entice us to journey there." They filled the space with Japanese forest grass, dogwoods, rhododendrons, and mountain laurel—low-light grasses and shrubs that won't have to be pruned in this naturalistic setting. In phase three they planted the floor of the garden with lusciously textured groundcovers and bold perennials and laid a meandering path. "People think that in order to have a colorful garden, you need a sunny location," she says, "but shade gardens can offer offer incredibly vibrant hues and lush textures."

For the pond, the Allens excavated an 11-by-22-foot hole under the protective shade of a large existing pear tree that can be seen from the front windows. After laying a rubber liner into the depression, they surrounded the top edge with half-buried stones "to make it look like it was a natural feature of the landscape," says Monique. A 3-by-6 foot "header" pond at the top of a berm feeds a waterfall into the main body of water. "The meditative aspects of a pond are phenomenal. Water gives a sense of peace to a landscape. And a pond is a little ecosystem all to itself." They stocked it with goldfish and flowering plants, but the frogs came on their own. Other focal points Monique advises homeowners to install in stage two might include structures such as arbors, pergolas, and latticework, or statuary and large boulders.

Stage 3 Plants, Finally Plants

It was their third year in the house when the two gardeners finally let themselves order vast quantities of ornamental trees and shrubs, perennials, and groundcovers. By creating interesting combinations of plantings in a variety of colors, shapes, and sizes, the Allens screened the driveway and neighboring house and brought the landscape to life. "When we graded the land in the first year, we moved some of the existing trees to spots along and behind the berms," she says. "Now we filled in spaces between them with new plantings. We used to be able to see the street and neighbor's property,

stage 2: pond



"A pond can never be too big," says Monique Allen. "I advise clients to install the largest water garden that their landscape and their budget can afford, and nobody has ever complained that theirs was too big." She followed her own advice, creating a 250-square-foot body of water. A border of rocks (TOP) hides the pond liner; the fiberglass basin became a "header" pond connected to the main one by a waterfall and a pump. When planted with lush, colorful plants, the pond looked as if it had always been there, and instantly became a favorite hangout spot for Monique and husband Chris (ABOVE).

now we don't see any property but our own from the house."

The Allens chose plants that would provide interesting views in every season. "For winter, we planted 'Heritage' river birches with beautiful, peeling pinkish-tan bark, paperbark maples, twisty Japanese maples, winterberries, and many ornamental grasses with seedhead plumes," she says. "We've put in dogwoods for spring flowers and fall berries, summer-blooming azaleas and ilex for summer interest, along with stewartias, a sourwood tree, and a franklinia that flowers in the fall. We also put in weeping birch and cherry, plus two hemlocks to give movement and grace all year."

No sooner had the couple completed their three-year project than they began making new and ambitious plans. With obvious excitement in her voice, Monique describes a retaining wall along the edge of the front yard and a new barn. Next year will surely bring yet another stage of this project, and the landscape will keep evolving. "A gardener is never done gardening," she says. ■

PHOTO: DAVID CARMACK (BOTTOM)

SAFETY GEAR

BY CLAYTON DEKORNE
PHOTOGRAPH BY MIM ADKINS

"I've been lucky," says *This Old House* contractor Tom Silva. "In over 35 years, no one on my sites has lost a finger, broken a bone, or put out an eye." That's no boast. It's more like an expression of gratitude: Tom knows well the risks he and his crew face each day.

According to the National Safety Council, a fatal injury, usually one caused by a fall, occurs on a U.S. work site every 12 hours. A disabling injury—typically a strain or sprain—takes place even more frequently: every 18 seconds.

But no one escapes an injury or accident by luck alone. And what Tom passes off as "luck" belies the fact that he never stops thinking about the safest way to get things done. "You have to imagine what could happen,

and protect yourself against it."

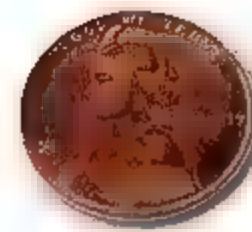
That's where safety gear comes in. These inexpensive and lightweight pieces of armor play an essential role in guarding the body's most vulnerable parts—the head, ears, eyes, hands, feet, and lungs—against the debilitating effects of dust, noise, and falling or flying objects. Tom's top four picks: safety glasses and ear plugs or muffs when using power tools, a hard hat when others are working overhead, and steel-toed boots always.

Even with all this gear in place, Tom still doesn't let himself or his crew be lulled into a false sense of invulnerability. "Keep your mind focused on safety," he says. "If you can do that, you're going to do all right."



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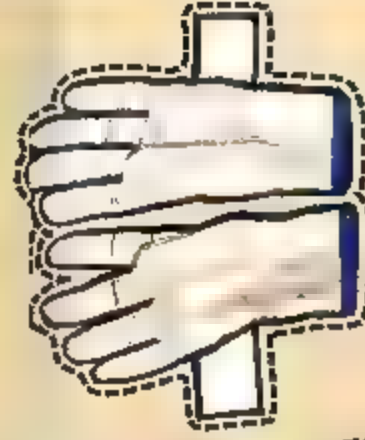
EAR PLUG



