MARCH 2000

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This Old House

A Message From the Publisher

To Our Friends and Supporters,

As we turn full-speed into the new century, it is a time for us to learn from our successes of the recent past and build onto them in 2000, and to continue to deliver the best overall value for readers and advertisers alike.

What did we take with us from 1999? We reconfirmed a basic tenet: that to have a successful product, you must differentiate yourself from the competition, and offer a service of quality and value that the consumer cannot match elsewhere. At *This Old House*, our unique formula of taking our readers on the **journey of home renovation and improvement**, and providing confidence, inspiration and "know-how," is an unmatched position in the marketplace. And with a 21-year history of accolades on public television, we are truly the original brand that nurtured America's love affair with improving their living space.

Our friends in the advertising community believed greatly in this formula in 1999, with the following results:

- **Ad pages up 26%** from the previous year, and **ad revenue up over 65%** vs. prior year.

Editorially, another outstanding acclaim, as *This Old House* magazine was nominated for the third consecutive year for a **National Magazine Award.**

And from a reader perspective, *This Old House* magazine reaches the "promised land" of baby boomers: **4.1 million dual-audience readers** who are 41 years old and have a median HHI of more than $55,000, according to MRI.

What, then, to do in 2000? We'll continue to expand our franchise for the benefit of consumers and marketers alike, via the following:

- **Launch of Special Interest Publications.** For the consumer interested in buying NOW, *This Old House* magazine will launch three SIP's in 2000:

  Kitchens and Baths, in February
  Outdoor Living, in May
  Rooms, an interior-design magazine, in August

- Additionally, we will continue forward with our tremendously popular ***This Old House Movers Guide***, a custom-published magazine that harnesses the power of the Time Warner database to reach consumers who have just moved into a new residence. Our **1.5 million annual distribution** targets consumers with varied and immediate home-product buying needs and services.

- Finally, we will continue to market *This Old House* via syndicated television, books and videos in the coming year, making our brand truly a "one-stop shopping" source for the home enthusiast market.

With **150 billion dollars planned to be spent on home remodeling** in the coming year, we hope that you will continue to utilize the preeminent brand in reaching this dynamic and important segment... *This Old House*.

May the new year and new century bring you health, happiness and success. Thank you once again for your support of *This Old House*.

Sincerely,

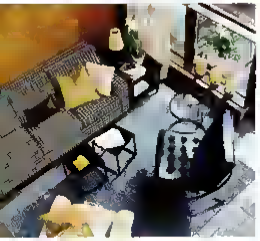
Tom Ott

Thomas M. Ott
Vice President and Publisher

I love that chair

And that couch

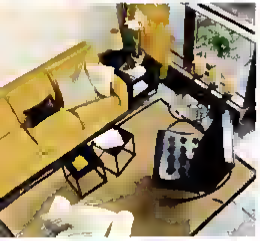
But not the rug



Gray is elegant

With a textured check

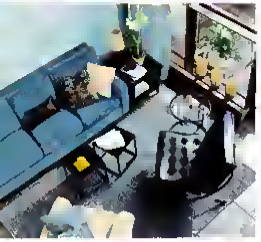
Maybe yellow



Maybe not today

That was easy

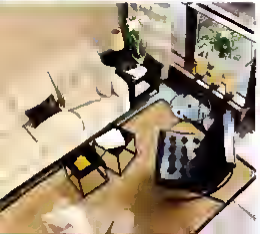
Love the blue



But different curtains.

Now that's me.

Decorating will never be the same



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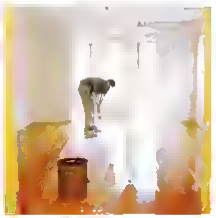
THE POSTER: A PLUMBING PRIMER
All you need to know about the pipes within your walls
BY JIM MORRISON
P. 121

features


FLOORS GALORE P. 86


HOME STRETCH P. 102


WALK THIS WAY, P. 112

cover Patrick Hunt, owner of Hunt Hardware Floors, applies polyurethane to wood stair treads in *This Old House*'s TV project house in Billerica, Massachusetts. Read about the installation and finishing of all the wood floors at Dick and Sandy Silva's house in "Top Floor," p. 86. PHOTOGRAPH BY DAVID CARMACK

PHOTOS: CLOCKWISE FROM TOP: KAY BOECKER; BRUCE HUMM; ALBO ROAST; DAVID CARMACK

"People are tired of blah structures, things that are devoid of detail."

— Scott Howell, of the Robertson Foundry in Birmingham, Alabama

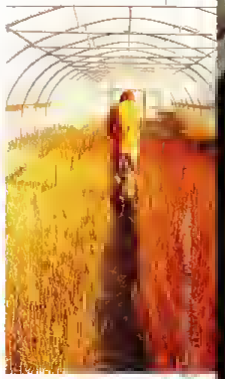
departments

CAST AWAY, P 54

E R S P E C T I P 58

columns

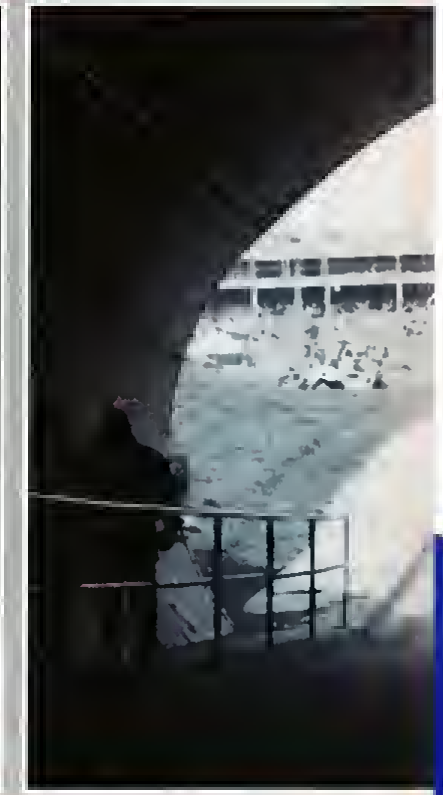
CUTTING IT, P 46



SPLENDOR OF THE GRASS P 42

PHOTOS: GLADDISE PRUM TO M CRAIG MYHRE ILLUSTRATION O

WHERE TO FIND IT – SEE DIRECTORY – PAGE 127



Nice Outfit
My nine-year-old son Kyle and I have watched *This Old House* together since he was a baby. This past Halloween he decided to go as Norm. This is the costume we came up with...although Kyle said, "Norm doesn't have this much padding around the middle."

KEVIN SCHUMANN, RASKING RIDGE, N.J.

A Room of One's Own
Having renovated four old homes in the past 25 years, I have always agreed with Norm Abram [Ask Norm, "First Things First," December 1999] that a kitchen and bathroom should be the first projects tackled. But during my most recent project, the first room I remodeled was my own bedroom, and I was very careful to keep the door closed during the rest of the renovation. No matter how dirty, disturbed, incomplete, and ugly the rest of the project was, I always had a clean, comfortable, cozy refuge to retire to at the end of the day. In the future, I will always do a bedroom first.

DAVID KRAUT, NEW YORK, N.Y., VIA E-MAIL

Vanity Not So Fair
In following the building of the Dream House ["Bathed in Luxury," November 1999], it is hard for me to understand the decisions made in the children's bathroom pictured on page 118. The vanity intrudes onto the sill and apron of the window. I realize the placement seems to be related to the adjacent windows, but given the expense of building this house, one would think the intrusion could have been avoided. It's likely those using the sink will splash the sill. Equally important, the window trim should not be obstructed in this quality house.

JANE G. PELOFSKY, OVERLAND PARK, KANS.

Asphalt-y Reasoning
In [Silve Solntions: "Keeping Your Basement Dry," November 1999], a method you describe to seal a stone foundation is to "dump buckets of liquid asphalt used for sealing foundations" and "wait for the black goo to ooze through the walls." Liquid asphalt is a residue of petroleum refining. This product is likely to find the water table and continue on to pollute streams and ponds or penetrate the enrironding soil and cause damage there. Might a more environmentally friendly solution, such as using one of the cement-based crystalline waterproofing systems made by Xypex, be more appropriate for this application?

WILLIAM E.S. KAUFMAN, LIBERTY CORNER, N.J.

Nice Save
Last year I would have torn down a wonderful old structure had it not been for *This Old House*. Instead, today I am living in a beautifully renovated home. It was built in 1825, and it has hardwood floors and bead board walls and ceilings in the original four rooms. To think this world have been destroyed because it was covered up with dropped ceilings, "tenement tan" carpeting, and wallboard! I even wrote to Ask Norm [May 1999] and got the answer to a question about cracks in the bead board. I can't thank you enough for helping me learn to love my old house.

M.D. RANDALL, ELBERTON, GA., VIA E-MAIL

When Trees Attack
In ["Choppers," Poster, November 1999], Thomas Baker describes chopping down a tree "long dead and soon to be fuel for next winter's fire.' Cutting down any tree is dangerous, but the chances of serious injury or death are vastly greater if it's dead. Dead trees—despite sometimes looking solid—often fold in half once cut, frequently falling on or very near the stump. I once watched a self-proclaimed arborist take down a standing dead birch. As it started to move, he stepped back about two feet. The top of the tree—roughly 800 pounds' worth—landed directly on the impressions left by his shoes.

J.S. "TANDY" GREENTOWN, PA.

PHOTO: BRUCE WELLER

Please Don't Recycle
I know you support the reuse of old wood, but I didn't think the same applied to old editorial content. What gives with [Ask Norm, "Reusing Pallets," November 1999] and [Ask Norm, "Lumber For Learning," October 1999]? You used the same question and answer in both columns. Your editors better wake up.

JOSH RUSSELL, DENVER, COLO.

Good catch, Mr. Russell. We did indeed run the same piece twice, and we apologize for the mistake. We now stock up on extra-strong coffee to keep us awake.

In Rod We Trust
Hurray! The truth, at last! For years I've found it amazing that there was no mention of replacing the anode rod in my hot water heater's manual, even though it obviously wears out. [Upkeep, "Rust Busters," December 1999]. Recently, I spoke with a prominent national manufacturer about this and had to be transferred to several reps until I found someone who only reluctantly acknowledged that, indeed, they could be changed. It was wonderful to see it all explained so clearly.

STEVE ETTLINGER, NEW YORK, N.Y., VIA E-MAIL

punch list

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

November 1999
In the story "Sweet Home Alabama," on page 108, the name of the late architect Harvie Jones was misspelled.

January/February 2000
In the story "Upon Reflection," (By Design) on page 49, the wall mounted mirror shown at bottom left was manufactured by the Tan Jon Company, 630-892-9200.

The correct phone number for Graphisoft U.S. Inc. is 800-344-3468 (Directory, page 128).

The architect of the pool pictured on page 54 ("Making A Splash," Luxuries) is Leonard Weinberg, White Plains, NY, 914-761-1534.

Address mail to: Letters, *This Old House* magazine, 1185 Avenue of the Americas, New York, NY 10036; or e-mail us at TOH_letters@timeinc.com. 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*

BY JORDAN REED

Shop-aholics

Norm, LEFT, and Tom build the kitchen cabinets on their Billerica assembly line.

ALTHOUGH ANYONE WALKING INTO THE *T.O.H.* PROJECT HOUSE IN BILLERICA, Massachusetts, would be struck by the number of crewmen buzzing around, the actual hub of the work site has been a hangar-shaped building 100 feet away. Master carpenter Norm Abram and contractor Tom Silva transformed a 1,080 square-foot Quonset hut—which housed Dick Silva's antique cars before a fire consumed his home—into an on-site mill, turning out kitchen cabinetry, vanities, molding, and even a basement door. By not subcontracting out these items, Tom estimates they saved $9,000 to $11,000. All this work has meant some overtime for the *T.O.H.* crew, but Norm's been happy to spend time on his first love, woodworking. So has Tom. "Dickie's shop is a great place to build your brains out."

THE WORKS

Here's what's in Norm and Tom's Billerica toy box

- 4" belt sander
- 5" palm sander
- 6" random orbital sander
- 6" jointer
- 12" compound miter saw with extension table
- 36" surface sander
- Band saw
- Biscuit joiners
- Circular saws
- Cordless drills
- Dovetail jig
- Drill press
- Heavy-duty portable vacuum system (55-gallon rubbish barrel)
- HVLP spraygun powered with a compressor, not a turbine
- Jigsaws
- Nail guns
- Pocket cutter
- Portable planer
- Power planer
- Routers galore
- Router table
- Shaper
- Table saw with outfeed bench

PHOTO: DAVID CARMACK

Step Lightly

CARPENTERS HAVE BEEN known to leave "time capsules"—old newspapers, letters, and other proof that they were there—in the walls of projects for future renovators to find. Dick and Sandy Silva have a more obvious reminder of who built their Billerica abode. The Forbo company made a special linoleum tile inlaid with *This Old House*'s familiar blue-and-white logo, precision cut using a high-pressure water jet. The 12-by-16 inch patch was given a place of honor—the entrance of the mudroom

Tom Schildkamp lays the ultimate welcome mat.

Long Lost Brothers

Norm did a double take at the Billerica wrap party—the shindig that marks the end of any *This Old House* TV project—when he was introduced to writer Michael McWilliams, who wrote many of the articles covering the Dick Silva project house. It took Norm only a minute to recognize his "brother"—a fellow member of Pi Lambda Phi fraternity at the University of Massachusetts at Amherst. McWilliams recalls that even back in 1971 the future master carpenter showed signs of renovation greatness. "Norm convinced us that we could fix up this old condemned frat house," says McWilliams. Stormin' Norm led the charge, putting in new cabinets and, of course, a full bar.

Norm and fellow frat brother Michael McWilliams rehash their toga days.

Well Done

Viewers of *T.O.H.*'s Billerica episodes may remember Steve Thomas' foray into a burning building during a training session with the Sudbury fire department. As the heat climbed to over 200 degrees, Steve, every inch of his body clad in protective clothing, traipsed from room to smoke-filled room. Meanwhile, cameraman Steve "Dino" D'Onofrio, who had to capture the scene in one take, was feeling the heat in more ways than one. "I was wearing all the gear, plus I was holding a 27-pound camera covered with a heavy jacket," says Dino, who had to keep his right hand gloveless to work the controls. Director Russ Morash was communicating via radio, but his commentary was hard to hear. Says Dino, "Russ kept saying, 'Dino, focus! I can't see anything.' It was totally black in there, so all I was thinking was, *You* can't see anything? What about *me*?"

Hugh Kelly, LEFT, prepares the "flame-cam" before Dino heads into the blaze.

March 2000 Calendar

NORM ABRAM

March 11. MOM Farm and Home Ace Hardware, 2606 Schofield Avenue, Schofield, Wisconsin, 54476. Details: Marty and Marsha Kopchinski, 715-355-1411.

March 12. Chicago Flower & Garden Show, Navy Pier, 600 East Grand Avenue, Chicago, IL 60611. Details: 312-321-0077 or www.chicagoflower.com

STEVE THOMAS

March 4–5. Orchard Supply Hardware How to Fair 2000, Alameda County Fairgrounds, 4501 Pleasanton Avenue, Pleasanton, CA 94566. Free admission. Details: 408-365-2421 or www.osh.com

March 12. Buffalo Home & Garden Show presented by Lockport Savings Bank, Buffalo Convention Center, Convention Center Plaza, Buffalo, NY 14202. Details: 800-274-6948, x113 or www.southtex.com/buffalohomeshow

TOM SILVA

March 18–19. 11th Annual New Jersey Home Remodeling and Furnishings Show, New Jersey Convention and Expo Hall at Raritan Center, 97 Sunfield Avenue, Edison, NJ 08837. Details: 800-635-EXPO or www.showoffice.com

WHERE TO FIND IT – SEE DIRECTORY – PAGE 127

PHOTOS: DAVID GARNACK (TOM AND MICHAEL); BRUCE IRVING

Slim and Trim

A cavern of a kitchen is reduced in size to meet its owners' needs

BY ROMY POKORNY

"The views are just mind-blowing," Steve Thomas, *This Old House* host, says as he strolls through Bob and Jean Jacobs's stunning Victorian manse, nestled on a hill about one-quarter mile from the harbor in Rockport, Maine. Built in 1865 by a local shipping family, the house was snapped up by the Jacobses, a retired couple, in 1998. At the time, the back portion of the dwelling—composed of a 19 by 20-foot kitchen, a dingy utility room, and a little-used bathroom—needed immediate attention. (An adjoining dining room was in good shape.) Though the kitchen had been modernized sometime in the 1960s, Steve says, "it was nothing more than a ungainly box."

TOH host Steve Thomas likes the way wood used throughout the kitchen complements appliances and a cozy woodstove. "The kitchen has the nautical feel of a wooden boat," he says. One cabinet is reserved for a desk, a tambour door pulls down to hide paperwork.

PROBLEM

The number one priority for most people who renovate a kitchen is gaining more space. The Jacobses, though, felt otherwise. For one thing, they were tired of having to shout to be heard across the cavernous room. "They didn't need a mega kitchen and family room," Steve says, "because they don't prepare gourmet feasts every night—and their children are grown and live elsewhere." The design challenge, therefore, was to reduce the size of the kitchen and make it more efficient.

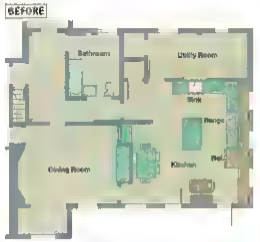
Another drawback was the sting. Although the house stands on a rise, most of the windows in the old kitchen were below street level. "People walking by could see what was cooking in the frying pan," Bob Jacobs says. "All we could see were legs and feet."

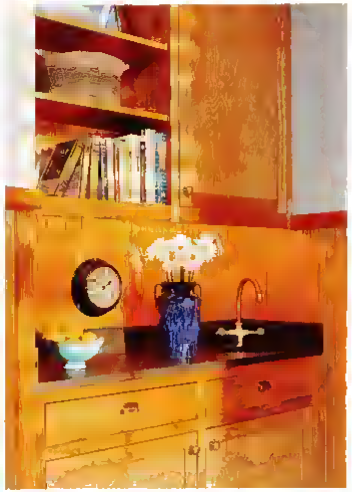
SOLUTION

At first the Jacobses thought they might simply renovate what they had. To that end, they

PHOTOGRAPHS BY SAM GRAY

STEVE THOMAS PHOTO: DAVID CARMACK





LEFT: *Red birch cabinetry and Douglas fir bead board create a warm feeling in the kitchen—especially in the bar. Plans describe how the new kitchen relates to the old dining room, and the new courtyard allows cars to drive up to the entryway.*

FLOOR PLANS: HOMER DILLY; EXTERIOR PHOTO: GERWITSON PHOTOGRAPHY

hited Rockport-based architects Richard L. Bernhard and John W. Priestley III to draw up plans. But, after listening to the couple describe their lifestyle, the architects came up with a more sensible, if radical, approach. "We suggested to Bob and Jean that they raze the old kitchen, utility room, and bathroom," Bernhard explains, "and build a more compact kitchen with a new back entry." By allotting a substantial amount of the formerly useless square footage to this entry and a porch, they reasoned, the Jacobses would be able to have a kitchen that was perfectly tailored to their needs and at the same time improve the house's overall layout. "Initially, their reaction was cool," Bernhard says. But once he pointed out that all new construction would cost less than a gut job at the back of the house, the couple was convinced.

The new, U-shaped kitchen occupies what used to be the utility room. Appliances are positioned within easy reach of one another. Counter space includes a pass-through to the entry, which affords a convenient drop-off spot for grocery bags. Ancillary spaces include a desk with telephone and fax machine, and a small wet bar with a television stashed overhead. "Bob is a retired banker, and he wanted to be able to watch the stock ticket stream by while standing at the stove," Bernhard explains.

In order to make the kitchen addition appear as if it blended into the architecture of the main body of the house, Bernhard and Priestley designed the addition with a matching mansard roof. This posed a problem for the Jacobses, though, the last thing they needed, they said, were spare rooms over the kitchen. The architects devised a clever solution: a balcony that surrounds the kitchen inside the new, windowed mansard roof. "Without the interior balcony and new roof, this addition would have looked like a squat appendage slapped onto the back of a tall, elegant house," Steve says. The balcony is not just an empty architectural conceit, though. It opens off the second floor, so anyone upstairs can lean over the rail to talk to the cook without coming all the way down.

Oversize cornices cap the cabinetry, finishing them off at a comfortable 9-foot height. Cove lighting behind the cornices washes the 18-foot ceiling with a warm glow. Finally, a pair of windows with louvered shutters over the kitchen sink offer a glimpse of a freshly landscaped courtyard—instead of the feet of passersby.

FINISHING TOUCHES

Steve appreciates the Jacobses' choice of understated appliances. "They realized that the way they live, they didn't need an expensive restaurant range and refrigerator," he says. The standard, mid-line stainless steel appliances, including a range, refrigerator, dishwasher, and microwave, fit the bill. A secondhand Federal Airtight woodstove radiates enough heat to warm not only the breakfast nook but the entire kitchen. Other elements are equally low-key. Slate countertops and under-mounted sinks ease clean-up, ceiling cans and under-cabinet lighting target work zones. Says Steve, "The design works so well precisely because they didn't go in for any fads." ■

Do you have a completed renovation of a kitchen, bath, or other room you'd like Steve to share with readers of This Old House? *Please send details and photos to* House Calls With Steve, This Old House, *1185 Avenue of the Americas, 27th floor, New York, NY 10036.*

IDEAS NOTEBOOK

ROCK ON

"I love the black slate the Jacobses used in their kitchen—it has a nice grain to it," says *T.O.H.* host Steve Thomas. "It's one of several alternatives to granite, including schist and limestone, which are just as durable but not as hard or tightly patterned—or expensive." Because natural stone tends to be honed, not polished, it has a softer look. Colors are subdued and patterns, created by veins and flecks, are subtle. "The main thing to remember with natural stone," says Steve, "is that it must be sealed with a penetrating sealer so it won't stain."

STONE PHOTOS: KAY BOEKEN

WHERE TO FIND IT – SEE DIRECTORY – PAGE 127

ASK NORM

The best way to caulk clapboards, seal basements, and clean marble

GLUES AND DON'TS

On your shows, I've noticed that sometimes you use a sponge to remove excess woodworking glue but other times you let the glue dry before scraping the excess off. How do you decide what to do?

ANITA HARTLEY, BERWYN, PA.

I've been using polyurethane glue a lot in my shop and I think it's great except that it's awfully hard to get off my hands. Any suggestions?

J. VERN HERRING, CORPUS CHRISTI, TEX.

In answer to Anita's question, it depends on the glue and the joint. I use two types: water-based yellow (aliphatic) glues, and solvent-based polyurethanes when I need an adhesive that can stand getting wet. Yellow glues are hard to scrape out of a joint after they cure, but they do clean up easily with a quick swipe of a damp sponge or rag before drying. Polyurethane glues only clean up with a solvent like mineral spirits, and only when they are fresh. Once they start to cure, you might as well let them harden and scrape afterward.

Getting polyurethane off skin is another matter, as J. Vern says. If you go after the glue within about 15 minutes and scrub it with a washcloth that's been moistened in dish-washing detergent and water, you might get most of it. But once it dries, I don't know of anything other than patience that gets rid of those dirty-looking splotches; they just wear off in a couple of days. I avoid this problem altogether by wearing disposable latex gloves whenever I work with polyurethane glues or sealants.

FOIL FOR ATTICS

My house here on Long Island has an unheated attic that was originally insulated with R-19 fiberglass blankets. I added another layer of R-25 blankets, but I wonder if it would be worthwhile to staple a radiant barrier to the rafters as well. Would this be a cost-effective improvement?

M. ACKERT, MANHASSET, N.Y.

If you lived in a hot climate, I'd say yes. But you don't need radiant barriers where you live, or anywhere else that requires the heat to be on for more months than the air conditioning. This barrier, which is simply a layer of aluminum foil attached to the underside of rafters, prevents heat from radiating into the attic, forcing the air conditioner to work harder. For example, I've read that a radiant barrier in the attic can reduce cooling costs by as much as 12 percent in the Southeast U.S. But Michael Lamb, of the U.S. Department of Energy, tells me you'd be wasting your time—and your money—to install such a barrier in Manhasset. With R-44 in your attic, you should have plenty of insulation. Lamb says Long Island is on the border between the R-38 and the R-49 zones.

CRUMBLING BASEMENT BLUES

For 40 years, I've had concrete turning to powder and spalling off the lower part of my basement walls. The condition is not aesthetically pleasing. I've tried various specialty paint products without success—nothing sticks. Moisture is probably the cause—but the house has good gutters and drainage. The basement isn't wet—the tools I store there don't rust and leather goods don't mildew. Before I move on to a rather expensive epoxy paint, I'd appreciate your comments.

PETE LANDRY, MYSTIC, CONN.

After four decades, the surface must look like a war zone. Spalling, where the surface of the concrete flakes off, can be caused by a number of things, but the peeling paint and powdering (a film of mineral salts called efflorescence) indicate without a doubt that moisture is slowly damaging your walls. Because only the lower walls are affected, my hunch is that it's coming up from under the basement floor. First, you'll need to clean off the efflorescence with a dry brush or diluted muriatic acid (use gloves and rinse well). Then seal every crack or hole on the floor slab and the walls with an epoxy mortar. In addition, lay down a bead of polyurethane sealant in all the corners and along the seam between floor and wall. To stop the spalling, I recommend applying a hydraulic cement patching compound before sealing the walls with a breathable coating such as latex paint. Moisture will simply pop epoxy-based paints right off the wall.

STAINED STONE

We have a 100-year-old house with a marble sink in one of the bathrooms. What can we use to clean the stained marble?

LAVONNE KLASSEN, BLUFFTON, OHIO

I don't know of a better answer than the one given by Jonathan Zanger, of Westchester Marble and Granite, in the third issue of *This Old House*. For routine cleaning, he

PHOTO: KELLER AND KELLER

suggested mild, pH-neutral cleaners like Murphy's Oil Soap or Ivory Liquid. Water-borne stains can be removed with hydrogen peroxide. If these don't work on your sink, try a stain-removing poultice from a stone dealer.

UNNECESSARY NOTCHING

The floor joists in my home are 2x10s, but they've been notched so the ends rest on a 2x2 ledger board. Does that seem okay to you? I think the notching would actually weaken the joists. I'm also firmly against boring holes through wood joists to accommodate electrical wiring and such. Doesn't that weaken the lumber as well?

LARRY MILLENIX, BIDFORD, GA.

