NOVEMBER 1999

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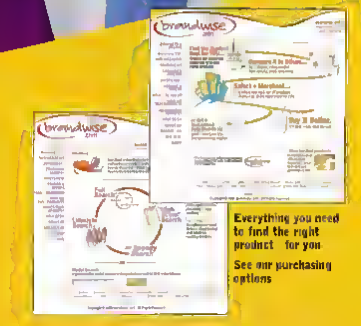

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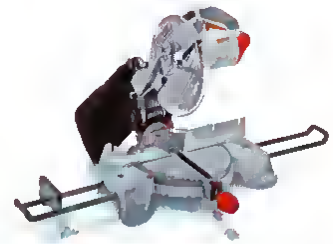

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Restoring a Legacy

A STROLL THROUGH PROVIDENCE
Rhode Island's formerly run down capital boasts a new waterfront and historic neighborhoods on the rebound
BY PAMELA FERDINAND
P. 96

features

GROUT EXPECTATIONS P. 114

SHEDLOCK HOMES P. 121

ALL DECKED OUT P. 87

cover *This Old House* contractor Tom Silva covers plywood sheathing with resin paper before installing Hardiplank fibercement siding on the porch of the show's project house in Gillerico Mesa. See "Getting There," page 87
PHOTOGRAPH BY KELLER & KELLER

PHOTOS, TOM AMIRE BARANOWSKI (BOTTOM FROM LEFT); JOHN KERNICK (2); JOE TUTHILL

(Continued on page 12)

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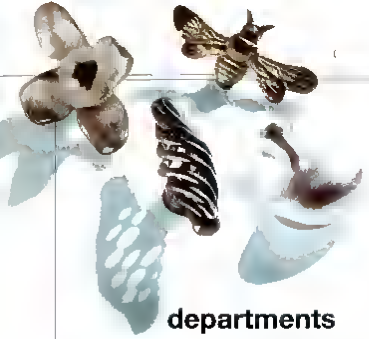
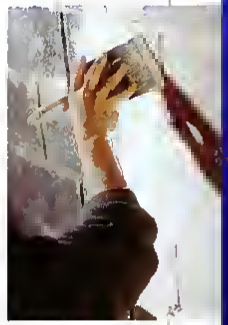


"Whimsical hardware is an easy way to lighten up a traditional kitchen."
—*Steve Thomas*

departments

columns



STELLAR CELLARS P. 45

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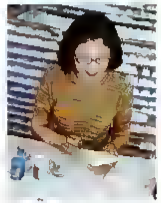

TILE O'PHILE P. 41

PHOTOS (CLOCKWISE FROM TOP LEFT): BARRY MILES; ERIC N. SMITH; JOHN BLAIR; KELLER & KELLER

plus

WHERE TO FIND IT ~ SEE DIRECTORY ~ PAGE 135

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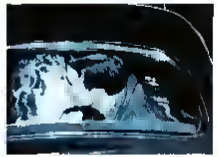

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PAMELA FERDINAND usually reports hard-news stories, but found herself in familiar territory while working on "A Stroll Through Providence" (page 96), because "I always write about the way people live," she says, and then adds, with a laugh, "Of course, with news, I usually end up writing about how people *die*." She was impressed by the pro-neighborhood ethic of the people in Rhode Island's capital, and says that despite its revitalization, it still feels like a small town. Although tempted by the charms of Providence, she's happy to stay put in another neighborhood returning to prosperity—Boston's South End, where Ferdinand covers New England for the *Washington Post*, and also writes for *The Economist*.

CHRIS D'MALLEY writes about consumer electronics "kind of by accident," he says—since he has an English degree from a liberal arts college. His "Technology" column, which premieres this issue with "Remote Possibilities" (page 56), focuses on "the way computers and other personal electronics fit into people's homes and thereby into their lives." In "The Silva Screen" (page TK) he also provides an update on the home theater going in at the *T.O.H.* project house in Billerica, Mass. A senior contributing editor to *Popular Science*, O'Malley writes for *Time* and *Men's Journal*. "I've been careful to avoid writing books," he says. "The technology—and my attention span—move too quickly for something as lengthy as that." O'Malley lives in Boynton Beach, Florida, with his wife and three children.

LANGDON CLAY, who shot the expansion of a bungalow for "Sweet Home Alabama" (page 104), used to photograph rock stars for *Rolling Stone* back in the late 1970s, and it's a job he doesn't miss at all. "They don't sit still, and they talk back," says Clay, who now shoots everything from architecture to food. For this month's story, he found that the bungalow's remarkable transformation made for portraits dramatic in their own right. "The original house's scale was pretty small, especially for the South, where high ceilings are the norm, but the new, large addition fit in very well," he says, singling out the contractors for praise. "They were real artists, and entirely in their element. They clearly loved doing it and doing it right." Clay lives in Sumner, Mississippi, with his wife and three kids.

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LETTERS

An Unfortunate Coincidence

The article about Dick Silva's house fire ["Up in Flames," July/August 1999] hit a bit too close to home for my family. On a cold and snowy morning at 5 a.m. on December 31, 1998, we watched helplessly as my mother's home of 40 years burned to the ground. A passing tow truck driver alerted the fire department and probably saved two lives. Little did we know that, just a few days earlier, the Christmas we had celebrated there would be our last. My mother is rebuilding on the same site, but because of the harsh winter, her house wasn't demolished until early April, and by June all she had was a foundation. I think the Silvas' project will be completed before ours, and I will watch the progress with extra special interest.

CYNTHIA LEEK, WHEELING, W.V.

Adjuster's Adjustment

In your footnote article ["Insuring Against the Worst," July/August 1999] to the Silva house-fire story, you advise readers to hire a public adjuster when submitting an insurance claim because insurers' adjusters "have little incentive to be generous." You go on to suggest that it is the claims adjuster who arbitrarily decides how much money a policy will pay out. Having adjusted claims for several major insurance companies over 11 years, I find your comment not only false but absurd. A claims representative's first priority is to help the policyholder according to the prescribed insurance policy. Your recommendation of hiring a public adjuster only serves to create discord at a critical time of need.

PHILLIP L. GENTRY, TAYLORS, S.C.

Dust-Free

From an allergy-suffering nest freak with carpal tunnel syndrome, thank you so much for your article about central vacuum systems ["Clean Machine," June 1999]. The story did an excellent job of spreading the word on this amazing alternative cleaning system.

SARAH A. MOORE MALINOSKI, MOBILE, ALA.

A Moveable Beast

I thoroughly enjoyed your article on commercial-style stoves ["Muscle Stoves," May 1999]. In my 15 years of commercial kitchen service, I have seen a trend toward this type of equipment in the home, first with under-counter dishwashers and countertop mixers, and now with ranges and ovens. Because these ranges are large, and difficult to move, it's a good idea to order them with casters and install them with a flexible gas-supply hose. This way, they can be maneuvered in and out of position more easily for servicing without potential damage to the floor. A device can also be installed to prevent the unit from being pulled out too far and straining the gas connectors.

KENNETH MCGORY, ONECO, CONN.

Neighbor Saver

I read with interest your story 'Acting Neighborly" [Outtakes, May 1999] about the disruption *This Old House*'s project in Key West, Florida, caused on Fleming Street. While much noise and disruption from construction sites are inevitable, the most upsetting source is unnecessary and completely avoidable: the radio. Before hiring tradesmen, it's a good idea to make clear that there should be no noise other than what is essential to the completion of the project. It makes all the difference in the world in how neighbors view you and your project.

KAREN ORR, GAINESVILLE, FLA.

punch list

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

September 1999

- Credit is due to Joe Yuklins—whose photograph of Norm Abram and Tom Silva appeared in "Ask Norm" on page 30.
- The photographs that appeared in "Home-Office Solutions" [By Design, pages 61–64] were first shown in the book entitled "The Home Office Book," by Donna Paul-gobi, shed by Artisan, a division of Workman Publishing Company Inc., 708 Broadway, New York, NY 10003 9555.
- The correct phone number for roof thatcher William Cahill ("Splendor in the Grass," pages 126–130) is 513 772-4974, and his Web site address is www.roofthatch.com (Directory, page 144).
- The correct phone number for Milling Road Upholstery is 336-751 5643, and their Web site address is www.millingroad.com (Directory, page 143).

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

OUTTAKES

BEHIND THE SCENES AT THIS OLD HOUSE

Roger Cook (left) and Norm spreads mulch around a new specimen.

A Tree Grows in Norm's Yard

EVER SINCE NORM BUILT HIS DREAM HOUSE A FEW YEARS AGO, THE YARD HAS BEEN A work-in-progress. Fall is an excellent time for planting, so he and *This Old House* landscape consultant Roger Cook recently put in a towering sugar maple along the side patio, replacing another one that didn't make it because of a bad root system. The arboreal duo also added a dwarf cypress, one of Norm's favorites, as well as two Japanese maples in front to create a privacy barrier. "They really make the driveway disappear," says Norm. "And I love the look of those weeping trees, especially in the fall when they turn a fiery red." To create room for cooking herbs, Roger and Norm removed some perennials near the house. Free-form beds surrounding the trees add visual interest to the yard and make the house look more "settled," says Norm. "The best part, though, is that I have less grass to cut."

WHERE TO FIND IT — SEE DIRECTORY — PAGE 138

How do you say *Billerica*?

Billerica, home of *This Old House*'s fall project, seems to be giving some folks pronunciation problems. Like many Massachusetts towns named after sister burgs in England, this hamlet northwest of Boston has a phonetically funky name. Natives know Worcester is *Wuhster* and Leominster is *Lemonster*, but even some Bay Staters get stumped trying to pronounce *Billerica*. Take a whack at the correct elocution—that is, the one used locally. The answer appears in WHERE TO FIND IT, page 144. Next challenge: learning how to *spell* Billerica.

1. *bil-REE-kah*
2. *bih LEHR-eh kah*
3. *bil RIHK-ah*
4. *BIL ler-ih kah*
5. *bil-REECH-ah*
6. *bil lee RIHK-ah*
7. *bil-RIHK-er*

PHOTO: KELLER & KELLER

Dick Silva, owner of the Billerica house, makes a special delivery with his motorized wheelbarrow.

Welcome Wagon

"IT WAS THE FIRST TOOL I BOUGHT AFTER THE FIRE," SAYS DICK SILVA OF THE motorized contraption in his yard. "I knew I'd need it." Designed to haul wheelbarrow-busting loads over any terrain, his new Powerwagon replaces a two-year-old model that was destroyed in March, along with his Billerica, Massachusetts, home. A stake bed and two lugged tires driven by a 6-horsepower engine provide enough muscle to maneuver up to 800 pounds of firewood, fertilizer, mulch, gravel, and more. Until his new house is finished, Dick can be found zipping around the construction site with stacks of building materials and construction debris. "I don't even use a wheelbarrow anymore," he says.

Those With Glass Hammers...

TOH master carpenter Norm Abram is used to attracting attention, but not from airport security. Recently, on his way back from a speaking engagement in Corning, New York, Norm had a little run-in with the authorities. It seems the X-ray machine detected a suspicious-looking object stowed in his luggage, and he was asked to step to the side and unpack his bag. The F.A.A. bans obvious weapons in carry-ons but leaves more common—potentially dangerous—items to the discretion of individual airlines. "I told security it was glass," says Norm. "But they thought I was joking, and I had to unroll the shirt it was wrapped in to prove it to them." The "it" in question was a glass hammer presented to him at the previous night's event. Luckily, airline personnel recognized that the fragile tool presented no threat—except to glass nails.

on November's calender

TOM SILVA

November 13—Central Kentucky Holiday Home Show, Lexington Center Heritage Hall, 430 West Vine Street, Lexington, KY 40507, appearance times are 2 p.m., 4:30 p.m., and 7 p.m., call 800-260 3588, PIN 1000 for more information.

PHOTOS: JOE YUTKINS

WHERE TO FIND IT — SEE DIRECTORY — PAGE 138

Black-and white tile lends Chris and Melissa Edson Barnes's new kitchen a 1920s sensibility. They distressed the painted cabinets to enhance the "old timey" look.

Mile-High Makeover

BY HOPE REEVES

"In a rectangular kitchen this size, two islands are better than one. It's easier to move around them and you get plenty of work space."—*Steve Thomas*

A year and a half ago, Chris and Melissa Edson Barnes moved to Denver, Colorado, where Chris was opening an office for his investment banking firm. The four-bedroom brick Colonial Revival they bought was built in the 1920s and loaded with original details: quarter-sawn oak floors, arched doorways, and carved oak banisters and paneling. "And the neighborhood is great," says Melissa, a senior manager at an Internet company. "Full of history and really close to both our offices."

PROBLEM

As much as they loved the house, Chris and Melissa's smiles faded every time they walked into their dark and poorly laid-out kitchen. "First of all, it was Pepto-Bismol pink and Wedgwood blue, with a striped wallpaper that was totally out of place with the architectural aesthetic of the house," says Melissa. "And it was divided into all these different rooms: a breakfast nook, a butler's pantry, and an odd little corner that held the fridge and served as a mudroom."

After interviewing a few kitchen designers, the couple hired Laurel Quint, owner of Q Design in Denver, to create a room with both prewar charm and mega-utility for modern life. Her take on the existing kitchen was even less kind: "The rest of the house is so elegant and beautiful and then you see this space and you're like, 'Yuck! Where did this come from?'" After the hundreds of kitchens he's seen, the problem seemed all too familiar to *This Old House* host Steve Thomas. "Back when the Barneses' house was built, the

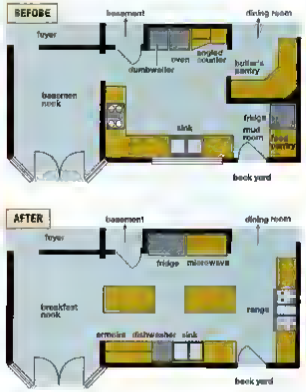
PHOTOGRAPHS BY TIM MURPHY/FOTO IMAGERY
STYLING BY MINDY PANTIEL

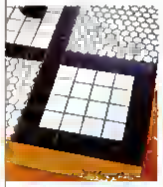
STEVE THOMAS: PHOTO: CHRISTIANA CEPPAS

ABOVE: *Elegant glass-fronted cabinets contrast with the hearth's rustic brick veneer.* BELOW: *A black-and-white tile "carpet" is set in the quartersawn oak floor, providing a visual anchor for the islands at floor level. The work islands are topped with white tile, while the other counters are done in crystal mahogany granite with an ogee edge.*

FLOOR PLAN

To remedy the chopped-up layout, designer Laurel Quint eliminated the butler's pantry—including an obsolete dumbwaiter—created centralized work stations, and arranged the appliances to maximize efficiency.





kitchen was just a work room—a place to prepare meals, which were served elsewhere," he says. "An '80s renovation had ignored the space's potential. They needed a total gut to make the kitchen function more efficiently and serve as a center of family life."

In short, says Melissa, "I wanted to make it more open and sunny—a place where lots of people could all sit together and talk and cook. That's how my kitchen was when I was growing up."

SOLUTION

Laurel started by taking everything out of the 365-square-foot kitchen, including the Reagan-era black glass appliances and the walls that formed the warren of awkward alcoves. She then got rid of the butler's pantry, creating a view to the adjacent dining room and borrowing some of its light. "The kitchen was dark but because the house is in a historic district, Laurel didn't want to bump out or add a window," explains Steve. (By not altering the exterior, the couple also qualified for a $15,000 state income tax credit sponsored by the local Landmark Preservation Committee.)

When the room was clear, Laurel rearranged the essentials on paper. She situated the stove and refrigerator where they could form a work triangle with the sink. She then replaced all the appliances with stainless steel models because Chris wanted "big and shiny machines with large dials."

Laurel considered installing a peninsula between the breakfast nook and the rest of the kitchen but she felt it would make the work area feel cramped. Instead she put in dual islands—tables designed to look like 18th-century English country furniture and topped by white 2x2 porcelain tiles. Ordinarily, Laurel would "never in a million years" use tile on chopping stations, but in this case, she thinks it complements the black and white kitchen better than other surfaces she considered, such as butcher block, marble, and granite. Steve, however, has reservations about the material. "I once had tile on my countertops and I would never do it again," he says. "It looks great but they tend to be noisy, and they're a pain to clean because gunk gets stuck in the grout," he says. "But Laurel did use a very level tile and black grout to hide discoloration. Maybe that'll make upkeep easier, and the wood cabinetry will absorb sound."

FINISHING TOUCHES

Laurel hung elegant pendant lamps suspended by delicate wrought iron "vines," and wove in more whimsy with hand-painted fruit, trees, and bumble bees on a built-in birch armoire that doubles as Melissa's food pantry. Every time Melissa catches sight of these colorful images, they make her smile. And when she looks around the whole room, she feels completely satisfied. "We love it," Melissa says of the new kitchen. "We'd better. We're going to be here until we retire." ■

FLOOR PLANS: BETSWAR (1/8)

WHERE TO FIND IT — SEE DIRECTORY — PAGE 135

IDEAS NOTEBOOK

HARDWARE

"I liked the contrast of the crystal ball and the beat-up looking cabinets," Laurel says of the hardware they salvaged from the old kitchen. However, she also considered installing a mix of iron and bronze knobs in such whimsical shapes as a flower, a bumblebee, a mushroom, or an oval "cage."

LIGHTING

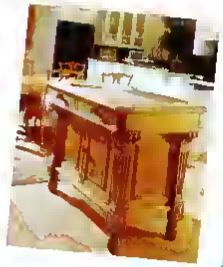
Plain old fluorescents wouldn't do for Melissa, she wanted pendant style lamps with ornamental flair. One option: this model from Progress Lighting of alabaster glass and steel with a golden umber finish.

ISLAND

Melissa's work stations are custom-made pine tables with tile tops. This practical alternative from Lexington features a maple butcher block top.

TILE

Melissa used white tile on her backsplash to offset the dark wood islands and granite counters. For a more rustic look she might have chosen this Jerusalem limestone from Paris Ceramics. However warns Steve, unglazed tile "must be periodically sealed."



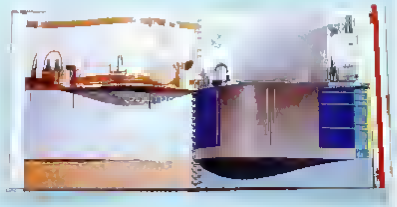
DISPLAY

Instead of the built-in cabinets that flank the range, the Barneses might have stowed casual tableware on a classic baker's rack, such as this metal one from Ethan Allen.

—reported by Ramy Pokorny

HAVE A BOOK-SEE

Before plunging into a kitchen remodel, check out *The Kitchen Planner: Hundreds of Great Ideas for Your New Kitchen* (Chronicle Books). Its split-page format lets you mix and match materials until you hit upon the right design cocktail. How about cherry cabinets, stainless appliances, and mint-green walls?



CLOCKWISE FROM TOP RIGHT: PHOENIX LIGHTING; LEXINGTON FURNITURE; DANNY KOLLIN (3); ILLUSTRATION BY JAEKONDUM

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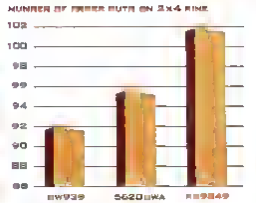

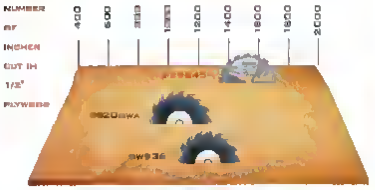

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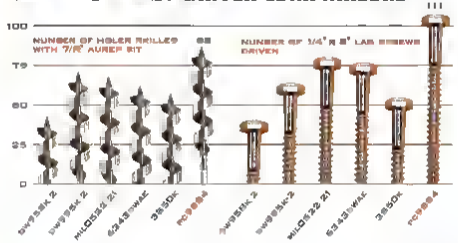

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PORTER-CABLE

ASK NORM

Helpful advice for building fences, coping joints, and caulking floors

REUSING PALLETS

Like you, I'm a big believer in recycling, but since I can't find a local dealer in salvaged lumber, I've been recycling old shipping pallets. The wood works fine for some projects but not so well for others. Do you recommend using pallet wood?

DAMON E. LINGOURT, W. HENRIETTA, N.Y.

I built a simple pallet wood coffee table on *The New Yankee Workshop* some years ago, and it turned out to be a pretty good project. The wood—usually oak or maple—is often second rate, not good for anything you'd call heirloom quality, and by the time you get all the nails out, the pieces are rather short. But it's useful for small projects and so-called rustic furniture. And it's certainly good to practice on, especially with kids, who ought to feel okay about making mistakes.

CLOSING THE GAP

We built a house with a main room that's half-living room, with a floating wood floor, and half-kitchen/dining room, which is tiled. Both floors look wonderful, except there's a ¼-inch expansion gap where they meet. What can we do to make the gap less obvious?

TERRY C. ANSCHUTZ, STURGEON BAY, WISC.

Dealing the meeting of two dissimilar materials is always touchy. The way I see it, you have two choices. You can take up the floating floor and re-lay it so it butts up against the tile, but you'll have to leave room for expansion on the opposite side. Or you can leave the floor as it is and fill the gap with a bead of color-matched silicone caulk. Just be sure it's below the level of the floor, not flush with it. Otherwise the caulk will push up above the surface when the floor expands.

A RIVER RUNS OVER IT

The ground floor of my home is tongue-and-groove oak. It's rather stained because I'm within 30 feet of a tidal river, and during spring tides the southwest winds have raised the river to slightly above floor level. (There is no basement, only a 6-inch ventilation space.) How do I get rid of the stains?

D.M. WARNER, VANCOUVER, B.C., CANADA

Some of the stains might be removed by bleaching, a job best left to the pros, others might be sanded out. The black spots that remain, from wet oak reacting with the iron in the nails, may never come out. A more important project is to keep the water from coming back. You can't lower the river, so you'd better raise the floor by jacking your house up above the high tide mark. While you're at it, check the framing for rot.

PAINTING AND LOCK REPAIR

I'm repainting our shingled Dutch Colonial, one section per year. I burn off the thick, cracked paint; then sand and apply a good oil-based primer, which dries for five to seven days and then gets two finish coats of latex. I also disassemble the windows, strip the paint and putty, replace the pulley ropes, and so on. But I need your advice on another matter. I have good, solid paneled doors, but the lock plates are loose because of stripped screw holes. How can I fix them?

BILL BICKLER, CLINTON, IOWA

Before I get to your lock plates, I want to urge you to be really careful about stripping paint. If there's lead paint on your house, I wouldn't heat-strip it because it might vaporize and become more of a threat to your health. Heat stripping presents a fire hazard, too. You might consider a chemical stripper (one of the safer ones that doesn't contain methylene chloride), although that gets messy and expensive. Or for about the same price, you could hire a lead-abatement pro and let him take care of the stripping and cleanup. As for the lock plates, you can tighten them by stuffing the holes with glued-in bits of wooden matchsticks or shredded bronze wool (not steel, which rusts), it's an old trick that often works, at least for a while. Even better, take one screw to the hardware store and ask for the same size, only ¼-inch longer so the threads can bite into some solid wood. If you get a bigger size, and replace, say, a #6 with a #8, the heads won't fit the countersunk holes in the lock plates.

HOT TOPICS

I want to construct a built-in bookcase in the space above a radiator, but I'm not sure of the clearance required for safety and I don't want to have every fire chief in the city looking for me. What's the correct clearance?

BRETT WEIN, BROOKLYN, N.Y.

There is no fire hazard. Radiators don't get hot enough to ignite much of anything, particularly books. But the heat will dry out

PHOTOS: KELLER AND KELLER

ASK NORM

their bindings. Leave at least a foot between the top of the radiator and the bottom shelf.

LEAKING DORMER

Our screened porch (left) has a flat roof that can be reached by way of a door in a dormer. Water leaks through the door into the room below and into the porch, too. We want to replace the door with a window and put a pitched roof on the porch. If we go this route, our contractor recommends stripping the shingles from much of the roof so he can install proper flashing. These are wood shingles, only five years old—I can't justify replacing them. Is there another solution?

JULI SANDERS, MARSHALL, MINN.

Yes, there is, and it's quicker and cheaper, too. Wall in the bottom part of the dormer, install the window above it, and lose the railing. You'll still need flashing, but you won't need a pitched roof on the porch, and frankly, I think it would be clumsy-looking.

SINKING SLOWLY IN THE WEST

My husband and I own a 1921 California bungalow. We knew it had settled, but since the house passed an inspection easily, we thought it was nothing to worry about. We've spoken to several contractors, however, and all of them tell us to fix the settling by jacking up the foundation. One mentioned that secondary problems could arise from the work. Is the settling something we should rush to correct?

KELLY PECK, LOS ANGELES, CALIF.

Settling of a foundation is common and can often be ignored if it has stopped—which, in older houses, it usually has. The contractor who mentioned secondary problems is right, though. Houses are like people. If you spend all afternoon in a hammock, you could pull some muscles if you leap to your feet. Your house has spent more than 75 years "getting settled," and any attempt to jack it back to its original condition may indeed cause other problems. That's why it should be done very slowly—if at all.

BLUEGRASS FENCES

I have a fence project coming up, and need your advice. I like the looks of wood but am uncertain if wood is appropriate because the humidity levels are high around here.

MIKE NOELSCHER, LEXINGTON, KY

I vote for building a wood fence like the ones you see everywhere in Bluegrass Country. A second reason, closely related to the first, is that your neighbors might be upset if you build with anything else. You want something that looks as if it belongs there, so it's wise to stick with local styles and standards. If you install posts that have not been pressure-treated, pack gravel around them to allow for proper drainage. (Rotting posts are the chief threat to a wooden fence.) Then protect all exposed wood from sun and rain by brushing on primer and paint or a coat of stain.

ILLUSTRATIONS: GREGORY NEMEC

ASK NORM

SLATE OVER SLAB

Outside the front door of my home there's a concrete slab that I want to cover with slate. How do I get slate to stick to the concrete?

BRIAN R. SELPH, DENTON, MD.

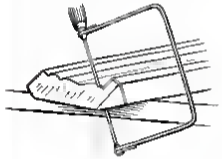
What a mason would do is this. He'd clean the concrete with a muriatic acid wash, lay down a "pad" of mortar about an inch thick, then press and wiggle the slates into the pad. Later he'd "grout" the spaces between the slates with mortar, more or less the same way you'd grout bathroom tile. I say more or less because it's a lot trickier than that. Hire a mason; this is not a do-it-yourself job.

STAINED FOR GOOD

My wife and I own a 10-year-old house that has thick "slab pine" siding left rough on the exposed side. I want to remove all three coats of oil stain and apply one that will leave the pine looking as natural as possible. Is there a way to remove all of the stain? What about sandblasting?

JOHN P. HOLTZ, THREE LAKES, WISC.

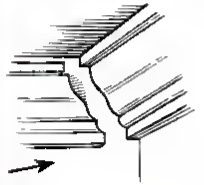
I'm afraid it's too late to do much. After three coats of oil stain, you won't get back to a natural color without taking off a lot of wood. Sandblasting or power washing will just damage it. You could try a deck-stain stripper, but with all the mess and expense that would entail, it would be easier to learn to like the color you've got.



CROWN QUERY

According to everything I've read, crown molding for inside corners must be cut along the back edge for a proper fit after mitering. But if the two pieces of trim meet at a 45-degree angle, why is the back cut necessary?

RANDY NOAH, SCOTT, ARK.



Mitered joints tend to open up as the wood shrinks, revealing an unsightly gap. That's why you should "cope" the joint. One piece of molding is simply cut square so it butts into a wall; the adjacent piece is mitered as if it were going to fit in an inside corner, and then the sloped cut is trimmed off with a coping saw, along the contour of the molding's profile. The coped end, being the mirror image of the profile, fits tightly over the first piece, and unlike a miter joint, stays that way. ■

Send questions to Ask Norm, *The 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.

WHERE TO FIND IT - SEE DIRECTORY - PAGE 138

Adding Up

A second floor lends needed space and Colonial stature to a 1950s ranch

BY CURTIS RIST

When they first married, Patrice Lawall and Ernst Hofmann dreamed of moving into a classic old house, with plenty of room and intricate detailing inside. But all they could afford at the time was a small two-bedroom, one-bath, vinyl-sided ranch in Madison, New Jersey. That suited them for a decade, but last January, with a second child on the way, they decided they had to find more space. "We started looking at historic houses, but the prices were way too high—and they still needed fixing up," says Hofmann, a building contractor. Rather than despair, he made a deal with his wife. "I said, 'Let's stay put, and I'll turn this place into one that's not only bigger, but also has the flavor of an old house.'"

That was a daunting promise, considering that the one-story house, built in 1957, had all the curb appeal of a trailer home. Simply tacking an addition onto the back wouldn't change its appearance, it needed a complete overhaul. But they didn't want to tear the place down, as they'd already poured time and money into new windows, a wide plank pine floor for the kitchen, and custom-milled window and door trim. "As a builder, I have faith in older houses, no matter how plain they are," says Hofmann. So the couple decided to move up in the world by adding a second story.

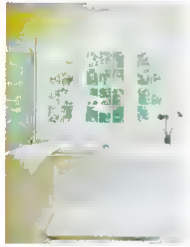
The idea of adding on four new bedrooms and doubling the size of the residence to 3,000 square feet may have been enticing, but there were major obstacles to overcome. First, Hofmann and Lawall couldn't agree on a style for the exterior that suited them both ("I wanted a Cape Cod–style house with dormers, but Ernie wanted something more imposing," says Lawall). The need to incorporate an existing chimney complicated the upstairs floor plan. And there was the added pressure of a tight deadline: Hofmann and his wife were expecting their second child in just five months.

"Nobody can believe this is the same house, they think it's much older," says Ernst Hofmann of his $220,000 renovation. When adding a second story, he turned the different sizes and styles of the first-floor windows into an advantage. "I'm a big proponent of asymmetry," he says. "It gives houses character by making them look less boxy and more casual."