EAR PLUG



HALF-FACE
RESPIRATOR



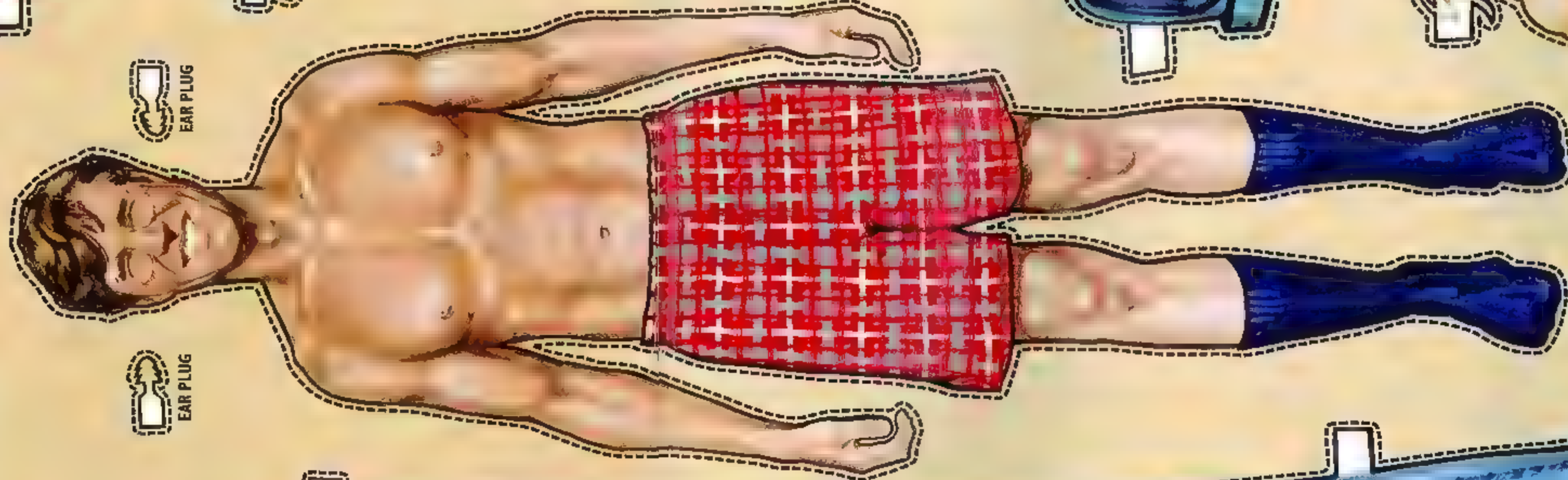
LEATHER WORK
GLOVES



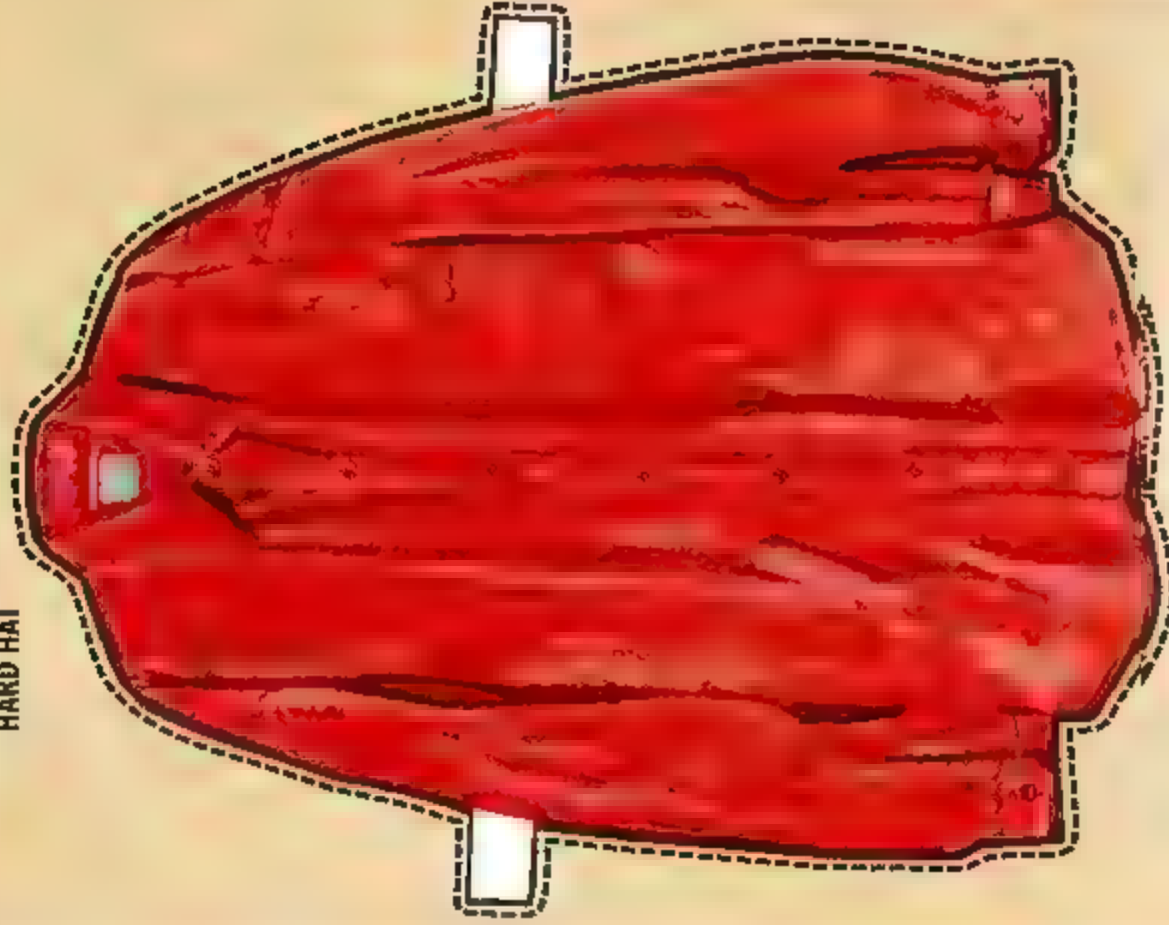
GEL-FILLED
KNEE PADS



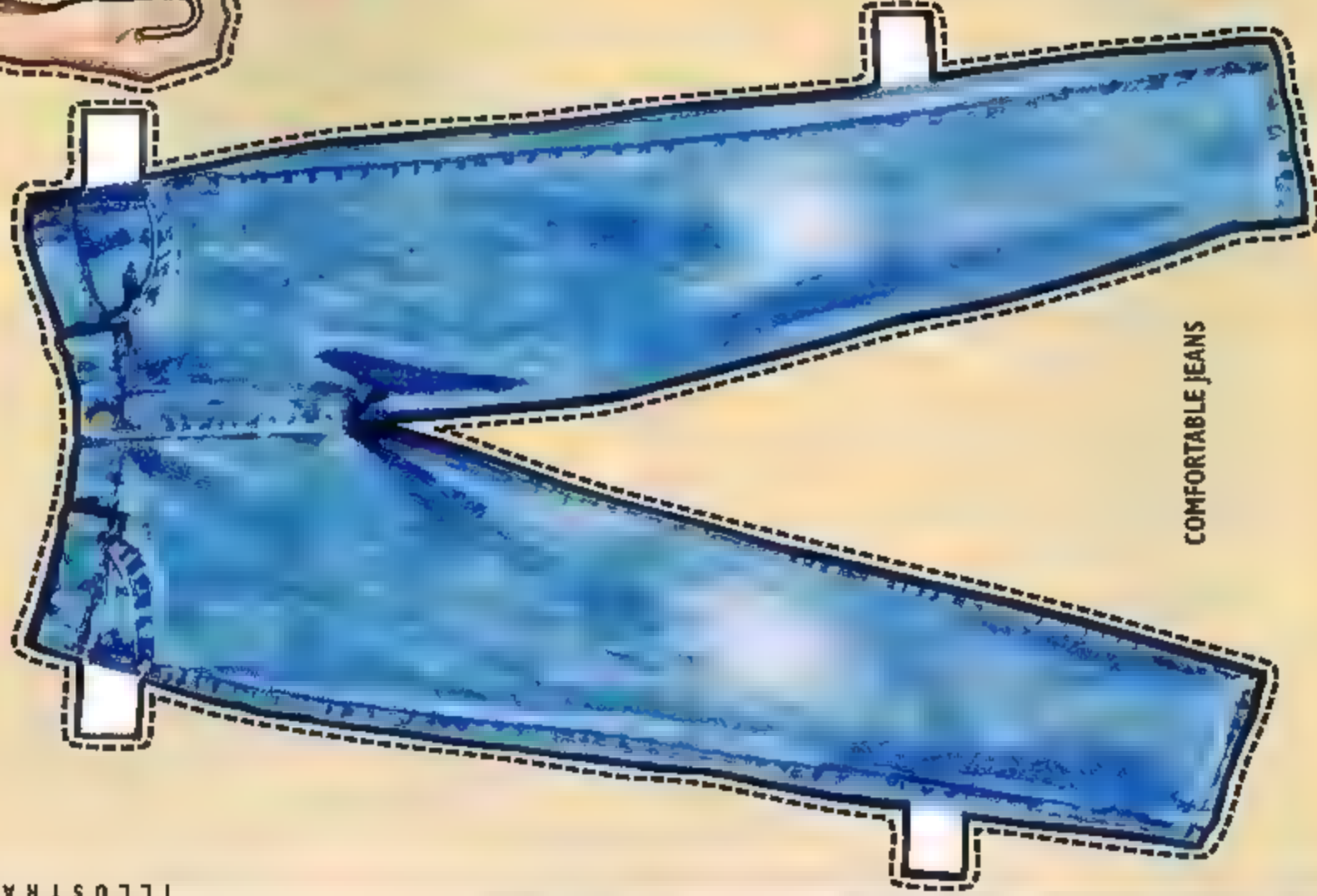
STEEL-TOED WORK BOOTS



STEVE THOMAS



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"When it comes to protective equipment, I choose what fits and allows me to move easily," says Tom Silva. Besides fit, check the performance rating, if any. This is your best guarantee against inferior goods.

HEAD-TO-TOE PROTECTION

- hard hats
- dust masks and respirators
- workgloves
- eyewear
- knee pads
- ear plugs and muffs
- footwear

BE KIND TO YOUR BACK

ILLUSTRATIONS BY BOB ECKSTEIN



■ A wide, padded back belt, like the ones commonly worn by home-center employees, looks as if it would be just the thing to save you from a visit to the chiropractor after a hard weekend of home improvement. But a 1994 study by the National Institute for Occupational Safety and Health (NIOSH) found that these black cummerbunds do little to help prevent injuries to vulnerable lumbar vertebrae. Wearing one, NIOSH suggests, can falsely bolster confidence and lead a worker to lift excessive loads. Tom Silva tried one and came to his own conclusion. "I found them to be hot in the summer and more of a pain than a help."