Notching is actually pretty common. Back in the days before joist hangers, I used to set notched joists on ledgers when I framed houses with my father. We couldn't depend on nails alone to hold joists to a beam, the ledgers provided a solid base of support. But you're right—your notched joists are now, in effect, something less than 2x10s, especially where some careless carpenter overran his cuts. The building codes say that notches are okay as long as they do not exceed one-fourth of the joist's depth, but these days I avoid making them at all because the joist might eventually crack at the corner. Toenailing (driving a nail at an angle) through both sides of the joist and into the ledger will restore some of the lost strength and may prevent cracks from forming. As for holes in a joist, they're okay, sort of. You can drill holes large enough for plumbing pipes, as long as you leave enough wood above and below and don't put them too close to the ends. There are too many details to cover here, so check with your local building official or the "Notching and Boring" guide available from Western Wood Products Association in Portland, Oregon.

INSULATION AND OLD WIRE

We bought a beautiful 100-year-old house that has has knob-and-tube wiring and very little insulation. Needless to say, this old house is this cold house during the winter. Is there any type of insulation that can be used around this type of wiring?

VALORIE PARENT, LANCASTER, MASS.

Before you add any kind of insulation, have this wiring inspected by an electrician. The covering on wires becomes brittle over time, which can expose bare metal. And you'd be amazed at the convoluted messes I've seen in some old houses, where amateur electricians spliced in new runs whenever there was a need for a light, an outlet, or a switch. Even if your system is in excellent condition, it may be difficult to insulate around it. Batts can't always fit under the zigzagging runs of knob-and-tube wires, and I'd be reluctant to cover the wiring junctions with blown-in cellulose or cotton, they might overheat. If you choose to upgrade your wiring, however, you'll gain utility as well as safety, and then you can insulate with anything you want.

SAVE THE TUB, BUILD A STALL

My wife and I are at the age when stepping over the side of a bathtub presents a challenge. We would like to turn our combination shower/tub into a stall shower, but the expense of replacing the tub, tile, and flooring is something we can't afford. Is it possible to cut a section out of the side of the tub, providing an entrance that can be closed with a shower curtain?

JIM MCCONNELL, HOLLISTER, CALIF.

There are good ways to make a bathroom more accessible, but I'm afraid this isn't one of them. I just don't think it's a good idea to cut away a section of a tub; you run too big a risk of having a serious flood. My advice, and that of most experts who specialize in designing for accessibility, is to invest in a shower stall: one with a low door curb or, better yet, without any curb at all. I realize this isn't the answer you were hoping for, but I think you'll be happier with a real shower stall instead of one that invites new problems.

CAULK-AND-BULL STORY

We've had conflicting advice from painters about whether to caulk the bottom edge of the lap siding on our 1889 Victorian. Some say caulk is the best way to keep out the rain and others say to leave it alone so the boards can breathe and release any moisture. Which is it?

TONY BARNES, VARNVILLE, S.C.

Perhaps the painters who advocate caulking are looking for some job security. Sealing up the gaps between boards forces water vapor into the wood where it can pop off the paint. Caulk is necessary for the vertical joints in siding, but keep it away from the clapboard's horizontal edges. ■

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

Window Trimming

New molding is an easy way to bring style to plain rooms

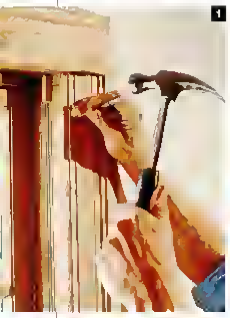
BY JEANNE HUBER

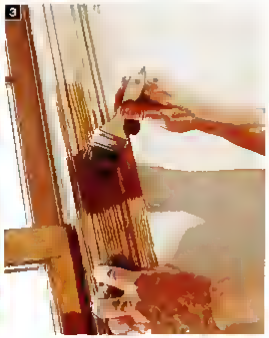
I once lived in a 1950s Cape on the outskirts of New York City. It was not one of the homes I've loved. Everything about it seemed cold, from the tiny living room to the cheesy wood paneling. About the same time, a friend bought a house in Maine that was very much like mine—except that it came across as wonderfully cozy. We tried to pinpoint the difference. "My house is trying to look Colonial," she finally said. "Yours is aiming for a modern effect." While our windows, walls, and floors were similar, the trim around the windows was not. I had skinny "clamshell" molding—a strip of wood with a slightly rounded profile. My friend enjoyed broad, richly profiled trim. By evoking generations of tradition and craftsmanship, this graceful ornament gave her house a certain vintage charm.

Such is the power of molding. Like jewelry that takes a simple black dress from casual to formal, these thin strips of shaped wood lend a plain room a sense of style that can range from warm and cottagey to cool and elegant. In a plain postwar house, changing the slender window molding to wide, flat boards creates a bungalow-like environment where Craftsman furniture can be at home. Make the trim out of clear-finished knotty pine and it'll have a country feel. Use ornately detailed moldings and insert corner blocks with rosette carvings and it'll read as Victorian. "Molding is a paintbrush," says

PHOTOGRAPHS BY WILLIAM VÁZQUEZ

ABOVE: *Thin and nearly flat, clamshell molding is cheap to install but looks rather spartan.* LEFT: *Ripping off the molding and installing wider, Colonial style woodwork gives the window a formal, traditional look. The top piece, known as crown molding, is test-fit in place before it's assembled on a workbench.*





Dennis Wedlick, a New York City architect. "With it, you can create all sorts of illusions."

Before embarking on a plan to replace window trim, it helps to understand some basics about how the wood work evolved. Windows themselves arrive at a building site as modules that consist of sashes—the glass units that move up and down or crank open—inside a jamb, the wood frame that fits into an opening between studs. Until the 1960s, double-hung windows (two sashes that slide up and down) depended on iron counterweights that moved in a 2 inch gap between the jamb and the house framing. Window trim, called casing, was historically at least 3½ inches wide to bridge this space. Since modern windows don't have weights, most stock casing today runs just 2¼ inches wide. Installing broader molding makes a modern window look old-fashioned.

The type of molding you choose has a big impact on the amount of time and money it will take to install. Trim that will be painted goes up much faster than wood that will be clear-finished because paint and caulk can mask imperfections. Corner blocks and butt joints eliminate the need for tricky mitered cuts.

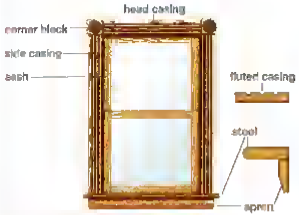
Lumberyards stock dozens of moldings, many designed expressly for trimming windows. These have the advantage of a relief (a slight groove) in back so they can lie flat over bulges at the edges of drywall and plaster. Most are 2¼ inches wide. The least expensive of them are made of medium-density fiberboard, MDF, which costs about $3 for a 10-foot piece of colonial-style casing. The drawback to MDF is that the blemish-free surface of this composite conveys a manufactured appearance. Finger-jointed wood trim is a more authentic looking alternative. Because it's made of short sections that have been glued together, it's cheaper than full-length boards, but the joints may show in time. It costs about $5 per 10-foot casing. The best option, of course, is continuous lengths of wood. (For hemlock and pine, the cost is about $7, prices climb for premium species like oak.)

If you want trim that's wider than 2¼ inches to give the windows a more traditional look, you will need to buy 1x4 boards. Flat 1x4s don't cost much more than 2¼-inch moldings, but shaped ones will cost at least 25 percent more, and you will need to go to a specialty millwork shop to find them. Add another $70 or so to have blades made for a custom design. But even using stock trim styles, there are plenty of ways to dress up your windows and give even a bland room old-world appeal. ■

1. Most carpenters fasten trim with nail guns because it's easy and quick. If hammering, avoid denting the wood by using a nailset to sink the metal below the surface. 2. The mitered crown molding can be glued together before it's installed. 3. It's best to stain or paint casing before it's on the wall. Home owners doing the finishing themselves should mask neighboring surfaces with tape. 4. The finished window, with molding that draws on classical architecture for its forms.

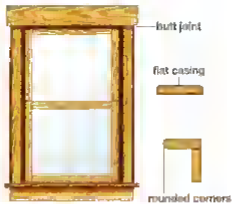
SAME WINDOW, DIFFERENT LOOK

VICTORIAN
The more detail the merrier. Fluted casings, corner blocks carved with rosettes, even a molded apron.



COLONIAL
Casings have sharply defined ridges and valleys, often exaggerated with back bands and cove moldings.

ARTS & CRAFTS
Understated trim plays up wood's natural beauty. Head casings are sometimes thicker than the sides.



ILLUSTRATIONS: RYAN BUTY

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BY MAX ALEXANDER

Vintage Doorknobs

Smooth, shiny, and inviting, a doorknob is the sensuous interface between man and door. For two and a quarter centuries, ever since they replaced wrought iron thumb latches, doorknobs have remained models of mechanical simplicity. You just turn the knob in either direction and the latch retracts. Let go and a spring returns it to duty.

Modern cylindrical latchsets are fast to install, but few can match the heft and often eye-catching beauty of a vintage knob fashioned out of glass, clay, or wood. "My instinct always is to save them," says *TOH* contractor Tom Silva. The way he sees it, rescuing one of these old mechanisms is less expensive than buying a reproduction and easier than cutting a new hole for a hardware-store version (which will probably look out of place anyway).

An antique doorknob's mechanical simplicity also means it's easy to repair. If a knob slips off, or a part gets stuck or wears out, the only tool you need is a screwdriver. When faced with a hard-to-turn knob, for instance, try loosening the set screw and backing the knob off the rose a bit. Maintenance is just as easy, Tom says. "A couple of drops of machine oil on the moving parts and it'll work as good as new."

PHOTOGRAPH BY ERIC AXENE

Anatomy Lesson

KNOB: The handle for opening and closing a door. Made from a variety of materials, including cut glass, fired clay, turned wood, and cast metal.

LATCH BOLT: Fits into the strike plate in the door jamb, latching the door; retracts when the knob is turned. Latch bolts are beveled to automatically engage the plate when a door is shut. The internal part of the latch bolt that engages the hub is called the DRIVE SHAFT.

DRAW-BACK SPRING: Returns the latch bolt to its extended position after the knob is let go. If the spring breaks, replacements can be found in many hardware stores.

HUB: Pushes against the drive shaft, retracting the latch bolt when either knob turns the spindle in either direction.

MORTISE CASE: Houses the latch mechanism.

ROSE: Serves as a guard between the knob's shank and the door itself. (Some knobs use a rectangular plate, called an escutcheon, instead.)

SET SCREW: Holds the shank tightly to the spindle. A drop of Loctite or clear nail polish will keep it from loosening.

SHANK: Connects the knob to the spindle. When knobs separate from their shanks, superstrong epoxies can usually fix them. But when buying old doorknobs, look for those with tight shanks.

SPINDLE: Passes through the hub, connecting the two knobs. Some are threaded, others have holes for fastening a set screw.

DEADBOLT: Slides into the strike plate on the door jamb when the key is turned, locking the door.

TUMBLER: Anchors the deadbolt in its closed and open positions. A skeleton key moves the tumbler, held in place with the TUMBLER SPRING, so that the deadbolt can slide into the strike plate.

Mind the Gutter

To prevent roof rot and a wet basement, you have to be willing to do a little muckraking

BY TED OEHMKE

Devoid of leaves and twigs, a gutter channels rain from roof to ground, preventing water from damaging the foundation or siding.

When Laura and Joe Amicucci first moved into their 1834 house in Fairfield, Connecticut, cleaning the gutters was low on their list of priorities. With three young children and loads of minor repairs and cosmetic fine tuning to be done, they figured that this one maintenance job could wait until the end of autumn, when all the leaves would be down.

But by the time November rolled around, the large elm tree between the garage and house—its canopy of branches outstretched over both—had shed much of its summer bloom, filling and clogging the gutters. An early freeze turned the still water that was pooled among the debris into ice. Then it rained. Water overflowed from the sagging, ice-laden canals onto the ground next to the fieldstone foundation, snaking its way between the stones. "We came home to a bunch of little fountains squirting water into our basement," says Laura.

Gutters act as precipitation traffic cops, catching water as it flows off the roof and diverting it from hitting the structure. Smooth flowing gutters are essential to the long-term health of a home, water that is not directed away can crack foundations, stain and rot siding and trim, and seep through roofs—not to mention ice up on walkways in colder climates. "One way or another," says James R. Kirby, director of technical services for the National Roofing Contractors Association, "You have to get the water away from your house."

The Amicuccis called Keith Roberts, a handyman with more than 25 years' experience, to clear their stuffed gutters. "It's important to have them cleaned at least twice a year—once in the fall and once in the spring," he says from atop a ladder. Roberts has seen his share of expensive disasters. In one Greenwich, Connecticut, home, ice dams sent melted snow from the roof into the walls, causing $7,000 worth of damage. On the other hand, the cost for semiannual preventive care usually runs a mere $60 to $120.

Roberts's first task is to clear the visible debris from the open sections. Scooping up a mucky, wet handful of leaves and twigs with a gloved hand, he drops it into a five-gallon bucket hooked to a ladder rung by a chain. After removing the contents from a large portion at the back of the house, Roberts checks for cracks or separating seams. As he works his way around the house, he replaces loose gutter nails with stronger screws. If he found any cracks, he would repair them by first sanding with 120 grit paper and then applying a butyl gutter sealant or a silicone adhesive.

Finding none, he inspects the downspout. He uses a small power auger, or snake, to push dirt and debris out onto the lawn. Usually, this is enough to loosen any blockages. But if water poured

PHOTOGRAPHS BY KOLIN SMITH

into the top of the pipe doesn't stream smoothly out the other end, Roberts unfastens the downspout and places it on the ground.

Detaching downspouts before cleaning them is always necessary when they flow right into underground drains, since snaking them just pushes clogs farther along the system. Carl Heise, a coppersmith in Fairfield who has made and installed many gutters, uses galvanized sheetrock screws when installing downspouts, specifically to make this task easier. "With screws, you can walk around the house with a cordless screwdriver and just take everything down," he says.

With the downspout on the ground, Roberts locates the clog the way one would locate a wall stud, knocking along the surface until the tinny echo becomes a dull thud. Using his thumb to force a spray out of the hose, he aims the water at the clog from both ends of the section. If this procedure fails, he snakes out the block.

Roberts inserts the hose into the underground drain and waits for the water to run clear out the other end. Then he piles small rocks around the point where the drain empties out to keep lawn clippings and dirt from clogging the opening. But he warns: "Never put your hand up the end of an underground pipe—those chipmunks can bite pretty hard. Use a wire or another object to clean the opening."

Roberts reattaches the Amicuccis' downspout, then takes one last look around and spots some mildew on the gutters' sides. After spraying the mottled sections with a mixture of bleach and water, he will come back the next day to hose them down, leaving the whole system sparkling. "Now if I could only get my van as clean as I've gotten those gutters," he says, after securing his ladder to the top, "I'd be in really good shape." ■

ABOVE: *A chain and a painter's pot hook keep a bucket handy to capture the muck Roberts scoops from the stuffed gutter.* BELOW: *He uses water to clear hidden clogs from a detached downspout.*

Preventing downspout clogs is a matter of keeping out the scraps that get caught at bends. A cage-like aluminum strainer placed over the spout's mouth keeps debris in the easily accessible open trough.

PHOTO COURTESY OF GUTTER HELMET (RIGHT AND BOTTOM LEFT)

THE SEARCH FOR CLOG-PROOF GUTTERS

One way to avoid mounting a ladder and digging your hands into soggy leaves is to install gutter covers, protective guards that use surface tension to drag water into a protected gutter. Bearing brand names like Gutter Helmet, GutterGuard, and Perm-a-Flow, these devices fit under roof shingles—nailed, glued, or clipped in by a pro—and reach almost to the outer edge of the gutter. Water flows down the sloped cover, over its rounded edge, and into the trough through a sliver of an opening. "Tilt a glass of water so that the water just starts to come out," explains Gutter Helmet marketing director Sandy Kruse. "Notice how it hugs the outside of the glass as it pours over the lip? Gutter covers work the same way." These maintenance-light systems are costly—between $10 and $16 per linear foot installed—and are not easily removed for cleaning. (Thin pine needles may not be thwarted.) Still, T.O.H. contractor Tom Silva likes them: "I've had them for three years, and they work great."

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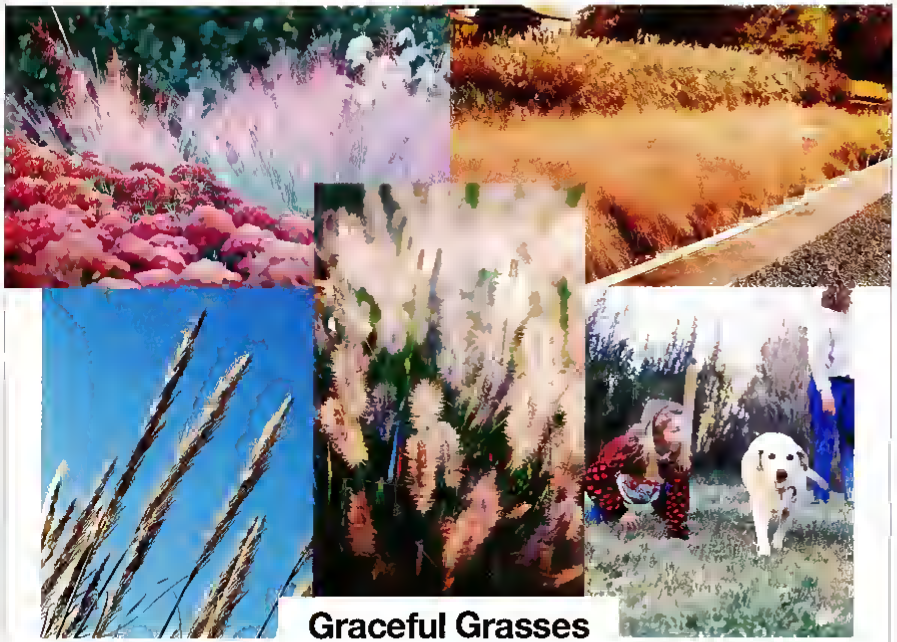


Graceful Grasses

Once called weeds, ornamental grasses provide a yard with instant beauty and gratification

If the prairie taming pioneers of the 19th century could see the silvery plumes of *Miscanthus giganteus*, the cotton candy clouds of *Muhlenbergia capillaris*, and other ornamental grasses shimmying freely in American gardens today, they'd be more than a little baffled. In their view, grasses were utilitarian, good for feeding animals, stuffing mattresses, and thatching roofs. Planters plowed under hundreds of square miles of prairie grasses to raise wheat and corn. As hardscrabble farming gave way to genteel forms of horticulture, grasses were invited back inside the fence—but in the form of short-piled, green carpets to emphasize the orchestration of flowers and shrubs in the "real" garden. Still, grasses in borders and beds were regarded as weeds.

But the rules have recently reversed as home owners have begun rejuvenating their yards with low maintenance and high drama: the fan-shaped seed heads of *Miscanthus sinensis* 'Gracillimus', the black flowers of *Pennisetum alopecuroides* 'Moudry', and the stout stalks of a sugarcane known as 'Pele's Smoke' (*Saccharum officinarum*). Whether used to enhance border plants, fill garden gaps, or punctuate an expanse of water, ornamental grasses add an excitement and texture unappreciated a generation ago.

CLOCKWISE FROM TOP LEFT: *In the Hoffman's garden, fluffy* Muhlenbergia filipes *separate dense heads of sedum 'Autumn Joy' from the dark bulky hedge marking the back of the border. In the potted prairie, large containers of* Miscanthus sinensis *'gracillimus' tower above* Muhlenbergia capillaris. *Kerri Hoffman likes to hide in the tall grasses, while Jess the dog makes dens in them.* Pennisetum alopecuroides *is native to Asia.* Saccharum arundinaceum *is one of the several ornamental sugarcanes in the garden.*

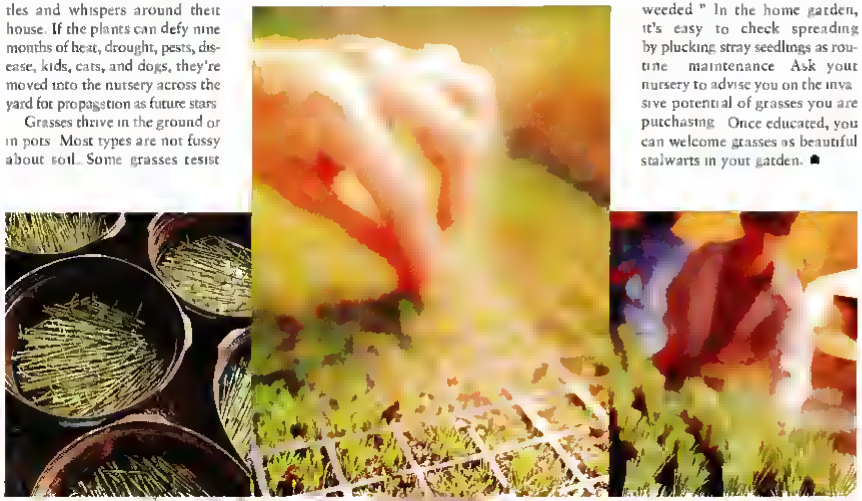
WRITTEN AND PRODUCED BY KATHERINE WHITESIDE
PHOTOGRAPHS BY CHARLES NARRIS

John and Jill Hoffman, whose 4.5-acre Hoffman Nursery, based in Rougemont, North Carolina, offers more than 100 varieties of ornamental grasses, can claim a, well, grassroots role in this revolution. The nursery owners recognized about five years ago that demand for ornamental grasses was exceeding supply. "Grasses were new and fashionable," John says. "But when everyone realized that these plants could also deliver instant gratification, they really took off. As opposed to irises, peonies, and other perennials that pout when they're moved, these grasses look beautiful from the moment they're transplanted. Plus, they retain their shape if not their color almost all year round."

New grasses audition in the Hoffman's 2-acre garden, which rustles and whispers around their house. If the plants can defy nine months of heat, drought, pests, disease, kids, cats, and dogs, they're moved into the nursery across the yard for propagation as future stars.

Grasses thrive in the ground or in pots. Most types are not fussy about soil. Some grasses resist drought, others tolerate damp, and most need only a half day of sun. Once established, these grasses require little more than an annual spring "haircut." To make way for new growth, trim each plant using scissors and garden clippers. Barber every clump to a smooth, flat top to allow new blades to emerge free of weather-eted stalks. One month later, give each plant a side dressing (not dumped on top) of a balanced high-nitrogen fertilizer.

Ornamental grasses have figured in the ongoing debate over invasive plants. But John, who's attended meetings of a state commission examining the issue, believes that the problem lies in "highway plantings of a million ornamental grasses that are never weeded." In the home garden, it's easy to check spreading by plucking stray seedlings as routine maintenance. Ask your nursery to advise you on the invasive potential of grasses you are purchasing. Once educated, you can welcome grasses as beautiful stalwarts in your garden. ■



SHOOTING STARS

Although it's possible for the home gardener to grow ornamental grasses from seed, the majority are purchased in pots, ready to transplant. CLOCKWISE FROM TOP CENTER: In the Hoffman's propagation house, some plants (called liners) begin life in tiny plots in starter trays and are later replanted into larger containers; seeds are germinated in plugs measuring 1/2-inch square, while freshly cut divisions of *Helictotrichon sempervirens* require a 3½-inch square; Debbie Clark tends to the popular red fountain grass, *Pennisetum setaceum* 'Rubrum'; manager Scott Epps tends to the daily watering of the liner houses; *Arundo donax* cuttings are floated in water to stimulate root growth from the nodes.

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TALKING SHOP

Robo-Crop

Like a street sweeper on a stick, the Power Broom from Shindaiwa pushes gravel, sand, snow, or standing water using a rotating cylinder powered by a two-cycle engine

Don't turn the soil before it has had a chance to dry out from winter melt-off or you'll compact the dirt, which inhibits root growth and drainage.
—Roger Cook, *This Old House* landscaper

The Auto Mower randomly patrols the yard looking for grass that's taller than a factory set height. When its sensor detects a spot that needs cutting, it mows back and forth, then renews its search. The robot can handle yards as large as ½ of an acre

Some tasks are better handled by robots than human beings. When it comes to finding land mines or repairing nuclear reactor cores, nobody laments losing jobs to machines. And now a droid is taking over one of the most onerous chores around the house: cutting the lawn. Husqvarna's Auto Mower, which will be in stores this spring, operates within a wire boundary similar to electric fencing for pets, and it automatically plugs itself into a docking station when its battery needs a recharge. It won't trim hedges or rake leaves, but a new generation of powerful tools can simplify those projects. The Mulchinator is a leaf blower that instantly converts into a vacuum, which chops and bags debris. And Echo's hedge trimmer articulates at the end of a pole to cut tall bushes from ground level. As to combining multiple yard labors into one intelligent robot, there's no danger of landscapers losing work to C3POs anytime soon, according to Howie Choset, a professor at Carnegie Mellon's Robotics Institute. "What we're going to see is smarter machines, like automated sprinklers that adjust to the weather and feed the plants when needed, and arm-length gloves that allow you to lift heavy objects with no effort." But also, one hopes, a chorebot that brings you cool drinks as you supervise the yardwork from your poolside lounge

BY JAKE LIFSON

BOOKS YOU NEED

Rejuvenating a Garden
A gorgeous guidebook for home buyers who inherit an overgrown landscape. Learn how to decide which plants to pull and how to nurture the worthwhile ones back to health

The New Traditional Garden
For people who care about preserving the historic appearance of their houses, this book shows how to create a suitably authentic landscape

Though Ryobi's Mulchinator looks like a weapon Arnold Schwarzenegger might wield, it's actually an electric leaf blower that turns into a vacuum with the flip of a lever and then shreds and bags the debris for mulch or compost.

The hardest part of pruning tall hedges is dragging a ladder around to reach them, so Echo mounted a trimmer on a 51-inch handle. The blade articulates to 90 degrees, making it possible to crop the tops while your feet are planted on the ground. At nearly 13 pounds (without gas), though, this might feel like lifting a bowling ball with a broomstick.

Rent or borrow power equipment for a day before buying. That way you know exactly what you're getting—if the machine has too much horsepower or not enough, or if it's too big or too small.
—Roger Cook

ON THE WEB

www.robotstore.com
One site that sells everything robotic, including the parts for building your own yard assistant

www.talkingplants.com
An irreverent look at gardening from Ketzel Levine, the Doyenne of Dirt from National Public Radio's *Weekend Edition*

www.cyberlawn.org
An industry site dedicated to educating consumers about safe use and care of outdoor power equipment

www.digthenet.com
The ultimate gardener's search engine

PHOTOGRAPHS BY MICHAEL GRIMM

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Show-Offs

Ways to display the things you love

BY JUDITH NASATIR

When the collecting bug bites, it's safe to say you need a design prescription to quell the swell. Whether you've indulged in late-night log ons to eBay, or haunted flea markets and auction galleries for decades, the question remains: How and where do you display your stuff? Most collectors opt for the most obvious solutions for housing their collections: the shelving system and the bookcase, or an appropriate piece of furniture, such as a hutch or a breakfront. Truly addicted collectors spread their finds over any surface that's up for grabs.

