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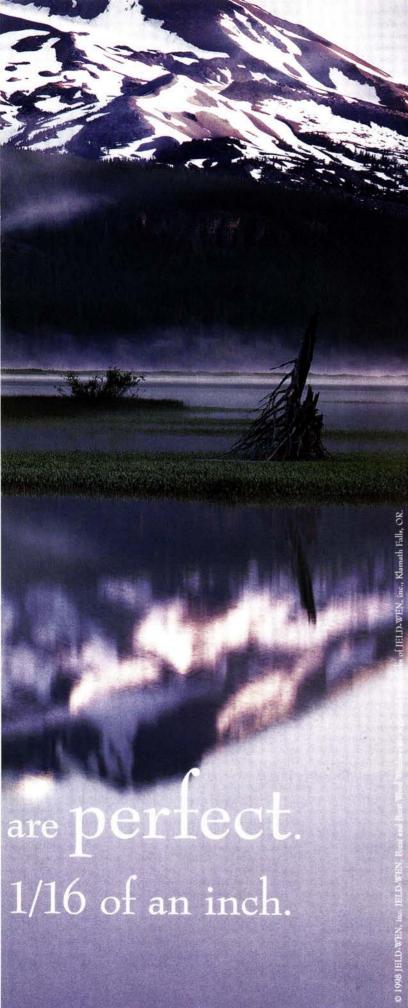
TICK STYLE

tick Jones savors solitary moment in is 300-year-old colonial ape Cod house, which e restored himself. #BXNBQLB********** 5-DIGIT 07076 #037E100001682942# 0002 M/A01 Z STACY SPIES 11 407 WARREN ST SCOTCH PLAINS NJ 07076-1920 32

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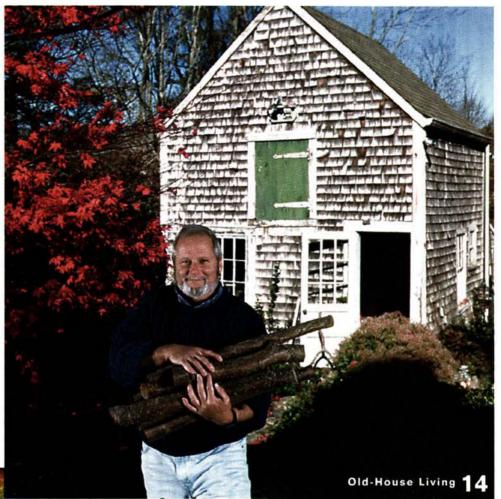
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ON THE COVER: When homeowner Rick Jones exposed the beams in his kitchen ceiling, he found a mix of charred and bright wood. To even out the color, he created his own version of an aging stain by mixing bits of charring with paint and pigment. Photo by Bruce Martin



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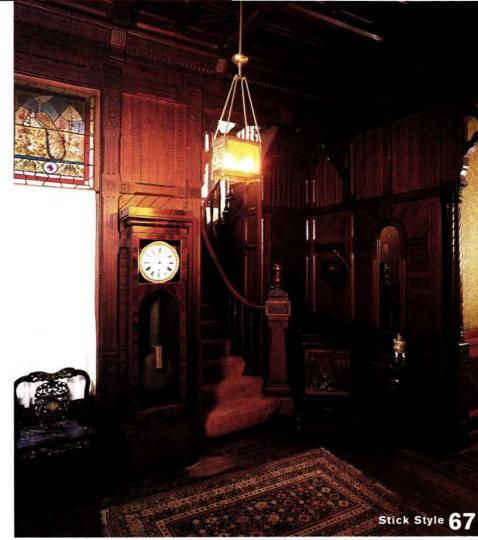
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Shown:Lakeshore River Rock. In background: Bucks County Southern Ledgestone

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Why Restore?

S THE CURTAIN RISES ON a new year-not to mention a new century-I thought I'd visit a question that has been asked many times before, and is worth reposing periodically. Why does anyone restore an old house?