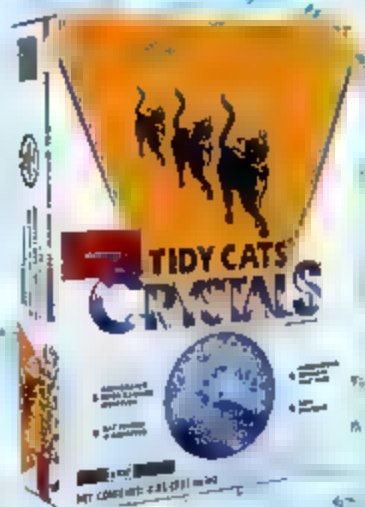


■ To lift anything, with or without a back belt, first test its weight. Then, keeping your legs apart for good balance, squat, tighten your abdominal muscles and slowly rise, holding the item low and close to your body; your legs should do most of the work. Follow the same steps when setting the load down. Depending just on your arms and back is an invitation to back trouble. One final precaution: If the object seems too heavy or cumbersome, get help!



PHOTOGRAPHS BY GLENN THOMAS

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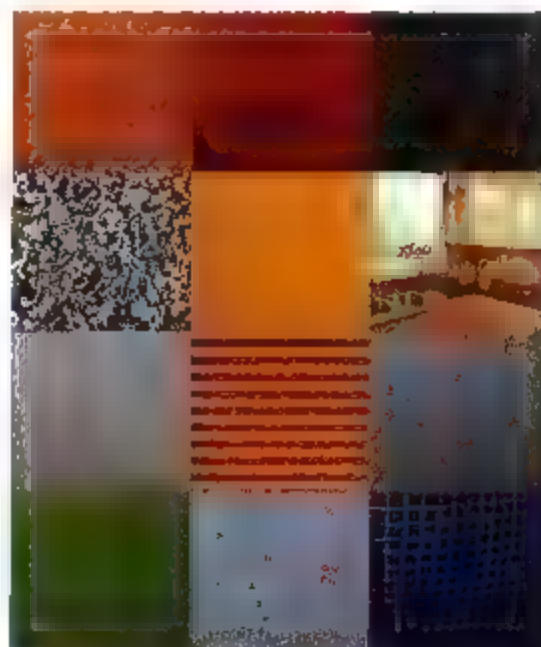
House Calls With Steve, p. 20: A budget kitchen remodel of this 30-year-old bungalow in Winnipeg, Manitoba, Canada, replaced oak-veneered particleboard cabinets with these made of sleek, light maple.

LETTERS pp. 12-15

Flame retardant shield: Torch Guard, Pyro Shield Inc., Crown Point, IN, 219-661-8600; www.pyroshield.com.

HOUSE CALLS WITH STEVE pp. 20-24

Laminates, page 24 and BELOW: (Top row, left to right) WM-8-322T Honey



Maple, from Nevamar; 800-638-4380; www.nevamar.com. 4788-60 G-azed Imperial, from Wilsonart; 800-433-3222, www.wilsonart.com. 7328-58 Reverse Text, from Formica; 800-367-6422; www.formica.com. (Second row) 4550-01 Granite, Wilsonart. 7025-58 Sunlight, Formica. (Third row) 13006-60 Natural Crossweave, Wilsonart. 7295-43 Cherry Striawood, Formica. 4795-60 Windswept Pewter, Wilsonart. (Bottom row) 460 SEI, from Abet Laminati; 800-228-2238; www.abet.ln.com. MR 6 5T W nter Gray Matrix, Nevamar. 1219 SEI, Abet Laminati.

ASK NORM pp. 26-33

Lock mortiser: Porter-Cable Professional Power Tools, Jackson, TN; 800-487-8665; www.porter-cable.com. For more information on EPDM roofing: SPRI Inc., Needham, MA, 781-444-0242, www.spri.org. Our thanks to: Tom Bollnow, of National Roofing Contractors Association, Rosemont, IL, 800-323-9545. Joe Ferrante, Ferrante Tile, Medford, MA, 781-396-6327. Ed Sauter, of Concrete

Foundations Association, Mount Vernon, IA, 319-895-6940.

Further reading: *Saltbox and Cape Cod Houses*, by Stanley Schuler, Schiffer Publishing, 2000. *This Old House Heating, Ventilation, and Air Conditioning*, by Richard Trethewey with Don Best, Little, Brown Inc., 1994. *Traditional Woodwork*, by Mario Rodriguez, Taunton Press, 1998.

BY DESIGN: OPEN AND SHUTTER CASE pp. 34-38

Shutter manufacturer: De Venco, Decatur, GA; 800-888-4597. Shutters, page 38: (Left to right) New



"Open and Shutter Case," By Design, p. 34: This Georgian-style home was updated with new shutters that are exact replicas of the 1927 originals.

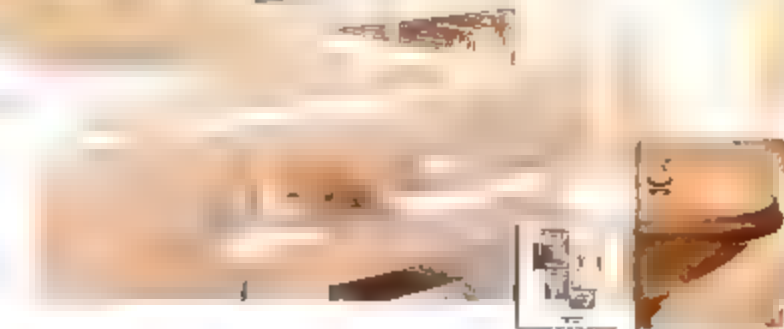
England Style Fixed Wide Louver, from Timberlane Woodcrafters Inc., 800-250-2221, www.timberlanewoodcrafters.com. Charleston, from Vixen Hill; 800-423-2766; www.vixenhill.com. Williamsburg, from Shuttercraft Inc., Guilford, CT, 203-245-2608; www.shuttercraftinc.com. Cottage Style with cutout, Timberlane Newbury (vertical), from Kestrel Manufacturing, Stowe, PA, 610-326-6679; www.diyshutters.com. Board & Batten (horizontal), Vixen Hill.