For the design conscious collector, a simple surface or existing bookcase may not suffice. Like a master chef, a collector with an astute, discriminating eye understands that the presentation of an object is as important as the object itself. This is when a savvy, built-in design solution comes into play. Examples include a thick shelf or series of shelves cantilevered from the wall, a niche recessed into a wall, or a wall divider built of multiple cubbies crafted to dramatize individual objects.

The key to designing any display is to allow each object within it adequate breathing room. But the unit shouldn't be overwhelming. Anyone who enters the room should delight in the whole space, not just the objects on display.

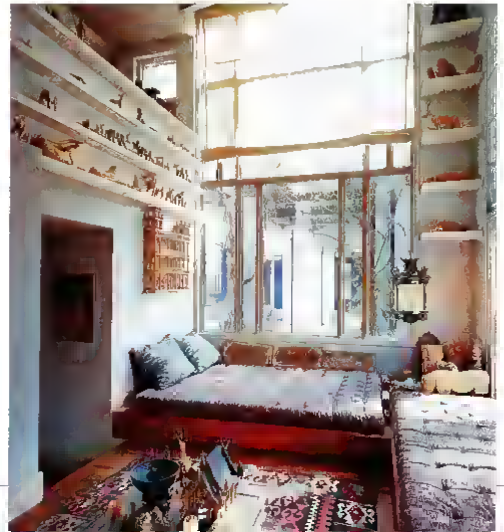
The nature and value of a collection will often dictate the type of design and materials—usually glass, wood, or metal—for a built-in unit. The choice of a paint, wallpaper, or fabric background will affect the viewing experience, as will the lighting, whether it comes from an external source, such as pinpoint ceiling spots, or from within. Whatever the solution, the display should provoke a feeling of discovery and delight as keen as that of unearthing a wonderful object.

The late Charles W. Moore, an architect and teacher, collected voraciously. In his own home, an underutilized stair was ripped out and replaced by high, pedestal-like treads, which graphically set off a collection of objects the architect fancied for their whimsical, idiosyncratic shapes.

PHOTOGRAPH BY PAUL BARDAGJY

BELOW: *In this home, a vast collection of toy soldiers fills 21 glass shelves that were installed on metal standards and clips that run up the sides of two pilasters. The inset Plexiglas shelving highlights the thickness of the wall. The entire display is protected from dust and soil by a sheet of Plexiglas.*

ABOVE: *Graphic designers Mark Sackett and his wife Gretchen collect product retail boxes, toys, and cartons from the 1920s, '30s, and '40s. To house prime examples of their collection, San Francisco architect Jonathan Feerhman created a 6-inch deep niche in the 1 foot-thick wall that forms one side of a desk. Adjustable shelves were rendered in aluminum to echo the window surrounds and stair handrail. A glass door framed in bird's-eye maple opens with a touch latch.*



RIGHT: *To showcase a veritable zoo of wooden animals from Oaxaca, Mexico, shelves in Charles Moore's so-called "opium den" (named for its cushioned platforms and carpeted floor) were cantilevered from the walls to create an integrated look.*

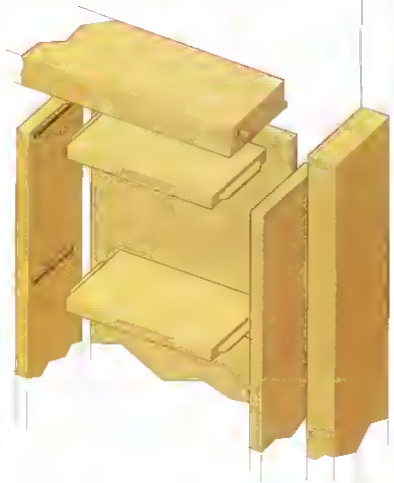
PHOTOS: MARK DARLEY/ESTO (TOP); PAUL BARDAGJY (BELOW, BOTTOM)

DISPLAY AS DIVIDER

Interior architect Margo Grant Walsh confesses to a footstool fetish. To showcase 25 of her favorites, she designed a display cabinet that also functions as a room divider. Measuring 9 feet 9 inches long by 9 feet high by 2 feet deep, the cabinet was handcrafted by Rimi Woodcraft Corp., of Bronx, N.Y. Because the cabinet is modular, it can be adapted to any collection.

To make it stable, the cabinet below is attached to a 2-foot-deep storage unit-cum-work space on the other side. Another option would be to double the cabinet and have compartments on both sides. A single-depth unit would need to be bolted to the floor if freestanding, or placed against a wall.

To frame and set off the cabinet, the architect wrapped it with a 2-inch-thick "casing," which is secured with dowels for extra stability. The cabinet was finished with high-gloss Benjamin Moore lacquer #C9-28 to match the room, two primer coats and three top coats received a thorough sanding between each coat. A back panel was lacquered separately before assembly, to avoid "back spray" during the spraying process, then fastened to the cabinet.



- Establish the overall dimensions of your cabinet, including a 2-inch casing all around
- Divide by number of compartments—and rows—you desire; don't forget to take into account the thickness of the plywood—here 1¾ inches
- Cut uprights, following grain of plywood, to the required height and depth
- Measure, mark off, and rout grooves, taking care to stop ¾ inch from outside edges.
- Cut shelves, with approximately ¼-inch allowance on either end for tongues; measure and cut tongues.
- Assemble, as per illustration. Run a bead of glue inside each groove before joining. Finish as desired.

PHOTO: JOHN KEFFER. ILLUSTRATION: STEVE STANFIELD

WHERE TO FIND IT — SEE DIRECTORY — PAGE 127

Iron Works

From refurbished balconies to new lampposts, cast iron returns to the fore

BY TED OEHMKE

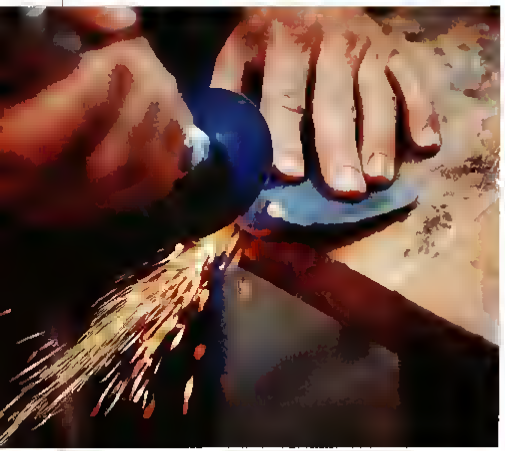
A glowing, golden puddle of lava turned into sinuous black sculpted forms, cast iron is a study in contradictions: at once a symbol of strength, sturdy enough to support a massive industrial building, and of weakness, brittle enough to shatter when dropped; of resonance, as the stuff of which cathedral bells are made, and of quiet, admired for its dampening qualities in machine components and plumbing. Tamed in a foundry furnace to a molten mass, this mineral pulled from the earth flows obediently into the intricate details of a sand mold, taking on the richness that has for centuries made it the perfect material for inviting decorative designs.

As far back as 3500 B.C., Egyptians mined iron from meteorites, the only form in which it exists as a pure element. But it took another 1,500 years to figure out how to smelt it—extract it from ore, where it lives as an oxidized compound. Iron was probably cast for the first time soon afterward, although the earliest dated cast-iron piece is a Chinese lion made in 502 A.D. Europeans began casting iron in the 15th century, but the black metal remained a rare and precious substance for nearly 300 years because melting iron required enormous amounts of wood for fuel. In the 1600s, England went so far as to ban cast iron production to protect its forests. Yet ironically, it was an Englishman, Abraham Darby, who made possible iron's modern ascendance. In 1709, he discovered that coke, a baked coal that burns hotter than wood or coal, could be used to efficiently smelt iron, then heat it to the 2,800 degrees Fahrenheit that renders it castable.

With its 2- to 4.5-percent carbon content, cast iron is more brittle and rust prone than its low-carbon (less than 0.03 percent) hammer-forged cousin, wrought iron. But the casting process is better suited to mass production than blacksmithing, so the molded metal's star rose meteorically during the Industrial Revolution. From frying pans to steam engines, from bathtubs to drain pipes, cast iron had an effect on every aspect of people's lives. Here was a versatile, durable, easily formable material, which appealed to Victorians' practicality and their love of the ornate. Period catalogues are filled with filigreed iron balconies, gates, and fireplaces,

A foundry worker at Robinson Iron, in Alexander City, Ala., uses a pouring ladle and a steady hand to fill an open mold with fiery-hot liquid iron.

PHOTOGRAPHS BY MICHAEL MY



among other decorative fixtures. At the turn of the 20th century, the Art Nouveau style showcased architectural cast iron in enormous portico columns and elaborate edifice trim.

Cast iron's architectural heyday ended with the development of steel, a stronger and more durable material that is itself an iron based alloy with a very low carbon content (0.015 to 0.5 percent). But a movement is under way to restore the glory of cast iron architecture and decoration. In city gentrifications, like New York's SoHo, New Orleans's French Quarter, and Savannah's residential squares, thousands of cast-iron porches, building facades, and doors have been refurbished in the last few years. Robert Baird, president of Historical Arts and Casting, a Salt Lake City firm specializing in cast iron restoration, says his foundry is currently running more than 50 projects nationwide, in response to the "tremendous increase in interest in preserving historical buildings and structures."

Today's foundries make their cast iron mostly from recycled scrap steel, or scrap mixed with pig iron—smelted, carbon-infused iron. By throwing in scrap, they create a mix of iron, carbon, and minerals like silicon and manganese that are in modern-day cast-iron alloys.

Melted in an electric furnace, the iron is poured into a sand mold made from wooden patterns. "Pattern making is a highly skilled trade," says Baird. His foundry employs a team of designers to create, on computers, exact replicas of original pieces, then hand-cut the designs in wood. The pattern is carved slightly larger than the intended product to account for cooling iron's ⅛-inch-per-foot shrinkage.

The wooden pattern is set into a wood form that is filled with clay infused sand to make half of one mold, to make the other half, another sand-filled form is packed around the protruding pattern, which is then removed. A single half is an "open mold," creating a finished piece with a one sided design; two halves together is a "closed mold" and forms whole objects (often with a core mold to keep the heavy metal hollow).

The liquid iron comes to the mold via a crucible, a large bucket that travels on a track or crane from the furnace. A foundry worker ladles the white-hot liquid into the mold or, for a large cast, pours it straight from the crucible. After the iron cools and hardens, usually within hours, the sand cast is broken off and foundry workers blast away the last sand grains with metal shot. Because of its brittle nature, cast iron shouldn't be shaped after cooling.

According to Scott Howell of Robinson Iron in Alexander City, Alabama, the new appreciation of cast iron plays well inside and outside, in lamp bases and spiral staircases as well as fountains and garden furniture. "People are getting tired of blah structures, things that are devoid of detail," he says. "They turn to cast iron because it's a medium that can deliver intricacy, a heavy metal that can take the shape of anything. It's the real deal." ■

LEFT: *A metalsmith at Robinson Iron polishes a casting for the restoration of the Lafayette Balcony* (BELOW) *on the Owens-Thomas house in Savannah. Named for the Marquis de LaFayette, who spoke from it in 1825, the 1819 structure is one of the first examples of monumental cast iron in the country.*

IRON'S ACHILLES' HEEL

"The funny thing about processed iron," says John Campbell, a freelance writer and retired consultant to the cast metals industry, "is that it just wants to return to its original state, ferric oxide-iron and oxygen—rust."

Cast iron, being a porous form of processed iron, is particularly susceptible to this sort of decay. Foundries often coat their products with an epoxy primer followed by an acrylic polyurethane, which protects the exposed metal for about 10 to 12 years. But when that seal is breached, either by wear or time, rust will quickly begin eating the metal away.

The only way to halt this process is with regular maintenance. William Shaw, of the Iron Casting Research Institute, suggests taking iron pieces to a local foundry for sand blasting and a recoating at the first sign of rust spots. But if you're not near a foundry, or the object is too big to transport, he recommends first scrubbing the rust off with a stiff, steel-wire brush (brass-wire brushes are too soft) and then sanding the metal bright with emery cloth or fine-grit sandpaper. Then, as soon as it's clean, brush on a metal primer such as Rust-Oleum, and finish it with a coat of latex paint.

WHERE TO FIND IT ▸ SEE DIRECTORY ▸ PAGE 127

Who's
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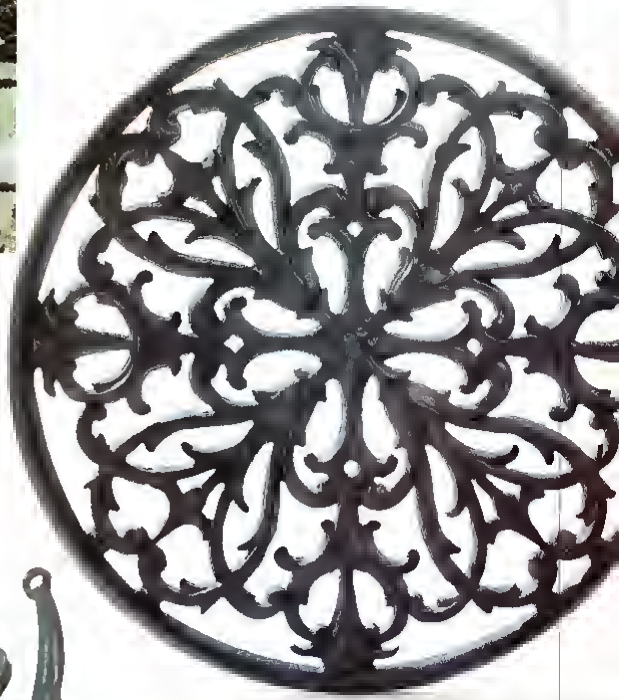
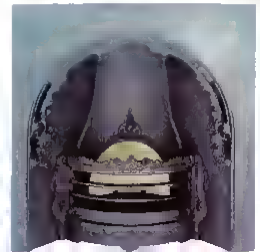
The New Dodge Dakota Quad Cab™

That's who.



Cast iron continues to find favor for its functional beauty. CLOCKWISE FROM TOP: **Fence gate and posts; a circular grille, a fireplace insert, similar to the one used by *This Old House* in the Watertown project, reproduced from an English Victorian design, a farm bell with yoke.**



PHOTOS: PHILIPPA LEWIS/MORRIS (TOP LEFT); JEAY BOECKNER (R)

Looking for Trouble

The time to find flaws in a house is before you purchase it, by getting an inspection you can trust.

BY JULIA LAWLOR

Before Sandy and Peter Wilbur (not their real names) bought their retirement home in Massachusetts last winter, they hired an inspector to check out the 135-year-old Victorian. "It was totally renovated and updated, and it didn't look like it needed any work," says Sandy, "but we wanted to be sure." The inspector pronounced the $240,000 house in "good, move-in condition on a well-maintained street, close to highways and shopping areas."

But the Wilburs weren't relying on him to calculate the house's proximity to a mall; they were counting on him to detect its hidden flaws. And despite his seal of approval, rain leaked into the den during the first downpour. They had to replace the roof, which the inspector had said would last seven years. A few months later a renovation led to the discovery of a totally rotted basement beam. Then they found termites. The Wilburs, who are on a fixed income, spent $20,000 to repair the defects. Had these been sniffed out by the inspector, they could have demanded that the sellers make the repairs, negotiated the price down to cover all or some of the cost, or walked away from the deal.

Most house buyers wouldn't sign on the dotted line without getting an inspection, just as they wouldn't buy a used car without taking it to a mechanic for an examination. It's perhaps the best way to invest $250 (the average cost)—assuming it produces reliable information. But all inspections are not created equal. Some reports are sloppy, while others gloss over trouble spots, not unlike a coat of paint that masks a water stain. To get the best possible evaluation of the house's condition, home owners need to follow a few simple steps.

Start looking for an inspector as soon as the bid is accepted, since once a contract is signed, the buyer typically has only five to 15 days to complete an inspection. The easiest source of referrals is your real estate agent. But don't take that route, it represents a conflict of interest for the inspector. An investigator who's beholden to the agent might not want to reveal information that could quash the sale. "The more an inspector relies on real estate agents for referrals, the more likely he'll fudge the job," says Stan Harbuck, an instructor with the School of Building Inspection, in Salt Lake City. Buyers' attorneys are good

ILLUSTRATION BY SCOTT POLLACK

sources of referrals, so contact legal counsel early. Lenders, appraisers, and trusted contractors may also have recommendations. Two trade groups test and certify their members: the American Society of Home Inspectors (800-743-2744, www.ashi.com) and the National Association of Home Inspectors (800-448-3942, www.nahi.org).

Contact three inspection companies and compare their services by looking at samples of their reports. A checklist that states "good," "sansfactory," or "unsatisfactory" without explanation is not enough. The report should be annotated with specifics, or better, written in narrative form. Find out if any complaints have been filed against an inspector by calling the state consumer protection office or the local Better Business Bureau. And ask if the inspector carries "errors and omission" insurance, which is similar to malpractice coverage for doctors. If major problems are missed during the inspection, the buyer can sue to collect the cost of repairs from the insurance company. Also, make sure the inspection contract doesn't limit liability to the fee paid for the inspection. And there should be some stipulation of how disputes will be resolved—typically either through arbitration or small claims court. Once you've selected a company, ask whether it's certified to check for asbestos, termites, septic system problems, radon, or well contamination; if not, arrange for those tests separately.

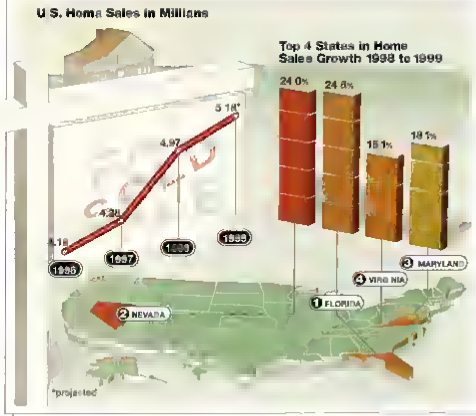
Buyers should attend the inspection, which takes between two and three hours, and should ask questions along the way. Mark Johnson, a computer programmer in Salt Lake City, learned that lesson the hard way. "The realtor was there with the inspector before I got there," says Johnson, who arrived when the inspector specified—with half an hour left to the process. "I remember being surprised by that." Johnson later discovered that the inspector underestimated the repair cost for a leaking roof and missed a deteriorating foundation and leaking sunroom windows—all of which will cost several thousand dollars to repair.

An investigation is only as good as it is exhaustive. Tom Kraeutler, an inspector in Oakhurst, New Jersey, begins by examining the grading and drainage around the foundation. He checks for decay on exterior windows, doors, siding, and trim, using a moisture detector. To inspect the roof, Kraeutler climbs onto it to see the condition of the shingles and flashing up close. He operates all kitchen appliances, air conditioners, the furnace, water heater, and plumbing, and evaluates the electrical service to determine if it's adequate for the house. In the basement, he examines beams and looks for cracks in the foundation. Throughout the house, he checks the condition of windows, doors, walls, and floors, and tests one or two outlets in each room. His report mentions all problems, suggests how serious they are, and explains what must be done to fix them.

This information is a crucial bargaining chip for negotiating the final sale. But buyers need to pick their battles, especially in today's real estate climate. In the past, buyers could negotiate to have the sellers handle minor repairs—such as missing bathroom tiles or a broken window—or knock the cost off the purchase price. But in today's market, sellers balk at such concerns, says William J. Lippman, an attorney and adjunct professor at the Real Estate Institute of New York University. One exception: If the buyer is paying asking price, "you can say, 'I'm meeting your price, so you have to take care of this.'" Time pressures often result in the seller putting money in an escrow account for the buyers to complete repairs once they've moved in.

Big repairs such as new roofs should lower the price, even if it's already below the asking number. But "if the report shows something fundamentally wrong, like major structural flaws, I'd look elsewhere for a new home," says Lippman. "Not only is there the cost involved, but there's the inconvenience of having the work done either before you move in or while you're living there." The Wilburs never had that kind of leverage because their inspection missed the problems. Had they known about the headaches beforehand, Sandy is certain what would have happened: "We never would have bought the house." ■

Seller's Market



These are good times for real estate agents. Even though mortgage rates climbed more than a percentage point in 1999, to an average of about 7.84 percent, sales of existing homes set a record for the fourth consecutive year (according to preliminary numbers). The action was fueled by high consumer confidence, a booming stock market, low unemployment, and still-low mortgage rates, says Kory Beckman, an economist with the National Association of Realtors. "The hot spots are where the jobs are," he says, "and Florida and Nevada also attract lots of retirees."

—Dory Devlin

ILLUSTRATION BY STEVE HART

WHERE TO FIND IT ~ SEE DIRECTORY ~ PAGE 127

The In-Touchables

You don't need to stay home to check your e-mail or favorite Web sites

Jornada 430se Palm-size PC
Hewlett-Packard, $498

Once, staying in touch outside the home or office meant finding a phone to check your answering machine. Then along came pagers, which instantly notified you of incoming calls but forced you to hunt for a phone to return them. And when cell phones appeared—*mirabile dictu*!—there was instant two-way communication from anywhere (as long as the phone was on and you were in an area with clear reception). But now, with more and more people communicating via e-mail and trolling the World Wide Web for vital information, you might still feel disconnected, unless you have one of the latest advances in palm-size, wireless electronics.

BY CHRIS O'MALLEY

There are actually three new kinds of devices to choose from—cell phones, handheld computers, and a variety of "pager appliances"—all of which effectively put the Internet in your pocket. The latest cell phones from Motorola, Nokia, and Qualcomm, for instance, let you check e-mail and snippets of Internet data

PHOTOGRAPHS BY TAKA

Blackberry Wireless e-mail
Research in Motion, $399

PageWriter 2000X Pager
Motorola, $399

pdQ Smart Phone
Qualcomm, $600

7160
Webphone
Nokia,
(Price to be
determined)

(news headlines, stock quotes, sports scores, and the like) on a tiny display screen. But the key here is not only the phone but also the wireless service that delivers the information.

Sprint PCS, for example, has a service called Wireless Web that provides a variety of ways to access e-mail or information from the Web. You can receive and read e-mail directly on your phone's LCD screen and wirelessly send messages or browse the Web using Yahoo! e-mail service. The Wireless Web also allows some limited Internet cruising through sites such as CNN, MapQuest, Ameritrade, Bloomberg, and Amazon.com, which have been modified to send text-only data. Sprint's Web service plans are available in most metropolitan areas (but not yet in some rural and suburban areas), at a cost ranging from $39 to $179 a month, voice calls included.

If staying organized is more important than having a phone, the new palm-size computers might better suit your on-the-go lifestyle. 3Com's Palm V ($399), Handspring's Visor Deluxe ($249), and Hewlett-Packard's Jornada 430se ($499) each have optional modems that let you check or send your e-mail wherever there's a phone jack. But if the prospect of being leashed to a jack isn't appealing, there is now a cord-free version, too. The Palm VII ($499), big brother to the Palm V, has a built-in antenna and wireless modem for sending and receiving e-mail. All of these devices are loaded with functions to help you manage appointments, store names and addresses, and create to-do lists. Their screens are bigger than those on the phones, but their Web-surfing abilities are confined to a handful of sites with minimal graphics. And because there's no keyboard, you either have to stab at an on-screen facsimile with a stylus or download "Jot" software, which recognizes handwritten characters. The monthly cost for wireless connecting service, such as the one provided to 3Com by Palm.Net, ranges from $10 to $40.

Unlike cell phones and handheld PCs, the new, wallet-size pager-type devices have actual keyboards for composing e-mail, and screens wide enough to read your messages easily. Motorola's PageWriter 2000X ($399), which flips open like a tiny laptop computer, allows you to wirelessly receive and respond to pages and e-mails, and has useful organizing features to help you keep your life on track. It costs $24 a month to stay connected. And there's the Blackberry ($399), a clever little wireless creation from Research in Motion, which can link you directly with your PC or even to your office e-mail, all for about $40 a month. (Other units require you to forward messages to a connecting service.)

If you don't need paging or the Web, you might be better off with a simple e-mail retriever like Sharp's TelMail TM-20 ($120). It isn't wireless, but it doesn't need a jack, either. You just hold it up to any phone's receiver (including pay phones) and it emits tones to send and receive your e-mail. At just $10 a month, TelMail's PocketMail service is one of the most affordable ways to tap your mail when you're not close to a computer.

Other e-mail gizmos and wireless services are rumored to be on the way, enabling you to capture even more of the information blizzard swirling through cyberspace. Maybe now is a good time to take a break—and actually speak to somebody ■

WHERE TO FIND IT – SEE DIRECTORY – PAGE 127

James Hardie Gives Homes Longer Life

It's a neighborhood with some history. Not in notable events or famous residents, but in hand-crafted houses where families have lived out their own stories since the turn of the century. Some of the houses are home to children and grandchildren of the original owners, others to folks who've been drawn to the quiet, tree-lined streets over the years.

These houses were built simply but built to last. The current owners embrace the neighborhood's history by trying to maintain their homes for the generations that will follow.

But the years and wind and weather take a toll on even these solid structures, particularly the clapboard siding. The planks were originally clear and tight-grained, but over the decades some have been ravaged by insects, and all have been swelling and shrinking with the seasons. Now some have warped or split, and they regularly shed paint by chips and flakes. House painters' ladders and scaffolds are a routine sight along these streets.

So there was considerable interest when a local architect began replacing the siding on his 60-year old house. A lot of neighbors had thought about doing the same, but they weren't aware of any palatable options. Vinyl or aluminum siding inevitably diminish the character of a solid old house, and wood-based siding has all the potential problems of the old wood—or more, because no replacement wood can match the quality of those old planks.

The siding going up on the architect's fine old house looked exactly like traditional pre-primed wood clapboards, and the carpenters were sawing and nailing it just as you might expect. But the builder's yard sign proclaimed something unfamiliar: HARDIPLANK from James Hardie Building Products.

Hardiplank siding has the look and charm of wood without all of the problems. It's made by James Hardie, which began producing building products based on fiber-cement technology for severe climates almost a century ago, in Australia. James Hardie siding products employ proprietary technology to produce siding in styles that match just about any wood product from clapboards to vertical planks to cedar-like shingles. A 50-year limited warranty backs most James Hardie siding products, which have proven to be impervious to insect damage, rot, warping and splitting.

Hardie-sided homes have the classic look of wood but are easier (and less expensive) to maintain.

James Hardie™ Siding Products

The first Hardiplank siding in the neighborhood opened a lot of eyes. Here was siding with the substance and appearance of wood, and all the durability of any other replacement material. Because it's painted like wood, the owner can choose any color he wants—and it retains paint longer because it doesn't swell, shrink and absorb moisture like wood. It's a bonus that Hardie products are also non-combustible.