The stock reasons are among the best because they are common to a great many people-often whether or not they care about historic architecture. Period buildings are examples of our cultural heritage; if we lose them we lose a part of our past. Restoring buildings is recycling. It capitalizes on the labor and materials (often no longer available) invested in their construction without sending them to a landfill. Most pragmatically of course, when the finished building is worth more than the time and money put into it, restoration can make good economic sense.

Nonetheless, restoring a houseespecially one you're living in-is a very personal endeavor. The motivation has to come from some inner psychic spring otherwise it won't survive the many obstacles stacked in the way. I can't speak for everyone, but here are some of the notions that roll through my brain late at night while I'm painting mouldings in a quiet room.

IT'S AN ACT OF INDEPENDENCE. Judging by the folks I've met restorers are not lemmings; they march to their own drummers. For me, working on an old house

bucks the marketing mantra of our age that the newest thing is always the best. An old house also gives me something that most new construction can't supply: a building that is unique.

YOU DISCOVER MORE DETAILS. Time and shifting tastes radically change many old houses. Like a restored motion picture, where they put back scenes that have been cut over the years and make a new print in the original colors, a restored house gives us a fuller picture of the original intent of the building.

RESTORATION IS A TIME MACHINE. For me, seeing a well-restored or preserved old house is a mind-bending experience that creates another reality. To cite another example, why does everyone-car buff or not-turn their heads when a beautifully restored antique auto motors by? In part, it's because we're accustomed to seeing it with some faded paint, lost trim, and rust in chronic spots. When these visual codes for agelost finish, worn surfaces, sagging lineshave been erased or overcome, we see the car as it's meant to be, and, for an instant, we are mentally transported to its era.

The same thing happens with old houses, and I think that's magical.

Goldonkoel



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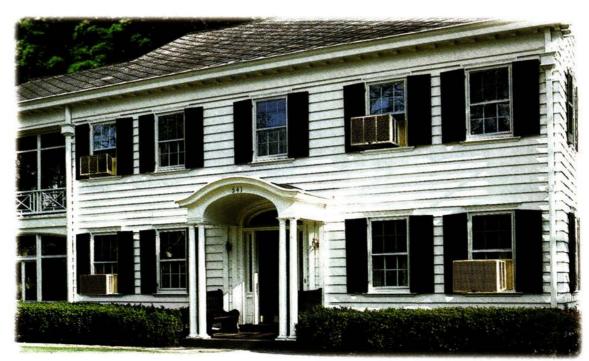
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PAPER TRAIL

IT WAS A REVELATION to see wallpapers in 20th-century houses as they were meant to be used ["Twentieth-Century Wallpaper," Jan./Feb. 2000 OHJ]. I have scraped, steamed, and cursed my way through many layers of old paper on the walls of my 1929 English Cottage house. These papers always seemed tasteless or at least naive and of course they were dirty and dam-

aged as well. (I wasn't surprised to learn that most homeowners ordered their wallpaper from Sears, Roebuck and paid just pennies for it.) No way was I going to paper my house!

But the charming photos in your article have begun to bring me around. I tried to imagine the [rooms shown]

without wallpaper and couldn't. More so even than color and definition, the papers provided a period touch. The Colonial Revival reproductions are especially elegant. I've started my paper search—and if I were choosing for my little boy, the cowboy wallpaper would be on my list! Thanks for thinking of us 20th-century owners.

> —LEAH ROGERS Newport, R.I.

COOKIN' GOOD

I'D LIKE TO ADD a note about the gasoline vapor stove (evaporating style) pictured in "Advisor" (Jan./Feb. 2000). I have a great interest in—and knowledge of—early cooking stoves. The Historical Society's photo



corresponds to the enclosed 1897 Quick Meal catalog cut. Examining the photo reveals that all parts of the stove originally nickel-plated have been painted gold. The fuel tank on top is brass and was usually unpainted; the sheet metal parts were japanned black. The oven for the step burner is of later manufacture and not original.