PHOTOGRAPHS BY JOHN GRUEN

BEFORE PHOTO COURTESY OF ERNST HOFMANN

LEFT: The slope of the roof and the peak of the dormers add visual interest to the master bedroom BELOW. In the bathroom, a Palladian window over the tub provides an expansive view.



ABOVE: As the Hofmanns' addition went up, the first floor, where the family continued to live, remained intact

They soon resolved their design differences after driving by a house they both loved. A big gable that ran across half the front satisfied Hofmann, and the dormered windows in the other half were exactly what Lawall wanted. "It was the perfect compromise," says Hofmann.

With the exterior sorted out, Hofmann turned to planning the interior. He found enough space for a staircase in the entrance hall coat closet, but the dream of having four bedrooms upstairs proved unworkable. The chimney would have run right through the middle of one. A less ambitious plan calling for three bedrooms made things easier to arrange. On the gabled end, Hofmann designed two 16- by 14½-foot wide bedrooms for the children, separated by a wall of closets. On the dormered side would be the master suite, with an ell shaped 23- by 20 foot master bedroom, an 11- by 14 foot bathroom, and a walk-in closet with 38 feet of clothes rods.

Construction began in February. While the family lived below, Hofmann's crew ripped off the old roof, rafters and all, and quickly framed and sheathed the new addition. To cut down on the noise and dust, they insulated the joist bays with six-inch-thick fiberglass batts and sealed off the downstairs. When the upstairs was finished, the carpenters installed the staircase and—in one grand moment in May—united the two halves, just two weeks after Lawall gave birth. "We were able to live here because everything was going on upstairs, and virtually nothing happened downstairs," says Hofmann. "The only mishap was when one of my carpenters slipped off a floor joist and crashed through the kitchen ceiling. Fortunately, he was more embarrassed than hurt."

By the end of the summer, the metamorphosis from bland ranch to charming Colonial was complete. White-cedar shingles cover the outside, and elaborate dentil trim breaks up the mass of the gable. Inside, the upstairs ceiling heights rise to 9 feet 4 inches (thanks to the steeply pitched roof), and the master bathroom glows with marble flooring, custom-built cherry vanities, and a separate shower and bath. "It's amazing to go from what we had to this," says Lawall, as workers begin laying down the wool berber carpet in the couple's bedroom. "I wasn't sure it would be possible to pull it off, but now that the renovation is done I have to say I love everything about this house." ■

BEFORE RAZING THE ROOF, CHECK THE BASEMENT

How heavy is the second story? Adding a new floor is an economical way to increase the size of a house—"You've got no foundation to build," says T.O.H. contractor Tom Silva—but such additions can be extremely weighty. Ernst Hofmann's bump-up (see story) tops 100 tons. Any home owner contemplating such a renovation should call in a structural engineer to assess whether the house's existing foundation and framing can handle the extra weight.

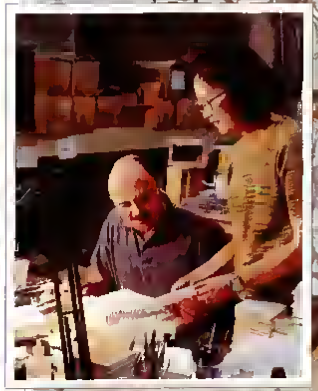
How strong is that beam? One of the first things an engineer will examine is the main beam spanning the length of the basement ceiling. If too weak, it can be strengthened with support columns or by fastening beams alongside it.

How thick is that footing? Foundations with footings that measure 2 feet wide by 1 foot deep should easily support a two-story house. But smaller footings, which an engineer can identify, could spell trouble. "A footing's size would be difficult and costly to change," says Silva. "But most foundations I've seen, even old brick and stone ones, could carry another story with no problem."

PHOTOS COURTESY OF ERNST HOFMANN

WHERE TO FIND IT – SEE DIRECTORY – PAGE 135

TILE MAKERS



Christian and Celine Quemere collaborate on their eponymous line of ceramic tiles. Their designs feature deep relief patterns and a variety of glazes.

WHERE TO FIND IT ~ SEE DIRECTORY ~ PAGE 125

NAME: Chrisnan and Celine Quemere

COMPANY: Quemere International, makers of hand crafted ceramic tile for kitchens and bathrooms

WORKSHOP: A 5,300-square foot warehouse in Port Chester, New York, where they fire 2,000 tiles a day—and thus have an electric bill of $5,000 per month.

ORIGINS. Christian grew up in the Brittany region of France, which has a 100 year-old tradition of ceramic dish- and tile making. But it wasn't until 1989, after working in textile production for 15 years, that he developed an interest in clay. "When I touched the material that first time, it was like magic," says Christian. "I had found my bliss." He rented a studio and began carving Renaissance-inspired designs into palm size slabs of clay. A few months later, his wife, Celine, then a clothing designer, began sketching nature and Art Nouveau motifs for the tiles. "It's rewarding to see someone mount your creation in such an enduring way," she says.

INSPIRATION: Whenever the Quemeres travel—especially in Europe, where they can find wonderful examples of tiles produced by artisans from ancient times through the 19th century Arts and Crafts movement—Celine carries a sketchbook and camera, which she uses to record their finds. Back home, she translates them into her own designs. "We keep refining them until we end up with something more simplified and elegant," she says.

THE PROCESS: Every Monday, the couple and their staff of ten gather their secret ingredients and mix 10,000 pounds of clay—enough for 14,000 tiles. "It's like cooking," says Christian. "You have to experiment and figure out the best way to combine your ingredients, glaze and fire to create a tile that has delicate details yet won't break in the kiln."

THIS SEASON'S SURPRISE HIT: A pale pink rose with an avocado-green stem, designed for kitchen and bath borders, because "it's relaxing to look at a perfect flower all year long," says Celine.

BY MEGHAN ANDERSON. PHOTOGRAPHS BY JOHN BLAIS

ns are vs compact SUVs designed and built in North America, excluding other DaimlerChrysler Corp. vehicles, and are based on data available at time of printing t belts. Remember a backseat is the safest place for children. Properly secure all cargo.

KEEPING YOUR BASEMENT DRY

BY MARK FEIRER

Water that drips through foundations, seeps through masonry, condenses on cool walls, and collects in puddles on concrete floors is the bane of every home owner with a basement. Even a little water is bad news. It rusts steel support columns, weakens framing, melts cardboard, corrodes tools, and renders a basement musty and useless for anything but growing fungi. And damp basement air can permeate the rest of the house, encouraging the growth of mold, mildew, rot, and infestations of wood-eating insects. *TOH* contractor Tom Silva says, "If there's water in the basement, you've got to fight it."

The first step is to figure out where the water is coming from. "Begin your detective work outside," says Tom. In his experience, some of the most common—and easily fixed—sources of basement moisture are damaged, blocked, or missing gutters that dump water right next to a foundation. Then he takes his sleuthing—and fixups—indoors (see examples, right). If leaks persist, he tries more aggressive and expensive strategies, from regrading the lot to installing a system of landscape drains. When all else fails, Tom will jackhammer through the basement floor and install an internal defense perimeter: perforated pipe leading to a pump. "Water has to go somewhere," Tom says. "And anywhere is better than inside your basement."

In this basement, the darkened concrete blocks offer a clue that water is seeping through the foundation walls. If incoming water can't be diverted from the outside, the owner will need to find ways to block its entry from the inside.

CELLAR FIXES

WET FLOOR. Water reaching the underside of the slab can pass through the concrete and into the basement. If the water can't be diverted from the house outside, drain it away with an interior French drain connected to a pump.

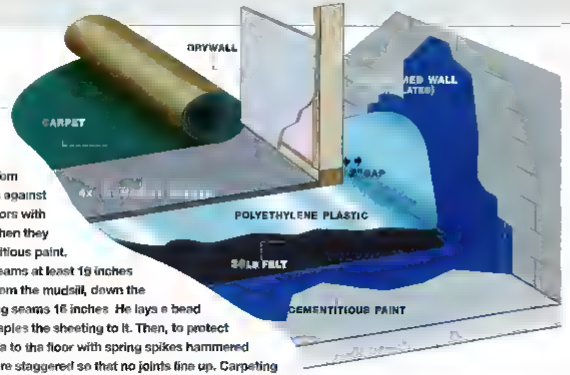
GAP BETWEEN WALL AND FLOOR. As a house settles, basement walls may separate slightly from the floor slab. Patch with liquid grout.

CRACKS IN WALLS. Fill with hydraulic cement.

PIPE ENTRY. Use hydraulic cement to plug gaps around drain and water-supply pipes that penetrate the foundation.

WINDOW FRAMES. Replace the rotten wood, then seal the perimeter with butyl caulk.

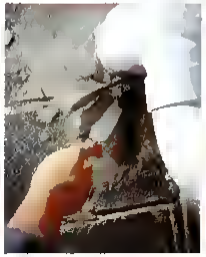
PHOTOGRAPHS BY KOLIN SMITH



Finishing a Dry Basement

After all sources of water problems have been eradicated, Tom erects a multilayer defense to protect new basement rooms against future moisture incursions. First, he cleans the walls and floors with bleach and water to remove all traces of mildew and dirt. When they are dry, he covers them with two or three coats of a cementitious paint. Next, he lays 30 lb. building felt over the slab, overlapping seams at least 18 inches. A layer of 6-mil polyethylene sheeting follows; Tom runs it from the mudsill, down the walls, across the floor and up the opposite walls, overlapping seams 18 inches. He lays a bead of polyurethane or butyl caulk along the mudsill and then staples the sheeting to it. Then, to protect the plastic and isolate the cold slab, Tom attaches Homasote to the floor with spring spikes hammered into holes he drills in the concrete. The 4- by 4-foot sheets are staggered so that no joints line up. Carpeting or a floating wood floor system can follow. "Some people cover the foundation walls with rigid foam insulation and drywall," says Tom, "but it's generally easiest to insulate a newly framed wall with fiberglass." A slight gap between walls and foundation allows air to circulate so that any moisture can dissipate.

CEMENT PATCH



Hydraulic cement is ideal for patching small holes and cracks, even when water is actually flowing through. The material, a powder mixed with water to a putty-like consistency, expands slightly and sets within five minutes. The product contains portland cement, a caustic, so wear rubber gloves when applying.

CRACKING DOWN

Though it seems counterintuitive, Tom's first step in patching a crack is to make it bigger. Using a hammer and a masonry chisel, he makes a groove about a half-inch wide and a half inch deep. After wire brushing the area to remove loose material, he dampens the crack with water and then forces hydraulic cement into the breach with a margin trowel. A wet brush smooths the repair and feathers the edges. "You'd better have all your tools ready," Tom says. The cement will be rock hard in less than 5 minutes.

SEEPAGE STOP

Unlike standard paint, cementitious waterproofing contains portland cement and synthetic rubber that bond to and seal porous cement block and concrete walls. Two coats can withstand water pressure that would pop ordinary paints off the surface. Some cementitious coatings can be applied to damp walls, but none will work as crack fillers or on unprotected floors.

Plugging a Stone Foundation

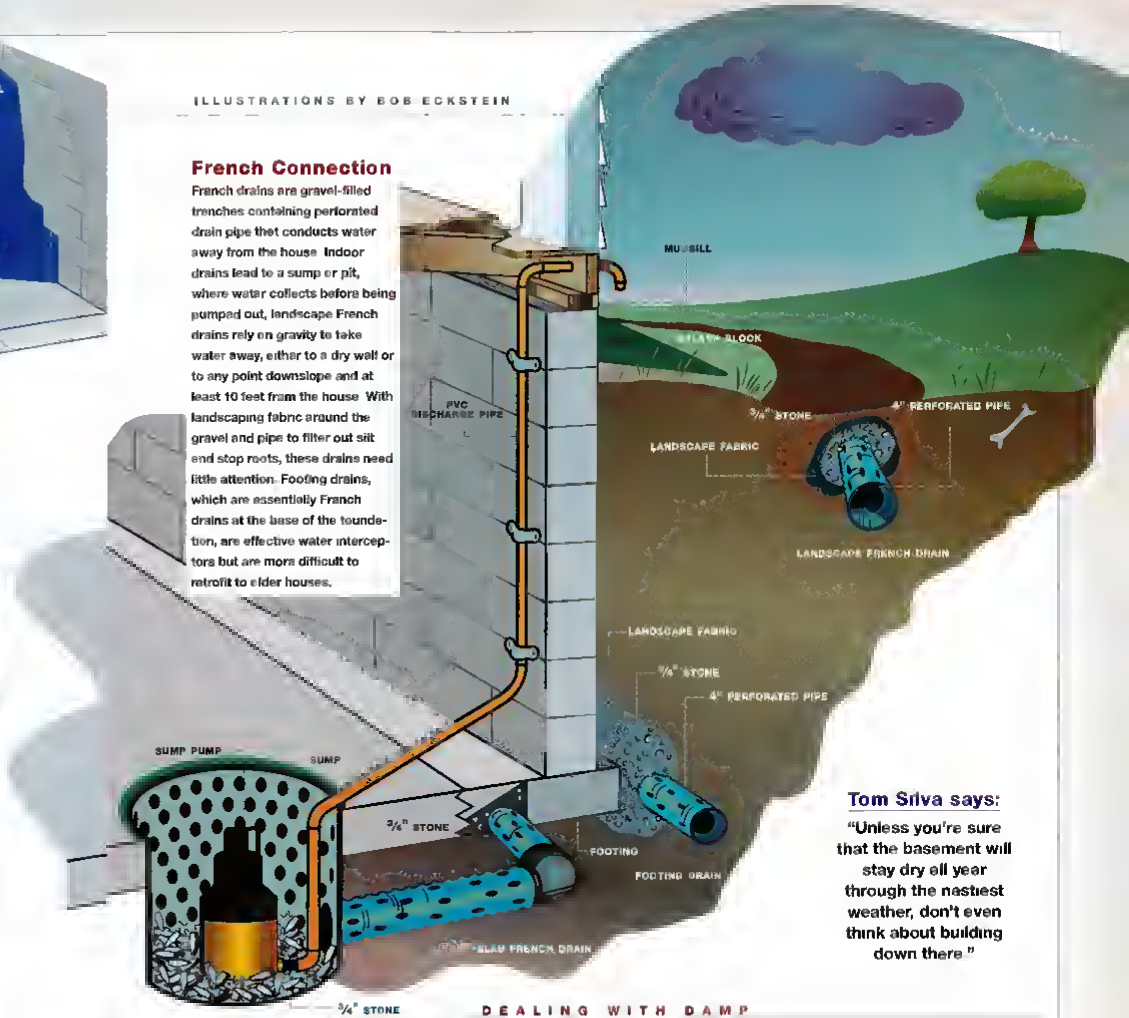
Of all the waterproofing challenges, the hardest involve stone foundations, as Tom well knows; his own house sits on one that once leaked. He repointed the old, crumbling mortar inside, but a few stubborn leaks persisted. So he dug a narrow trench, 18 inches deep and about 10 feet long, next to the outside of the foundation (five feet on either side of the suspected leakage points). After he cleaned off the newly exposed stone and let it dry for a few days, he filled the trench with buckets of a liquid asphalt used for sealing foundations. Back in the basement, he watched for the black goo to ooze through, and stopped it with wads of fiberglass insulation and squirts of expanding foam sealant. Within a day or so, the liquid asphalt had dried and Tom poured mors into the trench; the following day he topped it off with dirt. Tom warns that this method won't plug large cracks or correct a serious foundation problem, but it stanched his pesky small leaks; his basement is still dry 15 years later.

TOM SILVA PHOTO: JOE TUTTLE

ILLUSTRATIONS BY BOB ECKSTEIN

French Connection

French drains are gravel-filled trenches containing perforated drain pipe that conducts water away from the house. Indoor drains lead to a sump or pit, where water collects before being pumped out. Landscape French drains rely on gravity to take water away, either to a dry well or to any point downslope and at least 10 feet from the house. With landscaping fabric around the gravel and pipe to filter out silt and stop roots, these drains need little attention. Footing drains, which are essentially French drains at the base of the foundation, are effective water interceptors but are more difficult to retrofit to older houses.



Tom Silva says:

"Unless you're sure that the basement will stay dry all year through the nastiest weather, don't even think about building down there."

DEALING WITH DAMP

PROBLEM. Humid air condenses on cool walls, cold-water pipes, and well-water holding tanks, and this moisture problem is often misidentified as water seeping through the foundation walls.

DIAGNOSIS. To distinguish between condensation and seepage, place pieces of aluminum foil (each about a foot square) on the floor and each wall of the basement and seal the foil's edges with duct tape. Check after several days. Water droplets on the foil's exposed surface indicate condensation; droplets on the underside mean there's seepage, which requires at least a coat of cementitious waterproof paint.

SOLUTIONS. A dehumidifier can draw moisture out of humid air, but first make sure to eliminate other sources of humidity in the basement—unvented clothes dryers, blocked exhaust vents on gas appliances (a safety hazard too), crawl spaces without vapor barriers, wet clothes, stacks of green firewood, or open doors and windows.

NOTE. In a new home, lumber, plaster, and concrete foundations can take up to two years to dry.

LEFT: This 3,000-square-foot shingle style house in Redding, Connecticut, arrived at the job site in four huge sections—each one 58 feet long—plus several smaller pieces for the dormers. BELOW: The assembly required a 150-foot crane to lift the 12½-ton sections into place.

BY MARK STEIN

Mod Money

Prefab houses have risen to new heights of size, style, and quality. But are they still one of the best deals in home-building?

Modular houses were once the scourge of suburbia—cookie-cutter, prefab McRanches, not much different from oversized mobile homes, minus the wheels. Nowadays, though, factory built houses, bolted together chunk-by-chunk, are often indistinguishable from conventional homes constructed stud-by-stud. They have basements, second—and even third—floors. They have fancy open staircases, vaulted ceilings, lots of windows, four or more bedrooms, and several bathrooms, just like their stick-built counterparts.

At the high end, models can range in size from 3,000 to 10,000 square feet, and cost anywhere from $200,000 to more than $1 million. That's a far cry from the 1,000 to 1,400 square-foot ranch-style modulars that still account for the industry's lowest-priced products, which typically cost $55,000 to $100,000.

According to Jerry Rouleau, owner of J. Rouleau and Associates, a modular home marketing firm in Hanover, New Hampshire, "The whole image of what a modular house is has changed over the last few years." Last year some 30,000 modular houses were assembled in the U.S., up from 28,000 five years ago. But improved looks and higher quality aren't the only reasons buyers are going modular. Speed of construction and lower cost are also prime considerations.

"Because so much is done at the factory, it's always faster to build a modular home, whether it's large or small," says John T. Trant, executive vice-president and chief operating officer of All American Homes of Elkhart, Indiana, one of the nation's largest modular-home builders. The assembly line method of production creates the biggest time savings. Depending on the house's size, it

TOP PHOTO: © BRIAN SMITH; BOTTOM PHOTO: BRIAN SMITH

can be made up of two to nine modules, each of which can run up to 64 feet long and weigh 14 to 16 tons. "Building modules works just like building automobiles in Detroit," Rouleau says. "The platform comes along, and then the flooring, and then something else."

While the modules or sections are being built in the factory, the foundation and utility installation work can take place at the site. Then, once the modules arrive on a flat-bed pulled by a tractor trailer—complete with cabinets, sinks, and lighting fixtures—they're lifted by cranes, laid on the foundation, and attached to each other by the on-site builder. The final work involves hooking up the utilities and installing the exterior siding over the joints between modules.

A modular home can generally be ordered, built, and shipped, depending on backlog, in three months or less, says Trani. The assembly and finish work usually takes another 30 days. By contrast, the construction period for a stick-built house often lasts six months.

The big savings on modular result from the fact that manufacturers buy raw materials in volume. Also, labor costs are lower, and foul weather cannot lead to costly delays, as it can with conventional construction. With these manufacturing efficiencies, modular homes offer the greatest price break in the lower and middle ranges, everything under $200,000. Housing in these categories costs around $45 per square foot, a discount of about 20 percent compared to similar stick-built models.

Rouleau cautions that when comparing prices of the two methods, many variables must be factored in, including the complexity of the design and the quality of the materials. "With some homes there may be greater savings. With some others—particularly with expensive models—there might not be any savings," says Rouleau. "The reason is that, at the higher end, there tends to be more custom work involved—cabinets, flooring, lighting, special-design cut glass."

The cost advantage of modular over stick-built also shrinks in regions where labor is inexpensive and where building proceeds continuously because of a warm climate and fewer weather-related delays. According to Fred Hallahan, of Hallahan Associates, in Baltimore, Maryland, the nation's leading modular-industry analyst, few modular homes go up in the Sunbelt or on the West Coast. Most are found in the Midwest, in rural parts of the Northeast, and especially in the Mid-Atlantic states, where five percent of all new homes are modular.

This geographical skew also reflects the fact that most modular home manufacturers are clustered in Pennsylvania and the Midwest. "Modular homes tend to be built where there are manufacturers relatively close by," Rouleau says. "You wouldn't want to have a modular home shipped too far because the moving expense would get prohibitive."

Though modulars make building a new home faster and, in many cases, cheaper, they do have one disadvantage over conventionally built structures: changing your mind is very, very expensive. Say a couple decides that they want a wall torn out or a window moved, or that they want a different type of refrigerator or kitchen counter. Once the unit is out of the blueprint stage and under production, says Rouleau, it's almost impossible to make changes without paying exorbitant extra fees.

In spite of this caveat, to many builders, factory-built houses are the future. Says Rouleau: "Consider the improved designs, the fast pace of construction, and the competitive cost, more and more people will be purchasing modular homes."

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MODULAR MANUFACTURERS

All American Homes
219-292-0123

Cardinal Homes
804-736-8111
www.cardinalhomes.com

Guaranteed Structures
903-543-1236

Epoch Corporation
603-225-3907

Nationwide Homes
540-362-7855

New England Homes
603-436-8830

Penn Lyon Homes
800-768-4754

Signature Building Systems
800-231-8713

Westchester Modular Homes
800-832-3888

ILLUSTRATION: ERNEST CRIPE

THE PRICE OF PREFABS: A CASE STUDY

The claim is compelling: Modular houses cost less than conventional construction. But any industry booster can say that, so to find out if there really is a price advantage, we asked Dave Wroclaga, sales and marketing manager for the Epoch Corporation, to price out one of the high-end houses his company manufactures. "No problem," he said. "I've got a 5,500-square-foot, two-story Colonial going up in Fairfield County, Connecticut." From what the plans show, the house, shown at left, doesn't scrimp on features and details. Under a full-height attic, the second floor contains a large master suite plus three bedrooms, three full baths, and a sitting room. The downstairs plan includes another long list of rooms, among them a sunroom, a guest room with bath, a library, family and formal living rooms, two dining rooms, and a kitchen-sized butler's pantry. As if that weren't enough, there's even a lower level with a walk-out basement and an au pair/in-law suite. Given its location—one of the most affluent counties in America—the house looks, literally, like a million dollars. But it's actually going to cost the eventual owner a lot less—about $790,000 or $144 per square foot—which handily beats even the lowest estimate for a stick-built version. We showed the plans to a spec builder based in the same area, and he came up with a price of $180 a square foot, adding that other builders in southern Connecticut would come in at $180 to $200 a square foot, or $880,000 to $1,100,000. So the house could indeed be a million-dollar deal—but not if it comes from a factory. —Joe Carter

WHAT A DISH

NEW PATTERNS TO SET YOUR TABLE RIGHT

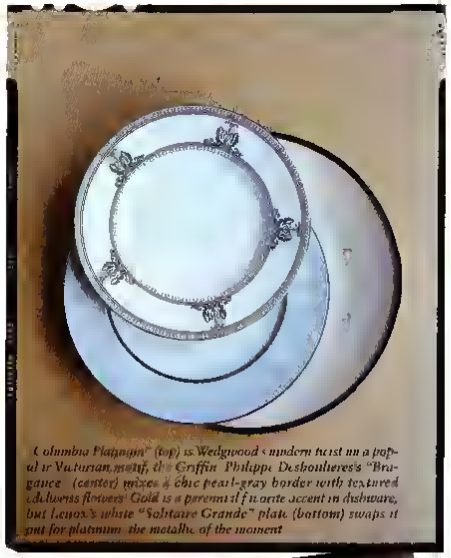
The set of china newlyweds choose for their shared home is meant to last a lifetime. But with trends in home design changing every five to seven years, says Bloomingdale's home furnishings fashion director David Hammond, there's always room to update the look of your table top by coordinating new dinner, salad, or brunch plates with classic whites, florals, and gold-banded pieces. The latest styles in china reflect clothing and lifestyle trends, especially with popular ready-to-wear designers expanding into home accessories. Thus a spate of gray and platinum-banded dishes reflect the hot color on runways last season. Ceramics and porcelain in a forest of greens, accented with leaves, showcase the interest in nature motifs. And with the mainstreaming of sushi, Japanese-style square plates are finding a place in American homes.

A hand-painted "Cordone" plate from Deruta of Italy modernizes a centuries-old Italian style. The relatively simple pattern and creamy-brown-gold border pair like a tuxedo jacket and tie.

BY ROMY POKORNY PHOTOGRAPHS BY ALISON ROSA

the details

Portmeirion replaces its traditional florals with a green leaf in the new mix-and-match "Seasons" collection (top). Haviland's delicate green "Florentine" dinner plate (center) represents a color departure for the classic Limoges line. Simon Pearce's pottery (bottom) is made by an ancient Chinese reduction firing process—the glaze shrinks faster than the clay during cooling, yielding a crackle finish.



"Columbia Platinum" (top) is Wedgwood's modern twist on a popular Victorian motif; the Griffin Philippe Deshoulieres's "Brigance" (center) mixes a chic pearl-gray border with textured cadmium flowers. Gold is a perennial favorite accent in dishware, but Lenox's white "Solitaire Grande" plate (bottom) swaps it out for platinum, the metallic of the moment.

Sunil Powell celebrates the new popularity of yellow in this lustrewate piece (top). Zrike's terra cotta "Kyoto" plate (center) fuses a moss green background with tropical leaves, fit for a Pacific Rim feast. Philippe Deshoulieres's amber "Festival" plate with gold filets (bottom) mixes cheerfully with patterned china.

Jean Louis Coquet's turquoise "Le Brunch" plate (top) comes in a set of six vivid hues, each worthy of accenting a white or patterned set. Sunil Powell's iridescent lusterware plates (center) revamp a Depression-era finish. The lacy border of Gien France's "Ciel" line (bottom) puts a new spin on a classic china color.

Remote Possibilities

Automating your home can be as simple as plugging in a light

BY CHRIS O'MALLEY

As houses go, mine is no genius. But it does know enough to start the coffee and adjust the thermostat when my alarm clock goes off in the morning, and to switch on all the outdoor lights with a remote control. Better yet, I set it up myself, with no wiring, for the grand sum of $150.

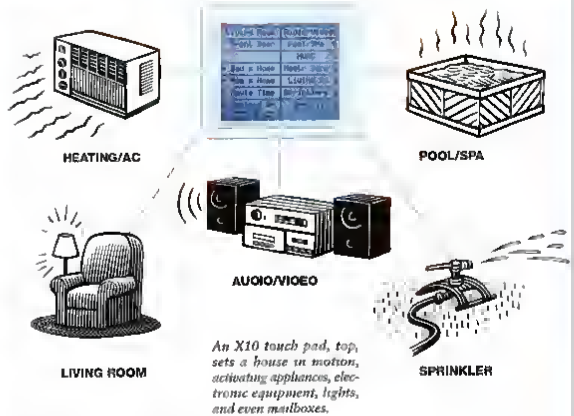
For years, home owners have been dreaming and reading about "smart" homes that water the lawn while you're on vacation, lower the heat when you open a window, or warm up the hot tub the second your car enters the driveway. The technology for turning a house into an obedient electronic servant has been around for some time, but unless you were prepared to shell out big money for an elaborate customized automation system, those sorts of home smarts might as well have been science fiction.

No more. These days, you can play Buck Rogers even if you don't have a NASA size wallet. Simple starter kits are available for as little as $40 or $50, and you can keep adding options that give you the ability to operate almost any appliance or system in your house, and make them work in concert.

This breakthrough in affordable home automation came in the late 1970s when a company called X10 Ltd. began marketing a series of easy-to-install products that needed no special wiring. Coded, high frequency signals were simply piggybacked onto the existing electrical wires in a house. In effect, X10 made it possible for anyone to automate anything within reach of an outlet. These devices—from X10 and other companies—proved so popular that they are now being used in more than five million homes throughout the U.S. and Canada (including mine).

At its simplest, an X10 system requires a control device that sends an electrical signal, and a module that receives it. For example, to automate a coffeemaker, you just plug it into an X10 module and

ILLUSTRATION BY LOU BROOKS



An X10 touch pad, top, sets a house in motion, activating appliances, electronic equipment, lights, and even mailboxes.

plug the module into an outlet. You then twirl a tiny dial on the module to assign it a unique "address" (up to 256 per system) so that this control device can identify it and tell it to turn on or off. The device, which plugs in anywhere in the home, can be sent commands by a keypad, a wireless remote, or even from outside the house using a cell phone. Or it can be linked to a home computer, enabling you to create a "macro" or "script" (a series of instructions) that lets the computer direct how and when your home's lighting, security, and heating-and-cooling systems work. With new computer based voice recognition programs, it's even possible to issue verbal commands to the control unit ("Close the drapes!") in person and over the phone.

Some X10 products can both send and receive signals, which allows an appliance to report its status and cue another apparatus to operate. For instance, a two-way X10 device that's told to warm up the hot tub can in turn trigger an X10 voice synthesizer to make an announcement when a temperature sensor indicates the tub is toasty.