Now there's a minor building boom in the neighborhood. Homeowners have seen a way out of the siding dilemma, and they're teaching builders what they want—the combination of substance, low maintenance and long life offered by James Hardie siding products.

It's a lesson builders are learning all over America, and one that will make the best old houses even better for a long, long time.

Silva Solutions

LET IT BREATHE

A ventilated house is a healthy house

No matter where you live, whether it's the Sun Belt or snowy New England, insulation traps the heat (and the cold) that makes a house more comfortable. But insulation also traps the moisture emanating from basements, boiling pots, steamy showers, clothes dryers, plants, even the simple act of breathing.

Before the current era of insulation, houses could easily rid themselves of this moisture—typically one to two gallons a day. Warm air, with its load of water vapor, escaped through gaps in the top and sides of a house and was replaced by an equal amount of fresh air infiltrating through cracks and openings near the bottom. Life inside could be drafty, yet everything stayed dry. Ever since the Arab oil embargo of 1973, however, Americans have obsessively insulated their houses and weatherstripped or caulked every opening to keep fuel bills to a minimum, effectively locking all that water vapor inside. With no means of escape, wet, saturated air readily condenses wherever it contacts a cold surface, and fosters the growth of rot and such serious allergens as molds and mildew. "The tighter the house is, the more humidity is trapped inside," says *This Old House* contractor Tom Silva. "As a rule, the more you insulate, the more you have to ventilate."

BY CURTIS RIST

To prevent moisture buildup, Tom doesn't suggest that we go back to building drafty houses or leaving windows open in the winter. Instead, he makes sure that specific areas inside the house are actively ventilated. In bathrooms, the kitchen, and the laundry room, for instance, he installs exhaust fans to whisk away moisture at the source and propel it outside. And if a house is very tight, he'll balance the outgoing air with a supply of warmed "makeup" air provided by a heat exchanger. Roofs need their own ventilation, either via gable vents or fans where an attic has no insulation, or air channels between the cold roof deck and the warm insulation where it does exist. "Ventilation makes the difference between a house that will last and one that doesn't," says Tom.

ATTIC

Where there's no insulation beneath the roof sheathing in an attic, Tom keeps the air fresh with louvered vents and fans at the gable ends. Well ventilated attics prevent ice dams in winter, and lower cooling bills in summer.

KITCHEN AND BATHROOMS

Tom always installs exhaust fans above showers or stovetops to draw the moisture produced by cooking and bathing. "But the fans have to be vented outside the house, not into the attic," he says. "Otherwise you're dumping moisture on the underside of the roof," to his own house, he installed timer switches to allow bathroom fans to run for a full hour.

DRYER

A clothes dryer should be vented directly outside, but not less than two feet beneath a soffit vent. "That warm, wet air can rise and accumulate underneath the roof sheathing," he says. For houses with hip roofs, Tom installs dryer vents straight through the roof.

ROOF

Humid air trapped in a roof means one thing to Tom: "Goodbye roof. It'll rot out in just a few years." So he creates a path for air to move underneath the roof sheathing from the soffits to the ridge. He installs continuous vents at the soffits, makes sure there is an uninterrupted air channel at least an inch or two deep underneath the roof, and lays a continuous vent along the ridge. If a ridge vent isn't possible, he'll put mushroom vents on the back side of the roof.

AIR EXCHANGERS

In a tight house, exhaust fans can pull outside air down chimneys and furnace flues to make up for the moist air they expel, causing fires or a buildup of dangerous gases. To prevent such backdrafts, Tom installs heat exchangers to balance the flow of exiting air with an equal supply of incoming fresh air. The exchanger captures some of the heat from the expelled flow and warms the entering air.

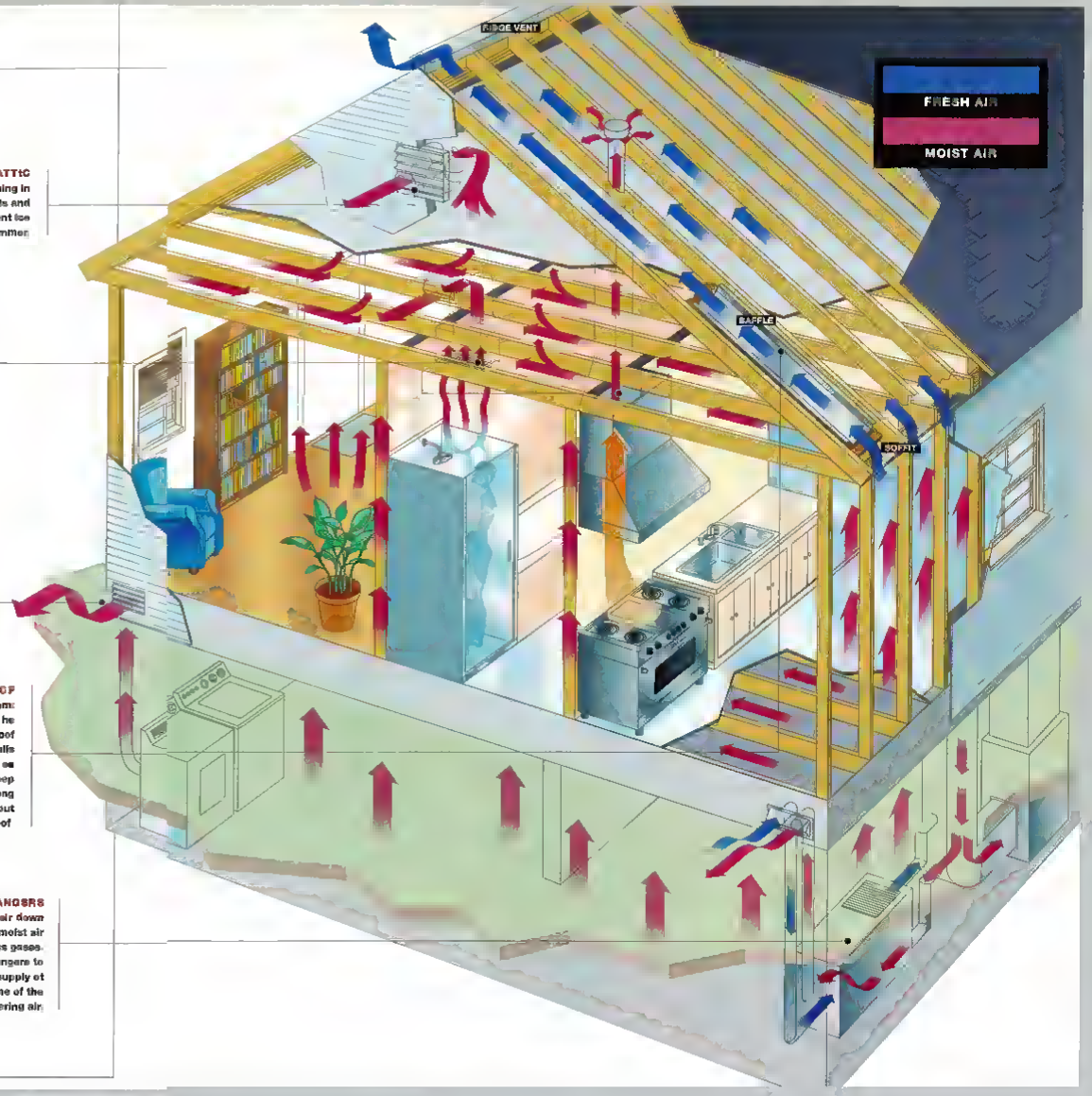


ILLUSTRATION BY STEVEN STANKIEWICZ

Silva Solutions

LET IT BREATHE

WHAT'S AN ICE DAM?

A house without effective roof or attic ventilation is susceptible to ice dams, a seasonal frustration often suffered by denizens of snow country. The problem starts when warm air builds up under the roof and melts the snow on top. As the water slides down the roof, it freezes again when it reaches the cold, overhanging eave or gutters. Glittering icicles may form, but the problem is that a reservoir of water builds up behind this frozen barrier. "Eventually, that water backs up under the shingles, then pours into the rooms below," says Tom.

HOW TOM KEEPS UNINSULATED ATTICS COOL

"You want a roof to be as cold as possible to prevent ice dams," advises Tom. At his brother's house in Billerica, Massachusetts, he installed a pair of 12-inch fans to gently push hot air out in the summer, but one of them can also pull cold air inside during the winter when there is an insulating layer of snow on the roof.

Tom once used this principle to stop an ice dam in mid-flood. "I got a call from some frantic home owners, and went to their house to see water dripping down the plaster walls of their bedroom," he says. Going up to the attic, he took an ordinary box fan and pointed it as close to the leak as possible. "That cooled the back of the roof in that spot, and everything froze," he says. "The leak stopped within minutes."

> "People think they should heat up the attic in the winter to keep the house warm, but that's exactly the wrong approach."
>
> —Tom Silva

VAPOR BARRIERS

To prevent warm, moisture laden air in a house from migrating through the walls and ceilings and condensing on cold wood surfaces, Tom Silva—like all good carpenters—adds plastic vapor barriers whenever he insulates exterior walls and ceilings with fiberglass or cellulose. (Expanding foam insulation is relatively impermeable to moisture and needs no such barrier.)

When installing a vapor barrier, Tom is nothing less than exacting. After the insulation is in, he overlaps the 4- to 8-mil plastic sheets 24 to 32 inches and staples them from stud to stud on the walls and between joists on the ceiling, letting it fold out on the floor at the bottom. Finally, he seals the seams and the areas around electrical outlets and light switches with silicone, butyl, or urethane caulk and foil tape. For doors, windows, and skylights, he will use spray foam insulation. "If you do anything less than this, you're gambling with the long-term survival of your house." As a case in point, he was working in the bathroom of a relatively new house a few years ago, when he removed the drywall and sighted an area that lacked the necessary vapor barrier. "The entire corner from the studs to the sheathing was starting to grow mildew," he says. Had Tom not fixed it, "there could have been major structural rot within a matter of a few years." ■

INSULATING AN ATTIC ROOF

Whenever he insulates the underside of a roof, Tom first installs rigid foam baffles against the roof sheathing. These baffles leave a gap of an inch or two between the batts and the sheathing so that air can circulate freely from soffit to ridge and keep the roof cool and dry. The area of biggest concern is down near the eave, where zealous insulators often stuff material tightly against the roof. "If moisture gets trapped there in the winter, it forms a big frosty build-up like you'd find in an old freezer," he says. "Then, when it melts, it starts to drip inside." The baffles prevent any wood-to-insulation contact so moisture can readily escape.

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Drivers wanted.
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Montana Makeover

A Queen Anne finds a home on the range

BY SHERRY DEVLIN

When they drove through the gate and saw the row of cottonwoods along the Clark Fork River, Jim and Marci Valco knew they would buy the 400-acre ranch. Bald eagles and osprey fished for trout in the river. The barn had exactly the nine stalls needed to accommodate Marci's horses. And the University of Montana and downtown Missoula, Montana, were but a few miles away.

There was just one problem: the house.

At the core of the sprawling ranch home was a sawn-timber cabin built by homesteaders in the 1870s and covered up by a melange of mismatched additions and renovations that neither looked good nor flowed well. "Nothing really fit or coordinated," says Steven Adler, the Missoula architect to whom the Valcos turned to reconfigure the mess. "It was a historic hodgepodge."

A unisparound porch, a turret, and some decorative millwork turn a rambling oddball into a grand manse fit for a 19th-century gentleman rancher.

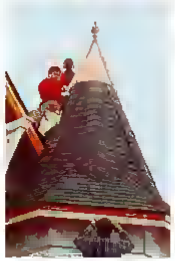
And the house didn't suit the Valcos' lifestyle. "Marci wanted a home for adult entertaining," says Jim. "Our kids are grown. When they come, they're guests." Hence their charge to Adler: Unify the house and give it a style that makes sense. Make it a place for grown-ups.

The Valcos lived in the house for five years before starting construction, "so we could get a feel for the place," says Jim. Residing there, in fact, convinced them not to raze the house, but to radically alter it.

Keeping the old homestead cabin intact to use as guest quarters, and preserving three fireplaces in what would become the library, family room, and living room, Adler and contractor Frank Scatiano demolished, remodeled, and added to the 3,838-square-foot house until a new 6,428-square-foot structure emerged.

PHOTOGRAPH BY ANDY GEIGER

BEFORE PHOTO: JIM AND MARCI VALCO



TOP: Subcontracting out the elaborate decorative moldings Jim Valeo wanted was prohibitively expensive, so Frank Scariano milled the brackets, rails, and other trim himself. "We still saved money and used a higher grade of vertical-grained fir," says Scariano. RIGHT: The turret, topped by a "witch's hat" is finished with a copper cap and finial.

The transformation created a turreted Victorian suited to Big Sky country. "A gentleman rancher might have built this house in the 1880s," says Adler. It is Victorian, "but some people have called it 'homestead Victorian' or 'folk Victorian.'" He wrapped a porch around the south and west sides of the house, a single linear element that softened the "transition spots." The old haphazard mix of exterior building materials—vertical wood siding, lap siding, and glass and brick—was replaced with beveled cedar siding. Victorian corbels and brackets added visual interest and a sense of harmony. Most of the roof was reconfigured to mirror the steep pitch of the cabin roof, and, to ease the profile as it moves from old to new, Adler built a little half-step dormer. "I wanted a softer, more humane roof line," he says.

Inside the house, Adler relocated the stairs (which were smack in the middle of the old cabin) to the main entry hall and added a second story with offices, bedrooms, and an exercise room. At Marci's insistence, no bedroom abuts another, and each of the three guest bedrooms has a bath. The master bedroom received his-and-her bathrooms. "We shared one for about a day during the remodeling," says Marci. "That was long enough." Next door is an office for Jim, who owns a mortgage company and farms 1,500 acres in the area. Marci's office—for "all the household papers"—occupies an old hayloft above the attached garage, which was left unchanged.

Downstairs, Adler opened up an exterior wall to a new addition. ("We took out the dam in the river," he says.) Marci got a formal dining room in the deal: an elegant place for entertaining, between the house and garage, that includes a narrow butler's pantry to house her collection of china, 1870s buckle-pattern pressed glassware, and antique cake plates. "We wanted to shape a single structure rather than a couple of separate buildings with a thin-link connection," Adler says. "We also wanted to keep the garage out of sight from the front of the house. People don't consider cars all that historic."

Marci's favorite addition, though, was the turret that runs from the living room up and into the master bedroom—"pure whimsy," as Jim calls it. "Marci didn't like all the angles," says Adler, "so we twisted the top a half segment to keep all the hips from meeting up—to make the connection a little more diffused."

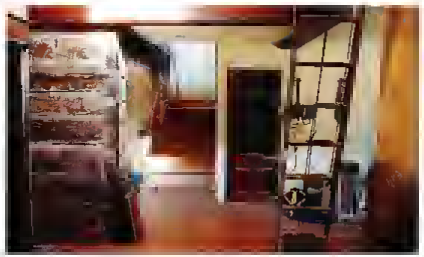
Construction took 17 months, and the Valeos lived there throughout. When winter arrived, there was nothing but a plastic tarp separating them from the outdoors. "At one point, it was 10 degrees colder in the kitchen than in my fridge," says Marci.

"But it all worked out," she adds. "We have a house that is comfortable for guests and very comfortable for the two people who live in it. We just go around grinning and saying, 'Wow.'" ■

HODGEPODGE LODGE

The Valeos didn't know about the old cabin hidden within their house until a summer afternoon when a stranger came by to tell them his mother was born there in 1892. "We started stripping siding off the walls and there it was—sawn timbers held up with dovetail corners. 120 years old," Jim says. Marci discovered bits of discarded clothes in the chinking, and a pair of old windows hidden under the siding.

These windows became curio shelves in a downstairs bedroom when the cabin was converted into a pair of guest rooms, one on each floor. "The Valeos went to extra effort to retain part of the original character of the cabin," says Allan Mathews, Missoula's historic preservation officer. "What they left exposed was very respectful of the history of the place." In fact, the careful remodeling earned a historic preservation award from the city of Missoula.



PHOTOS: JIM AND MARCI VALEO

WHERE TO FIND IT – SEE DIRECTORY – PAGE 127

the details

TOUJOURS, L'ARMOIRE

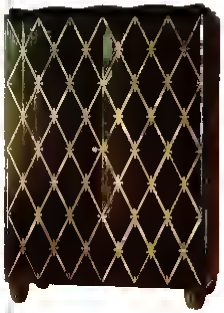
It has almost become a universal law of domestic science: Stuff expands storage. No matter how many closets we build into our homes, no matter how ruthlessly we prune our possessions, there never seems to be quite enough space for the necessities of modern life. So perhaps it's not surprising that one solution relies on yet another acquisition: the armoire.

Developed in the Middle Ages as a place to stash armor and other articles of the medieval household, the free-standing cupboard has been adapted by every Western culture. European immigrants imported their versions of this useful, albeit hefty, two-door piece to the New World: the English clothes press, a chest of drawers topped by a cupboard, made itself at home in New England and the South; the closely related Dutch *kas* (or *kast*) and German *schrank*, massive wardrobes enclosing drawers and shelves and surmounted by a heavy cornice, were common in the stone farmhouses of Pennsylvania Dutch country and the mid-Atlantic states; and the heavily carved, usually unpainted French armoire settled in Canada and Louisiana.

BY LIZ SEYMOUR

Armoires temporarily lost some of their appeal in the early 20th century as houses began to be designed with roomier and more abundant closets, but in the last two decades they have zoomed back into style, primarily because they offer an attractive way to hide and organize the hunks of plastic equipment that make up a home-entertainment system. Sleek versions of the armoire have flipper doors, which slide in along tracks against the inside walls of the piece, or doors on offset knife-hinges which can fold back and out of the way. With pull-out swivel shelves, built-in cubbies and drawers, and holes in the back for threading electrical cords through, an armoire has become an indispensable piece of furniture in many homes. More of them are being designed to house home offices, while others have been plumbed as small bars. Indeed, the armoire accepts almost anything that needs to be put away. And it's still a handy place to park your chain mail.

armoires



Barbara Barry's generously proportioned mahogany armoire for Baker Furniture is decorated in a playful gold-painted harlequin pattern. Invisible kitchen cabinet-style touch latches do away with the need for external handles.

Panels of beautiful palomino-pale flame birch and black walnut, finished to reveal their natural grain, are outlined in thin stripe of brushed aluminum in a meticulously handcrafted armoire by City Joinery.

Old meets new in an antique cabinet from China that has been restored and refinished by Red Egg. The cabinets—some of them more than 100 years old—have been retrofitted with new hand-cast brass hardware.

As practical as it is beautiful, a mahogany armoire designed by Thomas O'Brien for Hickory Chair is paired with a two-door compartment to be used separately or—as shown here—placed on top for extra storage.

Wardrobe Update

James Bos, master craftsman at Country Gear, Ltd., in Bridgehampton, New York, began outfitting antique armoires for audio and video components back in the late 1970s as an alternative to the new entertainment centers that were coming onto the market. The advantage to an antique isn't just the vintage look—a retrofit allows a home owner to tailor a piece to his or her needs.

When reusing an old armoire, "the first thing to consider is how high you want your television to sit in the piece," Bos says. "Sometimes there will be an existing shelf fixed at an acceptable height for a living room, but for a bedroom you might want it higher." To ensure comfortable viewing from a sofa, Bos recommends the TV be set at a height of 30 to 36 inches; watching from a bed requires a 40-inch height. The size of the TV is also a factor. A small flat-screen model will slide into almost any armoire, but bulkier TVs often prove too deep for most pieces, which typically have about 18 to 22 inches of interior depth. To accommodate a larger television, Bos cuts an opening in the back of the armoire to allow the rear chassis to protrude, figuring in an extra ¼ inch at the top and on either side for clearance.

Because a standard ¾-inch shelf can't bear the weight of a heavy television, Bos buttresses it with a center divider through the area below. He starts drilling all holes—be they for the TV and VCR or for a stereo—from the inside, then finishes from the outside, to avoid the possibility of the cabinet back splintering or blowing out.

Shelves and drawers for accessories, CDs, and DVDs may be added below or above the television shelf, if there is room.

—ROMY POKORNY

TOP: *The cabinetmaker who built this armoire back in the 19th century could never have anticipated it would one day house a television set, VCR, or stereo. Today's retrofit allows room for that equipment, plus drawers for videotapes, compact discs, and DVDs.*


1


2


3


4

1. *The wardrobe arrives at the shop with one fixed shelf. Because it is set at an inappropriate height for a television, craftsman James Bos will remove it and reinstall it 30 to 36 inches off the floor.*

2. *Before screwing in the shelf, Bos clamps the drawer guide—the center piece that separates the drawers—to the webframe of the drawer boxes.*

3. *A vertical center support keeps the television shelf from bowing under the weight of the television set.*

4. *Bos seats the VCR shelf on three cleats in the walls of the cabinet near the top, over the niche for the television. He likes to attach a strap of 1¼-by-¾-inch molding along the front edge of the shelf for added stiffness. On this strip, he has handplaned a bead, an "antique" accent in keeping with the age of the piece.*

PHOTOS: STEVEN VOTE

WHERE TO FIND IT – SEE DIRECTORY – PAGE 127

THIS OLD HOUSE

What's Up, Dock?

As the host of *This Old House*, I'm used to explaining to people how a seemingly simple project—like renovating a bathroom—can turn into a huge, unwieldy task. Somehow when it comes to home improvements, clear-sighted pragmatists turn into pie-in-the-sky dreamers, underestimating how much time, money, effort, and chaos a project entails. What I've learned can be boiled down into three simple lessons: One: Everything takes longer than you think it will, and then some. Two: Not even the dynamic duo of Norm Abram and Tom Silva can foresee every extra cost that might crop up. Three: To survive the first two lessons, remind yourself every day why you're going through all this (to make life more enjoyable!). Otherwise, you'll be overwhelmed before the sawdust has even settled. A while back, I had to remind myself of all this several times while constructing a dock at my house on a Maine island near the mouth of the St. George River.

There's no way to get to the house except by boat. And while that's fine at high tide, low tide is another story. With a 14-foot tidal range, we'd often end up slogging through 15 yards of sucking mud flats, with everything from airless paint sprayers to cocktail sauce (there's no store on the island) hoisted high above the mire. So even before my wife and I bought the place, we knew we needed a dock.

Despite appearances to the contrary, docks are more than glorified decks over water. Ours would have to withstand the strong currents and 70-knot winds that rip through the area, as well as giant chunks of ice that drift down river in the spring thaw. The solution turned out to be a 150-foot-long structure anchored by 36 massive pilings and sporting an equally hefty price tag—around $80,000. Suddenly, jumping into the mud every weekend didn't seem so inconvenient after all.

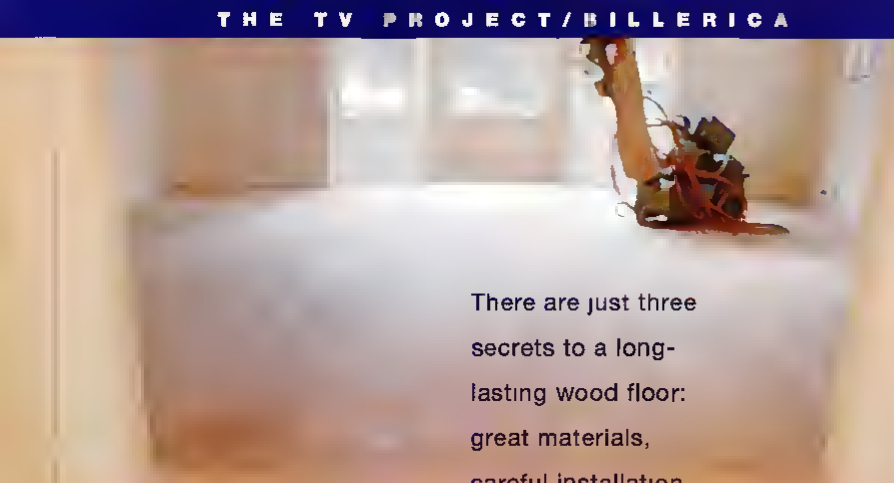
This Old House boat. Steve Thomas (front, second from right) no longer has to slog through the mud, thanks to (clockwise from top right) Matt Tibbetts, Ken Hagen, Tim Wallace, contractor Art Tibbetts, Jon Rooney, and Jason Antes.

I spent several months talking over the project with my neighbors. My goal was twofold: to solicit their input and have them go in on the project to defray the cost. Getting four people to agree on something, much less fork over $20,000 each, isn't easy, but at last we decided to form a limited liability corporation, which would own the dock.

After months of discussions, we hired a contractor, Art Tibbetts, to build the structure. We thought the hard part was over, but Art had to spend another three months wrangling permits from the State Department of Conservation, the town building department, and the Army Corps of Engineers, plus a lease from the State Department of Environmental Protection for the submerged land. At last we were ready to start construction. After several weather delays, two barges—one carrying a 60-ton crane and the other a 14-ton crane—showed up. The six-man crew drove in the 35-foot-tall pilings and then built the platform on top. From fantasy to finish, this seemingly simple project had taken almost a year.

But now I can look forward to a whole summer of pristine Top-Siders. When we actually get around to renovating the house—a 1961 ranch with all the charm of, well, a 1961 ranch—we'll be able to haul in the supplies more easily. Now that we've gotten past our dock ordeal, we're happy with things more or less as they are. In fact, I've even developed a fondness for the pink-and-white-tiled bathroom, complete with chrome legs holding up the sink. Now who'd want to renovate that? ■

BY STEVE THOMAS PHOTOGRAPH BY DAVID CARMACK



There are just three secrets to a long-lasting wood floor: great materials, careful installation, and a fine finish

TOP FLOOR

BY MICHAEL McWILLIAMS

PHOTOGRAPHS BY DAVID CARMACK

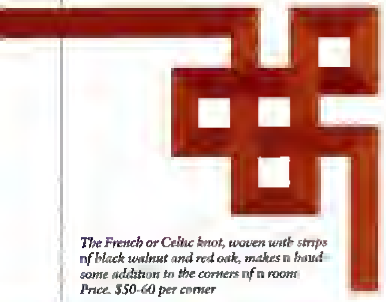
It's 7:30 in the morning. Already, a power saw is shrieking in the next room while someone upstairs is warming up a hammer. Yet in Dick and Sandy Silva's bare-walled dining room, Tim Taggart stands as still as a meditating monk, pondering his upcoming job: the installation of a new wood floor. Around him lie stacks of custom-milled, white oak strips—2¼ inches wide, ¾ inch thick, and up to 8 feet long—which he will spend the next five days cutting and fastening to the plywood subfloor. "It's like creating a great big puzzle," Tim says. "I love it."