> —PAUL SCHOENHARL Cincinnati, Ohio

TALK OF THE TOWN

NEAL VOGEL'S ARTICLE "When Company Comes to Town" (Nov./Dec. 1999) inspires



erville, a company town (now part of Windsor, Ontario) that has retained much of its fine architecture and character since 1858.

me to tell you about Walk-

The founder was Hiram Walker, a distiller whose vision gave the world Canadian Club whiskey. Walker, a Massachusetts-born

vinegar distiller, established a business in Detroit, but saw the potential for real growth across the Detroit River. On the Canadian shore taxes were low, alcohol restrictions were almost non-existent, alluvial farmland (still owned by early French farmers) was cheap, and a new rail line from the east waited for commercial development.

In 1892 he hired George D. Mason and Zachariah Rice, a firm of Detroit architects, to design his flagship head office. Their young draftsman was Albert Kahn [the famed industrial designer]. They designed row houses for the laborers, semidetached Romanesque Revival houses for the middle-class employees, mansions for the mighty, a railroad station, a hotel and flatiron block of shops, a town hall, a bank, and even a company flag.

By 1910 this garden city was the envy of all who saw it. Walker established his own railroad, police force, school, library, and ferry service, but he never set up permanent residence. Instead, he preferred to commute by yacht from his home in Detroit, and only one of his sons became



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a Canadian resident. In 1904 his sons commissioned Cram, Goodhue and Ferguson of Boston to design a stone church as a memorial to their mother, and one of the brothers had Kahn design his Cotswold–style Edwardian mansion. Hiram Walker, that old Yankee Peddler, sure had high standards, and we are the beneficiaries.

> —evelyn mclean Windsor, Ont.

IN STYLE

PATRICIA, MANY THANKS for your perceptive review of *Shingle Styles* [Books, Jan./Feb. '00]. There have been many positive reviews, but none so detailed or thoughtful as the one in *Old-House Journal*. And, curiously, none that addressed our central theme of stylistic evolution.

So it was great to see that somebody

got Shingle Styles.

—BRET MORGAN, PHOTOGRAPHER Fairfax, Calif.

CRACKING THE COLOR CODE

MY MUCH-REMODELED 1906 house came with a builders' photograph—in blackand-white, of course—showing its original character. Do you know of anyone who does computer colorization of black-andwhite photos as is performed with motion pictures? A colorized builder's photograph could tell me what the original colors were.

> — PAUL GLEYE Fargo, N.D.

Alas, to our knowledge, there is no broadly useful method for taking historic black-andwhite photographs of houses and interpreting them in color. It's a great idea, however, and some folks have been working on it!

Part of the problem is that the full spectrum of colors is rendered in black and white as shades of grey. Black records as black, of course, but so does red in most cases. Moreover, the shading varies considerably depending upon the photography employed that is, some processes favored blue, for example, over red.

The motion picture studios of the silent era had the same problem, which is why actors in Charlie Chaplin comedies had to wear heavy makeup to give their skin any tone in the film. Modern computer-colorized films have the colors selected by an artist, not by any scientific means. In fact, this arbitrary coloring has led to some famous gaffes, such as giving Frank Sinatra brown pupils instead of his trademark "old blue eyes."

This is not to say that old photos are



valueless—far from it. They are well worth scrutinizing for placement of colors, especially on Victorian-type buildings. If you see the same general dark tone on, say, the railing and floor of a porch, you might suspicion they were painted the same color. Examining the early coats of paint on the building itself will provide corroborating evidence.

Paint and color research is a fascinating field that draws on many clues to form a general picture of prior color schemes. Besides past OHJs, look into books such as Paint in America (Roger Moss, Editor) for more on the subject. —EDS.

GRAND DAME

I LIVE IN A very old (105 years) Victorian house in a small college town in Arkansas in the heart of what is known as Olde Conway. The house has been referred to as a