As there are outlets in every room, and nearly everything you'd want to control runs on electricity, the results can be as limited or as far-reaching as your imagination. Beyond the basics (lighting, heating, cooling, security), X10 products can feed pets, deliver real time weather reports, alert you when someone pulls into your driveway, and even check to see if there's mail in your mailbox—and there are dozens of other possibilities available through such Web sites as www.smarthome.com and www.X10.com. If there is a downside, it's keeping track of all the options and commands at your disposal. That's why a computer is a necessary component of the more complex systems.

X10 is not the only home automation game in town. Another protocol, called CEBus, can work over electrical wires, phone wires, TV cables, and radio and infrared wireless systems. But there are far fewer CEBus products than X10 compatible ones, and they tend to be costlier.

Because these and other home automation products each have a different way of communicating, the industry group that promoted CEBus is now pushing for a universal language—Home Plug & Play—that would put all these systems on speaking terms. Home Plug & Play holds out the promise of an expanded market with more choices and more innovations, although, to date, there are only a handful of HPP-certified home-control devices on the market. Time will tell whether they will become the new standard. In the meantime, I believe I've gone long enough without an automatic mail checker. ■

ILLUSTRATIONS: GREGORY HEMEG

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Behind the left oval window of this Pennsylvania guest house is a 4-by-4½-foot cedar sauna. After taking the heat, the two homeowners like to cool off with a dip in the pool.

Hot Spot

A sauna is an affordable indulgence—and good for you, too

Four years ago Keith Raisanen, president of Saunatec Inc., the largest sauna manufacturer in North America, got a call from one of his salesmen in Kansas. Two desperate farmers had walked into the shop. The men explained they'd been on a Caribbean cruise and, in the spirit of sybaritic adventure, had tried the ship's sauna. The experience was quite a revelation. "These guys had no idea how many toxins they had in their bodies until they started sweating them out," says Raisanen. "After one session they felt totally relaxed and just plain healthier than they'd felt in years. As soon as they got back, they wanted saunas at home."

BY HOPE REEVES

Sitting in his office in Cokato, Minnesota, Raisanen hears stories like this all the time—from corporate executives and blue-collar workers, from the healthy and the sick. "My customers' needs vary," says Raisanen, "but they all want the same thing—the sense of health and vitality you get from taking a sauna."

The sauna as we know it was invented by the Finns, who recognized the benefits of sweating out stress in a hot

PHOTOGRAPH BY PASCAL CLANCON

room about 2,000 years ago. The original saunas were free-standing outbuildings made of logs or boulders, and were heated by burning wood in pits full of rocks. Every couple of minutes, bathers would pour water over the rocks to produce steam (the Finns call it *loyly*)—the defining aspect of a true Finnish sauna. A traditional sauna bath was followed by a quick plunge into a snowbank or a nippy body of water; then it was back to take the heat.

Modern saunas function much like their "primitive" counterparts—except that they can now be installed inside a house, and boast sleek custom and prefab designs that incorporate such features as electric heating units with lava rocks, and head and neck rests. Certainly today's saunas achieve the same results as the earliest versions: they help you relax and improve your health. A sauna will loosen your muscles as a result of the heat, flush out toxins by making you sweat, burn calories (up to 300 calories in a 30-minute session), and cleanse skin by opening pores. Some studies connect sauna use and the ability to fight illness. A number of doctors even recommend saunas for relief of the symptoms of such autoimmune illnesses as arthritis and Lupus, and in the treatment of alcohol and drug abuse.

Custom built saunas can be designed to fit in closets, awkward corners or other unused spaces.

Sized for two people, Finnleo's portable sauna can be taken apart, moved, and reassembled in hours.

Not so long ago Americans used saunas only at the gym or, like those farmers, on vacation. But because of our booming economy and health-obsessed culture, more and more folks are treating themselves to saunas at home. "At the end of a long, hard day, taking a sauna is the ultimate indulgence for your body and soul," says Deborah Smedes, a homeowner in Chappaqua, New York, who became a home-sauna convert after a trip to Finland many years ago.

Today's dream sauna might be incorporated into a whole spa room, complete with a gym, shower, changing room, wet bar, and lounge. Of course, not everyone has the space for a dream this big. Luckily, thanks to its generally small size (on average about 6 by 6 by 7 feet), finding a place to put an at-home unit isn't as daunting a task as it might seem. "You can install one outside on a deck or in the backyard—or inside by converting a spare room or usurping an unused corner," says Vince Paladino, owner of Body Health Systems in Riverhead, New York. "Often people end up putting a sauna in the basement, but master bathrooms and sunrooms are popular spots too." What is important is placing the sauna close to a shower or a pool for quick cool downs.

The three types of sauna units now available—custom, modular, and portable—offer homeowners a full range of styles, installation options, and prices. Built to fit an existing space, *custom saunas* (also known as pre-cut) are the most flexible option. They can be built in any size or shape and can be installed under a stairway, in an awkward corner, in an old walk-in closet, or outdoors. You can commission an architect to design one for you, or you can turn to a manufacturer who will send you detailed measuring instructions and forms to complete, and then build a unit to your specs. You'll receive a kit of parts—insulated walls, floor, and ceiling, benches, and a pre-hung door. Assembly takes a fair amount of skill so you may need to hire someone (a carpenter of your own choosing or one supplied by the distributor) to put it together, as well as an electrician to hardwire the unit to the electrical panel. Depending on the size, prices for a custom sauna range from $2,000 to $5,000, and the cost of the electrician and carpenter—assembly will take approximately 10 hours—will probably add an average of $1,000 to the final bill. The price for an architect/builder designed sauna would depend on the specs, and the heater would have to be purchased separately from a manufacturer for between $450 and $1,500.

Modular versions are freestanding and range from 3 by 4 by 7 feet in size to 12 by 12 by 7 feet. These box-like units can go anywhere their pre-fabricated bodies can fit. Outdoor models must be placed on a concrete slab or wood deck, and sealed with stain or paint. In addi-

Pre-built modular saunas are available in sizes for two to 12 people. They're easy to assemble and can fit into just about any corner or niche.

TOP PHOTO: PASCAL BLANCHIN; BOTTOM PHOTO: FINNLEO

tion, they require a roof, either supplied by the manufacturer in kit form, or custom built by a local contractor. Modular units tend to be more expensive than custom ones but are much easier to assemble. Depending on the size, two people can put together the kit in about three hours. Again, an electrician may be needed to hardwire the unit to the electrical panel. Prices range from $2,700 to $6,000, and professional installation will add $400 to $600 to the bill.

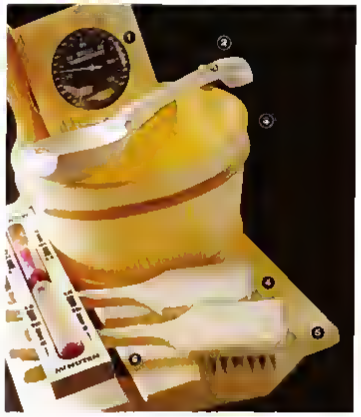
Portable saunas can literally be packed up and rolled away. Designed for interior use only, they're made of two easy to lock together sections (each of which weighs about 250 pounds and comes with wheels); when attached, the unit measures 4 by 4 by 7 feet and holds two people. There's no need to worry about where to put a portable sauna. The vinyl floor allows it to rest on any surface including carpeting. The best part—it plugs into a regular wall outlet. The cost: about $3,000.

Incorporating an indoor sauna into the decor of your house is usually a simple matter. "It used to be that residential saunas meant an ugly boxy thing in the basement," says Raisanen. "We've come a long way from that." You can cloak the sauna's exterior with the materials used in the space around it—drywall, tile, or wood. You can also echo the room's shape and make the unit rounded or angular.

While Americans tend to think cedar when they think sauna, wood options for the interior are quite varied. Bear in mind that your choices are restricted to soft woods because hard woods get too hot. On the walls and ceilings, some people prefer redwood or the beige look of hemlock, others like the Scandinavian feel of Nordic white spruce, a blond wood similar to pine. On surfaces that touch bare bodies—benches, headrests and backrests, floor boards, door handles, and heater guards—it's important to choose a wood that has a very low heat retention. Finnleo, a leading sauna distributor, uses abachi, a splinterless and knot-free wood from a tree that grows on the Ivory Coast.

You have fewer options when choosing a heater. Most saunas come with an electrical heater; all you have to decide is whether to mount the unit on the wall or on the floor. Saunas heated by wood ovens or gas stoves are available, but because they involve more upkeep than electrically heated models, they tend to be less popular. You can also choose the temperature and timing controls you want (manual, digital, or programmable), and place them inside or outside the sauna. Some models have trays to hold the rocks above the heater, others house the rocks inside the heating chamber—a system that allows for more rock density and produces, according to Finnleo, a longer, less intense heat.

Because people regard a personal sauna as a luxury, they imagine the price must be astronomical. In fact, units range from between $2,000 and $6,000, not including installation. "That's a lot less expensive than a week at a spa," says sauna aficionado Smedes. "It's like having your own little health improvement room. Whenever you want, you can go sweat your cares away in the privacy of your home, and then emerge glowing with an enhanced sense of well-being." ■



Key accessories include. **1)** *a thermometer for making sure the temperature doesn't exceed 192 degrees;* **2)** *a ladle for dousing hot rocks with water from* **3)** *a bucket;* **4)** *assorted bath brushes for exfoliating the skin during a session or for scrubbing down the sauna itself;* **5)** *a headrest for added comfort while lying down, and* **6)** *a sand timer to keep sessions from going longer than the recommended 15 to 30 minutes.*

PHOTO: ERIC PIASECKI

SAUNA SPECS

- Most saunas are approximately 7 feet high (taller wastes heat; shorter risks head bumps).
- To determine what size unit to install, decide how many people you'd like to fit in the sauna, then allot 2 linear feet of sitting space per person—and 6 to 7 feet of lying-down space. For example, a 6-by-8-foot unit can accommodate six sitting people (on upper benches) and two people lying down.
- A high bench (at least 3 feet off the ground) is a must for experiencing sauna heat (145 to 175 degrees), but if you've got the room, consider adding a lower bench where heat is less intense—95 to 100 degrees—for those unable to tolerate very high temperatures, such as children, pregnant women, and the elderly.
- Whether you put your sauna together or have it professionally assembled, make sure benches are nailed from the bottom. Nail heads get hot enough to singe bare skin. And never use wood stain inside the sauna, it will intensify the heat and give off toxic fumes.
- The heater provided by the manufacturer should be listed by Underwriters Laboratories, an independent safety testing organization. Saunas 4 by 6 feet or larger need 220-volt heaters, which add no more of a strain on a house's electrical system than a clothes dryer or a kitchen stove. Smaller units can get by on 120-volt heaters. Three 30-minute sessions a week will increase an electric bill by approximately $2 to $6 a month.
- The floor under the sauna should be waterproof—tile, concrete or vinyl—so it won't absorb sweat and water.

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The Heat Is On

BY JOSEPH HURST WAJSZCZUK

So get your system tuned up to keep it from running rough—or worse—shutting down

In houses with hot water heating, air gets trapped in radiators, reducing the system's efficiency. To get the air out, open the bleeder valve with a radiator key. Shut the valve once there's a steady flow of water.

With the possible exceptions of our cars and our bodies, we tend to wait until our key equipment breaks down before we take action. In the case of heating systems, that can be a big mistake. Defer a regular tune up and you risk not only your basic comfort but also higher fuel bills and shorter lived equipment. To find out what it takes to keep your hardware happy, we followed two experts through the basics of boiler and furnace maintenance.

OIL-FIRED BOILER

Tom Jones, owner of Automatic Oil Company Inc. in Bloomfield, New Jersey, maintains the oil-fired boilers and furnaces in about 600 area houses. But he figures there are lots of home owners who don't call him, or anyone else, for the necessary annual check-up. Procrastination, however, invites trouble because most breakdowns stem from skimping on upkeep, which can also result in fuel waste. "For less than $100 worth of parts and labor, my customers can cut their oil bill by 10 percent." Today, Jones is down in the basement of a house in Montclair, New Jersey, responding to the kind of call he prefers—a request for a tune up *before* there's a problem. As on all such jobs, he begins by replacing the fuel filter and the pump strainer, an oil burner's first two lines of defense against the sludge that typically collects at the bottom of a fuel tank.

Pulling out the old filter, Jones inspects it closely. A thin, milky-white residue indicates water in the tank, he says. With an underground tank, that may mean a leak. An unusually thick, grimy deposit on the filter can also be a sign of a corroding tank, or simply that the fuel level has on occasion gotten too low. "Keeping an oil tank full stops gunk from getting stirred up and pulled into the system."

Jones next opens the top of the burner to work on the electrode-nozzle assembly, which turns the oil from a fine mist into a roaring flame. He points to a thimble sized, gold-colored filter that keeps the nozzle clear, and scratches off a speck of sludge. "A crumb or two is all it takes to clog this up," he says. Jones then replaces the nozzle, cleans the oil-air mixing cone and the electrodes, and looks for soot deposits. All burners produce some soot, he says, but when it builds up inside the boiler, efficiency diminishes. Removing the top panel to expose the cast iron heat exchanger, Jones uses a long narrow brush to scrub off the residue. The soot comes away in black plumes that are promptly sucked up by his vacuum cleaner.

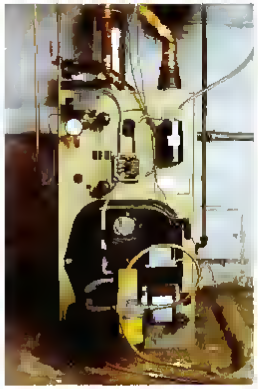
After closing up the burner, Jones fires up the boiler to make sure it runs properly. He inspects the flame through a peephole to make sure it's orange-yellow and smokeless. He also

WHAT YOU NEED TO DO

Keep your tune-ups regular, says *T.O.H.* heating expert Richard Trethewey, and you'll only have to take on a few minor tasks. "The number one thing furnace owners must do is to check, clean, or change the duct filter once a month during the heating season," he says. Boiler owners should bleed air out of radiators and drain the expansion tank at the start of the season. "Over time, the tank can fill up, but there needs to be air in it so the water can expand when it gets hot." Trethewey also recommends the following tasks for ensuring safe operation:

- **Inspect the flue pipe for rust where it emerges from the heater.**
- **Install a carbon monoxide detector close to the furnace or boiler.**
- **Keep cans of paint and and other combustible fluids and materials well away from the heater.**

PHOTOGRAPHS BY JOHN GRUEN



OIL: Whether it's a boiler, LEFT, or a furnace, a pre-season tune-up is a must. Fuel oil can be fouled with storage-tank sediment, so it's important to change the filter, ABOVE, to keep sludge from shutting down the system.

After vacuuming out the debris, he inspects the furnace for leaks, which could put dangerous carbon monoxide (CO) into the house's duct system. Later he'll check the air with a computerized CO sniffer that can detect trace amounts of the colorless, odorless gas. West then moves on to the direct-drive blower, which actually requires little maintenance, he says, other than a few drops of oil for the motor. For belt-drive blowers, he makes sure the belt has no more than a half inch of play, and if there's any sign of cracking or wear, he puts in a new one. In most cases, the blower blades also require cleaning, but these pass West's dust test, which means that the home owner has been faithful about changing the filter (see "What You Need to Do").

Next, West cleans the pilot light assembly and replaces the charred thermocouple, a device that keeps the little flame going. "I always put in a new one," he says. "A thermocouple spends its life in flame and wears out after a while." Before relighting the furnace, West checks the gas pressure with a special gauge. Then he starts the pilot and fires up the furnace to observe the flame. He adjusts the air shutters on the front of the burner tubes to obtain the right air/gas mixture and four rows of proper flames: soft blue cones without a trace of yellow. ■

checks for any signs of cracks in the refractory brick that lines the boiler chamber. It can last for many years, but if it fails, the heat can quickly turn the metal enclosure. While the system's firing, Jones performs his final task: placing a bucket under the drain valve and emptying out a few gallons of rust-colored water. As the boiler's water level falls, the burner stops, confirming that the low-water cut-off mechanism—an important safety feature—is working.

GAS-FIRED FURNACE

Furnaces that run on natural gas may be cleaner than oil, but that doesn't make them maintenance free. "When a home owner calls about noises, odd smells, or smoke, odds are that the system hasn't been serviced for a while," says John West, a service technician based in Berkeley Heights, New Jersey. Gas-fired equipment should be serviced at least every other year, but West recommends a yearly check-up. "Why give problems a year's head start?"

Starting work on a furnace in the basement of a house in Summit, New Jersey, West closes the main gas valve and turns off the electrical circuit that powers the system. He opens the cover panel and removes the manifold, the pipe that feeds equal amounts of gas to the four burners. Then he pulls out the burner tubes, which turn out to be encrusted with layers of rust and mineral deposits caused by water. "You don't have to worry about soot, but water is a natural by-product of gas combustion, which is why these systems need regular cleaning," he says, pulling out a handful of rusty scales. "This system hasn't been professionally cleaned in more than 10 years, and that has reduced its efficiency." West uses a variety of wire brushes to scrub the burners, the heat exchangers, and the flue pipe.

GAS. A furnace, RIGHT, should be inspected and cleaned at least every two years. ABOVE LEFT: An inspection should include checking that the gas pressure is neither too high nor too low. BELOW LEFT: Rust build-up lowers efficiency and must be cleaned out.

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Table It

Casual or formal, dining tables create a reason to gather

BY JILL KIRCHNER

With the popularity of great rooms and eat-in kitchens, many have proclaimed the death of the formal dining room. But the fact remains that no matter what kind of space it is in, a dining table is still essential as the center of family meals, dinner parties, holiday celebrations, and wonderful conversations.

Certainly casual lifestyles and living areas have affected the tables themselves. Simple painted farmhouse and country pine tables, durable marble topped bistro tables, and plainspoken Mission oak pieces (all of which are especially practical for young families) are everywhere. Yet most of us still choose a more formal piece for a proper dining room. Whatever its period or provenance, a dining table dominates and defines a room, so care should be taken to address elements of both style and substance when selecting one.

Innovations in dining room tables are rare. Many of the ones produced today are variations of 18th- and early-19th century classics, such as Queen Anne, Chippendale, and Sheraton. "But people are gravitating toward a pared down, less ornate version of classicism," says Marcos Delgado, owner of the Barton-Sharpe furniture store in New York City. "Of course, that's really what American furniture has always been about—we took what the English were doing and boiled it down to its essence." In addition to sleeker, simpler lines, darker, even ebonized woods are in fashion, in less highly polished surfaces. As in other areas of furnishings, mid-century modern design is enjoying a resurgence, with reissues of important pieces by such noted designers of the period as T.H. Robsjohn-Gibbings.

Function is paramount when choosing a table. "A dining table needs to be comfortable and usable or else it will become just a precious dust catcher," says New York designer Thomas Jayne. Tables fall into several camps: legs versus pedestals, round (or oval) versus rectangular, and extension (leaves, draw tops, company boards, or drop leaves) versus stationary. "It's important to think about how you'll use the table on a daily basis," advises Delgado, as well as which shape and size will best suit your space. "Don't buy a table for 12 when only four sit around it most evenings—or, choose an expandable style." While some people are partial to the conviviality of round tables, Jayne finds rectangular pedestal tables the most versatile because they accommodate varying numbers of guests.

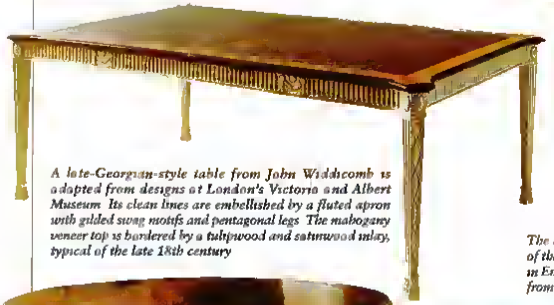
While there's a certain beauty to having a table that echoes the architecture of a home, there's nothing wrong with mixing periods. "I've put old chairs around a Saarinen table from the '50s in a traditional room," says Jayne. "It's all about proportion, scale, and style." He also points out that buying a fine antique table, because of the astronomical expense, is for the "advanced" collector only. "Your money will go much further with other pieces; buy a reproduction dining table."

Whether new or old, country French or high Regency, your dining table should have a silhouette you admire, but one that fades into the background when ringed by family and friends.

PHOTOGRAPH BY MATTHEW BENSON

This Federal style double-pedestal table of solid mahogany is adapted by Barton-Sharpe from a design by Colonial cabinetmaker Duncan Phyfe.

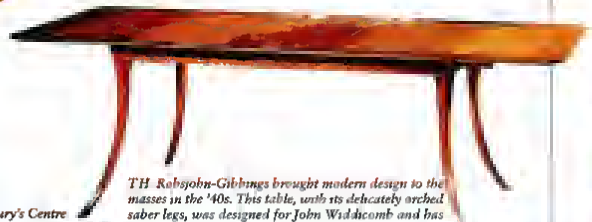
Five dining tables that put a contemporary spin on Old World styling



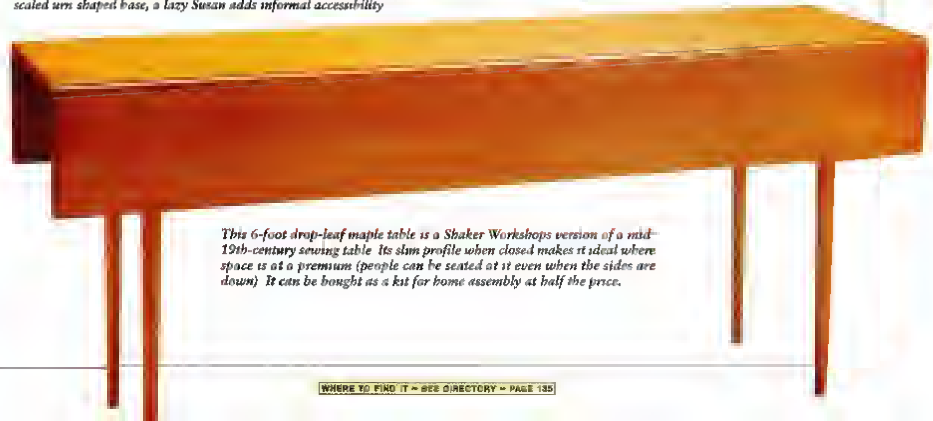
A late-Georgian-style table from John Widdicomb is adapted from designs at London's Victoria and Albert Museum. Its clean lines are embellished by a fluted apron with gilded swag motifs and pentagonal legs. The mahogany veneer top is bordered by a tulipwood and satinwood inlay, typical of the late 18th century.

The drop-leaf table evolved in the 18th century as a refinement of the gateleg table. The Bristol drop leaf from E.J. Victor is made in England by the Venables Co., sixth generation furniture makers, from richly grained solid oak with mortise-and-tenon joints.

A round pedestal table invites easy conversation. Century's Centre table is based on 17th- and 18th-century English and French country designs. The planked-board, silver maple top rests on an oversized urn-shaped base, a lazy Susan adds informal accessibility.



T.H. Robsjohn-Gibbings brought modern design to the masses in the '40s. This table, with its delicately arched saber legs, was designed for John Widdicomb and has been reissued through Bexley Heath. The walnut veneer top has an inlaid edge; the table comes with two leaves.



This 6-foot drop-leaf maple table is a Shaker Workshops version of a mid-19th-century sewing table. Its slim profile when closed makes it ideal where space is at a premium (people can be seated at it even when the sides are down). It can be bought as a kit for home assembly at half the price.

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Fireplace in a Day

BY ALEXANDRA BANDON

Factory-made units make heartwarming wood fires convenient and affordable

Tom Silva and his nephew Charlie (in yellow shirt) slide the 500-pound firebox into its chase, leaving a ½-inch airspace to protect the wall from heat. LEFT: With a rich cherry mantel and marble surround, the finished fireplace looks and performs like one made of brick

My childhood home never had a fireplace, never knew the husky smell of burning embers or the low crackle of winter flames. When my parents built their two-story house in 1966, a limited budget precluded a brick chimney, so they put a window in its place and dreamed of the day they could gather their family around the hearth to laugh and share a tale or two. What they should have done was install a zero-clearance fireplace.

These prefabricated wood-burning fireplaces, assembled mostly from steel components, are a remodeler's dream, ideal for existing rooms and new additions. They are light enough—about the weight of a refrigerator—to rest on unreinforced wood-joist floors and so well insulated that they can reside safely within stud walls without need of masonry. And assembly is swift. A competent carpenter can install one of these fireplaces in a fraction of the time it would take a mason to build one from brick. (The term "zero clearance" is really a misnomer, a throwback to the time when these units could be placed right up against a wall. Today, a ½-inch airspace is required to protect the framing.)

This Old House contractor Tom Silva has installed four of these wood-burning prefab units in the last five years, most recently in the kitchen of the TV show's 1998 Watertown project. "As long as I can run the chimney up, I can position the firebox anywhere in the room," Tom says. "That's the beauty of it."

On this day, Tom and his nephew Charlie Silva are getting ready to fit another manufactured fireplace in the unfinished media room

PHOTOGRAPHS BY KELLER & KELLER

The stainless-steel flue liner snaps together, speeding assembly. Once the liner is in place, Tom and Charlie cover it with a galvanized sleeve, which protects the framing from the flue's heat.

of an addition they're building in Lexington, Massachusetts. Nearby sits the large steel firebox and several metal cylinders that make up the two layered insulated flue, about all the parts they need for today's work. To house the firebox and flue, they've already built a chase: a rectangular space shaped with studs that runs from the floor to the peak of the cathedral ceiling. The chase's dimensions—31 inches deep and nearly 5 feet across—are larger than needed to contain the flue, but they give the satisfying illusion of a masonry fireplace.

Why not just build a chimney the old way, with brick and mortar? Tom explains, "First I'd have to dig a hole below frost line—four feet in this part of Massachusetts—lay in a gravel base, cover it with a 10-inch thick concrete footing, and pour a 7-foot-tall concrete wall on top of that. Then I would need a mason to build a 5-foot-high base of concrete block on top of that, just to get me to this floor," he says, pointing toward his feet. On that base, which would have taken up a lot of space in the garage, the mason would lay up the firebox and wrap the flue in a heavy, 22-foot-high tower of brick. Tom bets that it would have taken a mason a week and a half to build base, fire box, and chimney, for a minimum total cost of $6,500. He and Charlie built the chase and installed the fireplace and flue by themselves in one day for only $3,000.

Before Tom can install the firebox, he has to prep the chase. First he fits 6-inch unfaced fiberglass insulation between the studs of the exterior wall—"You want the heat from the fireplace to stay in the house," he says—and covers them with a 6-mil plastic vapor barrier. Then he lines the inside of the chase (up to 3½ feet above the top of the firebox) and the wall behind the flue with sheets of ⅝-inch fire-rated drywall. Although neither code nor manufacturer requires drywall, Tom considers it a wise and inexpensive precaution against fire.

When the chase is ready, Tom and Charlie slide the firebox into its framing, center it, and fasten it to the studs and floor with the screws and straps provided. Metal tabs protruding from the sides and top of the firebox and supports along the underside automatically maintain the mandatory ½ inch airspace. These allow the front of the firebox to jut out from the studs about ⅝ inch and ensure that it will be flush with the walls once they are drywalled.

With the firebox now firmly in place, Tom slips the first 4 foot length of the flue's stainless-steel liner over the circular flange at the top of the fire box, and uses the liner's tabs to snap them together.

If an ember were to fall between the hearth and the front of the fireplace, this 3 inch strip of galvanized steel along the front edge would prevent the subfloor from burning.

He then slides the insulating outer sleeve—made of galvanized steel—over the liner. So the flue grows, section by section, with each new piece snapping to the one below. Tom saves time by lowering three lengths of liner as a unit onto the previous segment. Similarly, Charlie connects three sleeve pieces and clambers up on the roof so he can guide them into place around the liner.

Back inside, Tom finishes today's job by sliding a 3 inch-wide steel ember guard under the front edge of the firebox and fastening it to the plywood subfloor with galvanized box nails. In less than an hour, fireplace and flue are complete. Tom and Charlie head outside for a bite of lunch.

Lenny Belliveau directs the crane lowering a clay pot atop his vestigial chimney.

Normally they would need to go up on the roof to fit a flashing collar over the flue and top it with a chimney cap, to keep out rain and critters. But because the local historic district forbids metal flues from poking out of people's houses, Tom called in mason Lenny Belliveau a few weeks before installation day and asked him to build a 6-foot tall brick chimney on the rooftop that would hide the naked metal. To support the brick's weight, Tom built a beefy four-sided ledge two feet below the roof line and doubled up the rafters around the opening in the roof. After Lenny was done and the flue was in, Tom hired a crane and capped Lenny's handiwork with a 200 pound terra cotta chimney pot.

As the Silvas complete the room in the months to come, a marble surround and hearth will be installed. (The building code requires an incombustible material, such as tile or stone, 8 inches wide for the surround, 24 inches wide for the hearth.) But with the floor finished, the walls paneled and varnished, and the mantel resting proudly above the fireplace, this media room becomes the kind of place where a family can gather on a cold winter's night to smell the heady scent of burning wood, feel the heat thawing cold noses, and maybe laugh and tell a tale or two. That's the sort of room every house should have. ■

WILL PREFABS LAST?

Anyone who's seen a lone brick chimney standing with a fallen house around it might say that nothing beats masonry. But the truth is that no one really knows how long the factory-made steel units will hold up because they haven't been around that long.

The first zero-clearance fireplaces were built in 1954 by Majestic Products Co. Although the company admits that not all of its units from the '50s have survived (though some are still working perfectly), it does provide a 30-year limited warranty with their current models, as do many other prefab-fireplace makers.

Critics are quick to point out that 30 years isn't very long in the life of a house. The fireboxes are the first parts to fail, says Ashley Eldridge, technical director of the National Chimney Sweep Guild. And when they do, he warns that replacement parts, or even the company that made them, might not exist. On the other hand, he says, "there will always be bricks and brick-layers when you need them." Eldridge's conclusion: People buy prefabs because they want to save time and money. "The bottom line is, they just won't last as long as masonry."