Shutter dogs: S-Shaped Long Arm, Vixen Hill. English Rat Tail lag mount, Timberlane. Belmont lag mount, Timberlane. S-Shaped plate mount, Vixen Hill. Hinges: (Top) Strap hinge, Vixen Hill.

PHOTO: CHAD HOLDER, LAMINATES: KUBANI

PHOTO: RYLEE HOOB

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(Middle, left to right) Caribbean gravity hinge, Kestrel. Offset L Hinge for brick, Shuttercraft. New England Style hinge, Timberlane. Lull & Porter Acme hinge, Timberlane. (Bottom) Slide bolt, Vixen Hil.

TECHNOLOGY: DOWN TO THE WIRE
pp. 40-43

Internet radio: Kerbango Internet Radio, Kerbango (3Com); 800-638-3266; www.kerbango.com.

Internet appliance: Gateway Connected Touch Pad, Gateway Inc., 800-846-4875; www.gateway.com
Satellite Internet access: DirecPC from Hughes Network Systems, 800 347 3272; www.direcpc.com

TALKING SHOP: TAMING OF THE SCREW
pp. 46-47

Page 46: Auto-feed screwgun, DuraSpin, Senco Products Inc., Cincinnati, OH; 800-543-4596; www.senco.com.

Page 47: (Clockwise from top left) Screwdriver, 2-point/4-inch: Phillips head Fat Max, model #67 048, Stanley Works, New Britain, CT; 860-225-5111; www.stanleyworks.com.
Flathead screwdriver, 1/2-inch by 6-inch: model #16007, Oxo Good Grips, New York, NY; 800-545 4411, www.oxo.com

Ratcheting screwdriver: Grip Driver with pistol-grip feature, model #47471, Craftsman, Hoffman Estates, IL; 800-377 7414; www.sears.com/craftsman; available at Sears

15-in-1 ratcheting screwdriver item #2302, Enderes Tool Company Inc., Apple Valley, MN; 800-874-7776; www.enderes.com; available at local hardware stores.

Auto-feed screw system: QD2000X1T kit with extension and screw strip, Quik Drive, Gallatin, TN; 888-487-7845; www.quikdrive.com.

Drywall driver: model #2640, Porter Cable, Jackson, TN; 800-487-8665; www.porter-cable.com.

MATERIALS: IN THE CLEAR
pp. 58-61

Clear coatings. TWP, manufactured by MFG Sealants, Atlanta, GA; 404-355-0668; www.mfgsealants.com Sikksens



"Taming of the Screw," Talking Shop, p. 46. two choices for ratcheting screwdrivers—one has a pistol grip (left), the other holds 15 bits in its handle.

PHOTO: DAVID PRINCE

Cetol 1 and Cetol TGL, manufactured by Akzo Nobel Coatings Inc., Troy, MI; 800-833 7288. www.sikkens.com
Paint contractor: J.W. Dee Painting and Decorating, Concord, MA, 978 369 8897; www.johndeepainting.com.

FINANCES: A ROOF OVER THEIR HEADS
pp. 64-67

Our thanks to: Lauren Jones, AARP, Washington, D.C. Donna Philips, director of communications, Asbury Methodist Village, Gaithersburg, MD; 800-327-2879; www.asbury.org. Denise Kligman, insurance broker, Owens Group, Englewood Cliffs, NJ, 800-262-6837, www.owensgroup.com.

LETTER FROM T.O.H.
p. 77

MDF doors: Tru Stile Doors Inc., Denver, CO; 888 286 3931.

CHARLESTOWN: THE OUTSIDERS
pp. 78-82

Concrete wall and cobblestone: Roman Pisa wall and Classico cobblestone, from Ideal Concrete Block Company, Waltham, MA; 781-894-3200.

Bowmanite: Harrington Bowmanite Corp., Pembroke, MA; 781-826-3339, www.bowmanite.com.

Plantings: Weston Nurseries, Hopkinton, MA; 508-435 3414.

Spiral stairway: Boston Stair Design, Chelsea, MA; 617-889-6868, www.helixstair.com

Balcony: Boston Welding, Woburn, MA; 781-932-0035; www.bostonwelding.com.

Privacy fence and arbor: Pro Fence, Wilmington, MA; 781-933-1234.

EPDM: Genflex Roofing Systems, Maumee, OH; 800-443-4272; www.genflex.com.

Seam tape: Genflex Roofing Systems.

Lap caulk: Genflex Roofing Systems.

Fiberglass gypsum roof board: Dens-Deck roof board, manufactured by Georgia Pacific; www.gp.com/gypsum.

Decking: Finwood, licensing sales agent Inteque Resources Corporation, Cincinnati, OH, 877 742 6232.

KOLIN SMITH



"The Outsiders," p. 78. T.O.H. landscape contractor Roger Cook dresses up the patio of the fall TV project home with Hinoki cypress.

www.inteque.com

Landscape architect: David Hawk, Hawk Design Inc., Boston, MA,

617 242 8300.