FACING PAGE *A diamond of quartersawn white oak graces the vestibule leading to the Silva's dining room* THIS PAGE *Yellow pine, the flooring used in the bedrooms, displays the tight, parallel figure characteristic of quartersawn softwoods.*

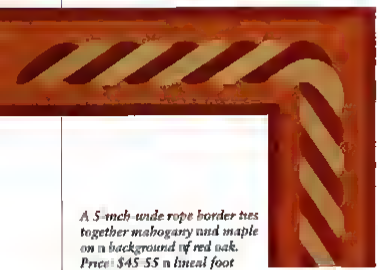
Taggart, a veteran installer for Hunt Hardwood Floors, is laying wood through most of the Silva's house. (Kitchen, mudroom, and bathrooms are covered in linoleum.) When he's finished, the rooms will be carpeted with rich expanses of furniture-grade material, alive with eye-catching grain patterns that only nature can create: a perfect complement to the house's painted walls and woodwork. In the bargain, the Silvas will have a surface that's also easy to clean

BORDERS TO ORDER

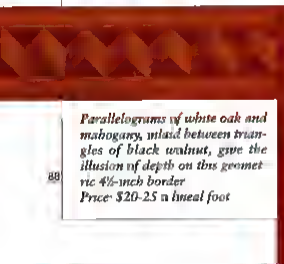
Introduced to North America by 19th-century craftsman from Eastern Europe, floor borders add an old-world accent to a new floor. A border can be just a simple change in the direction of the flooring strips, as in the Silva's dining room, or intricate inlaid designs cut from tiny pieces of exotic wood. Once, these would have been cut by hand on site, but these days, with sophisticated laser-cutting techniques, borders can be ordered, ready-made, from a catalog and dropped in by the installer. Pre-fab borders, such as the ones pictured below, range from $25 to $100 per foot, depending on the width and complexity of the pattern.



The French or Celtic knot, woven with strips of black walnut and red oak, makes a hand some addition to the corners of a room. Price: $50-60 per corner



A 5-inch-wide rope border ties together mahogany and maple on a background of red oak. Price: $45-55 a lineal foot



Parallelograms of white oak and mahogany, inlaid between triangles of black walnut, give the illusion of depth on this geometric 4½-inch border. Price: $20-25 a lineal foot

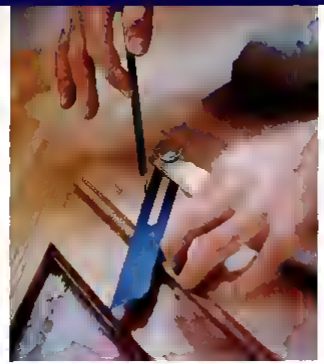
and long lasting. "If they take care of it, this floor will be here well through this century," says Patrick Hunt, Taggart's boss.

The Silvas chose two kinds of wood for their floors: soft yellow pine for the bedrooms, and durable white oak for the downstairs. It's the same mix found in many 19th-century houses, where home builders sensibly put hard oak in high traffic areas and less expensive pine in the private chambers.

Charles Wilson, of Wilson Woodworks in Stafford, Connecticut, provided the project's 3,400 square feet of flooring. Wilson milled boards, cut from trees in the Ozarks, into narrow tongue-and-groove strips, then culled out any that didn't meet his high standard. "The quality of this flooring is extraordinary," Taggart says. Indeed, every piece is clear—free of knots, stains, or other defects—and quartersawn, sliced from the log so that the grain runs more or less at right angles to each strip's face. Wood cut this way is less likely to warp and splinter, wears better, and is more stable than flatsawn boards.

A stable wood is especially important for the Silvas because of their radiant-floor heating. Taggart says that some minor separation between the strips is inevitable with most flatsawn flooring. "But with wood of this quality, we expect hardly any visible lines at all, even with the radiant heat." To top it off, quartersawn wood is visually without peer. In the pine, the narrow, parallel grain streaks each strip like butterscotch combed through vanilla. On the oak, light-colored tiger stripes fleck its surface.

All this beauty and stability come at a price, of course—about $6 a square foot for the custom-milled oak (twice as much as standard clear teak oak), and about $8.50 for the quartersawn pine, which is nearly three and a half times more expensive than top-grade flatsawn.



ABOVE: *Using a sliding T bevel, Tim Taggart marks the angle of a cut on a strip running the length of the room.* BELOW: *With a swing of a mallet, his pneumatic stapler simultaneously snugs each strip to its neighbor and anchors the wood to the subfloor.*

BELOW: *Steve Dubuque guides a sander in three separate passes over the floor, making the rough wood smooth.*

ILLUSTRATIONS: JOSÉ ORTEGA

TOP PHOTO: KELLER & KELLER

WHAT WOOD WOULD YOU CHOOSE?

Flatsawn red oak, with its attractive combination of durability, stability, and relatively low price, is the most popular wood flooring today, and the benchmark against which others are measured. If you're exploring alternatives, just keep the following in mind:

COLOR Contrary to what you might expect, lighter woods, such as oak, ash, maple, or hickory, "tend to make a room look smaller," says Gidnan Gnilbir, an interiors specialist for architect Dennis Wedlick. "And very dark floors against light walls tend to make a room feel stark and bigger." Brazilian cherry, Santos mahogany, and black walnut all fit that bill, and they need no stains.

PERFORMANCE High-traffic hallways, family rooms, and kitchens demand hard, durable flooring. But looking only at hardness can be misleading. Hickory and maple are harder than oak but not as stable, they tend to cup or loose gaps as the humidity changes. A wood's lack of stability can be mitigated somewhat by milling narrow strips (less than 3 inches wide) and by quartersawing, which minimizes movement and improves durability.

PRICE *Low* ($3-5/sq. ft.): Douglas fir, maple, birch, beech, ash, red oak, white oak, yellow pine. *Medium* ($5-8/sq. ft.): mesquite, Brazilian cherry, black cherry, Santos mahogany, jarrah, hickory, pecan. *Expensive*—or use as an accent ($8-15/sq. ft.): wenge, black walnut, teak, heart pine.

Such high-end flooring naturally deserves careful, precise installation. So the first thing Taggart did after the flooring arrived in the house was to turn the thermostat to 65 degrees and wait. Wood flooring needs time to acclimate to its new home, or it will shrink and move and leave unsightly gaps after it's installed. The heat also drives out the moisture emanating from the fresh plaster and paint, and even from the new concrete foundation—moisture that can swell the wood and make a tight job next to impossible. After about a week, when Taggart's wood probe indicates a moisture content below 6 percent, he and his flooring team start to roll.

Their first order of business is to sweep up loose nails and then cover the plywood with rosin paper to keep the floor from squeaking. Once the subfloor is papered, it's time to lay out the flooring. The first strip, placed along the long wall with its tongue toward the center of the room, is the most critical. Tim positions it about a half-inch out from the walls to allow the wood to expand. Without that space, which will be covered with a shoe molding, the floor might actually buckle in humid conditions. Then, using chalk lines, measuring tape, and straight edges, Taggart adjusts the strip ever so slightly to insure that all the other pieces will remain parallel to the long walls all the way across the floor.

After face-nailing the first few strips in place, being careful not to mar the floor with his hammer, Taggart has enough room to bring out his big gun, the pneumatic floor stapler. He seats it against the strip to be fastened, then whacks a rubber mallet against the tool's rubber trigger. With a pop, the stapler shoots a 1-inch galvanized staple at a 45-degree slant through the strip's

After the sanding is done, Dubuque takes a floor buffer for a spin. The 1½-hp machine rubs a 100 grit abrasive-coated screen over the wood, polishing away any gouges left by the sander. He'll also screen each coat of finish (except the last) to remove any trace of roughness.

tongue and into the plywood. A few more pops, and the piece is fastened tightly to its neighbor and ready to receive the groove of the next. Most floor installers shoot special flooring nails, but the shorter staples provide the necessary holding power without the risk of puncturing the radiant heating tubes.

"You also have to think about the lengths of the starter strips," Tim says. "If you cut them right, everything else should follow in a way that looks right." Practically speaking, it doesn't matter where the cut ends land—he can nail the strips anywhere into the plywood—but Taggart observes certain rules established at a time when floors had to be nailed into joists. He makes sure the end joints are staggered by at least 6 inches from one row to the next, and he's careful not to repeat that position in the second or third rows. This produces some scrap, but guarantees a natural, random pattern.

Five days after starting, with every piece of white oak and yellow pine in place, the team starts sanding. Steve Dubuque uses an 8-inch Hummel belt sander on the center section of the floors and a squat disc sander, called an edger, along the walls. The Hummel covers the floor in three passes with successively finer sandpapers—60-grit, 80-grit, and 120-grit; the edger takes two passes with 80-grit and 120-grit papers. Afterward, Dubuque steers a buffer over the floor—its 100-grit screen erases the fine grooves left by sanding—then hand scrapes corners the machines can't reach.

Moving a lambswool applicator in the same direction as the strips, Dubuque quickly covers the floor with an even coat of oil-based polyurethane. He works facing a window, so that the light reflecting off the wet finish reveals any missed spots.

To this finely polished surface, DuBuque applies four coats of oil-based polyurethane, buffing between each one for good adhesion and perfect smoothness. Although two or three coats are standard, four coats offer an extra measure of durability. The effect of the finish on the oak is astounding to witness, as the first coat flows over the dun-colored wood, its grain pattern appears as if by magic.

Getting to this moment took about ten days of precise, painstaking effort, and a lot of math. But no one has to ask Tim Taggart if it's worth it. "Just look at the wood," he says proudly. ●

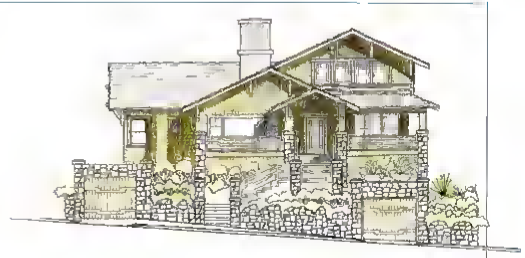
Visit www.thisoldhouse.org for Billerica flooring installer Patrick Hunt's tips on how to choose the right flooring for your house.

WHERE TO FIND IT - SEE DIRECTORY - PAGE 127

Perched on a hillside overlooking the Pacific Ocean, Jan Winford's Craftsman-style house is about to undergo a complete overhaul and become a stunning example of a home from the turn of the last century.

Check out **www.thisoldhouse.org** for a peek at the Santa Barbara project before construction starts—courtesy of *This Old House* Online's virtual tour—and get a 360° view of each room

PHOTOGRAPH BY SHELLEY METCALF



This Old House heads west to rebuild a California bungalow

ARTS & CRAFTS PROJECT

TV PROJECT SANTA BARBARA

BY JEFF BOOK

As Jan Winford sees it, her modest 1907 bungalow in Santa Barbara, California, was destined to be a part of *This Old House*. Winford actually wrote to the show 13 years ago asking if they wanted to help her with a remodeling job, but she shelved those plans to focus on raising a family. Then, last summer, she told an old friend, architect Jerry Zimmer, to move ahead with her long-deferred dream. "I had just survived a major bout with cancer and saw the renovation as an extension of my recovery," she explains. Zimmer was finishing up a master plan that Jan could execute as money allowed, when *T.O.H.* producer Bruce Irving called the architect's office, asking if he had any good projects. "We'd looked at about a dozen possibilities for the show's winter season," Bruce says. "But when I saw Jan's, I knew it was for us."

What appealed to Bruce was the beautiful site, with its dazzling views across Santa Barbara to the Pacific and the Channel Islands, and the bungalow's authentic period details. Its deep eaves, broad gables, shingle siding, and prominent brackets—so typical of the Craftsman style—appear much as they did in a 1914 photograph that Jan treasures. The house survived the 1925 earthquake that devastated the city, as well as low-budget remodels that inflicted such indignities as cheesy wood paneling, green shag carpet, and linoleum topped kitchen counters. Jan bought the four-bedroom bungalow 26 years ago, but her own attempts to improve the place consisted "mostly of paper and paint," plus plumbing and heating upgrades. Big problems remained, including a couple of poorly planned additions, a front deck riddled with dry rot, and a layout too cramped to allow privacy for her daughter, Jennifer, who will live at home while attending grad school.

Zimmer's design will add 1,122 square feet to the house's present 1,485 square feet. It calls for a new front porch, a grand central entrance, a refurbished fireplace and kitchen, and a view-grabbing second-floor bump-up, where Jan will have a spacious master suite. Inside and out, there will be a wealth of Craftsman-style details—from reproduction wallpaper and light fixtures to art glass and decorative stenciling. The front yard will be re-landscaped with an abundance of native plants and flowering vines. A big chunk of the $350,000 total estimated budget will also go for new earthquake resistant footings and a second garage (to meet city parking requirements).

The show's filming schedule forced Zimmer and contractor Steve Crawford to accelerate their timetables to warp speed—"We're working six days a week to make sure this house is finished in three-and-a half months," says Crawford—but for Jan, that's a blessing. "Because the show is involved, everything will happen much faster, and that's very important to me at this point in my life," she says, her voice cracking with emotion. "This is my chance to pay back the house for all it's given me over the years." ■

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PHOTOGRAPHS BY MARK MORROSE

the MEN'S CLUB

BY PAT JORDAN

Friendship turns a Florida renovation into much more than a job

I gave the roofers each a beer before they left. They nodded, but said nothing. They were silent men in their 20s—ponytails, earrings, bandannas—who had spent the day under a hot sun ripping off the old, rusted tin roof from our 1928 bungalow in Ft. Lauderdale, Florida.

The roofers were among the last of the many workers who had helped restore our old, wood-frame house to its almost new condition, inside and out. It had taken us close to seven years. Now that a new roof was being put on, the work was almost finished. Susan, my wife, was relieved. But I felt a sense of loss. I would miss hanging around those men, with whom I associated all the details of our home. I saw their faces everywhere: in the porcelain bathroom faucets, the black-and-white-tiled kitchen backsplashes, the slowly churning ceiling fans, the Caribbean-colored walls, the polished, Dade County pine floors, the gleaming tin roof. It was their house as much as it was ours.

OPPOSITE: *The author, Pat Jordan, welcomes a visit from Carlos, one of the carpenters who helped restore his Florida bungalow* (ABOVE) *Jordan became "Poppy" to Carlos after he started helping the carpenter get jobs on his own, without the help of his American born partner*

ABOVE: *When Jordan tells his housepainter, Scott, of a friend who says you have to treat working men badly to get them to do good work, Scott laughs. "Yeah, I know those kind of guys. They think they're better than us. I make them pay top dollar."* BELOW: *Plumber Wayne completes the second phase of the renovation, the kitchen and bath, before disappearing for a couple years to do a big job "up North."*

That day was the first time I realized how much I'd enjoyed the renovation itself, not just the end results. Even now, long since the workmen have all gone, I can vividly remember times I spent with them. I can see Carlos, our carpenter, on the day the roof came off, stripping by to replace some rotted rafters. It's the end of the day, and Carlos towels off sweat and dirt by his truck before coming into the house for his Meyers rum and Coke. Our little ritual. We sit across from each other and talk, mostly about El Salvador, which Carlos calls "my country" despite his ambivalence about the place.

He tells me that his mother and father had been murdered during the civil war, one by the guerrillas, the other by the army. Carlos was 14. He raised his brothers and sisters until he was drafted. A year later, he went AWOL and joined the guerrillas, then realized God wasn't on either side of that war. He walked out of "my country" through Guatemala and Mexico and across the border into Texas, a two-year journey. Now he lives in his own house in Ft. Lauderdale, with his pretty American wife. Carlos is 32, short, dark, stocky, with slanted cheekbones and narrow eyes that become slits when he laughs, which is often. He says he's more Indian than Spanish, but his grandfather had been a tall man with pale skin, "like you, Poppy," he says. "A white man."

A few hours after Carlos leaves, Scott, our housepainter, drops by with his girlfriend, Connie. While Susan puts out salsa and chips and shows Connie around, Scott and I go outside to inspect the damage the roofers have done to his paint job. He looks at the chipped, Greek blue paint on the soffits and the dirty handprints on the white trim and the peachy-pink siding and shakes his head. "There's no excuse for that," he says. "I'll have to touch up after they finish."

Scott is of German ancestry, from Minnesota, a hunter and ice fisherman, who still says "out" in that Canadian way even after living in Florida for more than 20 years. He is a meticulous man who arrives on the job dressed in a spotless white shirt and creased white shorts. After eight hours of painting, he leaves the job as clean and fresh as when he arrived. He is almost six feet four, heavyset, with slicked-back blond hair and the kind of perfect features '50s movie stars like Tab Hunter had.

Back inside, Susan is showing Connie our 1920s bathroom, with its wainscoted walls, blue green wood floors, and black-and-white checkered tile shower. The old cast-iron tub with lion's-paw feet was rusted when we bought the house. Sandblasters wouldn't touch such a small job, except for a 20-year-old black kid, Rodney, who helped me carry the tub outside. He worked it down to bare metal so I could repaint it, and charged me $30. "My older brother thinks I'm crazy for doing work like this," he said. "But people remember you for bigger jobs." I took a dozen of his cards and passed them out to friends.

One of my strongest memories when I look around the house is of Billy, our first carpenter. He's standing in our living room on the day we moved into the house, staring at our crumbling plaster walls. He's a thin, slouched-shouldered, taciturn Florida Cracker with a wispy blond mustache. I ask him how much it'll cost me to have him replace the plaster with pine boards.

"Fifteen dollars an hour," he says.

"How many hours?" I say.

He shrugs. "Whatever." Then he adds, "Whatever it'll cost, 60 percent will be to tear it out and throw it away."

It takes me a moment before it sinks in. He's telling me in his elliptical way that I can save a lot of money if I tear out the plaster myself. It's the way Billy will always speak to me for the next four years. He never suggests anything. He never tells us anything we want to do is wrong. He expects us to read between the lines of his cryptic comments.

"My wife and I can rest off the plaster," I say.

"Up to you."

"I'd like the pine boards to run vertically."

Billy says, "You want them to run vertically?"

I look at him looking down at the floor with his watery blue eyes. "You think they should run horizontally?" I say.

"Whatever you want."

Susan and I rent a 30-yard dumpster, which is deposited on our lawn. We put on safety glasses and masks, and in the smothering October heat begin ripping out the plaster, then the rotted furring strips, and, finally, every nail. A month later, every wall is stripped down to the studs. Our friends stare at our skeletal home in horror. Billy returns, says nothing, and begins measuring. He hands me a piece of paper with the sizes and amount of wood he'll need. I order it from Home Depot, and it is dropped on our front lawn. Billy returns, sets up his sawhorse in the living room, and begins sawing boards to put up on our new walls, horizontally. I hold the boards for him and help him nail. A joke. Whenever my mother asked my father to hammer a loose nail around the house, he would snap, "Call the man." For 50 years, I was just like him. But now I'm "the man."

Carlos announces that he has two jobs coming up to make kitchen cabinets, a new realm of work for him.

Billy and I work in silence. I try to engage him in conversation, but his only response is a grunt, a nod, or nothing. I never learn anything about him except that he's a bachelor, without a girlfriend.

While Billy and I put up walls, Robbie, the electrician, rewires the entire house. He shows me a piece of our 1920s cloth-covered wiring and says, shaking his head, "A real fire hazard." Robbie is short, pudgy, and pale, with nerdy, thick lensed glasses. He speaks with a self satisfied authority about everything. I tell him the house was built in 1928. "No," he corrects me, "1927, after the Hurricane of '26. I can tell by the wiring." Unlike Billy, Robbie can't seem to work without talking, usually about himself and his expertise. Billy glances up at Robbie jabbering away on a ladder, and can barely hide his contempt. When Robbie finds out my wife's daughter is the actress Meg Ryan, he peppers me with questions about her. I tell him my wife had a falling-out with her daughter long ago, and they no longer speak. "Susan doesn't like to talk about it," I say. But Robbie doesn't get it.

When Susan enters the room, Robbie says, "So what did you and Meg fight about?" He's already on a first-name basis with Susan's daughter.

Susan looks at him, stunned, and says, "It's a long story."

Still, Robbie won't stop talking about "Meg," how much she looks like Susan, how it's a shame they don't speak, et cetera, until I want to scream at him to shut up. But I don't, because he's a fastidious electrician. I simply learn to appreciate Billy's silence more and more each day.

Billy works on our house, on and off, for four years. He puts up a privacy fence for our dogs. Closets in the bedroom. A pull-down stairway to the attic. I try to give him as much work as possible, and when I have none I get him jobs around the neighborhood. I help him nail down George and Al's deck. I help him put up Gabriel's fence. To thank me, in his way, Billy builds our backyard deck off the Florida room on Thanksgiving morning, and refuses to accept payment. I force him to take the money. "You're a working man," I say. "You're supposed to get paid."

I invite Billy to our annual Christmas party. He arrives in his best jeans with his hair slicked back and a present, an electric Skil saw. I introduce him to our friends, who are surprised by how nice our

walls now look. I tell them I owe that to Billy. He looks embarrassed. I pour him a glass of champagne in a fluted glass. He takes it over to the rocking chair near the fireplace and sits down beside Melvin, one of the body builders from our gym. Melvin has skin the color of a purple plum, a lot of gold teeth, and processed hair. Billy and Melvin just nod to each other, but they do not speak. They sit there for hours, staring at our friends who are drinking, laughing, and eating. I lose track of them until late at night, but by then they are gone. A few days later I get a card from Billy. He writes, "Thank you for inviting me to your Christmas Party. It was the best time I ever

had." That is the last I ever see him. I phone him over the next six months but he never returns my calls. No one knows where he is. A friend of mine who's had a lot of work done on his house says, "He's probably burned out. They work and work, and then one day they're gone." Then he says, "Your mistake was getting too friendly with Billy. You gotta treat working men like dirt. Let them know who's boss. That's what they understand."

But I don't understand. I don't see myself as their boss but as their coworker. I watch them and learn. I follow Scott around our house as he paints high up on his ladder, and I ask questions. He suspects at first that I'm keeping an eye on him so that he doesn't slack off. When he realizes I really do want to know how to cut in the blue to the white, he tells me. I use what he teaches me to cut in the Campbell's soup red of the pillars in the kitchen to a kelly green countertop. I learn how to miter molding from Carlos, and how to hang a screen door from Billy.

Whatever the reason for Billy's disappearance, I miss him over the next few years. When I go to the garage I see his Skil saw in the box. It depresses me. It gets rusty and mildewed, and finally I throw it out.

ABOVE. *Three buddies and a brew.* OPPOSITE. *The author and his wife, Susan, and their five Shiba Inu dogs in their Caribbean-colored living room.*

It takes us five years after that Christmas to save up enough money to redo our kitchen and bathroom. The bathroom is a disaster, with rotted floorboards and water damaged sills. Rats live beneath the floor. At night, Susan slams the door a few times and stamps her feet before entering, and leaves fast. When friends come to dinner I tell them to go at home beforehand. They understand.

We get a plumber, Wayne, to redo the bathroom and kitchen. He's a tall, handsome man with short, graying hair who looks like Mark Fuhrman. I tear up the bathroom floorboard so he can work in the dirt below, replacing our cast-iron pipes with new PVC ones. I sit on the toilet lid, smoking a cigar, and talk to the top of his head. He lifts his head up, sees my cigar, and says, "Do you mind if I smoke?"

"Of course not," I say. "This is a smoking and drinking house." He laughs and lights a cigarette. We talk and smoke. Wayne tells me he can't hold a girlfriend. It confuses him, but it makes perfect sense to me. Beautiful women are attracted to his debonair good looks, but they grow disenchanted living with a plumber who comes home each night filthy with dirt and sewage. They think he's better than that. Wayne doesn't. He likes being a plumber and can't understand why his girlfriends don't accept him for what he is.

It takes almost a month to finish the bathroom. Wayne has only to put on the shower fixtures now, so I call the tile man, Chris, who is short and muscular like a prizefighter. Chris works around Wayne, nearly arranging the black-and-white tile on our shower wall in geometric patterns. I sit on the toilet, watching, smoking my cigar. Chris and Wayne smoke cigarettes. The bathroom is cloudy with smoke. Susan brings us beers. "I was afraid to come in," she says, smiling. "It's like an exclusive men's club." We all laugh.

The kitchen is less work. Chris tiles the backsplash while Wayne installs the appliances. I rip out the rotted plaster wall under the sink. Sweeping out the rubble, I let out a scream, leap into the air, and flee to the living room. Wayne and Chris convulse with laughter. Wayne picks up the decayed rat I had swept onto my feet. "It's not gonna hurt you," he says, dropping it in the garbage. "It's as dead as Kelsey's nuts."

To celebrate our new kitchen, Wayne stops by on a Sunday morning with his new girlfriend. She's shy and sweet behind her thick glasses and has no illusions about her handsome working man. "A keeper," Wayne whispers.

Before they leave, I try to pay Wayne. He refuses my check. "The faucets aren't right," he says. "There's a leak. I need another washer."

"So what? Take the check and bring the washer later."

But Wayne still won't take it. "I get paid when the job is finished," he says. "It's not."

After a month goes by, I call Wayne, who has $1,000 of his own money tied up in our fixtures. I threaten to call the Better Business Bureau on him if he doesn't come for his check. "That'll be a first," he says, laughing. Finally, he returns, with his girlfriend and a new washer, and I pay him. Over the next year, Wayne shows up whenever we need a plumber, no matter how small the job. Then he, too, disappears.

Our house is finished now. All the workers are gone—but the friends we made stay in touch. Scott calls often. We go to dinner with him and Connie. Carlos calls, too. I say, gruffly, "You makin' money?" He says, "Tryin', Poppy, tryin'." He comes over with his wife, Heidi.

Wayne reappears on my doorstep one day. He's got a scruffy beard and a ponytail. "Jeez, Wayne," I say. "What happened?"

"I went back North for a few years to do a big job," he says. He shrugs. "I guess I went redneck."

He comes into the living room, sits down, and lights up a cigarette. Susan throws her arms around him and gives him a kiss. "How's your girlfriend?" she says.

Wayne smiles. "A keeper." Clearly she is someone who knows the value of a working man. ■

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THE LITTLE HOUSE THAT COULD

A Hamptons farm cottage grows up

It would have been so easy to tear the little house down. These days, farm buildings in the Hamptons are constantly being razed to make way for new residences, especially for the burgeoning mega-mansion set. Architects and contractors in this beachfront resort on Eastern Long Island are accustomed to starting from scratch. But the owners of the four-room cottage, a veterinarian and his wife, a former journalist, wanted to preserve the structure. They had bought it soon after they were married, in 1977, and its location, minutes from the beach, couldn't have been more perfect.