Underwriters Laboratories has no particular concerns with the safety of these units, aside from the ones they have with any fireplace: corrosion, backdrafts, and flue-clogging birds' nests. They stress that a properly designed, prefabricated fireplace must be tested to the UL127 standard, and be installed according to guidelines established by the National Fire Protection Association. —A.B

WHERE TO FIND IT — SEE DIRECTORY — PAGE 138

Wall and Order

BY ROMY DeCOURTAY

No matter how alluring a fireplace, the wall around it requires design ingenuity

Fireplaces have an elemental appeal: the potential to transform the plainest room in the house into a magical space. Yet for all its romance, the fireplace presents a curious design challenge by dividing the wall on which it rests in two. How do you make the most of this broken expanse?

In the old days, the fireplace was the magnet to which household members were drawn for warmth, conversation, and—very early on—cooking. Today, although fireplaces must compete with modern conveniences such as TVs and VCRs for attention, they're still the focal point of a room. And the wall around the hearth must live up to its visual and emotional impact. Designing a fireplace wall that's functional and attractive requires thinking about not only the mantel and surround but also the space above and on either side of the hearth.

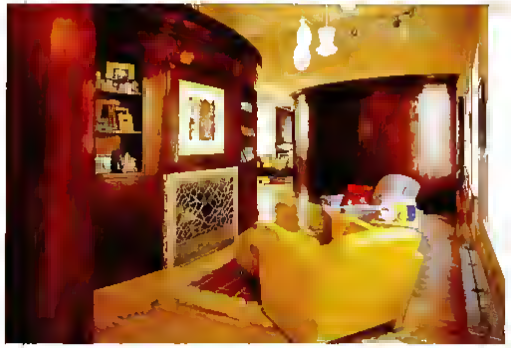
Built-ins, such as bookcases and ingeniously designed cabinetry for entertainment centers, enable you to solve practical storage problems by taking advantage of the recesses flanking a fireplace. The quintessential fireplace built-in is the inglenook, a wooden bench with arms, a high back, and an enclosed foundation that can be used as a chest. Inglenooks, an essential feature of Early American homes, were revived by Arts and Crafts architects such as Greene & Greene, for whom fireplaces were central to a house's design. "An inglenook is like a private cave," says Connecticut-based architect Melanie Taylor, "a sacred space in the house where you can relax and contemplate the soothing flames."

In addition to providing space for cabinetry, the fireplace wall offers an opportunity to create a sophisticated composition of color, shape, and texture by using wood, stone, metal, and tile in various combinations. Successful treatment, such as the five shown on these pages, create a wall where the fireplace and the surrounding elements are integrated and complementary.

In the living room of the Gamble House in Pasadena, California, Greene & Greene created the quintessential fireplace wall by integrating storage, seating, and display using hand-crafted materials and textures. A tile surround, inlaid with a vine-pattern mosaic, and stepped teak panels frame the massive hearth. A mantel echoes recessed shelves which flank the fireplace and sit atop cabinets with leaded glass doors. Twin inglenooks complete the "wraparound" effect.

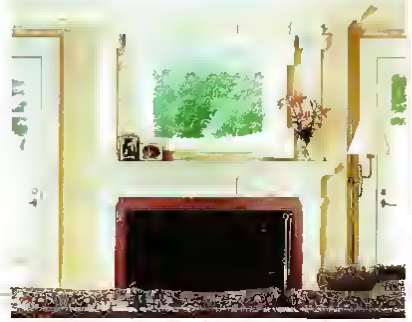
BUILT-IN TO LAST LEFT: In this living room, architect Peter Pennoyer takes advantage of the empty space on either side of the fireplace to build in bookcases with sconces that provide subtle uplight. The shelves offer both storage and an opportunity for decorative impact: The eye is drawn not only to the colorful book spines but also to the wallpapered alcove on top. The bookshelves are further integrated into the room through the use of crown-and-picture molding that circumscribes the room and meets up at the chimney. Pictures and objects rest informally on the white-painted mantel—providing a visual break from the room's symmetry.

EXPANSE ACCOUNT RIGHT: "I try to introduce horizontal lines and repeat materials to turn the wall into a unified design," says architect John Staff. In this family room, he punctuates the expanse with steel bands and shelving, and then expands the metal treatment to the fireplace surround, and the Kirkstone on the hearth to a wet bar. To make the room more spare, he painted the chimney breast white and hid the television in a plain paneled cabinet with pocket doors.



CURVE WITH VERVE LEFT: "People gather around the television the way they used to gather around the fire," says architect Dennis Wedlick. This curved fireplace wall, which he designed for a New York City loft, puts the two elements on a par and allows people to congregate around both. The vent-free gas fireplace is set in a mahogany partition that contains bookcases with extra-deep shelves for display, as well as cabinets for electronic appliances. In lieu of a space-eating mantel, a handmade wrought-iron custom grate in a modern Arts and Crafts style stands in front of the hearth. Above, an oil painting pivots up like a garage door to reveal a television.

PHOTOS, FROM TOP: WADE THARP/MAURITIUS; PENNOYER ARCHITECTS, P.C.; ART GRICE/A. STAFF ARCHITECT; MICHAEL GRAYS; COURTESY OF MELANIE TAYLOR ARCHITECTURE & SKETCHING; JEFF GOLDBERG/ESTO



FLUE WITH A VIEW RIGHT: "The fireplace is the first thing you see as you come into a room," says architect Melanie Taylor, who likes to use windows, molding, and trim to tie this feature into the wall around it. "It's important to make it a jewel with a magnificent setting. The reains at the fireplace should start at the floor and go all the way up to the ceiling." In this Connecticut home, Taylor designed an elegant fireplace wall framed by tall windows and columnar wood molding. In an unusual move, she split the flue to create space for a window above the hearth. In the winter, outside lights illuminate snowflakes that seem to fall into the fire and melt. ■

WHERE TO FIND IT ▸ SEE DIRECTORY ▸ PAGE 188

Plumbing and heating consultant Richard Trethewey has been the prince of pipes on This Old House *for a decade.*

A Plumb Job

Whether building a new place or fixing up an old one, people tend to focus more on the decorative parts of a house than on the structural aspects. They spend hours choosing the fancy windows, the beautiful wallpaper, and the perfect handmade tiles. But mention plumbing, heating, or cooling and their eyes glaze over—unless they're trying to cut costs. Then they perk up, and attempt to figure out how to get by with the least expensive system possible.

That's the wrong way of thinking. Because no matter how pretty the windows, wallpaper, and tiles, you won't enjoy a house if you're roasting in the summer and freezing all winter. A recent trade survey revealed that seven out of 10 Americans are unhappy with their heating systems. They may curse their plumbers, but the real cause of their grief is simple: Most systems are designed on the cheap. Quite often, a house's mechanicals are determined by the lowest price quoted to a builder, so they're either inadequate or too big to run efficiently. For instance, I frequently see houses where the master bathrooms have whirlpool tubs that hold 90 gallons of water. But the water heater has a capacity of only 40 gallons, which means you can't fill the tub in less than 45 minutes—and by the time you do, it's cold. In some way, the home owner pays.

Because my family's roots in the business go way back, I've thought about these kind of issues all my life. My great-grandfather and his brother were firefighters in 1902 when they began moonlighting as apprentices in "this new thing called plumbing." Their job was to haul, mule-like, canvas bags filled with heavy lead and brass pipes through the streets of Boston. Trethewey Bros. Plumbing & Heating has remained a family affair ever since. My grandfather, and then my dad, Ron, took over the business, with me as his associate, now my uncle and brother run it. We got a call in the winter of 1978 from *This Old House* inviting us to work on their very first project in Dorchester, Massachusetts. My father, who passed away in 1989, went on the air that first season, and although he was a giant of a man in real life, you could see the blood drain right out of him during taping. I was drafted into service the next year and enjoyed it—as everyone said, I was either too dumb or too young to be nervous on camera.

But the real reason I feel confident on TV is that I'm passionate about my message. Good work by the mechanical trades can change people's lives for the better. For our current project in Billerica, Massachusetts—Dick and Sandy Silva's house—we'll install radiant floor heating to make them comfortable, a boiler perfectly suited to keeping their house warm on the coldest New England day, a cooling system you can't see or hear, and a water heater big enough to fill a steaming whirlpool right to the brim. If we do our job right, a home owner will never have to think of us again—and I can't think of a higher compliment.

BY RICHARD TRETHEWEY PHOTOGRAPH BY JOE YUTKINS

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Getting There

FALL TV PROJECT /
A HOME FOR THE NEW CENTURY

The Billerica project passes the halfway point

What a difference eight months make. On the spot where Dick and Sandy Silva's house burned down, a new one now stands—framed, roofed, and sided. From the street, it looks as if move-in day is just around the corner, but inside everything is a jumble of exposed pipes, wood piles, sneking wires, and naked studs. So it always is with house construction. The framing goes fast—the back deck went up in just a day and a half (see p. 88)—while the finish work inside moves more slowly. Still, the Silvas are busier than ever deciding about furnishings and decor (see p. 90). They have to be, in order to have a livable place after the work is finished in December. At least they've got one room figured out. All the electronics for the family room's home theater have been chosen and are ready to be installed (see p. 94). Come the New Year, seated beside the fireplace, Dick and his family will be able to watch the revels on their big-screen TV and celebrate the warmth and comfort of their new home.

BRUCE TUTTLE

Hands-On Deck

Build to last with robust materials and water-shedding details

Dick and Sandy Silva's new deck offers a commanding view of the pool, fish pond, and the thick woods beyond. But what's immediately apparent to a visitor stepping onto the deck is its rich, dark wood—firm as stone and utterly free of knots—and the airy cedar pergola overhead, with its ever-changing play of shadow and light. And beneath the deck's deceptively straightforward design lies Tom Silva's inventive, no-shortcut building methods. "I've torn down too many decks that were falling apart after just seven or 10 years," says Tom. "That's not going to happen with this one."

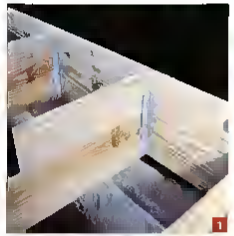
To that end, he's using robust materials and innovative techniques that can withstand decades of wet weather. "Water is the enemy," Tom says, and his defenses against it are as rigorous as those around a medieval castle. For instance, Tom put half-inch blocks behind the ledger—the pressure-treated 2x10 that holds the deck to the house—to keep water from being trapped there. And instead of using traditional metal flashing to protect the plywood sheathing from melting snow and splashing rain, he applied Ice & Water Shield, a rubbery sheet of bitumen-impregnated plastic typically used on roofs. He ran it over the top of the foundation, behind the ledger, and 3 feet up the sheathing. The sticky black material self-seals around nails and bolts, something no metal can do. But it degrades in sunlight, so the crew covered it with siding. Tom also made sure the deck slopes slightly away from the family room. "Slanting it by even half a bubble will do the job," he says referring to the marks on the level's vial. "It's supposed to be standard practice, but you'd be surprised at how many new decks are completely level."

After building the deck's sturdy supporting framework—pressure-treated 2x10 joists and 6x6 posts anchored with metal brackets into concrete footings—Tom laid down deck boards made of ipe ("EE-pay"), a rock-hard, chocolate-colored Brazilian hardwood with a legendary reputation for durability. (It covers the famous boardwalk in Atlantic City.) The 1x4 boards have an estimated 40-year lifespan, nearly twice that of treated yellow pine, and cost Tom about $1 a linear foot (roughly the same as clear redwood). But there is a downside to ipe's incredible density: It's impossible to hammer a nail or drive a screw through it without first drilling a pilot hole. Tom was unwilling to pock the wood's unblemished surface with rot-prone holes, so he simply glued the deck down with 3M5200, a fast-curing, waterproof polyurethane adhesive used in the boat-building trade. The only thing marring the flawless expanse are a few 8d stainless-steel nails, shot with a nail gun, which held the boards in place while the glue set.

Above it all looms the pergola, the 5- by 22-foot structure that shapes a walkway between the kitchen and family room. Its criss-crossing roof members shade the family room from the worst summer glare while letting in more winter light than would a solid porch roof. Decking the pergola was simplicity itself for Tom and Dick, in part because they cut and shaped all the pieces in Dick's shop before the deck was built. First, they erected the posts—pressure-treated 6x6s with beveled edges—which they nailed and braced to the deck joists. After the decking was laid, they nailed two 2x6 headers of clear red cedar to the posts 8 feet above the deck. Then atop these 22-foot headers they nailed 2x6 cedar rafters spaced 16 inches apart and attached them to the house at a ledger board. To prevent water from reaching the wood sheathing, Tom applied bitumen strips behind the ledger and lead-coated copper flashing over it. Along the top edge of each rafter, they cut shallow notches every eight inches for the 2x2 by 22-foot cedar cross-pieces. These were nailed in place, but not before Tom had all the notches lined with builder's felt to keep water from being trapped in the joints. Just a day and a half after Tom and Dick started, the new pergola was complete.

"Dick and Sandy wanted traditional qualities and a special look," says Tom of the newly finished deck and pergola. "We've really worked at getting it all just right."

—*Michael McWilliams*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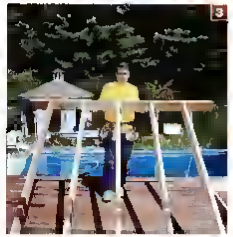
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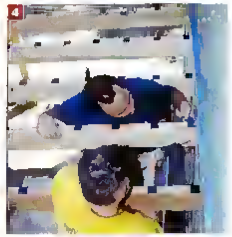
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Glue and Screw *1. A sticky sheet of black bitumen protects the exterior walls from splashing water, while spacer blocks between the deck and the wall let water run through. 2. Tom secured the decking with squirts of tenacious marine-grade adhesive, virtually eliminating the need for fasteners. 3. For the pergola, Tom screwed all the rafters to a ledger board so he could lift them in place at one time. 4. Tom and Dick then screw the ledger to the house after they installed strips of lead-coated copper flashing.*

The boards on this deck are so hard [illegible] than nail them down, Tom Silva secu[illegible] them with a marine adhesive. "We wanted to use as few fasteners as possible," Tom says.

Nailing Down the Look

The Silvas begin again

As he sits in the 70-foot trailer his family has called home for the past eight months, Dick Silva talks about the fire that reduced his white Colonial and its contents to a few boxes of foul-smelling remnants. "It would be different if my wife and I had turned to each other a year ago and said, 'Let's build a new house,'" Dick says. "We would have taken our time and had fun with it. But this came as such a shock—and instantly brought with it a thousand-and-one difficult decisions."

"Everything I had collected over the years was gone," says Dick's wife, Sandy, a sheen of tears threatening her mascara. "My Hummel figurine collection was totally blackened by the fire." For the first few months, Sandy was too upset to even think about starting again. "I loved my old house so much and cherished everything in it." In the end, however, the couple realized they had to begin planning. "Since nothing was left over from the past, we decided not to try to replace the old," says Sandy. "Instead, we thought we'd build a completely different kind of house with completely different furnishings."

The style of the house they settled on suggests an 1880s Victorian. And even though Sandy was still reeling from the changes in her life, it said sweetly the Silvas' new residence was already being framed.

Because the pace of construction on the house has been faster than it might be under normal circumstances, Donna Sapolin, the editor in chief of *This Old House* magazine, began working with the couple to help them figure out an effective approach and timetable for their decision-making process. She explained that unlike the choice of kitchen cabinets and flooring—decisions that have to be made at the very beginning—the more "cosmetic" issues, like paint colors, furniture, fabrics, and so on, can wait till the construction work is under way.

The most urgent decisions concern the kitchen area, because of the plumbing, electrical, and carpentry implications of each selection. Sandy determined that she wanted a stainless-steel refrigerator and sink, a six-burner range, wall ovens, and a sizable prep island. The kitchen cabinets will be made of fir, with a clear finish. For the countertops she chose extremely durable Kirkstone, quarried in England, in a silver gray hue.

The other key decision required by the construction timetable is flooring. The kitchen floor will be Marmoleum—a durable linoleum that is easy on the feet. The couple is now deliberating over which tone would be most compatible with the dark countertops and light wood. Sandy and Dick had already decided that a mix of heart pine and hardwood floors—right now they are thinking about quartersawn white oak—will be laid throughout the living spaces. And, as in their former house, an Oriental runner, secured with brass rails, will most likely run up the stairs leading to the second-floor bedrooms. "Our old runner came from my mother's house," Dick recalls. "We liked that look."

Because Sandy won't "to do" rugs that Victorian-era owners might have thought appropriate, she and Dick have chosen four earth tones, derived from historical homes, for the exterior. And for the interior, she is already clear that neutrals will give her more decorating leeway. Sandy told Sapolin that she always kept the walls in her old house white so she could indulge her passions for collecting without having to worry about clashing colors. "I love to shop. And I tend to change my dishes, valances, seat cushions, and scatter rugs frequently. I want to have the same kind of flexibility in my new house."

The fact that the Silvas are avid collectors will affect more than just their choice of paint color, Sapolin said. It will mean [illegible] also have to plan for plenty of storage and display areas. "[illegible] decorating has to work around the way a family acts," she explained, and she advised them to begin thinking about other lifestyle issues. For example, will they watch television in the bedroom? If so, will they sit or lie down while viewing? Such a decision will affect the height—and therefore, the choice—of the TV cabinet. Will they read in the study? If so, it makes sense to place a recliner near the desks and install built-in bookcases.

So, also told Sandy and Dick that during the construction phase they should also start figuring out, in broad strokes, the kind of furnishings that most appeal to them, such as traditional, modern, or an eclectic mix.

A good first step, she suggested, was for the couple to begin visiting showrooms and stores, and to tear out pictures of pieces they like from magazines and catalogs. Sandy and Dick quickly recognized that their taste runs toward the traditional and that comfort is as important as aesthetics. "We don't want to worry if our dog, Penny, sits on the couch or if a glass is left on the table," says Sandy. "We'd never buy a couch just because it looked good," Dick adds emphatically. He was also quick to rule out using a profusion of bold patterns and bright colors. "Simple fabrics, earth tones, and natural woods appeal to us more."

Sapolin suggested that Ethan Allen might be a manufacturer that could satisfy many of their decorating needs. A quick perusal of the company catalog pleased Sandy. "I looked at the products and said to myself, 'I'd be proud to have these in my home!'" By bringing floor plans for the new house with them to a local showroom, the Silvas will be able to work with an in-house decorator and Sapolin to determine which pieces will best suit their taste and satisfy their needs, and to come up with an overall scheme for furniture placement.

Although initially they were more mournful than excited about the prospect of making a new home for themselves, Dick and Sandy are beginning to embrace the process. With several of the major design decisions behind them, they are able to "visualize" the rooms in the new house. "Now," Sandy smiles as she flips through a catalog, "when my friends ask me for the latest, I have something cheerful to say." —*Louise Kasdon Sidell*

PHOTO: JOE TOTHING

PHOTOS: KELLER & KELLER CHRISTIAN

Sandy and Dick Silva stand in the bay of their kitchen and imagine its finished look. OPPOSITE: *Dick holds up a sample kitchen-cabinet door to see how the style suits him.*

Sampler

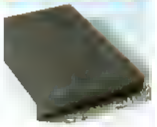
PAINT CHIPS

For the exterior of their Victorian-style house, Dick and Sandy's choices include three earthy colors from Benjamin Moore approved by historic paint consultant Andrea Gilmore. From left: sash, trim, and body.

FLOOR TILE

The Silvas have decided on Marmoleum—a brand of linoleum—for their kitchen floor. It's soft on the feet, and the neutral tone will flatter the room.

COUNTER SAMPLE



"It's very hard, dense, and heavy," says T.O.H. producer Bruce Irving of the Kirkstone countertops the Silvas chose for the kitchen. Formed by an intense natural compression of volcanic dust and ash, the English product has a matte surface.

FURNISHINGS

The Silvas are considering this stained maple sleigh bed, part of Ethan Allen's British Classics line. Reeded panels, turned feet, and a medallion carved on each post add to the elegance of the piece.

Ann wants to get on the Internet to shop for "x."

Mark needs to finish his book report by looking up "y"

Both on one line, at the same time

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(So, while your children are surfing the Web, you can still print out that recipe for the meatloaf they hate so much.)

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The Silva Screen

Turning a family room into a home theater

Homes come in many shapes and sizes, so the notion of a "home theater" is by necessity a flexible one. But the electronics wizards outfitting the Silvas' new family room with the latest goodies for the eyes and ears quickly discovered that integrating cutting-edge entertainment technology into a Victorian-style house is not so easy. "This was a real challenge," says Mitchell Klein, president of Media Systems, who was brought in to design and equip the Silvas' home theater.

Klein's main obstacle was the lack of space. On the wall opposite the room's main entry—the most logical spot for a TV—is a massive brick fireplace flanked by a pair of windows. The east and west side walls are no more accommodating: Each has a pair of windows and a door, leaving little room for any electronics. And the narrow walls on either side of the entry were earmarked for shallow, built-in bookshelves. What was a home-theater designer to do?

For starters, says Klein, dispense with the notion of a big, boxy TV set. He decided to go with a Sony flat-panel display, which could be recessed into the wall above the fireplace and tilted downward slightly for more comfortable viewing. "It's kind of an odd place to put a TV, but it works," says Klein. "It's a great problem solver for this room." Mounted above the hearth like a painting, the 6-inch-thick unit is made possible by plasma technology: inert neon and xenon gases sandwiched between glass panels and controlled by an electrical grid. When the grid charges the gases, thousands of pixels glow in varying hues. The resulting picture doesn't equal the quality of a regular cathode-ray tube or a bigger projection set, says Klein, but recent improvements have narrowed the gap. What's lost in sharpness is gained in visual impact. The 42-inch screen (measured diagonally) has the same width-to-height ratio (16:9)—the so-called letterbox format—that cinemas use, adding to the movie theater feel.

Still, the flat screen is just that—a screen. To work, it has to be connected to a separate TV tuner as well as a cable box, VCR, and digital video disc (DVD) player. These components, along with the stereo receiver, CD player, and amplifiers, reside in a cabinet just outside the room. All this equipment is operated by a handheld remote control, so Dick Silva's first question was logical enough: "Where do I point it?" Reassuringly, the answer is at the TV screen. Klein and company installed a dime-size infrared sensor that receives commands from the hand-held remote and forwards them over a wire to the other components.

There will be no record player—compact discs will take care of their music needs—but with the VCR and DVD duo, the Silvas have a solid video footing in the present and the future. Videotapes still dominate at rental stores, but a growing number of movies are available on DVDs, which offer twice the sharpness of tape and show many films in their original wide-screen format.

Home theater is as much about great audio as video, however. For the true cinematic experience, Klein will fill the Silvas' family room with the sound of music (not to mention car chases and bombs exploding). He's equipping the space with a six-speaker surround-sound system: three speakers in front (left, right, and center), two to the rear (left and right), and a subwoofer tucked away somewhere in the room to provide the extra *oomph* needed for deep bass tones. Surround sound is encoded in the digital soundtrack of most newer movies (either in Dolby Digital or DTS). The receiver decodes the signal, separates and mixes the channels, and delivers it to the appropriate speakers. As a result, sound will reach the Silvas' ears from different directions, not just head-on, creating the illusion that they're right in the middle of the action.

Dick doesn't mind cinema-caliber sound, but he did not like the idea of his comfortable family room cluttered with boxy stand-alone speakers. In short, he wanted the kind that could be heard but not seen. So Klein and his crew installed small, flush-mounted wall speakers for the front audio and in-ceiling units for the rear. The loss of sonic quality should be minimal. And compared to old-fashioned stereo systems, thrillers will be more thrilling, and certain action flicks are guaranteed to have the Silvas looking over their shoulders.

With a 42-inch wall-mounted TV (top), five 120-watt surround-sound speakers, and the superior audio and picture quality of a DVD player (center), the Billerica family room might as well be renamed Cineplex Silva. The Dolby Digital receiver (bottom right) and multichannel power amplifier (bottom left) allow music to be pumped to all the rooms on the first floor of the house.

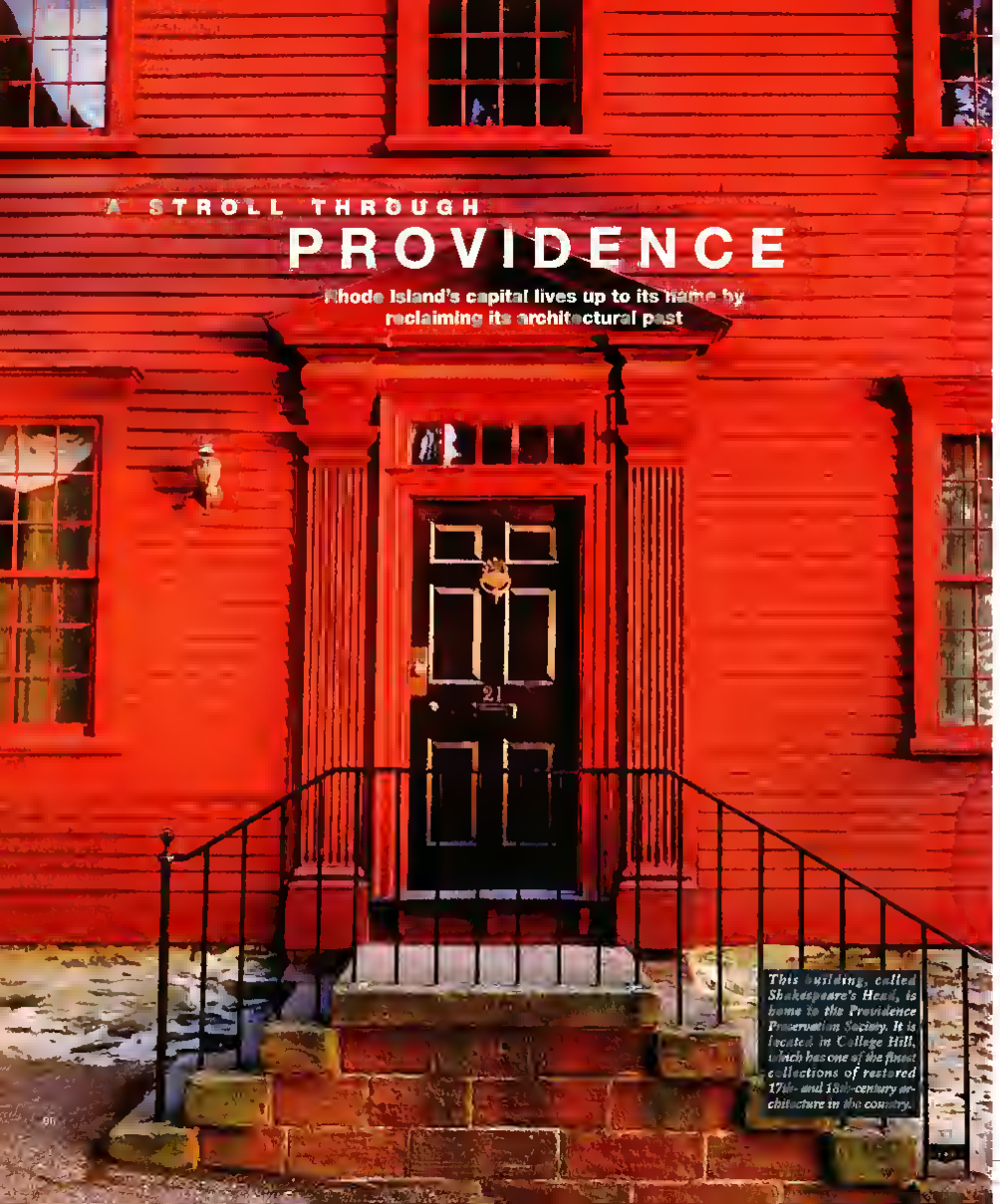
The family room won't be the only place for the Silvas to enjoy their CD collection. The dining room, kitchen, and study each have a pair of flush-mounted speakers and a keypad to control the volume of the CD player. And the deck is getting its own set of weather-resistant outdoor speakers, controlled with a keypad in the kitchen. Hopefully, the neighbors share the Silvas' taste in music. —*Chris O'Malley*

[illegible] family room. [illegible] windows and doors. [illegible] ing a flat-screen [illegible]

A STROLL THROUGH

PROVIDENCE

Rhode Island's capital lives up to its name by reclaiming its architectural past



This building, called Shakespeare's Head, is home to the Providence Preservation Society. It is located in College Hill, which has one of the finest collections of restored 17th- and 18th-century architecture in the country.

Shedding off its grimy industrial image, Providence shines in a new era of creative living. Gondolas now glide through Waterplace Park, the focal point of the city's revitalization.

BY PAMELA FERDINAND

PHOTOGRAPHS BY ANDRÉ BARANOWSKI

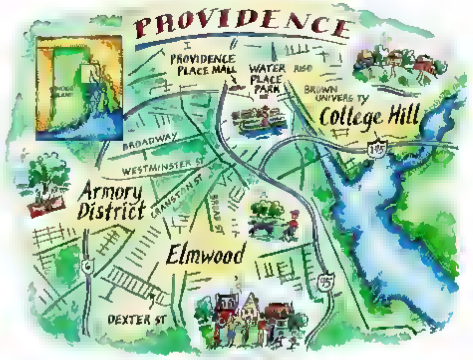
More than 50 neighbors attended the housewarming party for Luke Driver and his family, who bought this Carpenter Gothic home in the Elmwood section nine years ago. "As an educated, middle-class person who grew up in a neighborhood like this," he says, "I have no desire to live in a suburb."

Poised on a wedge of parkland between an electrical supply store and a high school, the bronze statue of Christopher Columbus seems somewhat out of place overlooking this busy intersection in the Elmwood neighborhood of Providence. The New World explorer was put up in a wave of patriotism during the area's prosperous early days. Now, after bearing witness to years of neglect, he's a symbol of Elmwood's rediscovery by a generation of urban pioneers.