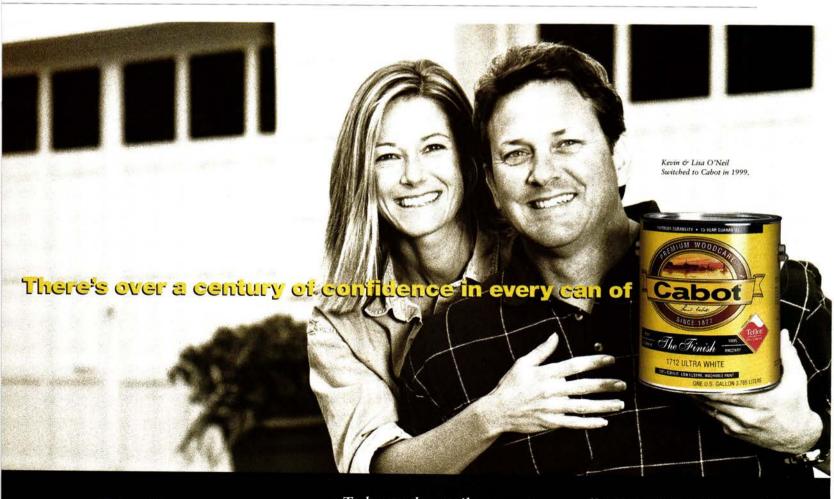
good example of a Painted Lady. When my partner and I bought this house in 1986, it was painted a very dull pale yellow/brown combination. As you can see from the enclosed photo, she has certainly blossomed. We are known over most of the state as the Big Pink House. The color scheme is pink, light blue, and strong purple, chosen because they're the school colors of one of the Universities.

One of my clients told me of your search for more Painted Ladies. If you think that you might be interested in seeing more of my house, please contact me at specialfx@cyberback.com. The interior is just as colorful.

> — JOHN W. SCHENCK Conway, Arkansas

Wow! If your scheme survives for 50 or 100 years, it will be recognized and cherished as a non-California example of the 1980s and 1990s Painted Ladies movement of the Victorian Revival.

The photographer who has been collecting "more Painted Ladies" is Doug Keister; email him through his website at www.keisterphoto.com. —ED.



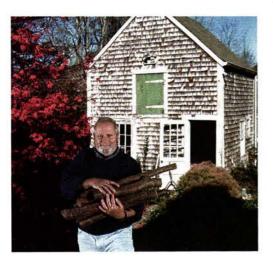
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HOUSE LIVING

Old Cape on the Cape by Catherine Fallin

HEN YOU LIVE in a 300-year-old house, you can expect some unusual visitors," says Rick Jones, the owner of a raised saltbox on the Old King's Highway in Barnstable, Massachusetts. "Sometimes they come at two in the morning."

One night Jones thought he heard voices downstairs. They were too loud to be burglars. "I picked



Now that the most challenging part of the restoration is finished, Rick Jones sees himself as just one in a long line of caretakers of the ca. 1670 Old Gorham House (inset, opposite). out the voice of a house guest, who was giving a tour of my house," he continues. "As I turned over to go back to sleep, I heard footsteps coming up the stairs and then a slightly slurred voice announcing, 'And thish is the owner's room.' The steps got closer, and then I heard, 'and thish is the owner.' At that point, I just gave up and joined the party."

In the 26 years he has owned the Old Gorham House, Jones has learned to live with the idea that his is a shared treasure. Ironically, when he came to the Cape in 1974, Jones didn't want a colonial house

at all. He was searching for a much newer old house, one with high ceilings and tall windows to light his studio, preferably near the water.

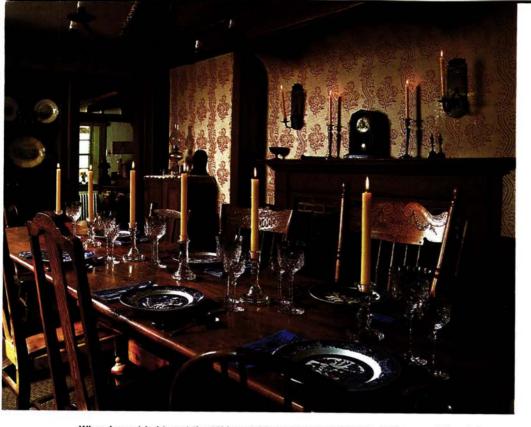
Still, once he had been in the house, it never left his mind. "When I first looked at the house, I envisioned what it was going to look like," he recalls. On moving day, the reality of the makeshift repair in the master bedroom sank in. "When I first looked at the house, I envisioned what it was going to look like more than what it actually was."