Architects: John French and Linda Neshamkin, Neshamkin French Archi-

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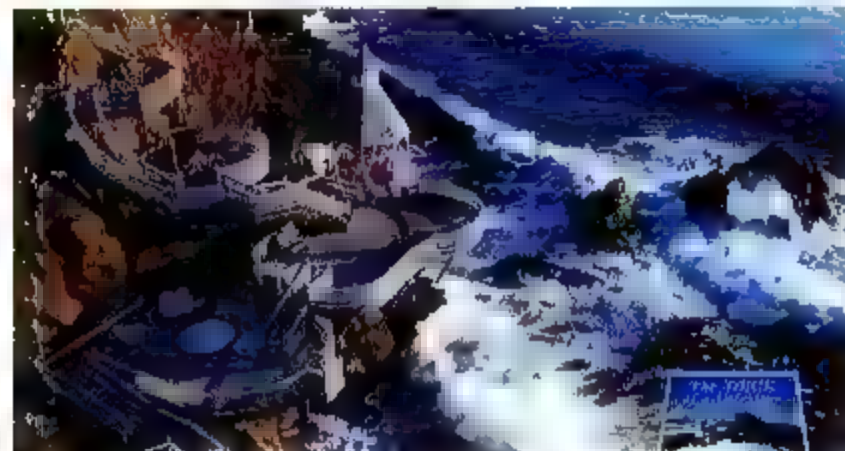
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www.FourSeasonsSunrooms.com/toh

*Note: Customer must take early delivery by March 1st, 2001 in order to qualify, orders must be placed at least one month prior



"The Lawn Ranger," p. 86: This Old House television producer Russell Morash waxes poetic on lawn history and cultivation.

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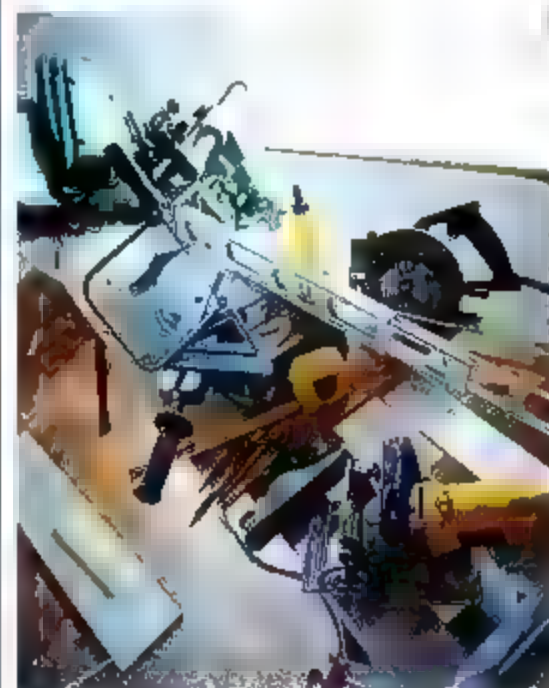
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Homeowner: Dan Beiveau, Back Bay
Design Consultants, Charlestown, MA,
617-886-9090.

Roofing contractor: Mark Mulloy,
Mulloy Roofing Inc., Gardner, MA,
978-632-7744.



"Running Baseboards," Homeowner's Handbook, p. 97. Installing trim, a good project for perfecting carpentry skills, involves these basic shop tools.

PHOTO: DAVID CARMACK (TOP); CRAIG RAINE (BOTTOM)



"Growth Spurts," p. 112: A three-year landscape project in Massachusetts included a border of miscanthus, chrysanthemums, and snowbell.

REVIVAL OF THE FITTEST pp. 84-85

Architect: Roger Janssen, Dailey &
Partners Architects, P.A., West Palm
Beach, FL, 561-640-5281

General contractors: John Kern and
Harley Edge, Kern Construction,
Juno Beach, FL, 561-626-9582

THE LAWN RANGER pp. 86-89

Garden products: Valero & Sons Garden
Center, Nantucket, MA; 508-228-2397

For locale information: Nantucket
Historical Association, Nantucket, MA,
508-228-1894

HOMEOWNER'S HANDBOOK: RUNNING BASEBOARD pp. 97-104

Biscuit joiner: Dewalt High Performance
Industrial Tools, 800-433-9258,
www.dewalt.com

Extendable level: ComPac 4 foot
adjustable level, Straightway Tools Interna-
tional Inc., Vancouver, WA, 800-435-9590;

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www.straightwaytools.com
Compound miter saw: Hitachi Koki,
USA Ltd., Norcross, GA, 800-546-
1666, www.hitachi.com
6-inch circular saw: Porter-Cable Saw
Boss, Porter-Cable Professional Power
Tools, Jackson, TN, 800-487-8665,
www.porter-cable.com

LITTLE OLD RANCH FROM PASADENA pp. 105-111

Designer and general contractor: Deb

Graham Rachlin, Onsite, Pasadena, CA,
213-798-8114
Nickel plating: Michael Vetrone, Empire
Metal Finishing, College Point, NY,
718-358-8100, www.frankiemetal.com

GROWTH SPURTS pp. 112-116

Landscape design: Monique and
Chris Allen, The Garden Continuum
Inc., Westwood, MA; 800-870-6400,
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Nice room if you can get it: A dramatic wood truss crowns the Rumford fire place and Italian slate surround in the sanctuary-turned-great room.