Just beyond this drab thoroughfare, savvy middle-class professionals are bringing back to life the once grand residential streets of Elmwood and the nearby Armory district. Bright pastel colors coat newly renovated Queen Annes, and sculpted flowers, painted fresh as sugar roses, grace the eaves of cheerful Victorian cottages. Families with young children are rejuvenating the old communities. Neighbors throw potluck suppers, help each other lay brick garden paths, organize street associations, and boast about how they've persuaded friends to leave high-rent apartments in other parts of the city for bargain homes on their block.

"I can't imagine we'll ever leave," says Catherine Lund, who with her husband, Peter Karczmar, bought a Gothic mansion in Elmwood for $135,000 in 1993. The previous owner had filled the rooms with statues of mummies and painted the ceiling a deep red, but Lund, a veterinarian who hails from Alabama, appreciated the "breathtaking scale." The couple spent four years brushing their teeth in the kitchen sink as they tore down walls, ripped up rotting floorboards, installed stained glass, and glue-gunned peeling canvas ceilings. Now the sunny yellow kitchen gleams and the formerly creepy "Castle of Elmwood" is the pride of the block.

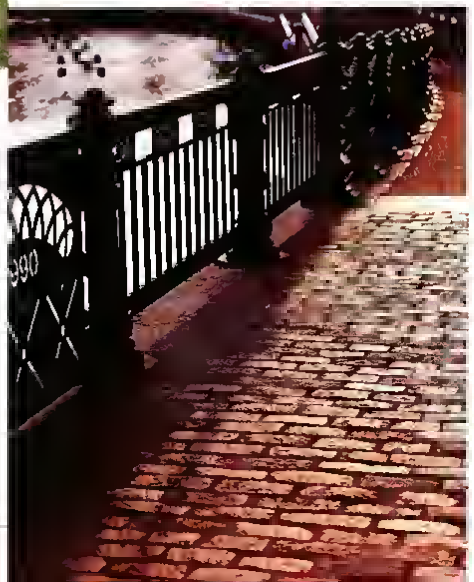
But vital neighborhoods like Elmwood and the Armory don't come out of nowhere. These two up-and-coming areas—established as "streetcar suburbs" of Providence in the late 1800s—are part of a renaissance the whole city is enjoying. With its picturesque waterfront, virtually intact 19th century downtown, and stellar collection of 17th- and 18th-century homes—not to mention the cultural flavor provided by Brown University and the Rhode Island School of Design—the state capital has become the San Francisco of the East. The city's photogenic charms, including its Victorian row houses and cobblestone sidewalks, inspired the setting for the new NBC series *Providence*, filmed partly on location. "I always liked the meaning of the word *providence*, and I was looking for an East Coast city that was small enough to have a village-y feel," says the show's executive producer and creator, John Masius. "The city is walkable, and it has the historic buildings and well-established neighborhoods that suggest a sense of permanence."



Providence only stands to attract more attention. By the end of the year, high-speed rail service will pull Boston and New York even closer to this relatively modest metropolis of about 160,000. Crime is down 45 percent since 1994, and building is up. Construction cranes tower over bustling downtown streets as the city remakes itself with a $1.5 billion face-lift. New Venetian style bridges arc over Waterplace Park, where gondoliers croon to lovesick tourists not far from a new skating rink, convention center, shopping mall, and history museum. This past summer, Providence hosted the Gravity Games, an Olympics alternative featuring luge runs and downhill skateboarding through city streets.

It's all been good for morale, says Paul Campbell, who heads the city's blossoming film commission and is restoring his own 1861 French Second Empire home on the East Side. "There's been a dramatic change in the city physically and in the perception of it by those who live here," he says. "People are proud to be from Providence now."

Founding father Roger Williams felt God's providence led him



LEFT: The revived Providence waterfront has become a peaceful oasis and cultural showpiece featuring seasonal arts and entertainment. ABOVE: House after historic house on Dexter Street in the Armory District carries a plaque, issued by the Providence Preservation Society, marking the date of construction.

WHERE TO . . .

sleep

PROVIDENCE BILTMORE A landmark since 1992, this luxurious 244-room downtown hotel is home to Davio's restaurant and is known as the "Grande Dame of Providence"; $130 to $275 per night; 11 Dorrance Street, 401-421-0700 or 800-294-7709

STATE HOUSE INN Several of the 10 rooms in this 1889 inn, which is decorated with Shaker art and colonial furnishings, boast canopy beds and fireplaces; $109 to $149; 43 Jewett Street; 401-351-6111

eat

AL FORNO Known for its grilled pizza and made-to-order desserts, such as lime-scented buttercake with chocolate sauce, entrees $16 to $27. 577 South Main Street, 401-273-3760

RUE DE L'ESPOIR An eclectic menu in a cozy setting features such dishes as roasted duck salad and Caribbean spiced Porterhouse pork chops, entrees, $12.95 to $21.95; 99 Hope Street; 401-751-8890

TRINITY BREWHOUSE Rhode Island's largest brewery—and bronze winner at Wand Beer Cup '96—produces stouts, ales, and lagers for discriminating palates; 186 Fountain Street, 401-453-2337

go

JOHN BROWN HOUSE This 1786 Georgian brick mansion contains period furniture and original woodwork. 52 Power Street. 401-331-8575

JOHNSON AND WALES CULINARY ARCHIVES AND MUSEUM The world's largest collection of food and hospitality artifacts includes a dinner invitation from Thomas Jefferson and a bread ring from Pompeii; 315 Harborside Boulevard; 401-598-2805

PROVIDENCE PRESERVATION SOCIETY Do-it-yourself walking tours with booklets and maps covering neighborhoods from College Hill to the waterfront and West Side; 21 Meeting Street; 401-831-7440

ROGER WILLIAMS PARK AND ZOO This 430-acre Victorian park contains a natural history museum and amphitheater; 1000 Elmwood Avenue; 401-785-9457

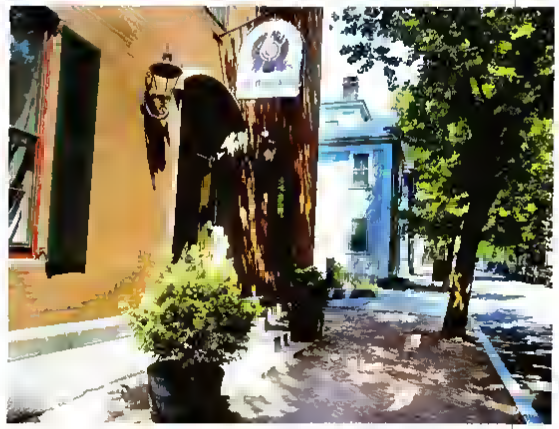
GALLERIES Jump on the ArTrolley for Gallery Night Providence, a free tour of 14 art galleries and museums, 401-274-9120 or 401-751-2626

THE OPULENT OWL A showcase of jewelry, glass, ceramics, wood, and decorative accessories by Rhode Island artists; 195 Wayland Avenue; 401-521-6699

125 BENEFIT STREET ANTIQUES Features imported art and accessories, 401-274-1232.

to this spot in 1636, inspiring his name for the religious settlement. Once a vital trading port—from the late 1700s to the mid-1800s, clipper ships sailed between Providence, China, and the Caribbean—the city's waterfront declined by the Second World War following the demise of its 19th-century textile and jewelry industries. Elmwood, in fact, was once the home of the Gotham silver company, famous for the elaborate tea sets it made for overseas royalty, upper management and wealthy summer residents built grand homes covered with gingerbread along the neighborhood's broad, deep-lawned streets.

Decades of decline passed before the city began to build on its heritage. In the 1970s, College Hill, a jewel of a neighborhood located on a steep East Side hill near Brown University, set an example nationwide by saving its historic houses. Eventually, many middle-class home owners were priced out of that area, pushing families to stake out tougher parts of the city, and Providence



Built in 1863 as a rectory for St. John's Church on College Hill, the Italianate-style Old Court Bed and Breakfast offers 10 rooms decorated in Empire, Chippendale, and other classic styles

has supported their efforts. The city has spent more than $100 million over the last five years to revitalize promising West Side communities by paving roads, planting trees, and providing financial incentives for home ownership and renovation. Local nonprofit organizations—including the Providence Preservation Society, the Elmwood Foundation, and the West Broadway Neighborhood Association (WBNA), along with private developers such as the Armory Revival Company, have been critical in leveraging economic development funds, building a sense of community, and rescuing historic structures.

Residents of the Armory District, for instance, say improvements are steady now that a critical mass of people has moved in, attracted by its housing stock, proximity to downtown and the interstate highway, and access to the immense 10-acre park surrounding the vacant castellated 1907 Cranston Street Armory. One Greek Revival house was jacked up, pivoted 180 degrees, and moved to a new foundation to reduce lot crowding. A couple who bought a cottage for $35,000 spent weekends hand-painting gold leaf patterns on their living room

walls. And the largest house along the park—a high-style Queen Anne with 13 rooms—just sold for $269,000. "For your money, you can't buy this quality of building anywhere," says local preservation carpenter Dan McLaughlin.

The park is certainly part of the bargain. This is where residents meet to sip coffee on park benches, buy fresh produce from local farmers, picnic with their families, and watch their children clamber on the monkey bars—a far cry from the days when some people were too wary of criminals to venture onto the grounds after dark. "Before, you'd see prostitutes. Now, you see dog people," says Kari Lang, executive director of the WBNA, which is housed in a refurbished 1930s Texaco gas station.

Peter Bramante watches the goings on from his Dexter Street perch—a former funeral parlor-cum residence built in 1885 that he and his partner, Tom Nolan, purchased for $95,500 four years ago and are slowly converting into a single-family home. The place retained crown molding, a mahogany banister, and inlaid oak floors—not to mention an underground passageway, connecting the garage with the house, where undertakers once discreetly transported the deceased for parlor viewing. The neighborhood, says Bramante, is "just a great place. You can be sitting on your front porch, and someone will stop by to visit. Before you know it, you're having cocktails and walking around their garden. It's like living in a huge outdoor college dorm."

These reclaimed neighborhoods have more than ambience to offer—although with some 60 languages spoken, and West African, Portuguese, and Cape Verdean families living on the same block, it has plenty of that. The local magnet school has a new addition, and the Beaux Arts–style Knight Memorial Library and the Roger Williams Park and Zoo are within walking distance, as are a host of inexpensive ethnic restaurants.

Luke Driver, a father of two who works for the city, grew up in the area and never left. His wife, Jane, often visited Providence while she attended college nearby, and fell in love with its historic character and cultural diversity. When they had children and needed more space, the Drivers found it in a 2,600-square foot 1861 Carpenter Gothic home for $125,000 in Elmwood. The couple rented out apartments in the building while Driver tore off its aluminum siding, knocked out walls that covered original doorways and windows, sanded tiger oak and white pine floors, and transformed a dirt parking lot into a backyard garden.

After nine years, they have the entire house to themselves. Driver says he'll continue to invest more than he is ever likely to recoup, as will most of his neighbors, but that's just the clearest sign that they're here to stay. ■

A Victorian neighborhood with a castle in the middle, the Armory District is a community of home owners bound by their preservation mission and renovation headaches.

This brightly painted Queen Anne–style house near the Cranston Street Armory recently sold for $269,000—perhaps a harbinger of changes to come.

WHERE TO FIND IT ~ SEE DIRECTORY ~ PAGE 138

PHOTOGRAPHS BY LANGDON CLAY

A SOUTHERN BUNGALOW REINTERPRETS ITS ARTS AND CRAFTS HERITAGE

sweet home alabama

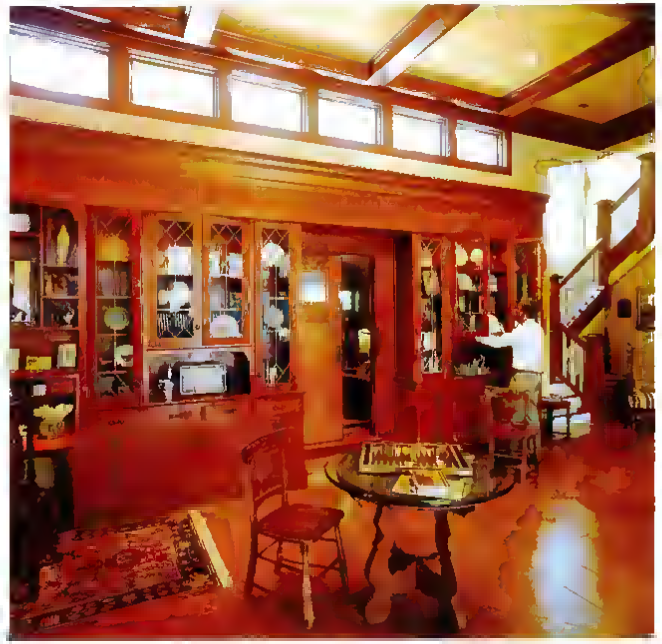
BY NICK PATTERSON

Restoring a 1913 bungalow to its original glory would be a big renovation project for many home owners. But it was only the beginning for Allyson and Ray "Kirk" Kirkpatrick, who live in a historic district in a northern Alabama city, surrounded by homes dating back as far as 1814.

When the Kirkpatricks moved into their house, there were just two of them. Then [illegible] was born. Still later, the family added a [illegible] (probably a bearded collie) named Sandy. In 1998, feeling that the house was too small, they embarked on an extensive renovation. By the time the job was completed in April of this year, they had added 2,500 square feet to what had been a 3,000 square foot bungalow-style house. Though the Kirkpatricks'

The addition built onto the back of the 1913 Kirkpatrick bungalow echoes details of the old house, like the cutout brackets beneath the eaves, the diamond-patterned windows, and the limestone piers and wood columns framing the entry to the great room. The driveway to the new garage passes by

Allyson, son Todd, and dog Sandy spend time beside the massive limestone-faced fireplace that dominates the room. The Brazilian cherry, or jatoba, of the cabinets appears throughout the house, including the ceiling coffers. The Kirkpatricks settled on ochre colored walls after considering forest green.



home appeared to have doubled in size, it still retained much of its historical character.

The space to add on to the house wasn't hard to come by—they had a large shady backyard where "nothing would grow." And they had definite ideas about what to add: "a huge lodge-like room," as Allyson described it, one like her grandparents had in her native California. "We had a relatively small living room and really wanted a space where everyone could gather," she says, big enough to accommodate multiple activities and groupings. "I envisioned a room where my son would be doing a puzzle at the table, and Ray would be watching football, and I would be in another spot reading," she explains. "I just like the feeling of everyone doing different things in the same room."

Although the lodge room got the lion's share of space—741 square feet—the Kirkpatricks fulfilled a host of other needs as well. They enlarged the kitchen, built a two-car garage, and added four other rooms: a small powder room off the great room, a laundry room across from that, a narrow study, and one of those unspecified "chameleon rooms," says Allyson, above the garage.

In June of 1997, an interior designer friend recommended architect Anita Denson, who had recently completed a lodge-like addition for another client. Denson drew up the exterior plan for the Kirkpatricks' addition, carrying forward details from the original bungalow, such as the grey clapboard siding and white trim, squared wood-over-stone piers, triangular cutout brackets under the eaves, and diamond patterned upper window sashes. Denson also

suggested arched door frames for the garage to help them harmonize with the house.

Another architect, Harvey Jones, a local legend credited by some with spearheading community efforts in historic preservation and restoration, also lent his expertise to the year-long project. Although Jones died before the addition was finished, he detailed the columns that frame the side entrance, and recommended a row of clerestory windows on one side to add light to the new great room.

The Kirkpatricks selected Craftsmen Homebuilders, Inc., as the contractors, based on their excellent word-of-mouth reputation. Charlie Englebert, owner of Craftsmen, had grown to love period restoration during previous work with Harvey Jones. He and his project manager, Pete van Waveren, were also integral to the house's final design. "The whole project was fairly challenging because we only had preliminary drawings from the architect," Englebert says, "and we had to develop the details as we went along."

They also had the challenge of satisfying home owners who were not only making a sizable investment but who were also involved in every aspect of the work. That was not a problem, however, says Englebert. "Allyson was very dynamic and instrumental in keeping the design in the spirit of that era," he says. "The big room has a Frank Lloyd Wright feel to it because she was so insistent."

The most striking elements of the addition converge in the great room. There are two approaches to the room from the old house—one through a pocket door from the kitchen, and another through a double set of pocket doors that open to what was formerly a back room in the original house. Now the space is a sitting room-cum-music room that can be closed off to create, along with a bedroom, a separate guest suite. Custom woodworker Charles Binger made the pocket doors out of Brazilian cherry, or jatoba, a beautiful dark hardwood used throughout the house. Each door has a diamond patterned window in it.

The first thing a visitor sees when approaching the great room is the soaring fireplace flanked by jatoba cabinetry. The builders made the pre-cast concrete fireplace look monumental by layering custom-designed, tough-hewn limestone veneers over smooth block. Its pale tone and textured surface contrast with the ochre-colored wall behind it, sweeping the eye upward.

"I wanted a grand fireplace in this room," says Allyson, "and Pete van Waveren and I figured out what it should look like. We got out all the bungalow books and studied the various styles, and then adapted the elements of the ones we liked to the size of the room. We knew we wanted a seating ledge, and, thanks to Harvey Jones's advice, we knew the whole thing had to be big," Allyson explains.

The Kirkpatricks now have a fireplace with a stone facade 11½ feet tall and 6 feet wide. "We intend to have great fires in here," says Allyson, "and eat dinner at a large table in front of them."

No doubt the burnished floor of the great room (see sidebar, this page), which is poured concrete stained to a deep reddish-brown, will reflect the fire's glow. Etched with diamonds-in squares, the floor is built up three feet from the level of the former backyard and is insulated to stay warm in the winter and cool in the summer. "We're confident we have enough insulation around it," says Ray. "We'll find out this winter."

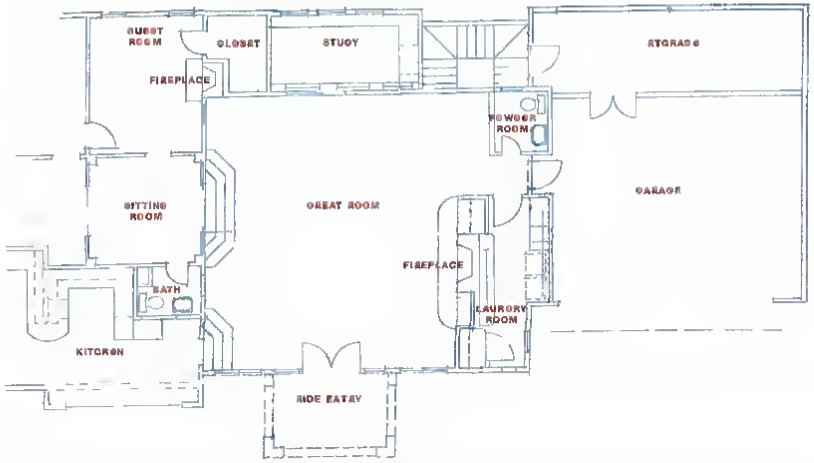
To prepare for her involvement in the minute details of the renovation, Allyson studied up on Arts and Crafts styles. And the great room is the proof that she did her homework well. The wall opposite the side-entry door is particularly striking, with a bank of cabinets with leaded-glass doors modeled after a design by Greene & Greene (the renowned architects of high style bungalows in California in the early part of this century), and a staircase inspired by a mix of period designs. Craftsman style clerestory windows rise above the cabinetry that flanks the door to a narrow study off the great room. Inside the study, wooden sconces, a gift from the contractor, create a cozy and studious effect.

The ceiling design of the great room, a grid formed by 16 deep coffers built by Charles Binger, echoes that in the original house's living and dining rooms. The central coffer hides a lighting fixture behind a hinged yellow glass cover with a diamond and-square design.

To expand the kitchen, the Kirkpatricks incorporated the area of the former back porch, laid a jatoba floor, and created a trapdoor entrance to their newly reinforced storm cellar, eliminating an unsafe staircase.

Blending New and Old

The scope of the Kirkpatricks' renovation changed over time. "We started adding onto the home, and then the project took on a life of its own," says Ray. The end product is a house that works for them, blending their love of Arts and Crafts styling with modern-day practicality. The addition includes a two-car garage, laundry room, powder room, and study, as well as great room. The renovation also reconfigured the kitchen, a hallway, and a bedroom in the existing house into more useable and attractive arrangements.



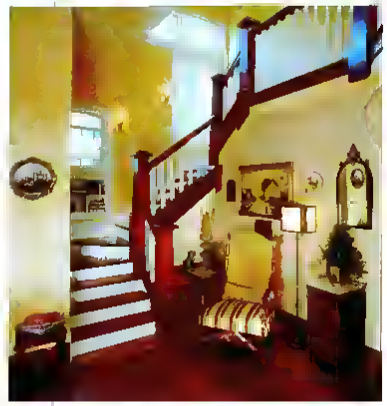
Concrete Details

When Charlie Englebert and Pete van Waveren took on the Kirkpatricks' bungalow renovation, they did something they had never done before in their historic projects: pour, score, and stain a concrete floor. Allyson wanted something that would withstand the wear and tear of a dog and a young son, and was intrigued by examples of concrete floors she'd seen in works on Frank Lloyd Wright. The result—a gleaming, softly mottled reddish-brown surface patterned with diamonds and squares—beautifully suits the character of the house. But the ease with which it complements its surroundings belies the challenging—and often frustrating—process that created it. "That concrete floor gave us ths," Englebert says. "I knew how to do it now, but it took a lot to get it right."

First, the platform for the 28- by 30-foot floor was built up 3 feet, and poured with concrete rated at 6,000 pounds per square inch: a mix that was denser and stronger than average and provided a smoother surface for staining. The wet surface was finished with a combination of machine and hand troweling. After the concrete set, the floor was protected with two layers of plastic and half-inch thick plywood while work continued on other projects for several months.

When the time came to put the decorative touches to the floor, workers from JeffCo Concrete Contractors, Inc., of Tuscaloosa, used a diamond saw blade to score the pattern into the surface, then sanded out the swirls left by the machine troweling. ("In retrospect, a completely hand-troweled finish would have involved less sanding," Englebert says.) But getting the color just right went less smoothly. Englebert and van Waveren went through several color samples with Allyson before settling on one—only to discover that the result, when tested on a concealed area of the floor, didn't exactly match the sample card. Eventually they got the shade they wanted from Bomanite "Pine" stain. Still, after it was applied to the floor of the great room, "the result wasn't what Allyson expected," says van Waveren. "As with any finishing process, there is a wide variation. She was looking for something with a little less mottling, and more uniform color throughout." Eventually she became accustomed to the new look. "It ended up beautiful," Allyson admits. The surface was coated twice with "Tuff-Stuff" acrylic sealer, which gave the floor a look of crackled old leather.

But with the drying of the sealer arose a mystery. A perfect set of footprints meandered across the otherwise lustrous surface. Trying to figure out how and when this crime against concrete occurred drove van Waveren crazy. A group photo of the entire crew flaunting their boot soles revealed the culprit to be one of the floor finishers. "The sealer must have looked dry," explained Englebert, "but obviously it wasn't." Fortunately, the footprints came up with acetone, and a remedial coat of sealer erased all evidence of any missteps.



The stained concrete floor Allyson wanted blends perfectly with more traditional details of the great room, like the staircase copied from a Greene & Greene design. Storage is tucked in beside the base, and recessed shelves at the landing are highlighted by an antique piece of stained glass found at a local salvage shop.

The back entry, above, off the kitchen in the original house was incorporated into the new design. Since the wall on the right didn't meet code, they built it out, then replaced the entry to the cellar with a trap door in the floor below the view looking into the space from the great room, showing the diner-like eating area fitted into the new bump-out. "With the side yard just beyond the windows and the tabletop lit by the morning sun, it's the perfect place for breakfast," says Allyson.

entity. They also raised the ceiling in this new space, exposing headers in the exterior wall that weren't up to code. The contractors took advantage of this problem to bump out the space and create a built-in diner-style eating area. The "breakfast nook" features details in jatoba and maple, which match the floor and new countertop. "I love the way the light and dark woods play off one another," Allyson explains.

Details in the kitchen as well as in other parts of the addition serve to unify the old and new sections. The beadwork on the kitchen cabinets matches that in the original part of the house. Diamonds like those in the older windows appear everywhere in the addition, from the leaded windows in the pocket doors to the concrete floor in the great room. The color of the concrete floor matches that of the cabinets and wood floor in the remodeled kitchen. Limestone, the rock used in the original front porch and column work, turns up in the columns outside the great room as well as on the fireplace.

Hidden spaces, characteristic of Craftsman-style bungalows, abound in all areas of the house. Drawers glide soundlessly from nooks in walls. Shelves, tucked into crannies, hold books and curios. Cabinets are built into the walls that frame the stairwell landings, the back of the kitchen eating nook, and the spaces under the stairs. By repeating the patterns—squares and diamonds—and the materials—jatoba, glass and limestone—the Kirkpatricks have created a seamless, harmonious whole. The result is warm and homey as well as large and impressive, and more than satisfactory to everyone concerned.

"This project is special for two reasons—the owner's sensitivity to keeping the original character of the house, and the skill of the builder," explains Denson. "Charlie Englebert went to great extremes to match the original workmanship and details on both the interior and the exterior. It's very rare to see workmanship of this quality today."

Although Ray half jokingly refers to the renovation as "the money pit," Ray and Allyson express nothing but appreciation for the contractors' artistry and professionalism. And, on their part, the contractors are grateful that the Kirkpatricks were "open to our suggestions and were the kind of people who wanted to undertake that kind of effort—because it was a tremendous effort in every respect."

Part of the reason the project avoided the conflicts and frustrations often associated with major renovations of in use dwellings was that Englebert and van Waveren took pains to make the owners happy with the process, not just the end result. They vacuumed and damp-mopped the house at the end of every workday. They built a wall with a door between the old house and the addition, which sealed off the work area but also allowed the Kirkpatricks access. They set up a temporary washer and dryer area while relocating the laundry, and they made sure there was always a working kitchen with a refrigerator and oven. ("I think we screwed their microwave to the wall half a dozen different places," Englebert said.) And they conscientiously replaced the kitchen floors while the family was away on vacation.

"We were asking the owner every day, 'What can we do to make this better for you?' I learned a long time ago that the psychology of dealing with people is more important than anything else." Van Waveren concurs. "In terms of client relations and finished product," he says, "I'd say it's one of the best jobs we've done."

Allyson Kirkpatrick is less equivocal about the project. "The house," she says, "is a true work of art." ■

...ge quarry kitchen inclu... exotic combo, but ...nt food preparation ... with maple ...d cabinets with beadwork ... re-...ual in the old house. The curvy ...and around the fireplace ad-...d charm, as does ...k from Kohler.

WHERE TO FIND IT – SEE DIRECTORY – PAGE 136

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BATHED IN LUXURY

Designed with lots of elbow room, finished with top-quality materials, and graced with a super view, the Dream House master bath turns routine rituals into daily pleasures

Which room has the best view in Walter and Julie Cromwell's Dream House in Wilton, Connecticut? Is it the breakfast room, with its floor-to-ceiling windows that take in a broad lawn and a grove of willows? Or is it the great room, with its hillside panoramas? "Actually, the best view is from the window over the whirlpool tub in the master bathroom," says Walter, who is also the builder. "You can look out over the tops of the trees and see

BY CURTIS RIST
PHOTOGRAPHS BY ANDRE BARANOWSKI

In the T.O.H. Dream House master bath, a tumbled marble floor along with raised-panel cabinets make a handsome setting for a walnut pedestal table, an 18th-century reproduction bench, and other traditional-style furnishings. "It's an elegance you can live with," says interior designer Kerry Sheridan of the subtle ways the luxurious materials, finishes, and decor work together.

The 220-square-foot bathroom is reached from a hallway in the master suite and opens at the other end to a large closet/dressing room. FOR: Twin vanities flank a makeup table in an alcove, and a shower LEFT is lined with 3" by 6" inch tiles

forever. It's more than just a bathroom, it's a place to live."

In that, the Cromwells' master bath perfectly reflects an evolving trend. No longer are bathrooms—especially those in master suites—the basic, purely functional rooms of the past. Now they include chairs or chaises for lounging and reading, dressing areas adjacent to walk-in closets, and in some cases a TV and a stereo system. "We're seeing things added to bathrooms that your mom and dad in the '50s and '60s never dreamed of," says Stephanie Witt, president-elect of the National Kitchen and Bath Association and a certified kitchen and bath designer who has added fireplaces, coffee pots, and even wine refrigerators to the bathrooms she's designed. The most lavish creations, she says, cost between $20,000 and $40,000—but there's a reason people are willing to spend so much on a room that would function quite well with just a sink, toilet, and tub all in a row. These days, says Witt, couples are so busy that the moments they spend getting ready for work in the morning and heading for bed in the evening "may quite frankly be the only time they have together, the master bathroom along with the master bedroom have become an adult retreat, what the living room used to be."

At the Cromwells' house, the 220-square-foot master bathroom stops short of having a sitting area, but it's nonetheless inviting. A 16- by-10-foot area contains a tub with whirlpool jets, and a dressing table situated between two sinks. The toilet is located in a vestibule down a corridor, a few steps away is a walk-in closet. "This is not just a room where you take a bath or a shower and run," says architect Robert A.M. Stern, who designed the space. "It's a room in which to relax, where all kinds of activities can take place, from reading books to making phone calls." And with its marble floor and beige-toned wall tiles, the bathroom is as regal yet also as comfortable as any other part of the house.