11 .14

-RICK JONES, HOMEOWNER

145





When Jones tried to get the 10'-long table he had made into the dining room (above), he found he couldn't get it through the shallow entry hall, with its narrow stairwell (right). He had to take the table apart and reassemble it in place. The bull's-eye glass (below) is original to the front door, which dates to the late 1700s.

RAISED SALTBOX

owner: Rick Jones pet: Maine Coon cat, Clouseau location: Barnstable, Massachusetts

DATE OF HOUSE: Ca. 1670

ON-GOING PROJECTS: Reshingling the front façade; repairing and restoring the old shutters; shoring up the ca. 1700s outhouse/barn so it will stand another 200 years.

OF INTEREST: Creating a retreat out of a 20' x 50' tarpaper shack on a island he owns in coastal Maine. This first repair was a stumper, simply because the floorboards in the Gorham House are unusually long and wide by modern standards. Luckily, the attic had also been finished with extra-wide boards. When Jones removed a few to create a work space in an upstairs back room, he used three to repair the bedroom floor. Jones had to slide the 20'-long boards out the attic window, lower them to the ground, and then back up a ladder into the second floor bedroom.

The first board crashed through the greenhouse roof below. Once Jones maneuvered all three boards into the bedroom, he was delighted to find they just fit the space—but with a slight hitch. Lacking 300 years of wear from foot traffic, they were at least ½" thicker than the boards next to them at the doorway. Jones painstakingly wore the "new" boards down by sanding until they were flush with the old ones.

Naturally, there were other surprises in such an old house. Jones knew that the kitchen floor dipped—the result of a serious fire sometime in the house's long history—but he didn't know how dramatically until a friend's son appeared at the back door in roller skates. "Two seconds later, he smashed into the opposite wall,"

OLD HOUSE LIVING



Jones recalls.

The floor was so spongy "you could jump up and down and the floor bounced," Jones says. When he went down in the cellar to investigate, he discovered the location of the old fire, just beneath the massive fireplace. Eight or nine blackened beams stretched halfway across the room, where they met—but didn't join—lengths of new wood. "It looked like the bow of a boat that sank in the middle," says Jones, who jacked the crossbeams in place with a long 8" x 8" beam. "You can still slide down the kitchen floor towards the back wall, but now it's solid."



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OLD HOUSE LIVING



Top: The walls in the oldest room in the house are 14" thick. Right: The house has changed little since the 1870s.

Sometimes staying true to the house meant sending it back in time. For example, once Jones had ripped out the old electrical wiring in the dining room, he saw no reason to put it back. Today, a candlelit chandelier hangs over the narrow, 10'long table where Jones frequently entertains, and the ceiling is stained with a true emblem of the colonial era, soot.

Jones built the table himself, using a single, 20'-long attic board, cut into two pieces of equal length and joined together to make a thick table top. He constructed the base from pieces of lumber he found on his property. When he tried to get the table into the house, he discovered it wouldn't fit through the narrow front hallway. He took out the dining room window and tried sliding it in through that opening. The table was still too large. Finally, Jones separated the table top from the base and slid both pieces through the window opening, then reassembled them. Needless to say, this is one piece of furniture that isn't going anywhere.

Sometimes Jones feels like just another observer in this historic house, like

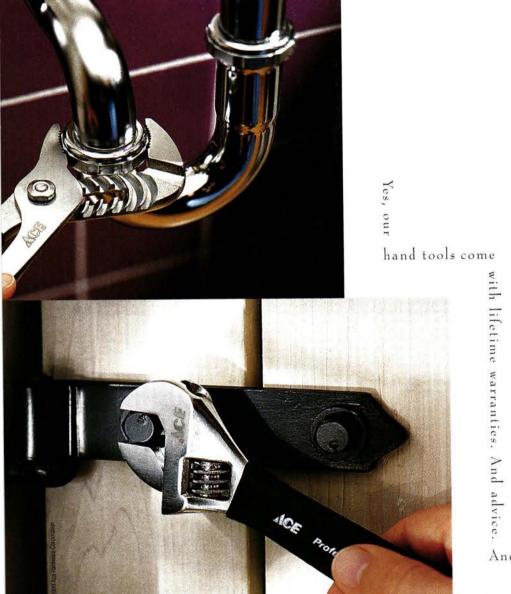


the day he was working on the back patio. When he heard a couple of car doors slam, and voices coming from the front yard, he walked around the house to investigate. "I saw some 40 people in the driveway, all looking at the front door. I didn't have a clue what was going on, so I walked up behind them and discovered that my friend Jack Braginton-Smith was giving a lecture to a group of college students and a professor from Canada."