"We called it our 'meat loaf house,'" jokes the husband. "It was low and rectangular and brown." Erected in the 1930s as an outbuilding on one of the farms that dotted the area, the house had been turned into a 950-square-foot residence in the '50s. To call the conversion minimal would be to overstate the point. With the arrival of two daughters, the couple recognized they had to reconfigure the interiors of the cottage to accommodate the changing needs of their family. In 1981, they renovated the cottage and appended a kitchen. Two factors persuaded them to embark on yet another expansion. Although their daughters are grown and gone, they still return for extended visits. One day they might have children in tow. Second, and more important, the couple was finally in a position to finish the renovation and they knew what they wanted. Both considerations raised the issue of space. They needed more

Protected by a deep overhang, the entry opens into the cupola-capped dining room. To the left is the kitchen, which abuts the former little house, now guest quarters. The new two-story wing on the right contains the living room and master suite.

PHOTOGRAPHS BY ALDO ROSSI

1950's

1978

1981

The couple had been on the lookout for a designer for years. Tours of the neighborhood turned up a number of houses designed by architect Lee Skolnick. Although his firm, Lee H. Skolnick Architecture + Design Partnership, is based in Manhattan, he and his family weekend in the area, so Skolnick was comfortable with the local vernacular. And because he divides his time between museum expansions and residential projects, he was no stranger to integrating old and new structures. Nor did he resist the wife's desire to preserve the dwelling that held such nostalgic appeal for her. He believed he could easily merge the original structure into a "rambling homestead" that would look as if it had been part of the architectural landscape for far longer than a mere half century.

Early sketches convinced the couple that Skolnick was the architect for them. But the overall cost of the renovations was heftier than their initial budget. So, in 1994, Skolnick came up with an ingenious plan that would spread out costs over time, lighten the work load—and allow the couple to continue to enjoy their home. The renovations and additions to the house would be divided into two parts—and into two distinct phases of construction. Phase One would give the couple a two-story addition with a new living room and master suite above. At this stage, the cottage would remain untouched, except for the kitchen, which would receive a face lift. During this phase, Skolnick would connect the old and the new structures with a new front door and entry hall for ease of access. As a bonus, an outdoor dining deck would be added behind the entry hall. During the second phase, the cottage would receive its makeover. This second phase would also result in Skolnick's pièce de resis-

TOP: *Even though the outbuilding had been converted into living quarters in the 1950s, it had no aspirations to grandeur. When the couple purchased it in 1977, they gave no thought to enlarging it, but with the birth of their two daughters, renovations became necessary, so, in 1981 they fixed up the interiors, added some picture windows, and appended a new kitchen.*

BOTTOM: *In the mid-'90s, when they decided to expand the house, the couple erected a spacious new wing for themselves. They lived in the original cottage until construction of the wing was completed.*

1995

SITE PLAN

When the couple purchased the converted outbuilding in 1977, it looked out over acres of potato fields. As houses began to approach their property, they planted hedges along the periphery as a screening device. To enhance the sense of privacy, the architect oriented the new part of the house to focus on the swimming pool and gardens

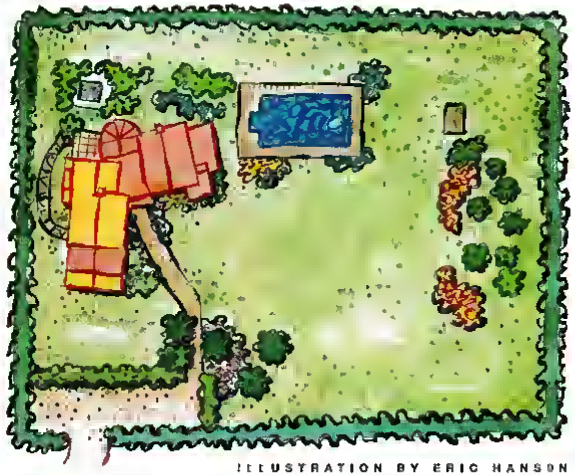


ILLUSTRATION BY ERIC HANSON

tance an irregularly shaped formal dining room, which would be built up from the deck and capped by a cupola. This room would function as "hinge" between the living spaces and, in its whimsical design, would allow the house to meet the wife's criterion that it "not look like anyone else's." Says Skolnick, "The rest of the house is fairly homogeneous and doesn't raise any eyebrows, but the hinge is a surprise." The wife adds, "We wanted a proper dining room—how it came to evolve into this eccentric shape, I'm not exactly sure. But we like it. And it's the most important room of the house. When you walk in, that's the first thing you see."

One of the intents behind the master plan was to create a house that would look somewhat more expansive than 3,000 square feet. To accomplish this, Skolnick designed the new wing in a two-story farmhouse style and angled it and the entry at a 75-degree angle to the original section. Skolnick anticipated two secondary gains from this positioning. The cottage is tucked in a far corner of the lot, it has an east-west orientation, facing a neighbor's yard. Angling the addition would remove the couple from the direct gaze of neighbors and shift the home's orientation to the south, capitalizing on the path of the sun.

Another objective was to create the impression that the new wing was, in fact, the older structure. Skolnick designed it to resemble shingled farmhouses in the area, then suggested minor exterior changes to the existing cottage and its kitchen addition so that

1997

1999

In conceptualizing the house as three separate components (the new master wing, the little house and its appended kitchen, and the dining room/entry), architect Lee Skolnick wanted the latter to function as a "hinge" between the old and new spaces. A flat roof was scratched in favor of a windowed cupola, which adds a touch of whimsy as well as a practical element: more light. French doors lead out to the backyard and pool

PROCESS PHOTOS COURTESY OF LEE H. SKOLNICK ARCHITECTURE + DESIGN PARTNERSHIP

The polygonal shape of the new dining room—the hinge between the wings—its French doors and a windowed cupola ensure that daylight streams in all day.

the latter would look as if it had been added to the wing. To unify the disparate components, Skolnick shingled the entire grouping—except for the dining room, to dramatize his idea of the dining room as "hinge," he clad it in exterior-grade plywood panels, which were then painted white.

Construction of the wing and an adjoining stair tower consumed the better part of eight months, from fall 1994 until spring '95. Skolnick proposed creating a stair tower to link the new first-floor living room and the master suite above it outside the house because, he explains, "I wanted the interior space to feel whole." Moving the stair to the outside maximizes the square footage of both areas, too.

The stair tower also emphasizes the vertical nature of the wing as opposed to the low-slung horizontal profile of the cottage and "it highlights the transition between the formal entry at the front of the house and the more casual pool side at the back," he says.

The couple didn't feel that the kitchen required a complete overhaul, just some updating. They left the overhead beams untouched and retained the cabinets, refreshing them with new doors and hardware. State-of-the-art appliances replaced worn-out equipment. The wife's main gripe was the quarry tile floor, which was hard on her feet. Pulling out the tiles would be time-consuming and expensive. Skolnick's solution: cover the floor with a new oak "floating floor" of Swedish manufacture (see sidebar).

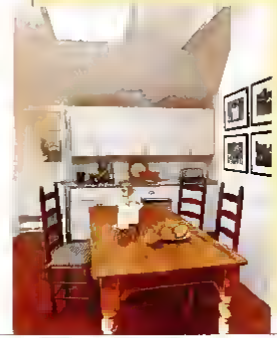
With the wing and entry in place and kitchen back in working order, the couple took the summer off to enjoy their home. Work began in earnest on the original structure in the fall of '97. The major alteration entailed replacing a tiny under-the-eaves children's room with a spacious, combination adult-child suite. Skolnick raised the roof 6 feet, punched it out to create two triple-

Except for new stainless-steel appliances, changes to the kitchen were purely cosmetic. The plain, picture-frame style selected for cabinet doors and drawers echoes window trim. Bin pulls and wide bead-board backsplash add a retro touch. Counters are polished granite, the double-bowl sink is stainless steel.

FLOATING FLOOR

When the kitchen wing was added onto the little house in 1981, ceramic tile was all the rage as a flooring material. After 17 years of standing on quarry tile, however, the owners were fed up. "I love to cook," says the wife. "But the tile was too hard on my feet."

Ripping out the tile would have been expensive, because the job would require a separate contractor for demolition and the concrete underneath would have to be patched and smoothed before new flooring could go down. To contain costs, architect Lee Skolnick suggested the Float-in wood-laminate system by Kährs, a Swedish flooring company. Founded in 1857, Kährs invented and patented these floors in 1939 as an alternative to standard hardwood flooring—and as a product that can be installed over existing flooring. The Float-in system sandwiches a cushion of ¼-inch-thick polyurethane foam between an underlayment of 6-millimeter poly-plastic (which together act as a vapor barrier) and a top wear-layer of ⅜-inch-thick wood laminated to ½-inch solid wood core. No nails are required. The finished floor measures ¾-inch thick, about the same as a standard hardwood floor. In the case of this Hamptons house, leaving the quarry tile in place made the red oak Float-in floor slightly higher than floors in adjoining rooms. To ease transitions, Skolnick replaced saddles at each doorway in the kitchen. Float-in floors come in various grades, based on how the laminate is created. All patterns are random in length and width. Top-of-the-line styles use longer, wider strips of wood, lesser grades bond together short, narrow strips. Prices are commensurate with hardwood—about $6 to $20 per square foot installed, depending on the grade. A Float-in floor can be refinished at least twice without sanding through the top layer.



In the living room, Skolnick hewed to plainspoken moldings and built-in bookcases that are spartan in their simplicity. All are painted white. Window dressings are ivory-toned Roman shades, which fade into the woodwork when raised. Lighting is unobtrusive: just a few recessed spots in the ceiling and picture lights. BELOW: *In the dining room, sconces are accented with dragonflies.*

bay dormers, one on each side of the suite, and shingled it. Swaths of plate glass and banks of louvered windows were removed and some openings (as well as the former front door) were filled in, while others were recut and reshaped to accommodate windows that match and align with those in the wing.

Spring and summer 1997 saw the realization of the formal dining room. Although all the rooms in the home are light-filled, the dining room is by far the brightest—much like a porch, but without floor-to-ceiling screens. And, while the entire house now boasts an efficient heating and air-conditioning system, the couple appreciates the flexibility of being able to open the windows in the cupola with a flick of a switch when they want extra fresh air.

Against the backdrop of the freshly shingled house, the wife, a gardener, has created a series of intimate outdoor landscapes, including a vegetable and cutting garden, an English cottage garden, a shade garden, and a perennial plot. Along with a storybook white picket fence and garden gate, small clusters of birch trees, and a meandering path of green slate tiles, the cottage and its new additions make a statement of welcome.

Living in a work-in-progress is rarely easy. "It's amazing how much dust there was," the husband says with a laugh. "The key was that we were always able to be in the part of the house where the contractors weren't." Lee Skolnick's consideration of the owners' needs at every stage of the construction process made the couple feel they could put up with some inconvenience if it helped them achieve their long-term goal of having a place they would never want to give up.

Today, the house feels as lived in as ever. The couple share it with two cats and a dog. Antiques mix with flea market finds and new pieces. Rose and light green dominate the color scheme; the couple's bedroom has a handmade quilt on the wall, which hangs over a rusticated garden bench. "We knew that one day this would be a great place," the couple say as they scan their property from the pool out back. "We've never wanted to move." Now they'll never have to. ■

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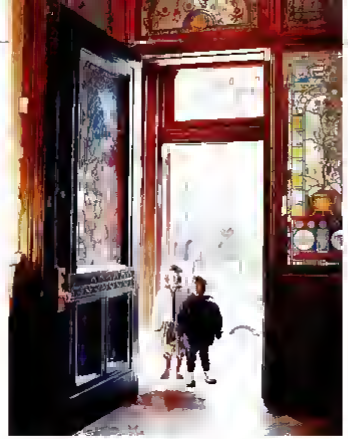
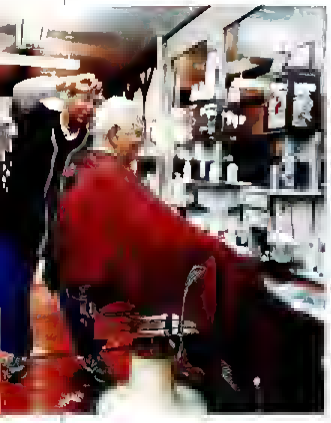
The new wing looks out on an oasis of green, anchored by the [illegible] pool and [illegible].

A Stroll Through

park slope

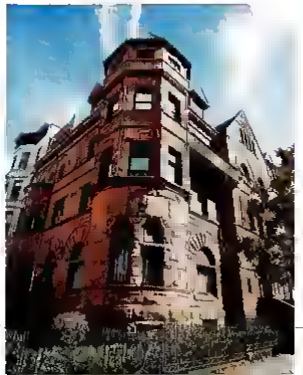
A Brooklyn enclave endures as the best small town in New York City





BY LESLIE BRENNER
PHOTOGRAPHS BY GRACE HUANG

Park Slope, Brooklyn, is a college town without a college. On weekends, the sidewalks are filled with flea marketers, skaters, bookstore browsers, parents pushing strollers, and dogs pulling owners. People of all ethnicities pass by, carrying boxes of organic produce home from the local food co-op, and one of the hottest neighborhood gathering spots is the muffin shop, where mothers breast-feed their babies on the benches outside. In fact, Park Slope is so progressive you could say that it's in Brooklyn without *being* Brooklyn. "The neighborhood's been changing for the last fifteen years," says Angelo Fiumefreddo, whose Park Slope Barber is one of the area's most picturesque links to the past. Established in 1906 by his father, the business passed to Fiumefreddo in the 1940s. He still runs his shop the old-fashioned way, with barbers, not stylists, who stand over the vintage chairs—one is a 1906 original—snipping away with lightning speed. The old shoeshine stand remains as well; Fiumefreddo converts it into an open bar during the holiday season for cus-



FROM TOP: *Neighborhood fixtures include lots of kids as Manhattanites seeking more space and lower housing costs have moved in; Angelo Fiumefreddo, who's been cutting hair since the '40s; and elegant 19th century architecture, like this Romanesque Revival townhouse on Eighth Avenue.*

In Park Slope, shady streets and proximity to the park make walking the preferred mode of transportation.

Park Slope is a "wonderland of finials, pinnacles, pediments, towers, turrets, bay windows, stoops, and porticoes."

The Brooklyn Botanic Garden stretches out across the street from Prospect Park. With its carousel (opposite), skating rink, playgrounds, meadows, and ponds, the park is a huge draw.

tomers and friends. It's largely thanks to people like Fiumefreddo that Park Slope, a 150 block plus urban enclave, still feels like it's part of New York City, albeit with a small town feeling.

Jill Eisenstadt and her husband Michael Drinkard, both novelists, are typical of the new crowd. When they first left Manhattan, the couple settled in the nearby neighborhood of Cobble Hill but found themselves coming every weekend to Park Slope to walk in Prospect Park—a 526-acre gem that ranks as one of the world's great urban oases—and use its playgrounds. They bought a limestone townhouse on Fourth Street in 1998. "We didn't have to buy any backyard furniture," says Drinkard, "because we find we just hang out on the stoop all the time."

The neighborhood is bound by Flatbush Avenue to the north and Prospect Avenue to the south, Prospect Park West to the east and Fourth Avenue to the west. Its shady side streets and broad avenues boast a magnificent range of late 19th-century architecture, from Queen Anne houses to Beaux Arts buildings constructed between the Civil War and World War I.

Park Slope is so called because it's built on a hill rising from the west up to the park—but the slope inspired much more than the neighborhood's name. In the 1850s, Edwin C. Litchfield, a lawyer and railroad baron, acquired a square mile of land that now contains Center Slope, from First Street to Ninth Street all the way down to Third Avenue, and built an Italianate villa on what would become the western edge of the park. (Today it is the Brooklyn headquarters for the New York City Department of Parks and Recreation.)

Through Litchfield's lobbying, landscape architects Frederick Law Olmstead and Calvert Vaux broke ground on Prospect Park in 1869. By the time they finished in 1874, the two actually preferred it to their other 19th-century masterpiece, Central Park, and it was attracting wealthy families, many with a stake in Brooklyn's future as an industrial center. These newcomers constructed a "Gold Coast" of mansions along Prospect Park West and the northern section of Eighth Avenue. Three years later, Ansonia Clock Company, one of the world's largest clock factories, opened, employing more than 1,500 people. A working-class neighborhood sprang up in South Slope (where less expensive properties can still be found, as the median price of a brownstone in central Park Slope has climbed to $1,000,000, from $425,000 five years ago). The opening of the Brooklyn Bridge in 1883, and transportation alternatives such as the Seventh Avenue horsecar line, further encouraged settlement in Park Slope.

During the Depression and after World War II, many single-family brownstones became boardinghouses. By the late 1960s, numerous buildings had deteriorated, and real estate prices were low enough to attract a mix of teachers and writers. Aided by several grassroots organizations such as the Seventh Avenue Betterment Committee, a renovation movement picked up speed. David Surgan bought his five-story brownstone on Eighth Avenue in 1973 for $70,000 and transformed it from a rough-and-tumble boardinghouse to a well-appointed home for his wife and daughter, with rental units on the upper three floors. Stripped of period

TOP: *A stonemason works on a Romanesque Revival home, designed by architect C.P.H. Gilbert, on Garfield Place. Previous owners obliterated the façade's limestone friezes, columns, and ornamentation with an adobe-like concrete stucco. "It had to be the ugliest house in Park Slope," says owner Robert Apfel, who's restoring the place to the way it looked in an 1892 photo he found.*

Brooklyn was the last place artisanal bakers Nicole Lane and Joseph Rodriguez (BELOW) thought they'd end up when they sought to relocate from Wisconsin. But they found Park Slope simpatico with their goal to have a bakery "like a local boulangerie, a part of the neighborhood."

details, the house "looked like Sinead O'Connor with her eyebrows shaved off," he says. "Those were the days when the response you got was 'they don't make that anymore,' 'they don't do that anymore.'" But at a salvage warehouse, set up by the New York City Landmarks Commission, he found many missing parts, including front doors from a demolished Harlem brownstone. Surgan also added a stoop, hiring the same stonemasonry company that had torn it out decades before.

Row upon row of reclaimed 19th century brownstones make the Slope not only a desirable place to live but also an attractive—and relatively undiscovered—destination for visitors, who may feel they've walked into a Henry James novel. "The Park Slope Historic District is superb architecturally, one of the most striking in New York," says Jennifer Raab, chairman of the New York City Landmarks Preservation Commission. It's difficult to walk more than a few blocks on a Saturday afternoon without bumping into an upward-gazing group touring what the American Institute of Architects' *AIA Guide to New York City* calls a "wonderland of finials, pinnacles, pediments, towers, turrets, bay windows, stoops, and portcoes."

Just as it was in the last century, Seventh Avenue is Park Slope's main business drag. And with few exceptions, corporate America has yet to invade the Slope. A Barnes & Noble that opened in 1997 roused the ire of many residents, who prefer the smaller, more personal bookshops on Seventh Avenue, Bookfink and Community Bookstore. There are so many writers in the neighborhood that the "local author" shelves at each of these stores overflow. As for those books stacked on stoops, that's Park Slope's way of recycling: giveaways to anyone walking by.

Bouriques, toy stores, coffeehouses, and bakeries flourish in the Slope, keeping company with a smattering of old businesses. Three years ago, when Nicole Lane and Joseph Rodriguez, residents of Madison, Wisconsin, were looking to open an artisanal bread bakery, they were charmed by Park Slope. "It seemed to us," says Rodriguez, "that there were people here with a certain consciousness about food." They were right. Residents gobbled up the naturally leavened organic breads, and soon Lane and Rodriguez opened a second Uprising Bread Bakery several blocks up Seventh Avenue.

The neighborhood's cultural attractions are also a short walk away. Just off Grand Army Plaza, at the northern entrance to Prospect Park, stands the Soldiers' and Sailors' Memorial Arch, an impressive Civil War memorial reminiscent of Paris's Arc de Tri-

Park Slope Brooklyn

ILLUSTRATION BY JENNIFER THERMES

omphe The imposing Streamlined Art Modeme central branch of the Brooklyn Library faces the atch, from which wide avenues radiate One of them, Eastern Parkway, is home to the Brooklyn Botanic Garden, where the Cherry Esplanade draws thousands of admirers each spring Leaving the garden at the Flatbush Avenue exit, a visitor can cross the street to the Prospect Park Wildlife Center—known by locals as the zoo—which completed a $36 million renovation in 1993 Agatha the cow and a bald eagle that can't fly are among the more exotic inhabitants (not counting a few wallabies and baboons), making it a weekend haunt for families

Next to the Garden on Eastern Parkway is the Brooklyn Museum Until last fall, when its controversial "Sensation" exhibition put it on the map, the museum was a sleeping giant, despite top-flight African and Egyptian collections Now it's become a destination for Manhattanites—who tend to view Brooklyn, psychologically, as a world away

Park Slope's real estate prices neatly rival those in Manhattan these days as the community has become a victim of its own success Teachers, artists, writers, and low-income families, pushed out by young Wall Streeters, are heading for the neighboring communities of Windsor Terrace, Sunset Park, and Prospect Heights This migration is pushing prices up in the outer reaches of the South Slope A happy side effect of the neighborhood's popularity is the restaurant row springing up on Fifth Avenue Chefs from Manhattan four-star restaurants—a caliber of professional previously unknown in the area—have set up outposts such as Al Di La Trattoria and Vaux Meanwhile, a Starbucks has come in, making locals jumpy—although less from caffeine than from consternation over the presence of a chain Still, the place has been packed, perhaps because it's one of the few establishments big enough to accommodate a stroller And that's downright neighborly ●

WHERE TO FIND IT — SEE DIRECTORY — PAGE 127

WHERE TO

SLEEP

Bed and Breakfast on the Park Elegant rooms in an 1892 Victorian limestone mansion 113 Prospect Park West, 718 499 6115

Foy House Bed and breakfast in a classic brownstone on an architecturally rich block 819 Carroll Street 718 638-1492

New York Marriott Brooklyn Opened in 1998 this 376 room link in the chain is Brooklyn's first full-service new hotel in 68 years 333 Adams Street 718-246 7000

WALK

Brooklyn Center for the Urban Environment The Tennis House Prospect Park (go in Ninth Street entrance) Architectural and history tours 718-788 8500

Brooklyn Attitude Occasional walking tours of Park Slope or by appointment 718-398 0833

EAT

Al Di La Trattoria Wonderfully executed rustic Italian in a cozy setting Tin ceiling crystal chandelier hand-painted Florentine wallpaper Try the heartwarming garlic soup and braised rabbit with black olives and polenta 248 Fifth Avenue 718-783 4565

Olive Vine Cafe Casual and inexpensive Middle Eastern specialties including wonderful lentil soup tasty leg of lamb and heavenly homemade pita bread In warm weather nothing beats the garden in back 131 Sixth Avenue 718 636-4333

Two Boots Cajun and Italian the place to take kids who can stand at a low counter in front of the kitchen and play with pizza dough as they watch their pie being made 514 Second Street 718 499-3253

Park Slope Brewing Company Wash down burgers and other American fare with fabulous microbrews made in Red Hook 356 Sixth Avenue 718-788 1756

Vaux (Too new to be reviewed by press time.) 2789 Fifth Avenue 718 499 1433

SHOP

Mostly Modern 20th-century furniture specializing in 1950s Heywood Wakefield pieces 383 Seventh Avenue 718-788-6230

P.S. 321 Flea Market Reliable source of furniture and collectibles Every weekend Seventh Avenue between First and Second Streets

Fidgets Stylish Clothing and accessories for babies and children 169 Seventh Avenue 718-788-2002

The House Boutique Soho fashion in Park Slope well-priced funky jewelry 54 Seventh Avenue 718-638-4566

A PLUMBING PRIMER

BY JIM MORRISON

Tucked invisibly beneath the skin of a house are its arteries and veins, the system of pipes that supply fresh water and remove waste. Turn a knob and clean, hot water flows into the bathtub. Open a drain and dirty dishwater disappears. This bit of modern sorcery was a novelty only a century ago. Today, though, "the only time anybody notices plumbing is when something goes wrong," says Richard Trethewey, *This Old House*'s pipe guru. "But plumbing is essential to the way we live. It's what separates us from the underdeveloped world."

The role of plumbing in civilization goes back 5,000 years to the Egyptian pharaohs, whose tombs feature working bathrooms complete with lead and copper fittings. By 500 B.C., Romans used lead pipes to supply water in their cities, giving rise to the first *plumbarius*, or worker in lead. In contrast, the Dark Ages was a time of chamber pots and outhouses, when proper manners in Scotland required a person disposing waste out the window to cry "gardyloo" ("Watch out for the water") to warn pedestrians below.

Plumbing as we know it began in 1829, when architect Isaiah Rogers included water closets and hot and cold water pipes for Boston's Tremont Hotel. But it wasn't until the end of the century that a burgeoning middle class, spurred by a fear of germs, came to regard indoor plumbing as a sanitary necessity. Likewise, it took a while to get plumbing to work properly. When sewer gas backed up through sink drains, for instance, home owners bought gizmos like Gorman's Foul Air Valves or Bedell's Improved Iron Sewer Gas and Back Water Trap and hoped for the best. Then, in 1874, an anonymous plumber discovered that running a vent pipe through the roof balanced the air pressure in the drains, eliminating noisy gurgles and noxious miasmas. The modern plumbed house was born.

By the time Richard's great-grandfather began his career as a plumber in 1902, the science of plumbing was enshrined in municipal codes. Yet Richard thinks that configuring a system is still something of an art. "There's a certain look to good craftsmanship. Pipes are level and true. Fittings are soldered well and wiped clean. Hangers and clips are properly spaced," he says. "I've often joked that if our work wasn't hidden behind the wall, people would appreciate us more."

PHOTOGRAPHS BY KAY BOECKER

FLOW CHART

{ILLUSTRATIONS BY GREGORY NEMEC}

Cleanout
Allows drains to be unclogged. The removable plugs are installed anywhere that drains make a turn.

Toilet connection
Anchors the toilet to the floor and links it to the drain with a closet flange. (Toilets have internal traps.)

Trap
Captures a sing of water in the drain beneath plumbing fixtures to block passage of sewer gases like methane.

Shut-off valve
Provides a way to trnn off water to ontside faucets, appliances, fixtnres, and from the mam snpply into the house.

A Good Set of Pipes

Supply

Copper: Quiet, easy to repair, and long lasting. Joints can be soldered or threaded. Vulnerable to acidic water, usually from wells. Will corrode if used as a ground for electricity. Copper is the most expensive and challenging pipe to work with.

Chlorinated Polyvinyl Chloride (CPVC). A light, inexpensive, rigid plastic pipe that stands up to acidic water. Joints are chemically welded with solvent. It's about four times cheaper than copper.

Cross-linked Polyethylene (PEX): Plumbers can quickly snake this flexible plastic tubing through walls and even around corners. This makes it easier to retrofit into old houses than other pipe choices, and reduces installation costs by requiring fewer fittings and less labor.