When designing a bathroom, Stern carefully considers all uses of the space and then organizes the elements for maximum efficiency and livability. A separate shower, he believes, is essential for a quick wash-up on workday mornings. A generously sized tub is a beautiful focal point for the room as well as a languorous destination. Where possible, as at the Cromwells', he adds two sinks, separated by at least three feet "so that you don't bump elbows." In a master bath, the sink becomes the prime activity area—and a source of stress if there's only one. "If he's shaving, and she's doing her hair or makeup, it can become quite jammed up," says Stern. But in his view, the most important commodity isn't the sinks, it's the mirror behind them, because it makes the space seem more expansive. "The bigger the mirror is, the better, particularly if two people are going to be jockeying to use it," he says. In this case, it spans a 10-foot wall.

After filling all the seams with grout, tile setter Michael Meehan wipes away the excess. Although he would normally seal the tiles after the grout has cured, these are pre-sealed. The tub surround is made of the same limestone tiles used in the shower, with a diamond border set off by darker stone.

Even when organized for livability, some aspects of a grand bathroom can conspire against comfort. Marble and granite floors look lovely, but can be very cold in the winter. "Nothing is more jarring than having to walk on them in your bare feet," says Witt. Radiant floor space heating is one remedy, and so are thin electric warming mats that can be laid between the subfloor and the tiles. Run by a timer, they can be set to warm the floor just enough to keep toes toasty. Adequate ventilation is another challenge, since the small fans used to clear the air in a typical 5- by-8-foot bathroom are useless in the vastly larger space of a master bath. "The fan has to be sized correctly, or things will mildew from all the steam—which can be a disaster in a room loaded with furniture," says Witt. The Cromwells' bath, for example, is served by a fan that moves 300

cubic feet of air per minute (cfm).

The most critical decision, however, is toilet placement. "To be honest, it's not at all pleasant to sit on one facing a big room, you feel too exposed," says Witt. It's better, she believes, to create privacy by tucking the toilet into an alcove or, better still, in a small room with a door, which is what Stern did at the Cromwells'. Above all, the toilet should be hidden from view when you open the bathroom door. "The first thing you want to see is a nice vanity, a painting, a beautiful view," says Witt. "Anything but the toilet." After all, these aren't just bath rooms, they're rooms to live in.

A BATHROOM BUILT FOR TWO

While the Cromwells lounge in their master suite, the children they plan to have will enjoy some luxury of their own in a semi-private bath room that sits between two bed rooms. Shared baths make good sense. "Next to kitchens, bathrooms are the most expensive parts of the home on a square-footage basis, and having fewer of them results in significant savings," says Kathryn Quinn, a Chicago based architect.

The key to making shared baths work lies in what architects call compartmentalization. Rather than having a single room filled with a tub, sink, and toilet—the layout that accompanied the invention of indoor plumbing—the fixtures in a shared bathroom need to be in separate spaces, says Stern, "to make it possible for someone to use the sink while someone else is using the toilet. And whether that means creating a separate compartment just for the toilet, or putting it and the bathtub together, depends on how much space you have and how many people may be using it at the same time." At the Cromwells', the children's bathroom contains two sinks in one 6 by-8-foot nook, but, in a bow to economy, Stern placed the toilet with the bathtub in a 5- by 6 foot space with its own door.

"Even though it's small, we wanted it to be inviting," says Walter Cromwell of the children's shared bathroom ABOVE. *The all white decor is accented by a border of 2 inch sage green tiles on the floor.*

Noise is an important consideration when designing a shared bath. "The flushing sound in the middle of the night can drive people bonkers," says Stern. He reduces this bit of discomfort by arranging the plumbing so it doesn't run through a bedroom wall. He also uses the bedroom's clothes closets as sound barriers, and when that isn't possible, he puts acoustical insulation in the walls.

Ironically, one problem that can't be solved in a shared bathroom is the issue of locked doors. Invariably, anyone who uses the room locks both entrances for privacy—then forgets to unlock one on the way out. "It's a chronic nuisance," says Stephanie Witt. "And whoever figures out a way to solve it could probably make a fortune." ■

HOW TO MAKE A SHARED BATH WORK

To make the most of a shared bathroom, the National Kitchen and Bath Association recommends the following:

- **The space should be at least 70 square feet.**
- **For adequate elbow room, the minimum clearance between two sinks in the lavatory should be 30 inches, centerline to centerline.**
- **Toilet compartments should measure no less than 36 by 66 inches.**
- **Use pocket rather than hinged doors in the entranceways to save space.**
- **Consider installing two shower stalls instead of a single tub; they require the same amount of space.**

HERE TO FIND IT – SEE SHELTON'S – PAGE 188

Every old house has a story to tell. Finding out when your home was built, who lived there, and how they changed it can take you from nails in the frame to sites on the Internet.

If these walls could Talk

BY ALEXANDRA BANDON
PHOTOGRAPHS BY JOHN KERICK

On a street filled with ersatz 1960's Colonials, the two-story white clapboard house with the black shutters exudes antique charm, especially when one notices the quaint sign hanging at the end of the driveway: SUTTONFIELDS, CA. 1734. The sign dates to 1983, after Gladys Schondorf, who owns the Somers, N.Y., house with her husband, Jack, did a deed trace on the property. Working with the town historian, she learned that her 2.7 acres had been part of a farm established by one John Sutton in the early 1700s and that a structure existed on the land in the 1730s. Schondorf presumed that her house included part of that original homestead—but now, after more digging, she's unsure if Mr. Sutton ever lived within its walls.

As Schondorf discovered, tracing the history of an old house is like making your way through an overgrown garden maze. In most cases, unless you are a descendant of the original owners and have an attic full of memorabilia, finding out when your house was built, who lived within its walls, and what changes various homeowners wrought can be a challenging—but fascinating—journey. Anyone who undertakes it will need to be equal parts architectural historian, oral historian, research librarian and genealogist.

The first step in compiling a house history is to identify the era in which the structure was built. With the help of an architecture book or two, most homeowners can discern a core style—even among a century or two of renovations and

READING A HOUSE

Understanding how any home got from there to here requires careful observation. Some design elements and craftsmanship clearly point to a particular era, while other details that seem original can throw research off track. Like most old houses, the Schendorf house in Somers, N.Y., illustrates a typical mix of old and new.

Houses built before the 20th century are full of hand-crafted details that disappeared as building became standardized. Here, the technique of cutting the outer racks in the firebox at an angle was rare after 18...

Bricks made in the age... The original... in the 1700s (a later... along the... flush gable). Raised... were typical in the 1700s.

...built with an... ...gle bricks... ...casing... ...dows. This... ...of the front entrance.

Window technology dating... ...the fewer and... ...ger the panes, the more re... ...cent the windows. Thes... ...-over-six sashes fr... ...the 1900s were h... ...with thick, not...

Carpenters in the 19th century learned the rules of classical architecture through builders' guides, like Asher Benjamin's 1827 handbook The American Builder's Companion. The portico columns on this Greek Revival house seem to be poorly designed 20th century additions because they are set in too far from the entablature above.

Exterior inconsistencies can point up structural changes. In the center part of the Schendorf house above the lower windows, a difference in the exposure on the clap boards indicates where the roof was raised on the original 1½-story section.

Quirky details of a house may point up an otherwise unnoticeable alteration. This vertical piece of wood was once part of a corner board that ran between the original rooflines of two sections of the house. When the roof was raised on the smaller section, only the face of the board remained. A patch to the lower end of the board reveals that something changed.

additions—by examining the silhouette of the house and its layout, as well as the style of the windows, doors, and other features. A mansard roof, for example, may be of the Second Empire style of the late 19th century, while a hip roof might indicate a Queen Anne house built a decade later. But keep in mind that while looking at visible features reveals a lot, there may be a hidden chapter to the story. Many a contractor has been surprised to uncover an old wall, a few stair steps, or some other vestige during a renovation. If you are not inclined to dismantle your house, a tour of the neighborhood to scope out similar homes can suggest the original blueprint lying within altered walls.

Schendorf took her research several steps further and invited some local experts to assess her home. (A consultation with an architectural historian might run between $80 and $110 an hour, says Andrea Gilmore, an architectural conservator and director of Building Conservation Associates in Dedham, Massachusetts.) As they studied the exterior and interior of the Schendorf house, John Masseugale, an architect and historian from nearby Bedford, N.Y., and David Gengo, a restoration contractor who owns Salem Preservation in Ridgefield, Conn., immediately noted the 19th-century Greek Revival elements of the house. There was, for instance, a column motif in doors and out, as well as a casing detail around the front door, interior doors, and mantels.

But just because Greek Revival houses were prevalent in the early to mid-19th century doesn't necessarily mean that the Schendorf house was built then. The original house may have gone up earlier and received a stylistic facelift, or it may have been built later, after the style waned. "In the provinces," says Masseugale, "styles hung on longer."

The date of a house's style can be supported—or contradicted—by construction details, since the frame of a house is unlikely to have been altered since the time the house was built (except in parts damaged by fire or changed with an addition). When Masseugale and Gengo descended to the cellar of the Schendorf house, the consistent foundation under both the "old" and "new" parts told them the whole house was built at one time. A closer look at the floor joists, foundation, and timbers supported their conclusion. Masseugale and Gengo maintained that the milled boards used in the frame came into use too late for even the center part of the house, assumed by the Schendorfs to be the 18th-century core, to have been built then. Though the timbers are clearly hewn, the joists supporting the center section have the straight and parallel teeth marks typical of a 19th century water milled board. "If this was a true, untouched, mid 18th-century house," says Gengo, "the floor joists would be completely made by hand."

Other details that help tough date a house include nails, paint colors, and molding and muntin profiles. Before the 20th century, all of these had styles particular to certain eras. (The manufacture of building materials became fairly standardized by the late 19th century.) The type of nails in the frame, for example—wrought, cut, or wire—direct the fastener-educated to a particular period. Professionals can help date elements of a house by examining a cross section of a paint chip, says Brian Powell, an architectural conservator with Building Conservation Associates. If Powell finds that a room had 10 layers of paint, for example, but a door casing only had the last eight, he would then know that the casing probably appeared around the same time as the third layer of paint on the walls. Chemical qualities of that layer might link it to a period of manufacture.

Hardware also tells a story—often a difficult one to decipher because

1720s Georgian style · 1785 Federal style · 1820 Greek Revival · 1825 smaller, coal burning fireboxes · 1835 asymmetrical arrangements of doors and windows · 1850 brick size standardized · 1870s balloon frame construction · 1880 double hung sash weighted 2-over-2 windows · 1885 Italianate style · 1890 decorative stained glass moldings · 1900 Queen Anne style · 1905 Shingle style, East coast

MATERIAL WITNESSES

Ted Ingraham, a restoration carpenter from North Ferrisburgh, Vermont, lectures on building techniques, using samples of historic materials such as the pieces shown on these two pages. Changes in their appearance point to different eras of development and aid in dating and understanding a house. MUNTINS (above). Profiles from the mid-19th-century (left) were wide—because they were planed by hand—and shallow because the glass panes they held were thin. From the late 1700s to early 1800s, muntin profiles became narrower and lighter (right), a general stylistic trend at the time. By the mid-1800s, machine milling and the desire for less obstructed views led to very narrow muntins (center) framing fewer, larger panes. OPPOSITE PAGE, FROM TOP. SAW MARKS. By the late 1700s, most boards were cut in a water-powered mill, often with a single-blade reciprocating saw which left shaggy, parallel vertical marks (left). Steam-powered circular saws, which left arcing striations (right), came into use after 1840. Larger timbers for beams were still hewn by hand with an ax well into the 19th century, leaving gouges (inset). MOLDINGS. Before the Colonial Revival era of the 1870s, each design period had a distinctive molding style based on a Roman or Greek motif. Colonial or Georgian moldings (1730-1780) were influenced by Roman architecture, with a profile based on a portion of a circle (bottom). In the Federal period (1780-1825), the molding's more elongated profile reflects the oval-shaped patterns of classical Greek designs (middle). By the time of Greek Revival (1825-1850), the oval shape had become so drawn out as to leave an attenuated, shallow curve (top). NAILS. Hand-wrought nails from the 1700s come to a sharp point and have uneven heads—most commonly a four-faceted "rosehead" (second from top) or two-sided "T-head" (center). Made from relatively soft iron, hand-wrought nails could be extracted, straightened and reused. "They show up in later buildings," says Ingraham. Machine-cut nails, common from 1789 to the 1890s, were wedge shaped. Hand-hammered octagonal-shaped heads on cut nails (bottom) were made until 1825; later came rectangular, machine-made nail heads (second from bottom). (These are sometimes used today on flooring.) By 1880, wire nails—the round-shafted, circular-headed pointy nails we use today (top)—were being phased in.

PHOTOS: BRUCE WELLER (4); CHRIS RACHE TKET

sophisticated hinges and bolts were available from Europe at the same time that early local hardware remained relatively crude. But if a hinge design, for example, matches the estimated date of a door, and that hinge shows no sign of having been changed (paint irregularities and superfluous screw holes are big clues), then it may confirm the estimate. On the other hand, if the hardware is from the days of mass production—from the Victorian era on—old catalogs, available in many university libraries or historical societies, become a great resource.

When all the available clues are taken into consideration, the possible construction date of a house ideally falls into a 10- or 20-year window. "That's about as good as most of us can do," says Gilmore. After looking over the Schondorf house, John Milnes Baker, a Katonah, N.Y., architect and the author of *American House Styles: A Concise Guide*, agreed that the authentic Greek Revival style meant a post-1820 construction. Noting the wood gutters built into the eaves—which didn't show up till 1840 or later—and the materials used in the frame, Baker deduces that the house went up around 1850.

Official records should back up any guesstimate about construction dates and alterations, especially for a house built in the 1900s. "Around the turn of the century, owners had to start getting permits for alterations, for plumbing, that sort of thing," says Gilmore. Every state has a preservation officer who can guide a homeowner to the right resources: county archives, state preservation trusts, and most importantly, local city or town historical societies. The latter will have the best catalogs of municipal information, including maps, local newspapers, and the genealogical information that reveals fascinating details about the people who lived their lives in your home.

Florence Oliver, the town historian for Somers, did the deed trace for Gladys Schondorf in 1983, working backward from the current owners. The search started at the town's deed office, then moved on to the Westchester County archives for the period before the town was incorporated. Oliver looked at transfers for the Schondorf's 2.7 acres, as well as the larger tracts of 92 acres and more that earlier owners held, and she even glanced at transfers for adjoining property to hunt for mention of the land in question. She was able to trace the sale of the property through the previous 23 owners, as far back as the initial colonial landowner at the turn of the 18th century. The house itself is first mentioned specifically in a deed dated 1849, in which a man named George Van Kleek bought an 81-acre lot from his sister Theresa "with the provision that their mother, Sarah, could occupy and enjoy during her lifetime one kitchen, two bedrooms, one parlor, privilege in the garret and cellar in the dwelling house and the use of a quarter of an acre for a garden." This listing describes half the rooms in the present house. If the Schondorfs' home didn't exist by 1849, it was about to be built.

George Van Kleek's house is clearly visible on an 1851 map, the earliest one in the Somers Historical Society that shows property locations. Looking at maps in chronological order, a researcher can pinpoint the date a house first appears in a town survey. For homes built after 1866, Sanborn maps—named for the firm in Pelham, New York, that created them—give excellent descriptions of size, layout, and materials for houses in more densely populated areas (the maps were used by insurance companies). They are usually on file with historical societies or available through the Sanborn company, which still exists. "They tell you, for example, if the building was wood frame or brick, how many stories it had, where the window were placed—things that would help a policy be written," explains Mary Beth D'Alonzo, a project archivist with the Georgia Historical Society.

When starting your quest, D'Alonzo points out, don't dive into old records looking for your own address. Street names, house numbers and lot designations frequently change over the years, so it's a good idea to work backward from current records. To uncover the names of former owners or tenants, D'Alonzo also suggests checking old city directories, organized by address. Historical societies or libraries usually have

1800 platform frame houses | 1805 Tudor style | 1863 Asphalt shingles | 1905 Craftsman style | 1908 first "catalog" homes | 1913 Bungalow style | 1916 Prairie style

them, and they are available through the present day City directories exist even from the days before phones—as far back as the 1830s or earlier Newspapers also sometimes yield surprising information "Look at indexes for the years you think your house may have been built, under headings such as 'buildings' or 'architecture,' " says D'Alonzo "Construction of the more prominent houses in the area may have warranted articles," she says A lucky researcher may even find how many rooms were on the first floor, maybe even the wall paper "

Old photographs provide an unambiguous source of evidence, documenting both small and large changes to the footprint of a house When K C and Steve Chilton bought their 1866 farmhouse in Lovettsville, Virginia, from descendants of the original owners, they saw their house evolve in the background of a host of family portraits taken on the front stoop Lacking such a gold mine, a researcher can plumb photo archives in local libraries and historical societies

Lauren Glant was so delighted with the information she uncovered about her Brooklyn, N.Y., townhouse—including archaeological finds she dug up from the site of an old cistern in her backyard—that she started her own business doing house histories "It's easier to get info about the home—deeds, mortgages and so on," she says, 'than about the people, such as census lists," which she peruses to learn personal details about tenants and owners Glant recommends publicizing your curiosity, because neighbors and older community members will come out of the woodwork to tell you bits and pieces about your home's history Once you know an owner's name, she suggests searching genealogical Internet sites for more information

Without a photograph, first-hand account, or actual mention of a house in town records, a town's property tax records can help 'If the per-acre land assessment on a piece of property goes up in a given year, it's a good indication that a house was either built or substantially improved at that time," says Florence Oliver For example, a year-to-year study for the Schondorf property for the 1830s and 1840s showed that between 1848 and 1851 (the interim years are lost), the assessment jumped from $30 an acre to $45 an acre. Presumably this is when the Greek Revival house was built

But that's not to say that there wasn't a house on the property, perhaps in the same strategic hilltop location, before 1848 It just means that this particular house most likely dates to that time

Gladys Schondorf isn't entirely convinced her house doesn't have more history to reveal She imagines total renovations, and somewhere underneath all the plaster and facelifts, a tough little 1734 cottage (After all, what did those previous landowners live in?) "The thrill of researching your house is that it conjures up so many romantic thoughts," she says But what if she finally concludes that the house was definitely built in 1848? "Well, then," she says with a sigh, "I would have to repaint the sign ■

PHOTO: BUILDING CONSERVATION ASSOCIATES

PEELING BACK TIME

A home owner who wishes to restore a house's original paint colors—or who is simply curious about them—may want to consult an expert from a conservation firm. A tiny sample or plug from a wall is removed, cast in resin, and polished perpendicular to the layers. An examination under high magnification and ultraviolet light will help distinguish between even "a million shades of white," says Brian Powell of Building Conservation Associates in Boston, Massachusetts. "Different layers will reveal different amounts of fluorescence," corresponding to materials used during various periods. Because colors tend to fade over time, paint conservators look for drips and other thick areas that have a more protected core. Lacking a pristine sample, says Powell, "you have to use a curatorial eye and correct based on what you know of a paint's properties." Verdigris green—an expensive shade used on interiors in the 18th century—eventually turns a dull brown; prussian blue fades easily; and linseed oil, a common paint ingredient, darkens and yellows away from light, so that it could throw off a sample taken from behind a shutter. Once the right color is identified, the experts fingerprint it by measuring it on a chromometer. Then they match it to a paint chip from a modern-day manufacturer.

Home owners can use a cruder technique called cratering. Slice a small patch of paint away from the wood, then lightly sand around it. Layers of color will feather away from the center and gradually reveal the earliest coats.

1920 attached garages · 1935 Gypsum board popularized · 1947 Levittown incorporated · 1950 Prefabricated and ranch type houses · 1960 split levels · 1980 Clintons buy 110-year-old Dutch Colonial

WHERE TO FIND IT - SEE DIRECTORY - PAGE 135

DETACH HERE

THE POSTER

CHOPPERS

BY THOMAS BAKER
PHOTOGRAPHS BY BRUCE WELLER

Ax in hand, I face my opponent, a 60-foot ash, long dead and soon to be fuel for next winter's fire. Goggles in place, I plant my feet and take a swing. Three-and-a-half pounds of razor-sharp steel, fixed to the end of 36 inches of slim hickory, slices through the air and—with a soul-satisfying *thunk*—sinks into the tree's furrowed bark. A sideway tug loosens the blade from the tree's grip and I whip the metal wedge back into the wood.

"The ax was mankind's first construction tool—and the most versatile," says Bernie Weisgerber, a historic-preservation specialist with the U.S. Forest Service. Because of an ax's simplicity, and the intimate way it connects people to their work, subtle refinements in shape and weight make a big difference. The small-polled, broad-bladed axes that colonists brought to the New World couldn't handle the big timber, and so tools evolved into the compact, thick-polled wedges we know today. Ax development reached its apogee in the 19th century—"The high-carbon steel they had back then could really hold an edge," says Weisgerber wistfully—but by the dawn of the 20th century, specialized axes for such tasks as slaughtering cows, cutting sod, and chopping ice were fast going the way of the buggy whip. Logging camps remained the ax's last bastion until the 1950s, when the growling *braaaaat* of the chain saw replaced the tool's percussive cadence.

On my ash, a pair of opposing, sideway *V*'s reaches deep into the core, and thick vanilla-colored chips lie at my feet. My muscles tingle from chopping. A slight creak from the trunk tells me to step back—the massive tree topples to the ground. A chain saw would've been faster, but who needs the noise and oily exhaust? When it comes time to replenish the woodpile, only an ax will do.

A Swedish bread ax is beveled on two sides for squaring logs and structural timbers.

Ax Tips

- Wear thick leather boots.
- Put on safety glasses or goggles to protect your eyes from flying chips.
- Clear vicinity of people, pets, and brush before taking a swing.
- Bend knees at the end of the stroke to keep ax from flying back at you.
- Keep both feet on the side of the log opposite the one being cut. When that's not possible, use short, controlled strokes and never let the ax head drop below the level of your hands.
- Use handles with unvarnished wood to avoid getting blisters.
- Keep ax head in leather sheath when not in use.

Ax Anatomy

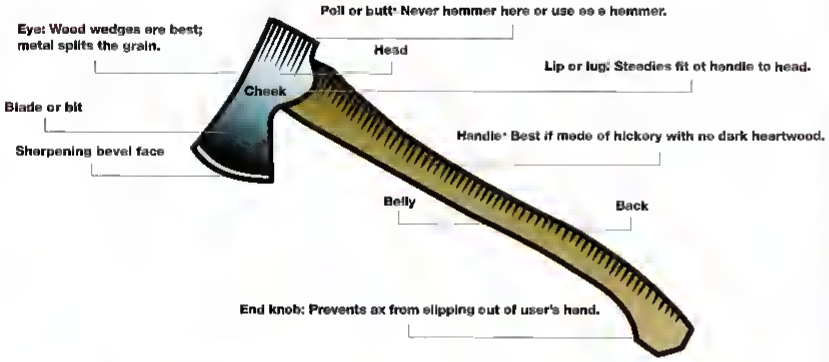
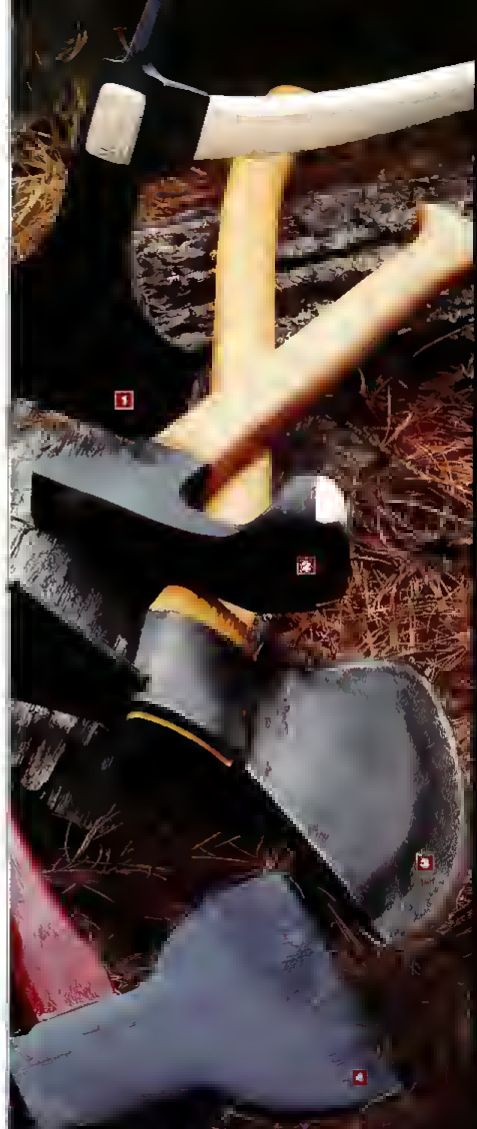


PHOTO: BRUCE SELYEM ILLUSTRATIONS: RETHINK INC

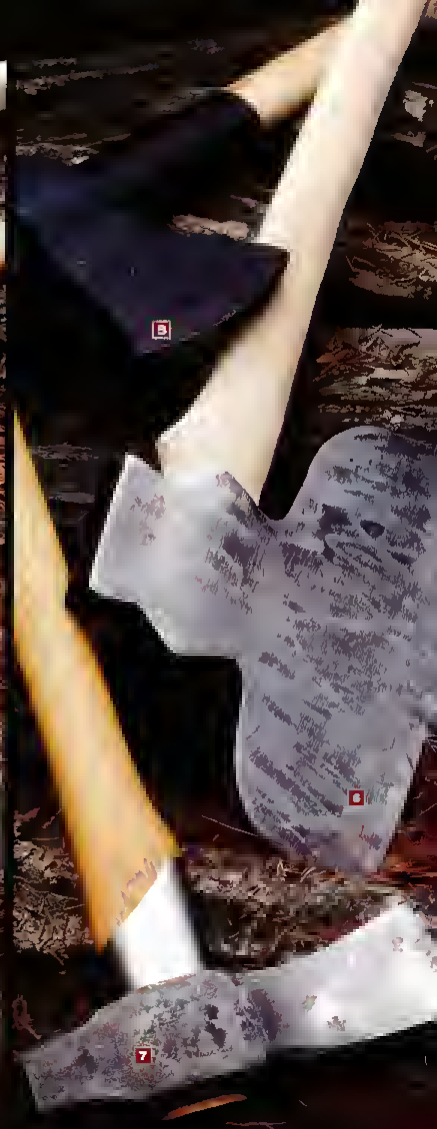
KEEPING AN EDGE

A dull ax is a dangerous ax. Not only does it slow down the work, it's more likely to glance off the wood rather than bite in, and cut something else, like your leg. If an ax has been neglected, here's how to sharpen it. **1.** Put on gloves and clamp the blade flat against a workbench. **2.** Starting 2 to 3 inches back from the edge, push a mill bastard file toward the handle, and then follow the curve of the blade down to the edge until a burr—a rough, thin metal wire—forms on the opposite side. Filing should leave a fan-shape shiny spot on the cheek. **3.** Flip the ax over and file in the same way until a burr forms. **4.** Using a circular motion (as Bernie Weisgerber demonstrates, left), hone with an oiled silicon carbide ax stone. **5.** To take off the burr left by honing, strop the edge over a leather strap or a softwood plank. Check sharpness by looking for light reflected off the edge (there shouldn't be any) or by lightly brushing the back of a fingernail across the blade (it should grab). Do not under any circumstances use a high-speed grinder to sharpen an ax. You risk overheating the metal, which draws the temper, or hardness, out of the blade.

WHERE TO FIND IT – SEE DIRECTORY – PAGE 135



1. This shipwright axe has lips on both sides of the blade so that shipbuilders and timber framers can cut across wood grain. Adzes—axes with blades perpendicular to the handle—are swung toward the feet using short, controlled strokes. **2.** The curved blade of a hollowing axe enables carvers to make bowls and other scooped out pieces. **3.** A crass ax helps farmers remove plastic wrap from rolls of hay. The blade rips into the plastic, while the butt pulls the hay apart. **4.** A broad hatchet has a beveled cutting edge for shaping dimensional stock and re-sizing boards in log cabin construction.



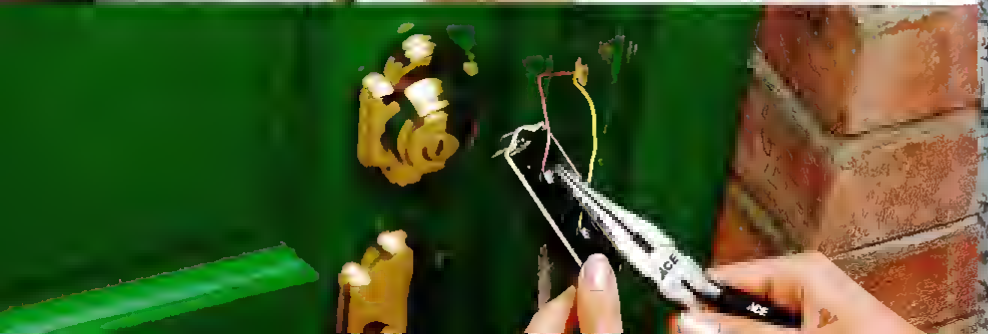
5. This straight-handled American felling ax has a special brace, made of high-impact polymer, where the head meets the handle to protect against breaking in case of an overstrike. **6.** Broad ax blades can be single or dou beveled, depending on the desired depth of the cut. Handles on the single beveled broad ax are often bent to one side to protect the knuckles from scraping on the log. **7.** A splitting maul has a heavier head with wider chee than a splitting ax, to better cleave large chunks of wood, called "rounds."