Once again, Rick Jones simply stopped what he was doing and joined the party.

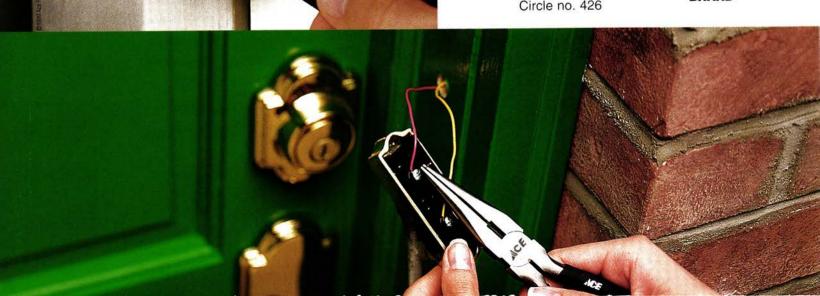
CATHERINE FALLIN is the author of Cape Cod Gardens and Houses (Simon & Schuster, 1995).

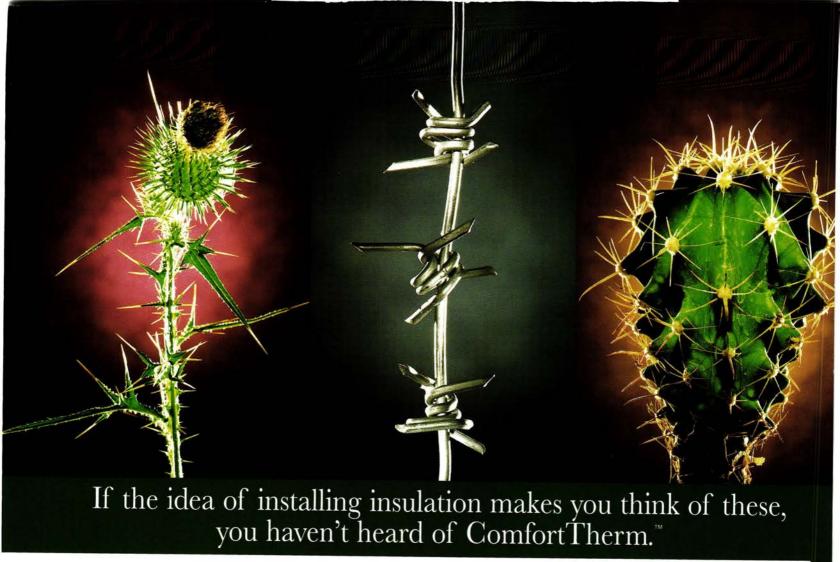
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the Richardsonian Romanesque style between

famous.

dance with a master plan sympathetic to the fort's

historic layout, which is remarkably intact. Ul-

timately, the old fort will be home to 551 new

housing units-many of them carved out of an

existing trove of about 90 historic buildings, in-

cluding officers' quarters,

1889 and 1893 by Holabird

& Roche, a prominent

Chicago architectural firm,

and executed in the dis-

tinctive yellow brick for

which the Chicago area is

must take place in accor-

All new development

[continued on page 22]

New LAKEFRONT community on Chicago's North Shore has something going for it that most new towns haven't got: Old houses. The Town of Fort Sheridan was only incorporated in 1998, but a majority of the

buildings on the site of the decommissioned fort are at least 100 years old.

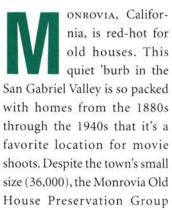
In a windfall for both preservationists and developers, the Town of Fort Sheridan is the first military base with National Historic Landmark District

status to be turned over to a private developer.