CAST IRON

COPPER

PEX

CPVC

PVC

Waste

Polyvinyl Chloride (PVC): Inexpensive, easy-to-install plastic with solvent-welded joints. If not insulated, it will sound like a rushing river when someone upstairs flushes. Expands and contracts with temperature changes, which can weaken joints. West of the Rockies, most plastic drain pipe is acryaonitrile-butadiene-styrene (ABS).

Cast Iron: So durable, pipe installed in France 400 years ago still works. And cast iron is quiet. Richard says, "I almost always insist on it" where a flush might be heard. Installation is difficult because the pipes are heavy, and the joints are wide. More expensive than PVC.

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DIRECTORY

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PHOTOGRAPH BY KELLEY HAMBY

OUTTAKES
pp. 18-20

Shop-aholics
Tablesaw: 10-inch, 3 hp Unisaw, with 50-inch Biesemeyer fence, $1,700, Delta International Machinery, 800 463-3582, www.deltawoodworking.com
Planer: 12½-inch portable planer, $330, Delta
Drill press: 16 speed, 16½ inch, $390, Delta
Miter saw: 12-inch compound miter saw, $320, Delta
Router table: Industrio Portable, $260, CMT, Greensboro, NC, 910-854-0201, www.cmtusa.com
Step Lightly
Linoleum tile: Marmoleum, Forbo Industries Inc., Hazleton, PA, 800 842-7839

HOUSE CALLS WITH STEVE
pp. 22-26

Architects: Bernhard & Priestley Architecture, Rockport ME, 207 236-7745
Ideas Notebook
Stone Source, New York, NY, 212-979-6400, www.stonesource.com.

ASK NORM
pp. 28-31

Epoxy Mortar: E Poxy Industries, 800-833-3400, www.e-poxy.com
Notching & Boring Guide: Publication A-11 from the Western Wood Products Association, 503-224-3930; www.wwpa.org.
Further reading: Universal Kitchen and Bathroom Planning by Mary Jo Peterson, $69.95, McGraw-Hill, 1998.
Our thanks to: Les Fossel, Restoration Contractor, Alna, ME, 207 586-5680; Don Delp, Restore'n more, Manheim, PA, 717-393-8880

ENHANCEMENTS: WINDOW TRIMMING
pp. 32-34

Architect: Dennis Wedlick, New York City, 212-625-9222.
Window: Marvin Windows and Doors, 800 346-5044, www.marvin.com.
Further Reading: *Traditional Wood work* by Mario Rodriguez, $19.95, Taunton Press, 1998

VINTAGE DOOR KNOBS
pp. 36

Thanks to: The Old House Parts Co., 24 Blue Wave Mall, Kennebunk, ME 04043, 207-985-1999

UPKEEP: MIND THE GUTTER
pp. 38-40

Gutter covers: Elko GuttaGard, 800-331-4273, www.guttagard.com. Gutter Helmet, 888-443-5648, www.gutterhelmet.com. Perm-a-Flow, 614-443-4891, www.permaflow.com.

GROUND WORK: GRACEFUL GRASSES
pp. 42-44

Nursery: Hoffman Nursery, Rougemont, NC, 877 804-0444
Ornamental Grass Usage
Grasses for cold areas:
Helictotrichon sempervirens: Blue oat grass (zones 4-9), stunning blue foliage, specimen or mass plantings; will tolerate shade
Festuca ovina 'Elijah Blue': Blue sheep's fescue (zones 4-9), great ground cover, dense clumps of spiky blue
Carex morrowii 'Variegata': Silver variegated Japanese sedge (zones 5-9); lovely silver edges, good in borders; takes heat and cold, 12 inches tall.

As pragmatic farming gave way to genteel forms of horticulture, such former exiles as bamboo and sugar cane are invited into gardens to enliven things

CHARLES HARRIS

Eragrostis trichodes 'Bend' Sand love grass (zones 5-9), sun loving; five feet tall, pink flowers fade to gold; great in bouquets.
Miscanthus sinensis varieties especially 'Gracillimus', 'Malepartus', 'Morning Light', and 'Purpurascens' (zones 5-9), first three reach 5 to 7 feet, last more compact at 3 to 4 feet; graceful specimen plants or beautiful in borders
Grasses for warmer zones:
Pennisetum alopecuroides 'Moudry' Black flowering pennisetum (zones 6-9), grows three feet in full sun, black seeds displayed on long lasting heads.
Carex hachioensis 'Evergold' Variegated Japanese sedge (zones 7-9), 12 inches tall; great ground cover; grows best in shade, bright yellow stripes
Andropogon ternarius Split beard bluestem (zones 6-9); green purple foliage one to two feet tall, white flower spikes 4 feet tall; good for erosion control
Miscanthus sinensis 'Yaku Jima' (zones 6-9), dwarf miscanthus type perfect for small gardens, 3-4 feet tall, beautiful in autumn
Eranthus ravennae Ravenna grass (zones 6-9) five to seven feet tall, plumes to 15 feet, autumn colors bronze and red, good for screening
Imperata 'Red Baron' Japanese blood grass (zones 6-9), requires full sun to develop red tips, excellent accent plant in borders, 18 inches tall
Acorus gramineus variegatus 'Orgon' Golden variegated Japanese sweer flag

As evidence of how much the rules of gardening have changed, nurseries now cultivate ornamental grasses that once were derided as weeds.

(zones 7-10), shade-loving; grows to 12 inches, bright golden stripes; tolerates moist conditions
Carex buchananii Leatherleaf sage (zones 7-9), green and reddish-brown; 2 feet tall, tolerates partial shade and moisture
Grasses for pots (grow as annuals):
Pennisetum setaceum 'Rubrum' Purple fountain grass, 3 to 4 feet tall, wine-colored leaves, flowers up to one foot long.
Muhlenbergia dumosa Bamboo muhly, dramatic in large pots; six feet tall with ferny foliage, native to SW USA, heat and drought resistant
Saccharum officinarum 'Pele's Smoke' very dramatic dark purple sugar cane, grows to 7 feet, wide blades that rustle in breeze
Cymbopogon citratus 'Lemon Grass' Old World tropical grass used in cooking Thai food; grows 3 to 4 feet tall, loves full sun, heat, water
Pennisetum alopecuroides 'Little Bunny' Miniature fountain grass, one foot tall with small white flowers, can be over watered to zone 6 if protected from splitting
Briza maxima Annual quaking grass, larger flowers than perennial type, flowers appear in summer and tremble gracefully in breezes; changes from green to purple to pale yellow, 18 inches tall; good cut flower
Pennisetum villosum Feathertop fountain grass, grows 18 inches tall, beautiful white brushy blooms, tolerates some shade; great cut flower

TALKING SHOP: ROBO-CROP
pp. 45-47

Mulcher Ryobi Mulchinator, Chandler, AZ, 800-345-8746; www.ryobi.com
Hedge Trimmer: Echo Articulating Hedge Trimmer, Lake Zurich, IL, 847 540 8400; www.echoincorporated.com
Auto Mower: Husqvarna Auto Mower, Charlotte, NC, 704-597-5000, www.husqvarna.com
Power Broom: Shindaiwa Power Broom, Tualatin, OR, 800-521-7733.

BY DESIGN: SHOW-OFFS
pp. 50-52

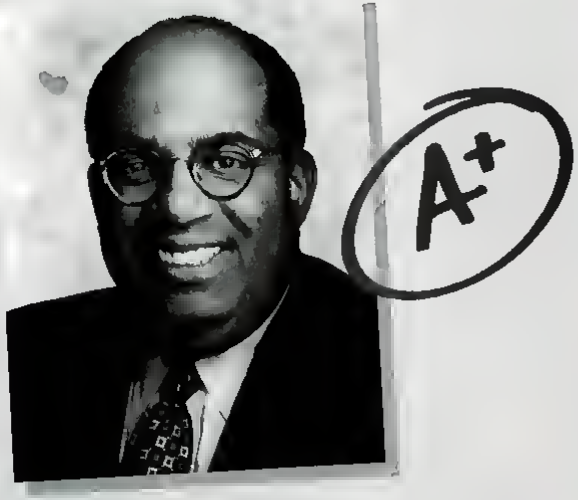
Woodwork: Rimi Woodcraft Corp. Architectural Woodwork, Bronx, NY; 718-824-3900. Charles W. Moore Foundation, Austin, TX; 512-477-4557, www.moorefoundation.org
Architects: Gensler Architecture, New York, NY; 212-492-1400, www.gensler.com. Architecture Design Studio, San Francisco, CA, 415-433-1190

MATERIALS: IRONWORKS
PP. 54-57

Farm bell. Tennessee Fabricating Company, Memphis, TN, $55.70, 800 258 4766

CHARLES HARRIS (TOP); RAY KINNEER

Meet Learning Leader #215



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Fantasy Island

TOH says sayonara to Savannah and weighs anchor in Nantucket

BY JORDAN REED

This Old House, Jr. Norm, TOP LEFT, Steve, TOP RIGHT, and the McGraw Bentley family take a look at a miniature version of the Nantucket project home

Week 7 (March 4–5)

Show host Steve Thomas visits the port of Savannah and gets a bird's eye view of cargo being loaded onto a ship. Back at the project house, Steve and master carpenter Norm Abram study the cedar shutters and watch the heat pump get lifted to the roof. In the kitchen cabinet installer Jimmy Woods shows Steve the maple units, including a built-in wine rack and an undermount runner system. Norm checks up on project manager Mark Fitzpatrick as he removes some sheet metal boxes—meant to discourage birds from nesting under the lintels. Afterward, Norm heads off site to Gulfstream Aerospace, where he sees how a jet plane is made and takes a ride in a brand new aircraft. Steve comments on the porcelain mosaic tile going down in the vestibule. Norm and heart pine specialist Mike McMurry take a look at the finished kitchen floor and they discuss the standing edger used to sand it down and the water based urethane finish.

Watch and learn: Laminating veneer

Resources: Georgia Ports Authority, Port of Savannah, P.O. Box 2406, Savannah, GA 31402, 912-964-3811 or 800-342-8012. Gulfstream Aircraft Inc., 550 Cannon St., Brunswick, GA 31525, 912-267-8300. Wooden shutters, Cobblestone Mill Woodworks Inc., 802 Tom Charles Lane, Canton, GA 30015, 800-691-4597. Heat pump, Trane Corp. Kitchen cabinets, Timberlake Cabinet Co., 3102 Shawnee Dr., Winchester, VA 22610, 4206, 800-366-2483. Cabinet installers, Wilmington Cabinet Co., Box 30100, Savannah, GA 31410, 921-897-2430. Tile supplier, Modern Builders Supply, 116 Central Junction Drive, Savannah, GA 31405, 912-234-8224. Floor finish, Mega Wallenborne Polyurethane, by BonaKemi USA Inc., 14505 East Moncrieff Place, Aurora, CO, 800-872-5515.

Week 6 (March 11–12)

Savannah comes to a close. Home owner Mills Fleming shows Steve the new paint job on the front of the house and gives him a lesson on arming the new security system with a touch tone phone. Mills and Steve chat with blacksmith Johnny Smith as he installs the front balustrade, then they head inside, where lighting designer Cyndee Sessions points out the various chandeliers on the first floor. Norm's off site again, with granite manufacturer Ralph Chapman Jr., who gives him a lesson in Countertop Making 101. Back in the house, Norm shows Steve the dust corners going in on each stair. Later in the day, Savannah Mayor Floyd Adams presents Norm with a key to the city while Mark is busy fixing the front steps with a two part epoxy. Steve and plumbing and heating consultant Richard Trethewey look over the heating and cooling system and hot water heater. Then Richard and home owner Marianne Fleming tour the master bath. All varieties of oyster rule the wrap party as everyone celebrates a job well done.

Watch and learn: The best tools to cut granite

Resources: Putnam Monument, Monterey Square. Inquiries and donations may be directed to: The Sites and Monument Fund, c/o The Savannah Foundation, 428 Bull St., Savannah, GA 31401, 912-238-3206. Preservation consultants, James Wermuth, Conservation Technology Group, Newport, RI, 401-847-1545. Granite countertops, Creative Stone Accessories Inc., Savannah, GA, 912-234-8455. Security system, Caretaker Plus by Interactive Technologies Inc., North St. Paul, MN, 800-777-5484. Electrical contractor: M.L. Sloan Electric Co. Inc., Thunderbolt, GA, 912-352-0110. Chandeliers, World Imports Georgia Lighting, 590 Fourteenth St. NW, Atlanta, GA 30318, 404-875-4754 or 800-282-0220. Lighting design, Ferguson Enterprises Inc., Savannah, GA, 912-234-2211. Appliances, Jenn Air, 800-JENNAIR, www.jennair.com. Concrete repair, Abatron Inc., Kenosha, WI, 800-445-1754, www.abatron.com

Week 1 (March 18–19)

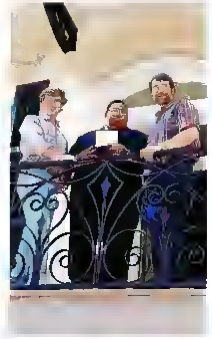
Steve and Norm travel by steamship to Nantucket Island where they visit Norm's first contracting job. Designer Jock Gifford takes them on an architectural tour of Main Street, then shows them the new project house, an 1887 Victorian. A brief walk around the property reveals peeling paint and a poorly placed tree but also a spacious backyard and an old chicken coop. Inside, there's a tight front hall, a sagging floor in the front room, plenty of unfinished wood, and only one bathroom. Norm persuades general contractor Bruce Killam to sign on while Steve meets home owners Craig and Kathy McGraw-Bentley who went a new kitchen and bath and have a budget of $200,000.

Watch and learn: The geography of Nantucket

Resources: Ferry: Woods Hole, Martha's Vineyard & Nantucket Steamship Authority, 509 Falmouth Road, Suite 1C, Mashpee, MA 02649. Project designer: Jock Gifford Design Associates, 432 Columbia St., Cambridge, MA 02141, 617-661-9062 or 1 Main St., Nantucket, MA 02554, 508-228-4342. General contractor: Bruce Killam/Death and Resurrection Company, 364 Cliff Road, Nantucket, MA 02554, 508-228-0551. Historic research: Nantucket Historical Association, Box 1016, Nantucket, MA 02554-1016, 508-228-1655 or 508-228-1894.

Week 2 (March 25–26)

Steve, Jock, and the Bentleys review the proposed changes for the house, including a widened front door stoop, leaded glass window, master bedroom/family room addition, utilities, new entryway, new kitchen, and two new baths. But construction cannot begin until the plans are approved by the Nantucket District Historical Commission, so Steve meets chairman Mark Avery to get his take on the selection process. Meanwhile, Norm and Jock photograph neighborhood Victorians to give the commission additional ideas on where the project is headed. Richard examines the home's systems, then explores Nantucket's heating methods throughout history.



Politically correct: Savannah Mayor Floyd Adams, CENTER, on hand during the last day at the project house, presents TOH with a key to the city.

Watch and learn: How mainland gas gets to the island

Resources: Tile Contractor: David Goodman, 508-228-4325. Historic district commission, 508-228-7231, www.hdc@nantucket.net. Systems consultant: Richard Trethewey, Radiant Systems Technology Inc., 781-320-9910.

PHOTOS: COURTESY OF WGBH

Circular grill: Tennessee Fabricating Company, Memphis, TN, $39, 800-258-4766

Adelaide grate: Chimney Savers, Belle Mead, NJ, $3,000, 908-359-7798

Custom fencing, gates, and posts: Architectural Iron Company, Milford, PA, 800-442-4766

Foundries: Historical Arts and Casting, West Jordan, UT, 801-280-2400. Robinson Iron, Alexander City, AL, 256-329-8486. John Campbell, Brookfield WI, 262-790-2670. Iron Casting Research Institute, Columbus, OH, 614-275-4201, www.ironcasting.com

Further reading: *Ornamental Ironwork: An Illustrated Guide to Its Design, History and Use in American Architecture*, by Susan and Michael Southworth, McGraw Hill, 1992

FINANCES: LOOKING FOR TROUBLE
pp. 88-90

Consumer Home Inspection Kit: Publication Number 206 available at www.freddiemac.com

National Association of Home Inspectors, 800-448-3942, www.nahi.org

American Society of Home Inspectors, 800-743-2744, www.ashi.com

Better Business Bureau: www.bbb.org.

TECHNOLOGY: THE IN-TOUCHABLES
pp. 62-84

Palm-sized computer: Jordano 430se, Hewlett Packard, $499, 800-826-4111; www.hp.com

Pagers: PageWriter 2000X, Motorola, $399, 800-548-9954, www.motorola.com/smartpager.

Blackberry Wireless e-mail, Research in Motion, $399, 877-255-2377; www.blackberry.net

Cell phones: pdQ Smartphone, Qualcomm, $800, 800-349-4478; www.qualcomm.com. 7160 Webphone, Nokia, Price to be determined, 800-666-5553, www.nokia.com

SILVA SOLUTIONS: LET IT BREATHE
pp. 88-70

Fan: Lomanco Ventilation, 2101 West Main, Jacksonville, AR 72076, 800-643-5596, 2000 series $80

Air Exchanger: Energy Federation Inc.; 800-876-0660, $762-$1400

TRANSFORMATIONS: MONTANA MAKEOVER
pp. 74-78

Architect: Adler Architects, Inc.; 406-459-4816, adler@bigsky.net

THE DETAILS: TOUJOURS, L'ARMOIRE
pp. 78-82

Hickory Chair: Bennett armoire by Thomas O'Brien, 800-349-4579, www.hickorychair.com

Red Egg Resources: Chinese wedding cabinet, 530-343-6688

City Joinery: Armoire in black walnut, flame birch, and brushed aluminum, 718-596-6502; www.cityjoinery.com

Baker Furniture: Armoire style #3406 by Barbara Barry, 800-592-2537, www.bakerfurniture.com

Country Gear, Ltd.: Armoire craftsman, 516-537-1032

LETTER FROM T.O.H.
P. 8E

Contractor: Art Tibbetts, 207-596-3840

SILLERICA TOP FLOOR
pp. 88-90

Contractor: Hunt Hardwood Floors, Inc., 19 Curve Street, Lexington, MA 02420, 781-862-3559

Flooring: Wilson Woodworks, PO Box 273, Stafford, 06075, 800-545-1861

Borders: Historic Floors of Oshkosh, 911 E. Main St., Winneconne, WI 54986, 920-582-9977.

Wood Care Information: National Wood Flooring Association, 800-422-4556, www.woodfloors.org.

ARTS & CRAFTS PROJECT
pp. 92-93

Architect: Jerry Zimmer, Architects West, Santa Barbara, CA; 805-966-7141

Contractor: Steve Crawford, Carpinteria, CA, 805-566-0663

Further reading: *Greene & Greene | The Passion and the Legacy* by Randell L. Makinson, Gibbs Smith Publisher, 1998

The Bungalow... America's Arts and Crafts Home by Paul Duchscherer, Douglas Keister, Penguin USA, 1996

THE LITTLE HOUSE THAT COULD
pp. 102-111

Float-In flooring system: Kahrs, 800-800-5247, www.kahrs.com

Tabletop accessories for kitchen and dining room: Crate & Barrel, 800-996-9960

A STROLL THROUGH PARK SLOPE
PP. 112-118

Prospect Park information: Prospect Park Alliance, 718-965-8951, www.prospectpark.org

In-line skate rentals and instruction: Take a lesson and then enjoy a loop or two around Vaux and Olmstead's masterpiece Third Street Skate Company, Seventh Avenue and Third Street, 718-768-9500

Zoo: Prospect Park Wildlife Center, 450 Flatbush Avenue, Brooklyn, NY 11225, 718-399-7339

Museum: Brooklyn Museum of Art, 200 Eastern Parkway, Brooklyn, NY 11238, 718-638-5000, www.brooklynart.org

Performance: Celebrate Brooklyn Performing Arts Festival at the Prospect Park bandshell, concerts summer long

Entrance at Ninth Street and Prospect Park West, 718-855-7882, www.brooklynx.org

Bookstores: Community Bookstore and Cafe, 143 Seventh Avenue between Carroll and Garfield Streets, 718-783-3075

Booklink, 99 Seventh Avenue, 718-783-6067. Barnes & Noble, 267 Seventh Avenue at Sixth Street; 718-832-9066.

Used Books: Last Exit, 447 Sixth Avenue, 718-788-6878

Crafts and jewelry: The Clay Pot started as an urban pottery studio in 1969, and since then has developed a national reputation for fine crafts and jewelry. 162 Seventh Avenue between Garfield and First Street, 718-788-6564, www.clay-pot.com

Women's clothing: The Bird, 430 Seventh Avenue, 718-768-4940

Toys: Brooklyn's Best Book & Toy Store, 92 Seventh Avenue, between Union and Berkeley, 718-636-9266

Further reading: *Brooklyn's Park Slope. A Photographic Retrospective*, by Brian Merlis and Lee A. Rosenzweig, Israelowitz Publishing, 1999.

Brooklyn's Best | Sightseeing, Shopping, Eating, and Happy Wandering in the Borough of Kings, by Alfred Gingold, Helen Rogan, 1998, City & Co.

The Neighborhoods of Brooklyn, edited by John B. Manbeck, 1998 Yale University Press

THE POSTER: A PLUMBING PRIMER
pp. 121

Further reading: *Plumbing a House*, by Peter Hemp, $29.95, Taunton Press, 1994. *How a House Works*, by Duane Johnson, $14.95, Reader's Digest Association, 1994

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PASM Mon. 1 p.m.,
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● PTEN Sun. 6:30 a.m.
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FAIRBANKS
● UAK, 1st p.m., Sat. 8 a.m.
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KTOO, Fri. 1 p.m., Sat. p.m.
● KJUE Sun. 5:30 a.m.,
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ARIZONA

PHOENIX
KAET Thu. 2 p.m. and 3:30 p.m.,
Sat. 9 a.m. and 5 p.m.
● KNAZ, Sun. 10 a.m.

TUCSON
KUAT, Sat. 11 a.m. and 6:30 p.m.
● KTTU Sat. 8:30 a.m.

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PETG, Sat. 9 a.m. and 12:30 p.m.

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● KHVI Sat. 5 a.m.

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● KBCR, Sun. 5 p.m.

EUREKA
KHBT Mon. 1:30 p.m.
● KAEF Sun. 5 p.m.

FRESNO
● KFSN, Sat. 5 a.m.
KVPT Tue. 5 p.m. Sat. 6:30 a.m.

HUNTINGTON BEACH
KOCE Tues 9 p.m. Sat. 4:30 p.m.

LOS ANGELES
KCET Sat. 3:30 p.m.
● KABC Sun. 5:30 a.m.

PALM SPRINGS
● KPSP Sun. 8 a.m.

REDDING
● KCVU Sun. 10:30 a.m.

SAN FRANCISCO
KQED, Sat. 3 p.m.
● KPIX, Sun. 11 a.m.

SAN JOSE
KTEH, Sat. 2 p.m.,
Sun. 9:30 a.m.

SAN MATEO
KCSM Tues. 9:30 p.m.,
Sun. 10 a.m.

SANTA BARBARA
● KEYT Sun. 1 a.m.

COLORADO

BOULDER
BIDI Tue. 1 p.m., Wed. 8:30 a.m.
and 3:30 p.m., Sat. 5:30 p.m.

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

DENVER
PBMA Sun. 1:30 p.m., Sat. 2 p.m.
● PCNC, Sun. 1:30 a.m.

GRAND JUNCTION
● KJCT Sun. 11:30 a.m.

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

CONNECTICUT

FAIRFIELD
● EBW, Sun. 10:30 a.m., Thu.
11:30 p.m. Fri. noon, Sat. 7 p.m.

HARTFORD
WEDH Sun. 10:30 a.m., Thu.
1:30 p.m., Fri. noon, Sat. 7 p.m.
● WFSB, Fri. 1 a.m.

NEW HAVEN
WEDY Sun. 10:30 a.m., Thu.
11:30 p.m., Fri. noon, Sat. 7 p.m.

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

DISTRICT OF COLUMBIA

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

FLORIDA

DAYTONA SPRINGS
● WCEU, Sun. 1 p.m., Sat. noon,
12:30 p.m. and 1:30 p.m.

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

FORT MYERS
● WFVU Sat. 8:30 a.m.

GAINESVILLE
WUFT Sa. 9:30 a.m.
and 1:30 p.m.

JACKSONVILLE
● WJXT, Sat. 6 a.m.
WJCT Sat. noon

OCALA
WUFM, Sun. 10 a.m.
WFET Sat. noon
● WCJL, Sat. 4:30 a.m.

ORLANDO
● WBCF Sat. 1:30 a.m.
WMFE Sun. 7 p.m.,
Sat. 8 a.m. and 3 p.m.

PENSACOLA
WSRE, Sat. 12:30 p.m.
and 8 p.m.

SARASOTA
● WWSB, Sun. 11:30 a.m.

TALLAHASSEE
WFSU Sat. 1:30 p.m.
and 8 p.m.

TAMPA
WEDU, Sun. 7 p.m.,
Sat. 11:30 a.m.
WUSF Sun. 1:30 p.m., Wed. 9 p.m.
● WTVH, Sun. 11:30 a.m.
● WMOR, Sat. 8 a.m.

WEST PALM BEACH
● WPTV Sat. 9 a.m.

GEORGIA

ALBANY
● WGVP Sun., 8 a.m., Tue. 9 a.m.

ATLANTA
● GTV Sun. 11 a.m.
Sat. 5:30 p.m.
WPBA, Mon. 8 p.m. Wed. 2 p.m.
Sat. 8 p.m.
● WXIA, Sat. 2 a.m.

AUGUSTA
● WRDW Sat. 8:30 a.m.

COLUMBUS
KTEH, Sat. 2 p.m.,
Sun 9:30 p.m.

EASTSMONTH
WCLP Sun. 11 a.m.,
Sat. 5:30 p.m.

MACON
WMCO, Sun. 11 a.m.,
Sat. 1:30 p.m.

SAVANNAH
WVAN, Sun. 11 a.m.,
Sat. 2:30 p.m.

VALDOSTA
WGSR Sun. 11 a.m.,
Sat. 2:30 p.m.

WATKINSVILLE
WACS, Sun. 11 a.m.,
Sat. 1:30 p.m.

WAYCROSS
WXGC, Sun. 11 a.m.,
Sat. 1:30 p.m.

HAWAII

HONOLULU
KHET, Sat. 6:30 a.m.
● HNL, Sat. 5 a.m.

WAILUKU
KMEB, Sat. 1:30 a.m.

IDAHO

BOISE
● AHI, Sun. 4:30 p.m.
● KTRV Sun. 9:30 a.m.

COEUR D'ALENE
● KCDT Sat. 5:30 p.m.

MOSCOW
PBTD Sun. 3:30 p.m.

POCATELLO
KISU, Sun. 9:30 p.m.