8. The Pulaski the traditional ax of firefighting, has an adz on the butt for tearing apart large sections of wall, floor, or ceiling in one motion. **9.** Double-bit axes are toured for their balanced feel and versatility. Typically, one blade is sharpened to a finely honed edge, while the second is ground blunter for use on knotty wood or near the ground. One blade is used for felling, the other for limbing. **10.** This type of Pulaski—a combination ax and grubbing hoe for digging up roots, is used for fighting forest- and wildfires

11. A Swedish variation of the carving ax allows you to cut on the beveled face with a scooping movement. **12.** The thin blade of the log house corner ax allows builders to square up corners. **13.** A Swedish broad ax is used to hew logs and structural timbers. The large space between the blade's "beard" (underside) and the handle allows you to grip the tool close to the blade

14. The American felling ax is designed for chopping down trees. This one has a Michigan-style head (rounded at the back) with a long, extra-thick handle. **15.** A traditional Scandinavian forest ax has an extra-sharp, thin curved bit for making cuts in soft, resinous spruce or pine. **16.** The Swedish carving ax has a thick bit and wide-beveled face that allows you to hold ax close to the head.

17. A shingling hatchet has an adjustable depth gauge on the side of the head as well as a straw blade below the heel. The poll is tempered for use as a hammer. **18.** The carpenter's hall-hatchet has a waffle face and a notch to remove nails. **19.** The head of a 14 inch camper hatchet is molded to a hollow yet strong fiberglass handle, eliminating the threat of a loose blade. **20.** Thin-bladed Japanese wood carver's hatchets are used by timber framers to rough out and shape wood into ceremonial masks, household utensils, and architectural details.



D I R E C T O R Y

PHOTOGRAPH BY MICHAEL GRIMM

No Parking?

The covered-carriageway proposal sparks controversy

BY JORDAN REED

Lookin' good: T.O.H. host and all-American boy Steve Thomas takes a break from his work on the Salem house project to admire the view from the second-story scaffolding.

Week 8 (November 6–7)

Carpenter Norm Abram and contractor Tom Silva clue in host Steve Thomas on some defective siding along the back of the Salem house and predict laborious patchwork or a costly redo. Architect Pamela Hawkes presents the covered-carriageway proposal to the Salem District Historic Commission, and once-amenable abutting neighbors voice their discontent. The concept is approved, but certain construction details must be provided later. Steve grouts the tiles in the kids' shower; then Norm talks about how he prepared the floor with Tom—complete with radiant heating—for tiling. Tom and Norm apply the casings and trim to the doorways of the utility room and linen closet. Steve visits with restoration painter John Dee, who uses Swedish putty to smooth out the rough surface of the stripped portico columns.

Watch and learn: Using a contour gauge.

Resources: Paint: Dulux Endurance, from Glidden, Cleveland, OH, 800-ON-DULUX. Architects: Ann Beha Associates, Boston, MA, 617-338-3000. Radiant heating in bathroom floor: Stadler Corp., c/o Radiant Systems Technology, Dedham, MA, 781-320-9910. Screw gun for fastening underlayment: Quik Drive Fastening Systems, Quik Drive USA Inc., Gallatin, TN, 615-876-7278. Restoration painter: John W. Dee Painting and Decorating, Concord, MA, 978-369-8897, www.johndeepainting.com. Swedish putty: from Schmuder, available through Fine Paints of Europe, Woodstock, VT, 800-332-1558. Miscellaneous painting supplies: Waters & Brown Inc., Salem, MA, 978-744-1007.

Week 9 (November 13–14)

Steve states that an appeal to the Commission by abutters may stall work on the carriageway indefinitely. Norm drills waste- and water-pipe holes into a bathroom vanity; then levels it with his trim saw. He, Steve, and plumbing and heating expert Richard Trethewey glue the countertop (with integrated sink) onto the vanity. Steve meets with architect Ann Beha and home owner Deborah Guinee to discuss how the kitchen will be affected if the parking plan is nixed. He reports that the shed addition needs to be reframed from the floor up. Then greets closet system installer Mitch Mazaitis, who prepares the utility area for shelf installation. Meanwhile, Tom examines the shed for sill damage, and the crew erects the first new wall.

Watch and learn: Installing a plate-glass mirror.

Resources: Bathroom vanity: Cabico, represented by G & G Associates, Preston, NH, 603-362-5122. Dealer is Moynihan Lumber Inc., Beverly, MA, 978-927-0032. Vanity top: Corian, fabricated by Christopher Tops Inc., Woburn, MA, 781-935-1180. Single-lever faucet: Kohler Co., Kohler, WI, 800-4-KOHLER. Electronic washer valve: Watts Regulator Co., N. Andover, MA, 978-688-1611. Bathroom lighting: Wolfers Lighting, a Standard Electric Co., Waltham, MA, 781-672-4200. Mirror: Banner Glass, Wakefield, MA, 781-246-7715. Architect: Ann Beha Associates (see week 8). Closet system: ClosetMaid, Clairson International, Ocala, FL, 800-874-0008. Local installer: Closet Systems Co., Wilmington, MA, 978-657-0335.

Week 10 (November 20–21)

Things get ugly with the Planning Commission. Deborah Guinee must present the parking plan for a second time, but an out-of-scale drawing and the neighbors' attorney prove problematic for the board. A continuance is begrudgingly granted, and Deborah's husband, Kevin, is understandably frustrated. On the bright side, Tom shows Steve how to put up the new cement clapboard siding, then installs the kitchen skylights with Norm. Steve balances on the roof, where contractor James Shea is replacing the slate pieces visible from the front of the house. Finally, Steve and tile contractor Joe Ferrante go over the tiling plans for the future master bath.

Watch and learn: Joining two crossbeams.

Resources: Cement clapboards: Hardiplank, James Hardie Building Products, Mission Viejo, CA, 800-9-HARDIE. Local supplier: Furman Lumber Inc., Billerica, MA, 800-THE-WOOD or 978-670-3800. Roofer: Professional Roofing Contractors Inc., Salem, MA, 978-744-6668. Copper flashing: Harvey Industries, Woburn, MA, 781-935-7980. Skylights: Wasco Products Inc., Sanford, ME, 207-324-8060. Fiberglass shingles: Georgia Pacific Corp., Atlanta, GA, 404-652-4000. Master bath tile: Shep Brown Associates Inc., Woburn, MA, 781-935-8080. Tilers: Ferrante Tile, Medford, MA, 781-396-6327.

Week 11 (November 27–28)

Steve joins City of Salem tree warden Richard Renner at the front of the house, where he's planting a Callery pear tree. The Historical Commission members, along with plenty of touchy neighbors, visit the property; they'll make their final decision on the carriageway in a week. Steve talks rocks with stonemason Roger Hopkins, who works on getting the front steps to pitch out. Norm and Steve bust through a blocked-up doorway in the future guest bedroom, carefully saving the chair rail and base molding; then Steve heads out to Ludlow, Massachusetts, to see how porcelain refinisher Al Fontaine plans on reconditioning the old claw-foot tub.

Watch and learn: Leveling a cement stair.

Resources: Tree program, City of Salem, Salem, MA, 978-745-0135. Custom windows, JB Sash & Door Co. Inc., Chelsea, MA, 617-884-6840. Stonemason: Naturalistic Gardens, Sudbury, MA, 508-443-7572. Tile and bathtub resurfacing: Miracle Method Bathroom Restoration, Ludlow, MA, 413-589-0769.

Steve and Norm say "cheese" in front of T.O.H.'s Salem, Massachusetts, house. The proximity of an adjacent home (far right) helped make the parking proposal all the more iffy. Recruits producer Bruce Irving, "The carriageway plan turned into a real battle royale within the Historic Commission."

PHOTOS COURTESY OF WGBH

This Old House

Where and when to watch This Old House *and* This Old House Classics

● Indicates *This Old House* Classics, vintage episodes rebroadcast as commercial dollend

ALABAMA

BIRMINGHAM
WBIQ Thu. 8:30 p.m., Sat. 4 p.m.
● WCET Sun. 6:30 a.m.
● WJSU Sun. 6:30 a.m.

DEMOPOLIS
WBIQ, Thu. 4:30 p.m., Sat. 4 p.m.

DOZIER
WBIQ, Thu. 6:30 p.m., Sat. 4 p.m.

FLORENCE
WBIQ, Thu. 6:30 p.m., Sat. 4 p.m.

HUNTSVILLE
WBIQ, Thu. 6:30 p.m., Sat. 4 p.m.
● WYLE, Sat. 6:30 p.m.

LOUISVILLE
WGIQ Thu. 5:30 p.m., Sat. 8:30 p.m.

MOBILE
● WALA, Sun. 4 a.m.
WBIQ, Thu. 8:30 p.m., Sat. 4 p.m.

MONTGOMERY
WAIQ, Thu. 8:30 p.m., Sat. 5 p.m.

MOUNT CHEAHA
WCIQ Thu. 8:30 p.m., Sat. 8 p.m.

ALASKA

ANCHORAGE
KAKM Mon. 4 p.m., Thu. 8:30 p.m., Sat. 6:30 a.m.
● KIMO, Sun. 4 p.m.

FAIRBANKS
KUAC, Fri. 4 p.m., Sat. 4 a.m.
● KATN, Sat. 5 p.m.

JUNEAU
KTOO Fri. 5 p.m., Sat. 5 a.m.
● KJUD, Sun. 4 p.m.

ARIZONA

PHOENIX
KAET, Thu. 2 p.m. and 7:30 p.m., Sat. 10 a.m. and 1 p.m.
● KNXV Sun. 11 a.m.

TUCSON
KUAT Sat. 11 a.m. and 5:30 p.m.
● ATTU, Sat. 1:30 a.m.

ARKANSAS

ARKADELPHIA
KETG, Sat. 4 a.m. and 12:30 p.m.

FAYETTEVILLE
KAFT Sat. 4 a.m. and 12:30 p.m.

FORT SMITH
● KFSM, Sun. 4 a.m.

JONESBORO
KTEJ Sat. 4 a.m. and 12:30 p.m.

LITTLE ROCK
KETS, Sat. 5 a.m. and 12:30 p.m.

MOUNTAIN VIEW
KEMV Sat. 4 a.m. and 12:30 p.m.

CALIFORNIA

BAKERSFIELD
● KUVI

CHICO
● KRCR, Sat. 5 p.m.

ALPINE
KBET Mon. 7:30 p.m.
● KAEE, Sun. 1 p.m.

FRESNO
● KFSN Sat. 4 a.m.
KVPT Sat. 4 p.m., Sat. 6:30 a.m.

HUNTINGTON BEACH
KOCE, Tues. 4 p.m., Sat. 8:30 p.m.

LOS ANGELES
KCET Sat. 5:30 p.m.
● KABC, Sun. 4 a.m.

PALM SPRINGS
● KPSP Sat. 5 a.m.

REDDING
KIXF Sat. 8:30 a.m.

ROSMART PARK
KRCR, Tues. 7:30 p.m., Wed. noon

SACRAMENTO
4 V E, Thu. 4 p.m., Sat. 5:30 a.m.
● KOVR

SAN FERNANDO
KVCR, Mon. 4:30 p.m.

SAN DIEGO
KPBS, Sat. 12:30 a.m.
● KGTV, Sun. 11:30 a.m.

SAN FRANCISCO
● QED Sat. 5 p.m.
● KPIX, Sun. 4:30 p.m.

SAN JOSE
KTEH, Sat. 5 p.m., Sun. 8:30 p.m.

SAN MATEO
KCSM Tues. 6:30 p.m., Sun. 10 a.m.

SANTA BARBARA
● KSBY Sun. 4 p.m.

COLORADO

BOULDER
KBIU, Sun. 4 p.m., Wed. 3:30 a.m. and 1:30 p.m., Sat. 5:30 p.m.

COLORADO SPRINGS
● KJCT Sun. 11:30 a.m.

DENVER
4RMA, Sat. 5:30 p.m., Sat. 2 p.m.
● KCNC, Sun. 1:30 a.m.

GRAND JUNCTION
● KJCT Sun. 11:30 a.m.

PUEBLO
KTSC, Thu. 7:30 p.m., Sat. 2:30 a.m.

CONNECTICUT

FAIRFIELD
WEDW, Sun. 10:30 a.m., Thu. 11:30 p.m., Fri. noon, Sat. 4 p.m.

HARTFORD
WEDH, Sat. 10:30 p.m., Thu. 11:30 p.m., Fri. noon, Sat. 4 p.m.
● WFSB, Sat. 8:30 a.m.

LIME ROCK
WHSY Sun. 10:30 a.m., Thu. 11:30 p.m., Fri. noon, Sat. 7 p.m.

NORWICH
WEDN, Sun. 10:30 a.m., Thu. 12:30 p.m., Fri. noon, Sat. 4 p.m.

DISTRICT OF COLUMBIA

WETA, Sat. 10:30 a.m.
● WRC, Sun. 4 a.m.

FLORIDA

Sunrise Period
● WCCU, Sun. 1 p.m., Sat. 12 p.m. 12:30 a.m., Sat. 1:30 p.m.

DAYTONA BEACH
WCIU Tue 10 p.m., Sat. 4 p.m.

FORT MYERS
● WEVU Sat. 5:30 a.m.

GAINESVILLE
WUFT, Sat. 9:30 a.m. and 1:30 p.m.
● WCJB, Sat. 4 p.m.

JACKSONVILLE
● WJXT Sat. 4 a.m.
WJCT Sat. noon

MIAMI
WLRN Sun. 1 p.m.
WPBT Sat. noon
● WTVJ, Sat. 4:30 a.m.

ORLANDO
● WKCF Sat. 4:30 a.m.
WMFE, 1 a.m. 4 p.m., Sat. 1 a.m. and 1 p.m.

PENSACOLA
WSRE, Sat. 12:30 p.m. and 4 p.m.

SARASOTA
● WTOG N

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

TAMPA
WEDU, Sun. 7 p.m., Sat. 11:30 a.m.
WUSF Sat. 8:30 p.m., Wed. 4 p.m.
● WTVT, Sun. 5 a.m.

WEST PALM BEACH
● WPTV Sun. 4 a.m.

GEORGIA

ALBANY
● WGVP*

ATLANTA
WGTV, Sun. 11 p.m., Sat. 4:30 p.m.
WPBA, Mon. 4 p.m., Wed. 4 p.m., Sat. 4 p.m.
● WXIA, Sat. 4 a.m.

AUGUSTA
● WJBF Sat. 6:30 a.m.

CHATSWORTH
WCLP, Sun. 11 p.m., Sat. 5-5:5 p.m.

COCHRAN
WGCO, Sun. 11 p.m., Sat. 1:30 p.m.

COLUMBUS
WJSP, Sun. 11 p.m., Sat. 1:30 p.m.

DAWSON
WACS, Sun. 11 p.m., Sat. 1:30 p.m.

PELHAM
WABW, Sun. 11 p.m., Sat. 5:30 p.m.

SAVANNAH
WVAN, Sun. 11 p.m., Sat. 4:30 p.m.

WAYCROSS
WXGA, Sun. 11 a.m. Sat. 4:30 p.m.

GUAM
● KUAM, Sat. 11 p.m., Sat. 5:30 p.m.

HAWAII

HONOLULU
KHET, Sat. 7:30 a.m.
● KHNL, Sat. 5:30 a.m.

WAILUKU
KMEB, Sat. 7:30 a.m.

IDAHO

BOISE
KA D, Sun. 4:30 p.m.
● KTRV Sun. 4:30 a.m.

COEUR D'ALENE
4 CDT Sun. 3:30 a.m.

MOSCOW
4 UID Sun. 4:30 p.m.

POCATELLO
KISU Sun. 4:30 p.m.

TWIN FALLS
KIPT, Sun. 6:30 p.m.

ILLINOIS

CARBONDALE
WSIU Thu. 7 p.m. Fri. 12:30 p.m., Sat. 12:15 p.m.

CHAMPAIGN/URBANA
● WCIA/3 Sat. 8 a.m.
WILL, Sun. 3:30 p.m., Thu. 4:30 p.m.

CHARLESTON
WEIU Fri. 4 p.m.

CHICAGO
WTTW, Tue. 7:30 p.m., Thu. 11:30 a.m.
● WFLD, Sat. 5:30 a.m.

JACKSONVILLE
WIEC, Sat. 1:30 p.m., Thu. 7 p.m.

MACOMB
WMEC, Sun. 1:30 p.m., Thu. 1 p.m.

MOLINE
WQPT Tue. 7 p.m., Sat. 1:30 p.m.

OLNEY
WJSI Thu. 7 p.m., Fri. 12:30 p.m., Sat. 10:30 p.m.

QUINCY
● WGEM, Sun. 1:30 p.m., Thu. 11 a.m.

ROCKFORD
● WTVO Sat. 4 p.m.

SPRINGFIELD
● WICS, Sat. 7:30 a.m.

INDIANA

BLOOMINGTON
WTIU, Thu. 11 p.m. Sat. 10:30 p.m.

EVANSVILLE
WNIN, Sun. 4:30 p.m., Sat. 12:30 p.m. and 8 p.m.
● WFIE, Sat. 4 a.m.

FORT WAYNE
WFWA, Sat. 11 a.m.

INDIANAPOLIS
WFYI, Sat. 5 p.m., Sat. 10 a.m.
● WTHR, Sun. 6:30 a.m.

MERRILLVILLE
WYIN, Sun. 5:30 p.m., Thu. 7 p.m.

MUNCIE
WIPB, Sun. 6:30 p.m.

SOUTH BEND
WNIT Sat 2 p.m.
WNIN, Sun. 5 a.m.

TERRE HAUTE
● WNCI LP, Sun. 11:30 a.m. Sat. 9:30 a.m.

VINCENNES
WVUE Sat. 12:30 p.m.

IOWA

CEDAR RAPIDS
● 4 WWL, Sun. 10 a.m.

COUNCIL BLUFFS
KIIN 4-n. 6:30 4 m Sat. 1:30 p.m.

DAVENPORT
KQLT Tue. 4 p.m., Sat. 5:30 p.m.
● WQAD, Sun. 11 a.m.

DES MOINES
KFMN Fri 6:30 p.m., Sat. 1:30 p.m.
● WHO Sun. 4 a.m.

FORT DODGE
KTIN, Fri. 6:30 p.m., Sat. 1:30 p.m.

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

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

SIOUX CITY
KYIN, Fri. 6:30 p.m., Sat. 1:30 p.m.

WATERLOO
KRIN Fri. 6:30 p.m., Sat. 1:30 p.m.

KANSAS

EMPORIA
KOOD Thu. 4 p.m., Sat. 12:30 p.m.

LIBERAL
KSWK, Thu. 7 p.m., Sat. 12:30 p.m.

MANHATTAN
KTWU, Sat. 8:30 a.m.

WICHITA
KPTS, Sun. 1:0 p.m., ● 4 WCV*

KENTUCKY

ASHLAND
WKAS, Sun. 5 p.m.

BOWLING GREEN
WKGB, Sun. 4 p.m.
WKYU, Tue. 1 p.m. and 5:30 p.m.
● WBKO, Sun. 6:30 a.m.

LEXINGTON
WCVN Sun. 5 p.m.

ELIZABETHTOWN
WKZT Sun. 4 p.m.

NAZARO
WKHA Sun. 5 p.m.

LEXINGTON
WKLE, Sun 1 p.m.

LOUISVILLE
WKMI, Fri. 7:30 p.m.
WKPC, Sun. 4 p.m.
● WAVE, Sat. 6:30 a.m.

MADISONVILLE
WKMA Sun. 5 p.m.

MORehead
WKMU, Sun. 5 p.m.

PADUCAH
WKMU Sun. 4 p.m.

OWENSBORO
WKOH Sun. 4 p.m.

OWINTON
WKON, Sun. 5 p.m.

PADUCAH
WKPD, Sun. 5 p.m.
● WTVQ, Sun. 4 a.m., Sat. 1 p.m.

PIKEVILLE
WKP Sat. 5 p.m.

SOMERSET
WKSO, Sun. 4 p.m.

LOUISIANA

ALEXANDRIA
KLPA, Sun 11 a.m.

BATON ROUGE
KLPB Sun. 1 p.m.
● WBRZ, Sun. 12:30 p.m.

LAFAYETTE
KLPB, Sun. 10 a.m.

LAKE CHARLES
KLTL, Sun. 10 a.m.

MONROE
KUTM, Sat. 10 a.m.

NEW ORLEANS
WYES, Sat. 8:30 a.m.
● WVUE, Sat. 4 a.m.

SHREVEPORT
5 LTS Sun. 10 a.m.
● KTBS, Sat. 4 a.m.

MAINE

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

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

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

PORTLAND
WMEA, Sat. 1:30 p.m.

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

MARYLAND

ANNAPOLIS
WMPT Sun. 5 a.m.
Sat. 4:30 p.m. and 6:30 p.m.

CUMBERLAND
WMPB, Sun. 4 p.m., Sat. 4:30 p.m. and 5:30 p.m.
● WMAR, Sat. 11:30 a.m.

FORT DETRICK
WPPT Sun. 4 a.m.
Sat. 4 4 4 p.m. and 5:30 p.m.

HAGERSTOWN
WPPB, Sat., 4 p.m., Sat. 4:30 p.m. and 6:30 p.m.
● WJAL, Sat. 10:30 a.m.

OAKLAND
WGPT Sun 4 p.m., Sat. 6:30 p.m. and 5:30 p.m.

SALISBURY
WCPB, Sat. 4 p.m., Sat. 4:30 p.m. and 5:30 p.m.

MASSACHUSETTS

BOSTON
WGBH, Tue. 5 p.m., Sat. 5:30 p.m.
WGBX Sun. 4 a.m.
● WBZT Sun. 10 a.m.

SPRINGFIELD
WGBH Thu. 5 p.m., Sat. 5:30 p.m.

MICHIGAN

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

BAD AXE
WDCQ, Sat. 5 p.m., Tue 11:30 p.m.

CADILLAC
WCMV Sat 2:30 p.m.
● WWTV/WWUP, Sun. 10:30 a.m.

DETROIT
WTVS, Thu. 6:30 p.m., Fr. 12:30 a.m., Sat. 10 a.m.
● WDIV Sat. 6:30 a.m.

EAST LANSING
WKAR Sat. 5 p.m., Thu. 4 p.m. Sat 1:30 p.m.

FLINT
WFUM, Thu. 6:30 p.m., Sat. 1:30 p.m.

GRAND RAPIDS
WCVU Thu 8:30 p.m., Sat. 10 a.m.
● WOOD Sun. 11:00 a.m.

KALAMAZOO
WGVK, Thu. 6:30 p.m., Sat. 10 a.m.

LANSING
● WILX Sat. 4 a.m.

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

MARQUETTE
WNMU Sat. 1:30 p.m.
● WBK, Sun. 4 a.m.

MIDLAND
WCMW, Sat. 1:30 p.m.

TRAVERSE CITY
● WPTV, Sun. 10:30 a.m.

UNIVERSITY CENTER
WSCM Sun. 4 p.m., Tue 11 10 p.m.

MINNESOTA

APPLETON
KSMN, Thu. 5 p.m. Sat. 12:30 p.m.
KWCM, Thu. 2 p.m. Sat. 12:30 p.m.

BEMIDJI
KBMQ, Thu. 4 p.m., Sat. 12:30 p.m.

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

MANKATO
4 AWS, Thu. 7:30 p.m. Sat. 12:30 p.m.

DULUTH
WDSE, Sat. 9:30 p.m., Sat. 4:30 p.m.

ROCHESTER
● 4 4 IT Sun. 9 a.m.

ST. PAUL/MINNEAPOLIS
KTCA, Wed. 7:30 p.m. Sat. 6:30 p.m.
● KSTP Sat. 6:30 a.m.

MISSISSIPPI

BILOXI
WMAH, Sat. 8:30 p.m.

BOONEVILLE
WMAE, Sat. 8:30 p.m.

JACKSON
WMAH Sat. 4:30 p.m.

COLUMBUS/TUPELO
● WCBI, Sat. 1 30 a.m.

GREENWOOD
WMAO Sat. 4:30 p.m.
● WXVT*

JACKSON
WMPN, Sat. 6:30 p.m.

MERIDIAN
WMAW, Sat. 6:30 p.m.

MISSISSIPPI STATE
WMAH, Sat. 8:30 p.m.

NATCHEZ
WMAW, Sat. 8:30 p.m.

MISSOURI

COLUMBIA
● KNLJ 1 r. 1 p.m.

JOPLIN
● KOAM, Sat. 5 p.m.
KTZJ Sat 12..30 p.m.

KANSAS CITY
KCPT Thu. 7 p.m., Sat. 12:30 p.m.
● KMBC, Sun. 6:30 a.m.

ST. LOUIS
KETC, Wed. 12:30 p.m., Sat 6:30 p.m.
● KTVI, Sun. 11 a.m.

SEDALIA
KMOS, Sat. 2:30 p.m.

SPRINGFIELD
KOZK Sat 12:30 p.m.

*CHECK HOMELOCAL LISTINGS.

MONTANA

BILLINGS
● KHMT/KYUS, Sun. 6:30 a.m.

BOZEMAN
10UKM, Wed. 11 30 p.m., Sat. 1:30 a.m.

MISSOULA
KUFM, Wed. 11:30 p.m., Sat. 1:30 a.m.

NEBRASKA

ALLIANCE
NETV Sat. 10 a.m. and 4:30 p.m.

BASSETT
NETV Sat. 10 a.m. and 5:30 p.m.

HASTINGS
NETV Sat 10 a.m. and 5:30 p.m.

LEXINGTON
KLNE, Sat. 10 a.m. and 4:30 p.m.

LINCOLN
NETV Sat. 10 a.m. and 5:30 p.m.
● 42VG, Sat. 5 p.m.

MORRISON
NETV Sat. 10 a.m. and 6:30 p.m.

NORFOLK
NETV Sat. 10 a.m. and 5:30 p.m.

NORTH PLATTE
NETV Sat. 10 a.m. and 6:30 p.m.

OMAHA
● WOWT Sun. 11 a.m.
NETV Sat 10 a.m. and 5:30 p.m.

NEVADA

LAS VEGAS
5 LVX. Sun. 7 p.m., Sat. 4 a.m. and 12:30 p.m.
● KTNV

RENO
KNPB, Sun. 4 p.m., Sat. 10:30 a.m.
● KAME, Sat. 10 a.m.

NEW HAMPSHIRE

DURHAM
WENH Sat. 10 a.m., Thu. 2:30 p.m.

KEENE
WEKW, Sun. 10 p.m., Thu. 6:30 p.m.

LITTLETON
WLED, Sun. 10 p.m., Thu. 8:30 p.m.

MANCHESTER
● WMUR Sat 5 a.m.

NEW JERSEY

CAMDEN
WHS, Sat. 2:30 p.m., The 1 p.m. Sat. 5 p.m.

MONTCLAIR
WNJN, Sat. 1 30 p.m., Thu. 1 p.m. Sat. 4 a.m.

LIBE BRUNSWICK
WNJB, Sun. 5:30 p.m., Thu. 4 p.m., Sat. 5 p.m.

TRENTON
WNJT Sun. 5:30 p.m., Thu. 4 p.m., Sat. 4 p.m.

NEW MEXICO

ALBUQUERQUE
KNME, Sun. 4 a.m. and 10 a m., Thu. 4 p.m.
● KOB, Sun. 6:30 a.m.

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

MORIARTY
KENW, Wed. 10:30 p.m., Sat. 8 p.m.

NEW YORK

ALBANY
● WXXA, Sun. 11:30 a.m.

BINGHAMTON
WSKG, Sat. 4 p.m., Sat. 5 p.m.
● WBNG, Sun. 7:30 a.m.

BUFFALO
WNED, Sat. 10:30 a.m. and 5 p.m.
WNED, Wed. 4 p.m.

ELMIRA
● WYDC, Sun. 10:30 a.m.

LONG ISLAND
WLIW, Sat. 4 p.m., Sat. 10:30 a.m.

NEW YORK CITY
WNET Sat. 6:30 p.m.
● WCBS, Sun. 7:30 a.m.

NORWOOD
WNPE Sat. 10-10 a.m.

PLATTSBURGH
WCFE Sat. 1:30 a.m.

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

SCHENECTADY
WMHT Sat. 10:30 a.m.

SYRACUSE
WCNY, Sat. 10:30 a.m.

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

NORTH CAROLINA

ASHEVILLE
WUNF, Sun. 4 p.m., Sat 5:30 p.m.

CHAPEL HILL
WUNC, Sat. 5 a.m., Sat. 2:30 p.m.

CHARLOTTE
● WAXN, Sun. 12:30 p.m.
● WSOC, Sat. 6:30 a.m.
WTVI, Sun. 10:30 a.m., Sat. 4 p.m.

COLUMBIA
WUNG, Thu. 5 p.m., Sat. 5:30 p.m.

FAYETTEVILLE
● WCHP Sat. 4 p.m., 10:30 a.m.

GREENVILLE
WUNS Sat 5:30 p.m., Sun. 9 a.m.
● WITN, Sun. 5 a.m.

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

LINVILLE
WUNE, Sun. 4 p.m., Sat. 4:30 p.m.

LUMBERTON
WUNU, Sun. 9 p.m., Sat. 6:30 p.m.

ROANOKE RAPIDS
WUNP Sun. 9 a.m., Sat. 6:30 p.m.

WILMINGTON
WUNJ, Sun. 9 p.m., Sat. 5:30 p.m.

WINSTON-SALEM
WUNL, Sun. 9 a.m., Sat. 5:30 p.m.

NORTH DAKOTA

BISMARCK
KBME, Thu. 4 p.m., Sat. 5 p.m.

DICKINSON
KDSE, Thu. 4 p.m., Sat. 4 p.m.

GLEN ULLIN
KJRE, Thu. 4 p.m., Sat. 4 p.m.

GRAND FORKS
KFME, Thu. 4 p.m., Sat. 5 p.m.
● WDAY Sat. 8:30 a.m.

JAMES RIVER
KCPE Thu. 7 p.m., Sat. 4 p.m.

MINOT
KSRE, Thu. 7 p.m., Sat. 4 p.m.
● KMOT, Sat. 6:30 a.m.

WILLISTON
4 WSE, Thu. 4 p.m., Sat. 4 p.m.