Week 6 (March 3-4)

Host Steve Thomas inspects a cell-block door at the former federal prison (now a national park) on Alcatraz island before heading to the San Francisco project house where master carpenter Norm Abram is installing the double front doors. Because the frame opening is not square, the doors must be trimmed to fit. Tiling contractor Darin Collins accents the Rumford fireplace's surround with natural-cleft Italian slate, while, upstairs, plasterer Kevin Leach skim-coats the drywall to match the first floor walls. Plumbing contractor Jeff Deehan has modified the reclaimed cast-iron sink to operate with surgical room-style foot pedals. With the front doors fitted, Norm uses a hinge-mortising jig and a router to create the necessary attachment points, then transfers the jig to the jamb for precisely matched hinge mortises. Homeowner Mark Dvorak and cabinet manufacturer Paul La Bruna show Steve the newly arrived medium-density fiberboard cabinets, which will be finished by hand to match the textures of the floor tile and planned Carrera marble countertop.

Watch and learn: Hanging double doors

Resources: Rumford fireplace: Superior Clay Corp., Urichsville, OH; 800-848-6166; www.rumford.com. Slate: Walker Zanger Sun Valley, CA; 818-504-0235. Vintage wall-mount sinks: Omega Salvage, Berkeley, CA; 510-843-7368; www.omegasalvage.com. Faucet with foot pedal controls: The Chicago Faucet Co., Des Plaines, IL; 847-803-5000. Tile: Ann Sacks, Portland, OR; www.annsacks.com. Cabinetry: La Bruna Industries, Ontario, CA; 909-947-0042. Mortise

jig and mortising router: Porter Cable Tools, 800-321-9443; www.portercable.com. Door hardware: The Estate Collection, by Baldwin Hardware, Reading, PA; 800-566-1986.

Week 7 (March 10-11)

T.O.H.'s tour of the West Coast continues at the Frank Lloyd Wright designed Marin County Civic Center in San Rafael, California. At the job site, Norm inspects the installed custom kitchen cabinets and the marble countertop before he starts limbing the windows. Steve looks at the unusual blinds in the great room; they extend up from the sill allowing light through the top panes while screening the lower ones. Flooring contractor Eric Ferguson finishes the wood planking with a single coat of oil stain and two coats of satin-finish polyurethane. Biometrics engineer Mike Chaudoin primes homeowner Laurie Ann Bishop on the new fingerprint-scanning entry/alarm system before general contractor Dan Plummer goes through the punchlist with Steve: a stairwell with unfinished treads, additional painting on the second floor, and a railing installation on the balcony of the guest bedroom. Plumbing and heating contractor Richard Trethewey admires the stainless steel kitchen appliances, which are christened during an evening wrap party.

Watch and learn: Trimming windows

Resources: Marin County Civic Center: San Rafael, CA; 415-499-6646. Window shades: Hunter Douglas Window Fashions, Upper Saddle River, NJ; 800-444-8844. Backpack vacuum: Pro-Team Inc.

Boise, ID; 800-541-1456. Floor stain and finish: Minwax, Upper Saddle River, NJ; 800-523-9299. Fingerprint security system: identix, nc, Sunnyvale, CA; 408-731-2000. Security system installation: Alert Security Systems, Upland, CA; 909-946-5787. Range and dishwasher: Thermador, Huntington Beach, CA; 800-856-9226. Microwave and built-in refrigerator: KitchenAid, Benton Harbor, MI; 800-422-1230; www.kitchenaid.com.

Week 1 (March 17-18)

In a twist on the usual formula, T.O.H. itself has purchased a home to renovate. Once finished, the 250-year-old Colonial masterpiece will be sold at public auction. Steve, Norm, and general contractor Tom Silva evaluate the entire property, which includes a large, shingled post-and-beam barn. Because of grading problems, the wood cladding of the structures has wicked moisture into the framing, weakening structural timbers, rotting much of the house's subfloor and causing paint to peel from the original clapboard. Details to save include 12-over-12 windows and bulls-eye-glass transom lights; details to discard include lead paint and the barn's entire disintegrating ell.

Watch and learn: Detecting moisture damage

Week 2 (March 24-25)

After Norm and Tom remove an arched, multipaned window and door unit and a dilapidated cupola, excavation contractor Herb Bröckert begins the demolition of the barn's ell; a new woodworking shop will be built on the cleared footprint. Labor supervisor Brian O'Donoghue explains how his organization, Alliance House, employs at-risk youth in construction and landscaping, while his team pulls up an old brick patio outside and puts down floor protection inside. Steve and architect Rick Bechtel discuss relocating the kitchen, transforming a bedroom into a mudroom, and converting the greenhouse into a screened porch. On an excursion to New York City, Steve gleans some decorating tips from the Kips Bay Boys and Girls Club's Decorator Show House. Back on-site, Rich inspects the old oil-fired steam boiler and the remnants of an even older coal furnace, and suggests an update.

Watch and learn: Reconfiguring interior space

Resources: Floor protector board: Homasote Co., West Trenton, NJ; 800-257-9491. Kips Bay Boys and Girls Club Decorator Show House: Bronx, NY; www.kipsbay.org.