TWIN FALLS
● IPT Sat. 1:30 p.m.

ILLINOIS

CARBONDALE
WSIU, Thu. 1 p.m.,
Fri. 12:30 p.m., Sat. 12:30 p.m.

CHAMPAIGN/URBANA
● WAND, Sat. 3 a.m.
WILL Sun. 2:30 p.m.
Thu. 7:11 p.m.

CHARLESTON
WEIU, Fri. 3 p.m.

CHICAGO
WTTW, Tue. 1:30 p.m.,
Thu. 1:30 a.m.,
Thu. 1:30 p.m.

JACKSONVILLE
WSEC, Sun. 1:30 p.m.,
Thu. 1:0 p.m.

MACOMB
● WIEC, Sat. 1:30 p.m.,
Thu. 1:0 p.m.

MOLINE
WQPT Tue. 7 p.m., Sat. 5:30 p.m.

OLNEY
WUSI Thu. 2 p.m.,
Fri. 12:30 p.m. Sat. 12:30 p.m.

QUINCY
WQEC, Sun. 1:30 p.m.,
Thu. 1:0 p.m.

ROCKFORD
● WTVO, Sat. 6:30 p.m.

SPRINGFIELD
● WICS Sat. 7:30 a.m.

INDIANA

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

EVANSVILLE
WNIN, Sun. 7:30 p.m.,
Sat. 11:30 p.m. and 6 p.m.
● WFIE, Sun. 7 a.m.

FORT WAYNE
WFWA Sat. 10 a.m.

INDIANAPOLIS
WFYI, Sun. 6 p.m., Sat. 10 a.m.
● WTHR Sat. 7:30 a.m.

MERRILLVILLE
WYIN, Tue. 3:30 p.m.
Thu. 7 p.m.

MUNCIE
● PBS Sun. 5:30 p.m.

NEW ALBANY
WEOH Sun. 3 p.m.

PADUCAH
WKPD, Sun. 3 p.m.
● WTVW, Sun. 7 a.m.
Sat. 1 a.m.

PORTVILLE
● KPL, Sun. 3 p.m.

SOMERSET
WKSO Tue. 5 p.m.

LOUISIANA

ALEXANDRIA
PEPA, Tue. 10 a.m.

BATON ROUGE
PEPA, Sun. 7 p.m.
● WBRZ Sun. 2:30 p.m.

LAFAYETTE
PEPA Sun. 10 a.m.

LAKE CHARLES
PETI Sun. 10 a.m.

MONROE
PETM Tue. 10 a.m.
● KMOE, Sun. 8 a.m.

MORGAN CITY
● CMU Sat. 2:30 p.m.

NATCHITOCHES
● WNTV Sun. 10:30 a.m.

PINEVILLE/ALEXN
WLCM, Sun. 3 p.m.,
Tue. 1:30 p.m.

MINNESOTA

APPLETON
PSMN, Thu. 7 p.m.
Sat. 12:30 p.m.
KWCM Thu. 7 p.m.
Sat. 12:30 p.m.

AUSTIN
KSMQ, Thu. 7 p.m.,
Sat. 12:30 p.m.,

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

DULUTH
WDSE, Sun. 9:30 a.m.,
Sat. 7:30 p.m.

ROCHESTER
● PBS Sun. 8 a.m.

MINNEAPOLIS/ST. PAUL
KTCA Wed. 7:30 p.m.,
Sat. 9:30 p.m.
● KSTP Sat. 9:30 a.m.

MISSISSIPPI

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

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

BOOK
WMAU Sat. 6:30 p.m.

COLUMBUS/TUPELO
● WCPB Sat. 1:30 a.m.

GREENWOOD
WMAO, Sat. 6:30 p.m.
● WXVT Sat. 9 a.m.

JACKSON
WMPN Sat. 8:30 a.m.

MERIDIAN
WMAW Sat. 6:30 p.m.

MISSISSIPPI STATE
WMPB, Sat. 6:30 p.m.

OXFORD
WMPV Sat. 8:30 p.m.

MISSOURI

COLUMBIA
● KMIZ, Sat. 1 p.m.

KANSAS CITY
KCPT Sun. 1:30 p.m.
● KPC, Sun. 5 p.m.
● WAVE, Sat. 9:30 a.m.

MARSHFIELD
WGMA, Sat. 5 p.m.

MORBERLY
WGSB, Sun. 5 p.m.

MURRAY
WKMU, Sun. 5 p.m.

SPRINGFIELD
WKOH Sat. 7 p.m.

STERLING
WKOH Sat. 7 p.m.

ST. LOUIS
WRAN Sat. 5 p.m.,
Thu 9 p.m. Sat. 1:30 p.m.

FLINT
WFUM Thu. 9:30 p.m.,
Sat. 1:30 p.m.

GRAND RAPIDS
WGVU Thu. 8:30 p.m.
Sat. 11 a.m.

HOUGHTON
WNMU Sun. 1 p.m.

IRON MOUNTAIN
WICD, Sun. 2:30 p.m.

KALAMAZOO
WGVK, Thu. 1:30 p.m.,
Sat. 7 p.m.

LANSING
● WLX Sat. 7 a.m.

MARQUETTE
● NMU Sat. 1:30 p.m.
● WBKP Sun. 9 a.m.

MOUNT PLEASANT
● CMU Sat. 2:30 p.m.

TRAVERSE CITY
● WTTV Sun. 10:30 a.m.

UNIVERSITY CENTER
WUCM, Sun. 3 p.m.,
Tue. 1:30 p.m.

MINNESOTA

APPLETON
PSMN, Thu. 7 p.m.
Sat. 12:30 p.m.
KWCM Thu. 7 p.m.
Sat. 12:30 p.m.

AUSTIN
KSMQ, Thu. 7 p.m.,
Sat. 12:30 p.m.,

DUNDAS
KAWE, Thu. 7:30 p.m.,
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ST. LOUIS
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Thu 9 p.m. Sat. 1:30 p.m.

MICHIGAN

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WFUM Thu. 9:30 p.m.,
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● WBKP Sun. 9 a.m.

MOUNT PLEASANT
● CMU Sat. 2:30 p.m.

TRAVERSE CITY
● WTTV Sun. 10:30 a.m.

UNIVERSITY CENTER
WUCM, Sun. 3 p.m.,
Tue. 1:30 p.m.

NEBRASKA

ALLIANCE
NETV Sat. 1:30 p.m. and 6:30 p.m.

BASSETT
NETV Sat. 1 a.m. and 1:30 p.m.

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

LEXINGTON
NETV Sat. 1 a.m. and 1:30 p.m.

LINCOLN
NETV Sat. 10 a.m. and 1:30 p.m.
● PBS, Sat. 5 a.m.

MERRIMAN
NETV Sat. 10 a.m. and 1:30 p.m.

NORFOLK
NETV Sat. 10 a.m. and 3:30 p.m.

NORTH PLATTE
NETV Sat. 10 a.m. and 3:30 p.m.

OMAHA
● WNET
NETV Sat. 10 a.m. and 3:30 p.m.

NEVADA

LAS VEGAS
● TV Sun 7 p.m.
Sat 9 a.m. and 12:30 p.m.
● KTNV Sun 9:30 a.m.

RENO
● KRNV
KNPB, Sun 1 p.m.
Sat 10-10 a.m.
● PBS Sun 1 a.m.

NEW HAMPSHIRE

DURHAM
WUNH Sun 1 a.m.
Thu 8:30 p.m.

KEENE
WEIV Sun 1 a.m.
Thu 1:30 p.m.

LITTLETON
WEIL, Sun 10 a.m.
Thu 7:30 p.m.

OSSIPEE
● WMUR Sun 10 a.m.

NEW JERSEY

CAMDEN
WNJS Sun 11 p.m.
Thu 8:30 p.m. Sat 1 p.m.

MONTCLAIR
WNJN Sun 1:30 p.m.
T u 8:30 p.m. Sat 1 p.m.

NEW BRUNSWICK
WNJP Sun 1:30 p.m.
Tue 8:30 p.m. Sat 8 p.m.

NEWARK
WNET Sun 9:30 p.m.
Thu 8 p.m. Sat 8 p.m.

NEW MEXICO

ALBUQUERQUE
PNM Sat 7 a.m. and 8 a.m.
Thu 7:30 p.m.
● KOB, Sun 8:30 a.m.

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

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

NEW YORK

ALBANY
● WCAP Sun 8:30 a.m.

BINGHAMTON
WSKG Sun 7 p.m., Sat 8 a.m.
● WIVT/WBGH Sun 10:30 a.m.

BUFFALO
● WNED, Sun. 6 p.m.
WNED Sat 10:30 a.m.
and 8 p.m.
WNGO, Wed 9 p.m.

ELMIRA
● WSKG Sun 1:30 a.m.

LONG ISLAND
WLIW Sun 5 p.m., Sat 11:30
a.m.

NEW YORK CITY
WNET Sat 1:30 p.m.
● WCBS, Sun 7:30 a.m.

PENNYPOND
WNPI 10:30 a.m.

PLATTSBURGH
● CFE Sun 11:30 a.m.

ROCHESTER
WXXI, Sun 1:30 p.m.
Sat 10:30 a.m.
● WHEC, Sun. 9 a.m.

SCHENECTADY
WMHT Sat. 10:30 a.m.

SYRACUSE
WCNY Sat. 10:30 a.m.

WATERTOWN
WNH Sat 9:30 a.m.

NORTH CAROLINA

ASHEVILLE
WUNF Sun 9 a.m., Sat 5:30 p.m.

CHAPEL HILL
WUNC Sun 8 p.m., Sat. 5:30
p.m.

CHARLOTTE
● WAXN Sat. 12:30 p.m.
● WSOC, Sat 9:30 a.m.
WTVI, Sun. 10:30 a.m., Sat. 3
p.m.

COLUMBIA
WUNU Thu 8 p.m., Sat 4:30
p.m.

DURHAM
WUNC, Sat. 5:30 p.m.
Sun 9 a.m.

GREENSBORO
● WUNG Sun 8 p.m., 10:30 p.m.

GREENVILLE/NEW BERN
● WITN Sun 5 p.m.

GREENVILLE/SPARTANBURG
● WLOS Sat 7 a.m.

JACKSONVILLE
WUNJ, Sat 8 a.m. Sat 5:30
p.m.

LINVILLE
WUNI Sun 9 a.m., Sat. 6:30 p.m.

LUMBERTON
WUNU Tue 9 a.m., Sat. 5:30
p.m.

OCEANSIDE RAPIDS
WUNT Sat 8 a.m. Sun 1:30 p.m.

WILMINGTON
WUNJ Sat 8 a.m. Sat 5:30 p.m.

WINSTON-SALEM
WUNG Sun 8 a.m. Sat 1:30 p.m.

NORTH DAKOTA

FINANCE
PPTH Thu 7 p.m., Sat. 7 p.m.

HICKSTON
PTHI Thu 5 p.m. Sat. 8 p.m.

ELLENDALE
● IR Thu 5 p.m. Sat 7 p.m.

FARGO
● DTV Thu 7 p.m. Sat 7 p.m.
● WDAY Sat 9 a.m.

GRAND FORKS
PTFI Thu 7 p.m. Sat. 8 p.m.

MINOT
KSRE, Thu 5 p.m., Sat 7 p.m.
● PTMY Sun 9 a.m.

WILLISTON
● WSE Thu 7 p.m. Sat 8 p.m.

OHIO

AKRON
WEAO Sun 10 a.m. and 8 p.m.
Sat 1 p.m. and 8 p.m.

ATHENS
WOUB, 8 p.m.

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

CAMBRIDGE
● IAOU Sun 1 p.m.

CINCINNATI
WCET Thu 1 p.m.
Sat 11 a.m. and 6 p.m.
● WCPO Sat 1:30 a.m.
WQUE Sat 8 p.m.

DAYTON
WPTD Thu 7 p.m.
Sat 1 p.m. and 11:30 p.m.

UNIVERSITY HTS
WPSX Sun 6:30 p.m.
Sat 8 a.m. and 4:30 p.m.

WILMINGTON
● WLWT, Sun 8:30 a.m.

RHODE ISLAND

PROVIDENCE
WSBE 5 a.m.-6:30 a.m. Mon. 7:30
p.m.
● WJAR Sat 6:30 a.m.

SOUTH CAROLINA

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

BEAUFORT
WJWJ Sun. 4:30 p.m.

CHARLESTON
● WCSC, Sun 5:30 a.m.
WITV Sat 11:30 a.m.

COLUMBIA
● WLTX Sun/Sat 1:30 a.m
WIS Sat 1:30 p.m.

FLORENCE
WJPM Sat 1:30 a.m.

GREENVILLE
WNTV Sat. 1:30 p.m.

GREENWOOD
WNEH, Sat. 1:30 p.m.

HOLLY HILL
WJSC, Sat. 1:30 p.m.

SPARTANBURG
WRET Sat. 1:30 p.m.

SUMTER
● PJA, 1:30 p.m.

SOUTH DAKOTA

ABERDEEN
PDSD Mon. 1:30 p.m. Sat P
p.m.

BROOKINGS
PSD Mon 11:30 p.m. Sat 4
p.m.

EAGLE BUTTE
KMSD Mon. 11:30 p.m. Sat. P
p.m.

HOWRY
KQSD Mon 11:30 p.m. Sat P
p.m.

MARTIN
KOSD Mon 11:30 p.m. Sat P
p.m.

MITCHELL
KTSD Mon 11:30 p.m., Sat P
p.m.

RAPID CITY
KBHE, Mon. 11:30 p.m. Sat P
p.m.
● KCLS, Sat 1 p.m.

ROSLYN FALLS
● KDN, Mon. 11:30 p.m., Sat 4
p.m.
● KTTW Sat P.m.

VERMILLION
PHSD, Mon. 11:30 p.m. Sat P
p.m.

TENNESSEE

CHATTANOOGA
● WNNE Sat. 11:30 a.m.
WTLJ Sat. 1:30 p.m.

COOKEVILLE
WCTP Sat 12:30 p.m.

KNOXVILLE
WKOP Sat 1:30 p.m.
WSJK Sat 1:30 p.m.
● WATE Sat 6 a.m.

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

MEMPHIS
WKNO Thu. 1 p.m.
Sat. 1:30 p.m.
● WTVF Sat 1:30 a.m.

NASHVILLE
● WNPT Sat 6:30 a.m.
● WSMV, Sat. 8 a.m.

TRI-CITIES
● WABK, Sat 10:30 a.m.

TEXAS

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

AUSTIN
PLBU, Sat. 6:30 a.m.
N KTBC, Sat 6:30 a.m.

BEAUMONT
● KBMT Sun 11:30 a.m.

COLLEGE STATION
KAMU, Mon 10 p.m., Wed 3
p.m. Fri 11:30 p.m.

CORPUS CHRISTI
PBJT Sat 12:10 p.m. 8 p.m.

DALLAS/FORT WORTH
PEPA Sun 8 p.m., 6:30 p.m.
● KDFI, Sat 10:30 a.m.
● PDFW

EL PASO
PCEH Sun 3 p.m.

HARLINGEN
PPBH, Sat. 12:30 p.m.
● PVEG Sat. 6 a.m.

HOUSTON
KUHT Sun 11:30 a.m.
● KTRU, Sun 9:30 a.m.

KILLEEN
KNCT Sun 9:30 a.m.,
Sat 12:30 p.m.

LUBBOCK
PTXT Thu noon,
Sat. 12:30 p.m.

ODESSA
PWET Sun. 2:30 p.m.

ORANGE
● KLJN Thu 8:10 p.m.
Sat 1:30 p.m.

SAN ANTONIO
● KLRN Thu 1:30 a.m., P a.m
and 2 p.m.

TYLER
● PLFN Sat 9 a.m.

WACO
KCTF, Mon. 12:30 p.m.
Sat 6:30 p.m.

UTAH

PROVO
KBYU Sat. P 30 a.m. and 2 p.m.

SALT LAKE CITY
PULU Sun P a.m. and 1 p.m.
● KTVX Sun 12:30 p.m.

VERMONT

BURLINGTON
WETK, Thu 8 p.m.
Sat. 11 a.m.
● WCAX Sun 8:30 p.m.

BUTLAND
WVTA, Thu 8 p.m.,
Sat. 11 a.m.

ST JOHNSBURY
WVTB Thu 1 p.m.
Sat. 11 a.m.

VIRGINIA

CHARLOTTESVILLE
WHTJ Sa 11:30 a.m.

FALLS CHURCH
WNVT Sat 2:30 p.m.

HARRISONBURG
WVPT Sat 1:30 p.m.
WVBV Sat 5:30 p.m.

MARION
● WBYJ Sat 1:30 p.m.

NEWPORT
WI RH Sun 8:30 a.m. and 2 p.m.
● WWLI Sat P.m.

PORTSMOUTH
WSKH Sat 1:30 p.m.

RICHMOND
WCVE Sat 8:30 a.m.
WCVW 1 11:30 p.m.
● WTVR, Sun 9:30 a.m.

ROANOKE
WBRA Sat 1:30 p.m.
● WSLS Sun 8 a.m. Sat 2 a.m.

WASHINGTON

FERNDALE
● KCTS Thu 7 p.m.
Sat. 12:30 p.m. and 11:30 p.m.

POLLMAN
PWSU Mon. 6:30 p.m.,
Wed. 9:30 p.m., Sat. 3 p.m.

RICHLAND
● TNW Sun 4:30 p.m.,
Thu 3 p.m. Sa 2 p.m.

SEATTLE
KCTS, Sun 3 p.m.
● KING

SPOKANE
KSPS, Sun 5:30 p.m.,
Sat 9:30 a.m.
● KNLY Tue 10:30 a.m.

TACOMA
PBTC Thu 3 p.m.,
Sat 12:30 p.m. and 5:30 p.m.

YAKIMA
KYVE, Sun 5 p.m.
● IAT Sat 7 a.m.

WEST VIRGINIA

BECKLEY
WSWP Sat. 1:30 p.m.

BLUEFIELD
● WOPY

CHARLESTON
● WOWP Sun. 1 a.m.

CLARKSBURG
● WPCB Sun 11:30 a.m., P a.m

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

MORGANTOWN
WNPB Sat 10 p.m.

WISCONSIN

GREEN BAY
WPNE Sun 8 p.m.
Wed. 1:30 p.m.
● WFRV Sun 11 a.m.

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

MADISON
WHA Sun. P p.m.
Wed. 7:30 p.m.
● WMTV Sun. 8:30 a.m.

MENOMONIE
WHWC, Sun. P p.m.,
Wed. 7 P p.m.

MILWAUKEE
WMVI Thu 7:30 p.m.,
Sat P a.m.
● WITI Sat. 6:30 p.m.

PORT EDWARDS
WLEF Sun. P p.m.,
Wed. 7:30 p.m.

WAUSAU
WHRM 1 a.m. 6 p.m.,
Wed. 7 P p.m.
● WSAW Sun 11:30 a.m.

WYOMING

RIVERTON
KCWC, Sat. 3 p.m.

● *CHECK YOUR LOCAL LISTINGS.*

We almost threw away a piece of history!

"We bought a house a few years ago that needed some cleaning out. As we were fixing it up, we came across a pile of debris in one of the bedrooms. We were carrying a bunch of items to the trash, and we noticed this sampler in the pile.

Upon closer inspection, we saw that it depicted the story of the Prodigal Son. We thought it was a neat message, plus we figured we might be able to use the frame. So we took it out of the trash and kept it.

Antiques Roadshow appraised the sampler at $25,000–$30,000.

We shudder to think what we did throw away!"

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Part history lesson.
Part treasure hunt.

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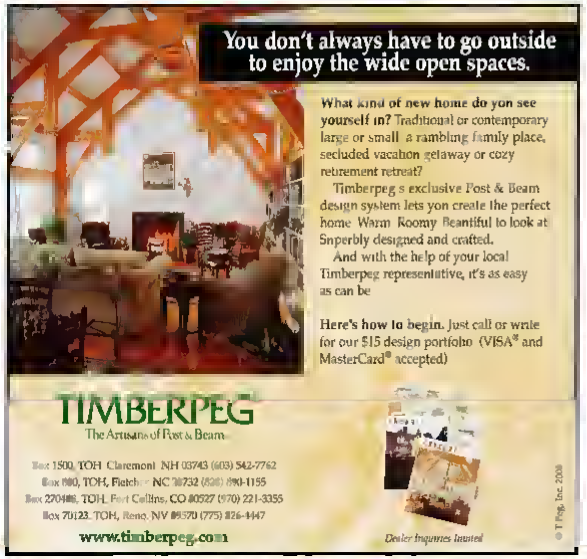
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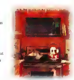
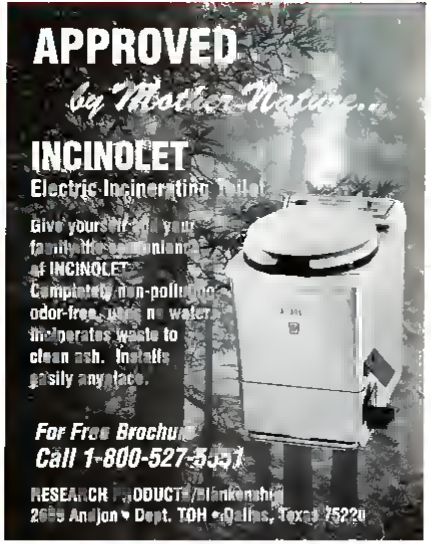
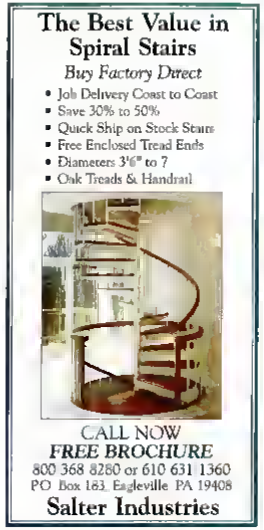
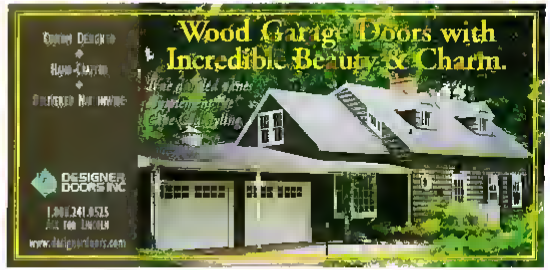

SEARS


YUKON XL







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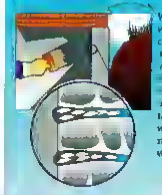
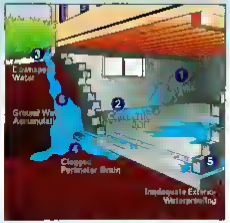
hi-dry

concrete waterproofing made easy by crystallization



When applied to wet or damp concrete the active ingredients in Hi-Dry penetrate deep into the pores, producing a crystalline formation which seals the structure against water seepage



CAUSES OF WATER SEEPAGE

- Can be applied on the inside against water seepage
- Non-toxic. Contains no dangerous chemicals.
- Becomes an integral permanent part of concrete.
- Will never blister and peel
- Does not produce harmful vapors.
- Protects concrete against the deterioration caused by water seepage.

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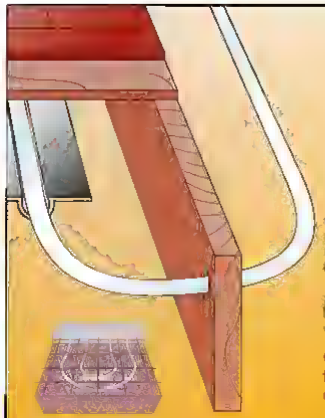

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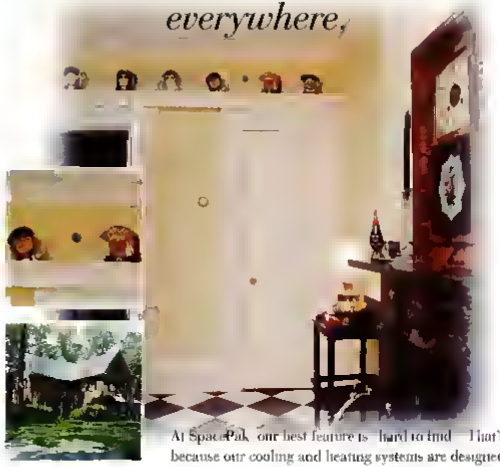

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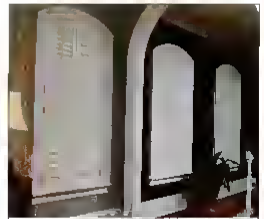

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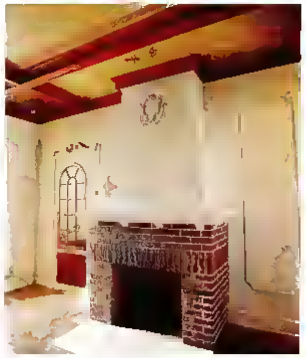
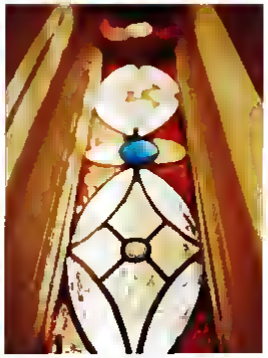
Built in the 1780s as a tavern/inn, the three story, 4,230-square-foot Hayden House was converted into a single family home in Gothic Revival style by *Insurance Journal of New York* editor Henry Rogers Hayden in 1872. The house underwent some cosmetic changes in the 1920s, when ceilings and walls were embellished with artistic murals and Arcadian designs, and a fountain niche was added to the enclosed porch. The gabled roof features elaborate gingerbread, the siding is clapboard, the foundation walls are stone and brick. Many of the windows are 6-over-6, installed in pairs, some of the smaller windows are 6-over-1. The second and third stories were carved up to create multiple apartments, so the interiors will require a fair amount of work to return the structure to its former single family status. Surrounded by commercial buildings, Hayden House stands in the way of a city-approved parking lot, it will have to be relocated before October to avoid the wrecking ball. A local developer is offering up to $25,000 of the estimated $85,000 cost to anyone who is willing to move the house. Renovations could run as high as $300,000.

CONTACT
Mary Martin
Grants Administrator
Town of East Hartford
740 Main Street
East Hartford, CT 06108
860-291-7209





TOP: *When the Hayden House served as a tavern/inn, revelers imbibed brandy for a whopping four cents per glass.* BOTTOM LEFT: *The fireplace mantel and Colonial Revival–style built-in china cabinet in the parlor were probably added in the 1920s, as was the stained glass that surrounds the door on the covered sun porch.* (BOTTOM RIGHT).

PHOTOS: KOLIN SMITH

If you know of a house that should be saved, please write to: Save This Old House, 1180 Avenue of the Americas, 27th floor, New York, NY 10036.

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