OHIO

AKRON
WEAO, Sun. 10 a.m. and 5 p.m., Sat 1 a.m.,
CANTON
WCMH, Sat. 4 p.m.

BOWLING GREEN
● WBGU Sun. 6:30 a.m.
WBGU Mon. 3 p.m., Sat. 1:30 p.m.

CAMBRIDGE
WOUC Sat 5 p.m.

CINCINNATI
WCET Thu. 5 p.m., Sat. 4 a.m. and 4 p.m.
● WCPO, Sun. 9 a.m.

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

COLUMBUS
WOSU Thu. 5 p.m., Sat. 8:30 p.m.
● WSYX, Sun. 6 a.m.

DAYTON
WPTD, Thu. 4 p.m., Sat. 6:30 a.m.
● WHIO, Sat. 5:30 a.m.

LIMA
● WOHL, Thu. 12:30 p.m.

OXFORD
WPTO, Sun. 12:30 p.m., Mon. 4:30 p.m.

PIKE TOWN
WPBO Thu. 4 p.m., Sat. 4:30 p.m.

TOLEDO
WGTE, Sun. 1 p.m., Thu. 4 p.m., Sat. 1 p.m.
● WTVG, Sun. 7 a.m.

YELLOW SPRINGS (WCV)
● WTKF

YOUNGSTOWN
● WNEO Sun. 1:5 a.m. and 5 p.m., Sat. 4 p.m.

OKLAHOMA

CHEYENNE
5 WET Sat 9:30 a.m. and 11:30 p.m.

GUTHRIE
KCET, Sat. 9:30 a.m. and 12:30 p.m.

OKLAHOMA CITY
KETA, Sat. 9:30 a.m. and 12:30 p.m.
● KOCY*

TULSA
KOED, Sat. 6:30 a.m. and 12:30 p.m.
● 5 TUL, Sun. 12:30 p.m.

OREGON

ASHLAND
KOAB, Thu. 5 p.m., Sat 4 p.m.

CORVALLIS
KOAC, Thu. 5 p.m., Sat. 4 p.m.

EUGENE
KHPR, Thu. 6 p.m., Sat 4 p.m.
● KMTR, Sun. 4 p.m., Sat. 4 p.m.

KLAMATH FALLS
KEPB Thu. 4 p.m., Sat. 10:30 a.m.

LA GRANDE
KTVR, Thu. 5 p.m., Sat 4 p.m.

MEDFORD
KSYS, Thu. 4 p.m., Sat. 10:30 a.m.
● KOBI Sun. 5 p.m.

PORTLAND
JOPB, Thu. 5 p.m., Sat. 6 p.m.
● KATU Sat 1:30 a.m.

PENNSYLVANIA

ALLENTOWN
WLVT Fri. 6:30 p.m., Sat. 12:30 p.m.

ERIE
WQLN, Sat. 6:30 p.m.
● WIET, Sat. 6 a.m.

HARRISBURG
WITF Sat 4 a.m. and 4 p.m.

JOHNSTOWN
● WWCP, Sun. 4 a.m.

PHILADELPHIA
WHYY Sun. 4 p.m. Sat. 11 a.m. and 4 p.m.
● WTXF Sat 5 a.m.
● WPHC*

PITTSBURGH
● 4 OHA*
WQED, Sat. 4 p.m.

PITTSTON
WVIA, Thu. 5 p.m., Sa 4 p.m. and 5:30 p.m.

UNIVERSITY PARK
WPSX Sun. 4 30 p.m., Sat. 5 a.m. and 6:30 p.m.

WILKES-BARRE
● WLYN, Sun. 9:30 a.m.

RHODE ISLAND

PROVIDENCE
WSBE, Sat. 5 p.m., Mon. 7:30 p.m.
● WJNE

SOUTH CAROLINA

ALLENDALE
WEBA, Sat. 1:30 p.m.

BEAUFORT
WJWJ Sat. 1:30 p.m.

CHARLESTON
● WCSC, Sun. 5:30 a.m.
WITV Sat. 1:30 p.m.

COLUMBIA
● WTX, Sat 12:30 p.m.
WRLK Sat. 1:30 p.m.

FLORENCE
WHMC Sat 1:30 p.m.

FLORENCE/MYRTLE BEACH
WJAA Sat. 1:30 p.m.
● WMBF, Sun. 4 a.m.

GREENVILLE
WNEC Sun. 1:5 a.m. and 5 p.m., Sat. 4 p.m.

GREENWOOD
WNEH Sat. 1:30 p.m.

ROCK HILL
WNSC, Sat. 1:30 p.m.

SPARTANBURG
W 41 T Sat. 1:30 p.m.

SUMTER
WRJA, Sat 1 30 p.m.

SOUTH DAKOTA

ABERDEEN
KDSD Mon. 11:30 p.m., Tue. 4 p.m.

BROOKINGS
KESD, Mon. 1 1..30 p.m., Sat. 4 p.m.

EAGLE BUTTE
KPSD Mon. 11:30 p.m., Sat. 4 p.m.

LOWRY
KQSD Mon. 11:30 p.m., Sat. 4 p.m.

PIERRE
KTSD, Mon. 11:30 p.m., Sat. 4 p.m.

RAPID CITY
KBHE, Mon. 11:30 p.m., Sat. 4 p.m.
● KCLO, Sat. 4 p.m.

SIOUX FALLS
KSDS, Mon. 11:30 p.m., Sat. 4 p.m.
● KTTW Sat 4 a.m.

VERMILLION
KUSD, Mon. 11:30 p.m., Sat. 4 p.m.

TENNESSEE

CHATTANOOGA
● WDSN Sat. 11:30 a.m.
WTCI, Sat. 1:30 p.m.

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

KNOXVILLE
WKOP Sat. 1:30 p.m.
WSJK, Sat. 1 30 p.m.
● WATE, Sat 4 a.m.

LEXINGTON-MARTIN
WLJT Thu. 4:30 p.m., Sat 12 30 p.m.

MEMPHIS
WKNO Sun. 6:30 a.m. and 2 p.m.
● WMEC, Sat. 4:30 a.m.

NASHVILLE
WNCN, Sat. 4:30 p.m.
● WKRN, Sat. 5 a.m.

TRI-CITIES
● WJHL, Sat. 10:30 a.m.

TEXAS

AMARILLO
KACV, Sat. 12:30 p.m.

AUSTIN
41KU Sat. 6:30 a.m.
● KTBC*
● KVC*

COLLEGE STATION
KAMU, Mon. 1 6 p.m., Wed. 3 p.m., Sat 12 30 p.m.

CORPUS CHRISTI
KEDT Sat 2:30 p.m. and 5 p.m.

DALLAS/FORT WORTH
KERA Sat 8 a.m. 4:30 p.m.
● KDFI, Sun. 10:30 a.m.
● 5 DFW*

EL PASO
KCOS, Sat. 5 p.m.

GRAND 3&0
4 MSH Sat 12:30 p.m.
● 5 VEC, Sat. 5 a.m.

HUNTSVILLE
● KTRU Sat. 6:30 a.m.

KILLEEN
KNCT, Sun. 6:30 p.m., Sat. 12:30 p.m.

LUBBOCK
KTXT, Thu. noon, Sat 10:30 p.m.

ODESSA
KMCV Sun. 12:30 p.m.

SAN ANTONIO
41 RN, Thu. 1:30 p.m., Sat. 1:30 p.m.

TYLER
● 41 PN, Sat. 5 p.m.

WACO
KCTF Mon. 10:30 p.m., Sat. 8:30 p.m.

UTAH

PROVO
KBYU, Sat. 8:30 a.m. and 2 p.m.

SALT LAKE CITY
5UEB, Sat. 4 a.m. and 5 p.m.
● KTVE

VERMONT

BURLINGTON
WETK Thu 1 p.m., Sat. 11 a.m.
● WCAX, Sun. 6:30 a.m.

RUTLAND
WVER, Thu. 5 p.m., Sat. 11 a.m.

ST. JOHNSBURY
WVTB, Thu. 4 p.m., Sat. 11 a.m.

WINDSOR
WVTA, Thu. 5 p.m., Sat 11 a.m.

VIRGINIA

CHARLOTTESVILLE
WHTJ, Sat. 6:30 a.m.

FALLS CHURCH
WNVT Sat. 2:30 p.m.

HARRISONBURG
WVPT, Sat. 1:30 p.m.
WVPT, Sat. 1:30 p.m.

NORFOLK
WMIV Sat. 1:30 p.m.

NORTON
WNRN Sat. 6:30 a.m. and 2 p.m.
● WVEC, Sat. 4:30 a.m.

RADIO 4
WSBN, Sat. 1:30 p.m.

RICHMOND
WCVE, Sat. 6:30 a.m.
WCVW, Fri. 6:30 p.m.
● WTVR, Sat. 6:30 a.m.

ROANOKE
WBRA, Sat. 1:30 p.m.
● WSLS, Sun. 5 a.m., Sat. 2 a.m.

WASHINGTON

BELLINGHAM
KCMS, Sat. 4 p.m., Sat. 12:30 p.m. and 5:30 p.m.

PULLMAN
KWSU, Mon. 7:30 p.m., Wed. 4:30 a.m., Sat. 4 p.m.

RICHLAND
KTNW, Sat. 4:30 p.m., Th : 7 p m., Sat. 2 p.m.

SEATTLE
5 CTS, Sat 4 p.m.
● KCTS, Sun. noon

SPOKANE
KSPS, Sun. 3:30 p.m., Sat. 9:30 a.m.
● KXLY Sun. 11:00 a.m.

TACOMA
5 TTC, Thu. 7 p.m., Sat 12:30 p.m. and 5:30 p.m.

YAKIMA
5 VYE, Sun. 5 p.m.
● KAPP Sat. 4 p.m.

WEST VIRGINIA

BECKLEY
WSWP, Sat 1..30 p.m.

BUCKHANNA
● WOAY*

CHARLESTON
● WOWK, Sun. 7 a.m.

CLARKSBURG
● WBOY Sun. 1:30 a.m., Sat. 4 a.m.

HUNTINGTON
WPBY, Sat 1..30 p.m.

MORGANTOWN
WNPB, Sat. 1:30 p.m.

WISCONSIN

GREEN BAY
WPNE, Sun., 4 p.m., Wed. 7:30 p.m.
● WFRV, Sun. 5 a.m.

LA CROSSE
WHLA, Sun. 4 p.m., Wed. 7:30 p.m.
● WXOW/WKBT, Sun. 11:30 a.m.

MADISON
WHA Sun. 4 p.m., Wed. 4:30 p.m.
● WMSN, Sat. 6:30 a.m.

MILWAUKEE
WMVS, Thu. 6:30 p.m., Sat. 4 p.m.
● WISN, Sat. 5:30 a.m.

PARK FALLS
WLEF Sun. 4 p.m., Wed. 7:30 p.m.

WAUSAU
WHRM, Sun. 4 p.m., Wed. 4:30 p.m.

WYOMING

RIVERTON
KCWC, Sat. 4 p.m.

*CHECK HOMELOCAL LISTINGS.

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COVER

Hardiplank fiber-cement exterior siding from James Hardie Building Products Inc., 888-542-7343, www.hardie.com

OUTTAKES
pp. 20-22

Answer to quiz #3, bil-RIHK-ah

Welcome Wagon. Powerwagon, $839 to $1,695, from Country Home Products, Vergennes, VT, 800-711-7276.

HOUSE CALLS WITH STEVE
pp. 24-28

Designer: Laurel Quint, Q Design, Denver, CO, 303-778-7072

Contractor: Doug Canady, Denver, CO, 303 388-5915.

WGBH Educational Foundation does not endorse any product or service mentioned or advertised in this magazine

Table Islands: Woodworking by Sean, Denver, CO, 303-458-7118

Cabinets and Armoire: Bertch Cabinet Mfg. Inc, 4747 Crestwood Drive, Waterloo, IA 50702, www.bertch.com

Backsplash: Brittany & Coggs, 1 Washington Center, 308, Dover, NH 03820, 603-742-5122.

Lighting: World Imports, Box 7748, Atlanta, GA, 404-872-2661

Stove: Dacor, ERSD48SO3, 48" dual fuel, 950 South Raymond Avenue, Pasadena, CA 91109, 800-772-7778, www.dacorappl.com

Sink: Kindred (KSS5U), 1000 Kindred Road, Midland, Ontario, Canada, L4R4K9, 705-526-5427

Refrigerator: Viking (42" stainless), 111 Front Street, Greenwood, MI 38930, 601-455-1200662-455-1200, www.vikingrange.com

Dishwasher: Asko (1805), Box 851805, Richardson, TX 75085-1805, 972 644-8575, www.askousa.com.

Countertops: Victor Marble, 3433 Walnut, Denver, CO, 80205; 303-294-0731.

Floor and table tile: American Olean,3850 Annapolis Lane N., Plymouth, MN 55447, 612-559-1180.

Faucets: Cifial Brass Works, 2935 Amwiler Road, Suite E, Atlanta, GA 30360, 800-528-4904

IDEAS NOTEBOOK

Backsplash tile: Ancient Jerusalem limestone, $56 per square foot, Paris Ceramics, 150 East 58th St., New York, NY 10155, 212-644-2782 www.parisceramics.com

Butcher block island: Model 665-868, $1900, Palmer Home Collection by Lexington Furniture, 411 S. Salisbury St. Lexington, NC, 800-539-4636.

Baker's Rack: Model 13-9510, glass shelves with plate grooves, $949, Ethan Allen, 203-743-8000, www.ethanallen.com

Decorative Hardware: Mushroom ($6.88), bee ($8.13), and flower ($7.50) drawer pulls, Michael Aram, oval cage knob, $31.35, LB Brass, traditional oval knob (satin chrome), $11.18, Omnia. All available from Simon's Hardware & Bath, 212-532-9220

Pendant lamp: Masiea Collection, P3644-27, $325 from Progress Lighting, Box 5704, Spartanburg, SC 29304. 864-599-6000, www.progresslighting.com.

ASK HORM
pp. 36-38

Lead paint safety: Environmental Protection Agency National Lead Information Center, 800-424-LEAD; Reducing Lead Hazards When Remodeling Your Home, www.epa.gov/lead/rrpamph.pdf. The Housing and Urban Development Office of Lead Hazard Control, 888-LEADLIST, www.leadlisting.org. Alliance to End Childhood Lead Poisoning; 202-543-1147.

ADDING UP
pp. 38-38

Contractor: Hofmann Design Build, Inc., 160 Broad Street, Summit, NJ 07901, 908-273-1700

Engineers: Joe Bronner, Structural Engineer P.E., Bronner Engineering Inc ,175-2C Fairfield Ave., West Caldwell, NJ 07006, 973-226-6330, John Keith, Spectrum Engineers P.C., 325 Mountain Avenue, Roanoke, VA 24016, 540 345-8020; John L. Walters PLS, Walters Land Surveying, 1807 South Nevada St., Oceanside, CA 92054, 760-722-1200; jwalt@n2.net

THE PRO FILE:
p. 41

Tiles: Quemere International, 330 N. Main St., Port Chester, NY 10573, 914-934-8366.

DETAILS
pp. 52-54

Plates, photos clockwise from top right. Prices are per plate

Photo one: *Seasons* Green Leaf sold at Portmeirion for $22.50; 203-729-8255.

Florentine Tilleul Green sold at Baccarat for $60, 800-777-0100.

Celadon dinner plate sold at Simon Pearce for $30, 800-774-5277.

Photo two. *Columbia Platinum* sold at Wedgwood for $29.99, 732-938-7911.

Cordone sold at Deruta of Italy for $48, 212-686-0808

Bragance by Philippe Deshoulieres, sold at Lalique for $40, 800-993-2580.

Solitaire Grande Coupe Plate sold by Lenox for $58, 800-63-LENOX.

Lusterware Orange sold by Swid Powell for $35; 800 808-SWID

Kyoto Square Dinner Plate, sold by Zrike for $19.50, 973-616-1668.

Festival by Phillippe Deshoulieres, sold at Lalique for $45; 800-993-2580.

Le *Brunch* by Jean Louis Coquet, sold as a set of six at Lalique, for $185, 800-993-2580.

Lusterware Grey sold at Swid Powell for $35; 800-808-SWID.

Ciel Glen France sold at Baccarat for $46, 800-777-0100, http://www.glen.com

TECHNOLOGY
pp. 56-58

Home automation. X10, Seattle, WA, 800-675-3044, www.x10.com; Smarthome.com, 800 762-7846, www.smarthome.com

CEBus Industry Council, Inc., Chevy Chase, MD, 301-263-9677, www.cebus.org

LUXURIES
pp. 60-64

Photo, p. 56 Pennsylvania guest house designed by John Millner Architects, Chadds Ford, PA, 610-388-0111. Saunas: Saunatec Inc. (manufacturer of Finnleo, Helo, & Amerec), Cokato, MN, 800-346-6536, www.finnleo.com, www.helosaunas.com, www.amarec.com;

Body Health Systems, Riverhead, NY, 800-447-2862. Information: The Finnish Sauna Society, www.sauna.si.

UPKEEP
pp. 68-68

Maintenance: Automatic Oil Co. Inc., 33 Maple St., Bloomfield, NJ 07003; 973-748-4200,

Berkeley Heating & Air Conditioning, 360 Valley Rd., Gillette, NJ 07933; 908-464-1833

HOME FURNISHING
pp. 104-111

Duncan Phyfe style: Barton Sharpe, New York, NY, 212-925-9562.

Counterclockwise from upper left

Late Georgian-style table, John Widdicomb, 560 5th Street North West, Grand Rapids, MI 49504, 800-847-9433; www.johnwiddicomb.com

Centre table, Century Furniture, Box 608, Hickory NC 28603, 800-852-5552

E.J. Victor, 110 Wamsutta Mill Road, Morganton, NC 28655, 828-438-0744

Drop leaf: Shaker Workshops, Ashburnham, Ma, 800-840-912
T.H. Robsjohn-Gibbings Modern: John Widdicomb
Bristol drop-leaf: E.J. Victor, 110 Wamsutta Mill Road, Morganton, NC 28655, 828 438-0744.
Maine Cottage Furniture, Yarmouth, ME, 207-846-1430. Stickley Showroom, Manlius, NY, 315-683 5441; www.stickley.com. Thomas Jayne Studio Inc., New York, NY, 212 838 9080

TECHNIQUE
pp. 74-77

Interior designer: JKH Interiors, Janet Hurd, designer, Lexington, MA, 781-863-0754.

Zero-clearance fireplace: Superhearth 48, Majestic Products Co., 1000 E. Market Street, Huntington, IN 46750, 800-227-8683, www.majesticproducts.com.

EY OESIGN
pp. 78-80

Architects: Peter Pennoyer, New York, NY; 212-779-9765. C. John Staff III, Los Angeles, CA, 310-477-9972. Dennis Wedlick, New York, NY, 212-625-9222. Melanie Taylor, New Haven, CT, 203-498-0820.

GETTING THERE
pp. 87-95

HOME THEATER
VCR: Sony SLVM91 DVD: Sony DVP-S7700. TV: Sony Plasma 42" PFM500A2WU. Receiver: STR-DA777ES. Multichannel Power Amplifier: Sony TAN-9000ES. Information on Sony products available on the Web at: www.sel.sony.com. Phone. 800-686-7669. Speakers. Niles, 800-289 4434, www.nilesaudio.com. Media systems consultants. Custom Electronic Design & Installation Association, Indianapolis, IN; 800-669-5329, www.cedia.org. Media Systems, Boston, MA; 617 439 7004, www.mediasystems.com.
DECOR
Paint consultant: Andrea Gilmore, Building Conservation Associates, Dedham, MA, 781-329 4145. Paint: Benjamin Moore, Montvale, NJ, 800-344-0400, www.benjaminmoore.com. Floor: Marmoleum, Forbo Industries Inc., Hazleon, PA; 800-842 7839, www.floorspecs.com/reference_library/forbo/. Kirkstone: Domestic Marble & Stone Corp., New York, NY, 212 343 3300. Sleigh bed. Ethan Allen #29-5611, Danbury, CT, 203-743-8000; www.ethanallen.com
DECK AND PERGOLA
Waterproofing: Vycor Ice & Water Shield, W.R. Grace; 800-472-2391, www.grace.com. Adhesive: 5200 Marine Adhesive Sealant, 3M, 800-364-3577, www.mmm.com.

A STROLL THROUGH PROVIDENCE
pp. 96-102

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Johnson and Wales Culinary Archives and Museum, 401-598-2805.
Providence Preservation Society Walking Tours, 401-831-7440.
Roger Williams Park and Zoo, 401-785-9457.
Gallery Night Providence, 401-274-9120, www.providenceRI.com/gallerynight.
Rhode Island School of Design's Museum of Art, 401-454-6500.
The Opulent Owl, 401-521-6698.
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Caserta Pizzeria, 401-272-3618.
Apsara Restaurant, 401-785-1490.
Trinity Brewhouse, 401-453-2337.

ALABAMA: *pp. 104-111*

Builders: Craftsmen Homebuilders, Huntsville, AL, 256-535-4418. Woodworkers: Charles' Custom Woodworks, Lacey's Spring, AL, 205-883-1332, www.hiwire.net/charles. Concrete specialists: JeffCo Concrete Contractors Inc., Tuscaloosa, AL, 205-879-9911. Architects: Anita J. Denson Architect, Decatur, AL, 256 350-9300.

DREAM HOUSE: BATHED IN LUXURY *pp. 114-118*

Architect: Robert A.M. Stern Architects, New York, NY, 212-967-5100. Builder: Country Club Homes Inc., New Canaan, CT, 203-966-5550. Interior Designer: Kerry Sheridan, Wilton, CT, 203-762-2888. Tile mason: Michael Meehan, 203-426-4335. Tile supplier: Casatelli Marble, Norwalk, CT, 203-847-6880.

IF THESE WALLS COULD TALK *pp. 121-126*

Historic consultants: Building Conservation Associates, New England Office, Dedham, MA, 781-329-4145.
Historic Societies: National Trust for Historic Preservation, Washington, D.C., 202-588-6164, www.nationaltrust.org. National Register of Historic Places, Washington, D.C., 202-343-9500; www.cr.nps.gov/nr. Society for the Preservation of New England Antiquities Old House Resource Line, Waltham, MA, 781-891-1985, ext 229; Georgia Historical Society, Savannah, GA, 912-651-2125, www.georgiahistory.com.
Restoration contractor: David Gengo, Salem Preservation, Ridgefield, CT, 203-431-9444.
Restoration carpenter: Ted Ingraham, N. Ferrisburgh, VT, 802-877-0043, joyner@together.net.
Architectural historians: John Montague Massengale AIA Architects & Town Planners, Bedford, NY, 914-234-7277, www.massengale.com. Society of Architectural Historians, Chicago, IL, 312-573-1365.
Maps: The Sanborn Map Company Inc., Pelham, NY, 800-930-3298, www.sanbornmap.com.
Further reading: *American Shelter: An Illustrated Encyclopedia of the American Home*, $31.50, by Lester Walker, Overlook Press, 1981. *How Old is This House?* by Hugh Howard, Farrar, Straus and Giroux, 1989. *House Styles in America*, by James C. Massey and Shirley Maxwell, $27.95, Penguin Studio, 1996. *Old American House*, by Henry Lionel Williams and Ottalie K. Williams, Bonanza Books, 1957. *A Field Guide to American Houses*, by Virgina and Lee McAlester, $24.95, Random House, 1984.
Our thanks to: Florence Oliver, Somers Historical Society, Somers, NY.

POSTER: CHOPPERS *pp. 129-134*

Where to find the axes: Gransfors Bruks, Summerville, SC, 828 649-2671, http://www.equipfind.com/gransfors.htm. Plumb available from Cooper Tools, Raleigh NC, 800-433-2863. Collins Axe Company, Lewiston, PA; 800-248-8303. Council Tool Co., Lake Waccamaw, NC, 919-646-3011. Barco, Reading, PA, 800-234-8665. Fiskars, Madison, WI, 608-233-1649. Japanese Woodworker, Alameda, CA, 800-537-7820.
Ax Consultant: Bernie Weisgerber, USDA Forest Service, Technology and Development Program, Missoula, MT.
Opening photo: Swedish carving hatchet, Bear Creek.
The axes pictured, see companies above for contact numbers:
1. Shipwright adze, Bear Creek.
2. Hollowing Adze, Bear Creek.
3. Farmer cross ax, Gransfors Bruks, Summerville, SC, 800 433-2863.
4. Broad hatchet, Plumb, Cooper Tools.
5. American felling ax, Collins Axe Company.
6. Broad ax, Bear Creek.
7. Splitting maul, Gransfors.
8. Pulaski, Collins.
9. Double bit axes, Council Tool Co.
10. Pulaski, Barco.
11. Carving ax, Gransfors.
12. Log house corner ax, Gransfors.
13. Swedish broad ax, Gransfors.
14. American felling ax, Council.
15. Scandinavian forest ax, Gransfors.
16. Scandinavian carving ax, Bear Creek. 17. Shingling hatchets, #11558, Plumb. 18. Half-hatchet, #11549, Plumb.
19. Camper hatchet, Fiskars.
20. Wood carver's hatchets, Japanese Woodworker.

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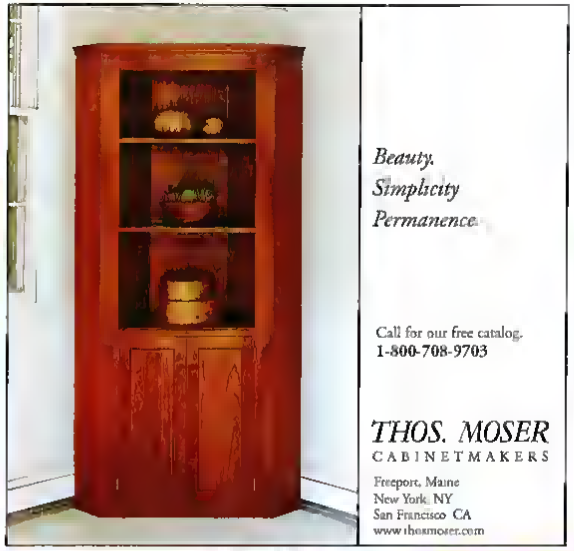

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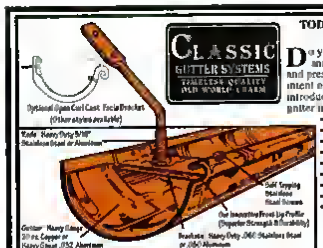

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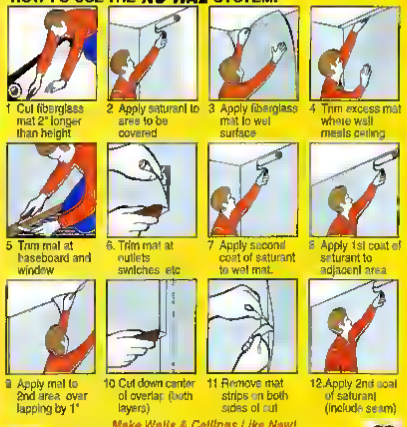

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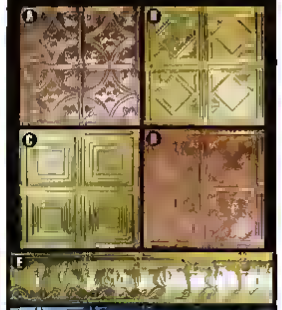

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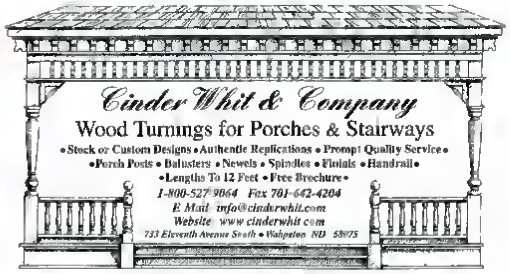

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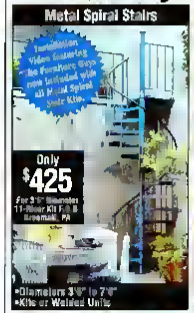

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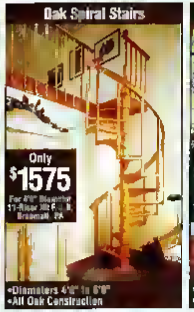

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LOCATION
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Set on what was once squatter's land known as the Barrens of Jericho, this Georgian-style, stucco covered sandstone farmhouse was completed in 1774 by Johan Philip Ziegler, the son of a German immigrant. Located about 25 miles south of Harrisburg, the 2,500-square-foot, nine-room ell-shaped structure was occupied until 1989, and has retained most of its architectural integrity.

Although the wood shingle roof has been replaced by a standing-seam metal one, nearly all other original features remain, including wide pine floors and eight fireplaces. Some of the bottom six-over-six double hung windows need reglazing, but the wavy panes on the second floor are unbroken and were likely mouth-blown in the 18th century. The electrical and plumbing systems are fairly intact, but there's only one bathroom and the kitchen is vintage 1960s.

The house and the quarry it abuts are now owned by the J.E. Baker Company, which plans to mine dolomite on the land in the next year or so. They'll give the house away to anyone who'll pay to move it—no easy task considering that it's made of heavy stone and that there's little available land in the vicinity. Verling Wolfe, a house mover out of nearby Bethel, estimates the job will cost between $115,000 and $120,000.

CONTACT
Bryan Mundy
Historic York Inc.
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The Philip Ziegler house is named for the builder's father, who was granted the land on which it sits by the Penn family in 1736. TOP: *The Colonial revival-style portico, a later addition to the stone house, retains its original though damaged wood-shingle roof.* BOTTOM LEFT: *The property's smokehouse—once used for curing and storing meat and fish—is included in the relocation estimate.* BOTTOM RIGHT: *Numerous five panel doors remain, along with hand wrought latches.*

PHOTOS: NOAH GREENBERG

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.

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