Week 3 (March 31-April 1)

Steve and Norm visit the Blue Hill Weather Observatory, the highest point along the Massachusetts coastline, which affords great views of Boston. Upon their return, demolition of the termite-infested barn continues while a new concrete footing is poured for the ell. Steve walks the property with landscape architect Tom Wirth, who envisions cutting a new driveway based on a historical precedent glimpsed in several old photographs. Insulation specialist Graeme Kirkland is busy identifying areas of energy loss. Bechtel shows Steve the reconfigured floorplan, which necessitates a 4-foot bump-out of the house's south wall, and painting specialist Mac McCaw proposes several solutions for refinishing the clapboard. Demolition then spreads to the 1950s kitchen where Steve joins Norm and Tom in gutting the space with a cordless reciprocating saw.

Watch and learn: Kitchen demolition

Resources: Insulation: Icynene by Icynene Inc., Mississauga, Ontario, Canada; 800-758-7325; www.icynene.com. Paint consultant: Mac McCaw; 603-598-2712. Reciprocating saw: Sawzall by Milwaukee Electric Tool Corp., Brookfield, WI; www.mil-electric-tool.com.



They can take that away from me. As the ell of the old barn is demolished, thoughts of a new workshop preoccupy Tom and Norm.

PHOTO: DAVID PETERSON (TOP LEFT); RICHARD HOWARD/WGBH (LOWER RIGHT)



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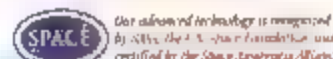
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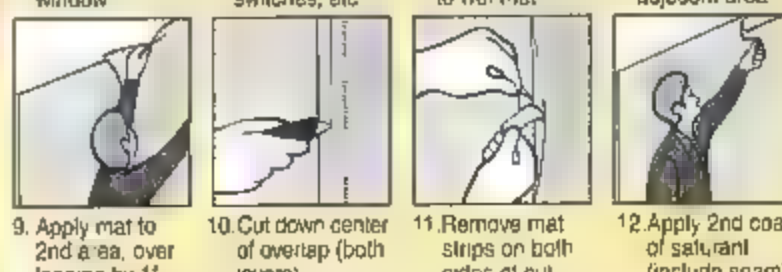
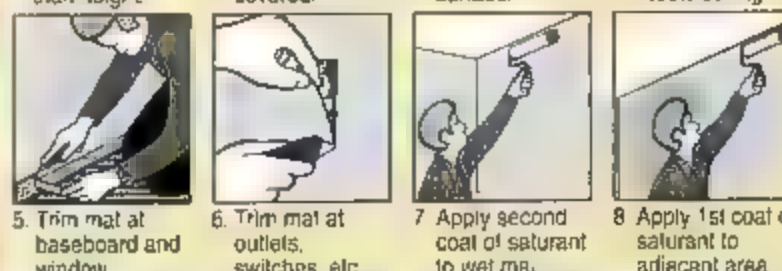
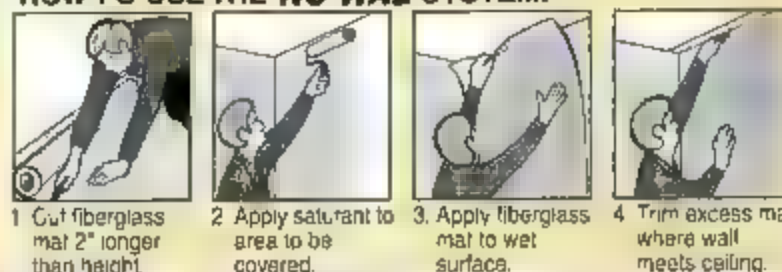
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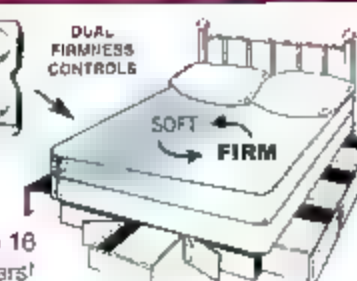
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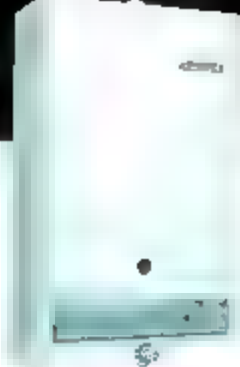
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The interior walls have been stripped down to the wood lath and await a fresh coat of plaster—an appropriate backdrop for the home's heart pine floors, beaded baseboards and door molding, six fireplaces, and numerous four-, five-, and six-paneled doors.

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CONTACT

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If you know of a house that should be saved, please write to: Save This Old House, 1185 Avenue of the Americas, 27th floor, New York, NY 10036.



TOP: Fire damaged much of the Marmaduke Williams house, but a new roof has been installed and temporarily outfitted with plywood chimneys painted to resemble brick. The original floor plan, partitioned into apartments in the 1930s, was restored by new framing after the blaze (LEFT). An anonymous tip—"HURRY"—led the Heritage Commission to a salvage shop 100 miles away where five stolen mantels (RIGHT), last seen being loaded onto a truck the day after Christmas 1996, were recovered.

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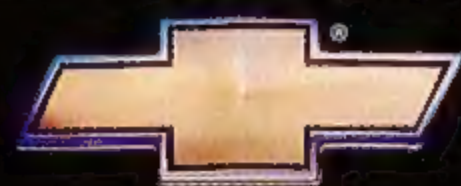


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SILVERADO HD



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¹ Based on available horsepower. ² Based on properly and comparably equipped vehicles. Maximum payload capacity includes weight of driver, passengers, optional equipment and cargo. ³ Dependability based on longevity: 1981-1999 full-size light-duty truck company registrations. Excludes other GM divisions. All claims exclude other GM vehicles. ©2000 GM Corp. Buckle up, America!