Ever since the Base Realignment and Closure Act, passed in 1992, much of the (often historic) surplus military property in communities nationwide has been converted to new uses, from public parks to private residences. Given Fort

Monrovia on Mother's Day

by Mary Ellen Polson

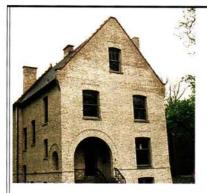


(MOHPG) is nearly 200 households strong. A force for preservation in this rapidly developing area of California (members have been known to visit new old-house homeowners and demand to know their renovation plans), MOHPG celebrates its 20th anniversary with its annual Mother's Day house tour on May 14. (The tour helps fund matching grants to Monrovia homeowners who need to renovate.) At a party for volunteers after the tour, artifacts from the group's early history will be on display—among them a 20-yearold heat gun, passed from hand to hand as founding members restored their Queen Anne, Spanish Colonial Revival, and Arts & Crafts houses. No word on whether or not the device is still smoking.

For information about the Mother's Day tour and Monrovia, check the web site: www.goss.com/mohpg.



can turn your old house into an unhealthy air zone. Mold builds up as a result of trapped moisture-in unventilated bathrooms, air conditioners, or humidifiers. If you can see mold or smell it, chances are spores are circulating indoors. Mold may contribute to allergies and is a suspected factor in the rising incidence of asthma. Fortunately, there are simple ways to make mold disappear. Install an air vent in the bathroom, and use it when showering. Keep air conditioning and humidifier drain pans and filters clean. Don't forget to clean the gutters-plugged gutters hold moisture against the house and can lead to structural problems as well as mildew.



The 32 single-family houses and six duplexes built as officers' quarters between 1890 and 1907 were quickly snapped up.

Ultimately, the old fort will be home to

new housing units many of them carved out of an existing trove of about 90 historic buildings, including officers' quarters, barracks, and support buildings. barracks, and support buildings. As part of landscape architect O.C. Simond's plan for the fort, the officer's quarters were built in a park-like setting along curvilinear loop roads on the lake bluff. The enlisted men were housed in a more regimented area with a grid street pattern, on the other side of the central parade grounds.

Not surprisingly, the large single-family and duplex dwellings that once served as officers quarters were snapped up immediately, at prerestoration prices that ranged from about \$350,000 to more than \$1 million. Although all renovations are subject to the Secretary of the Interior's Standards for Rehabilitation, "it's really interesting to see how people individualize these structures," says Will Tippens, coordinator for preservation and master planning for the Fort Sheridan Co., the entity responsible for the town's development. "Thirty-two are virtually identical in their design, but each one is taking on a little of the personality of the owner."

Ironically, Fort Sheridan might have been the site of just another suburban bedroom community but for labor unrest. In the wake of the Haymarket Riots, the powerful industrialists of the Commercial Club of Chicago—Marshall Field, George Pullman, and Cyrus McCormick among them called for the establishment of a military installation near Chicago in June 1886. The U.S. War Department granted their request within the month, and Fort Sheridan was born.

"The funny thing was, the troops were never called out," Tippens says. Fort Sheridan soon found a role as the major embarkation site for the U.S. Army in the upper midwest, a role it maintained through both world wars and the Korean conflict. "You speak to people my father's age, and they all came through Fort Sheridan," Tippens says. "If you went into the Army from the Midwest, you came in here."

The town's first resident, the son of a soldier stationed at Fort Sheridan in the 1950s, moved in last May. —MARY ELLEN POLSON

The National Trust for Historic Preservation publishes a brochure on the subject, "Base Closures and Historic Preservation: A Guide for Commu-



nities," for \$6. Contact (202) 588-6296, www.InfoSeries.com, or fax credit card orders to (202) 588-6223.



STYLE NUGGET

Avuncular Houses

egendary among the futuristic houses of the 20th century is the Dymaxion Dwelling Machine. The creation of visionary engineer/inventor Buckminster Fuller, the Dymaxion house was designed to be a mass-produced "machine for living" that en-



closed all the services of a conventional house in a single, circular shell, The model that Fuller unveiled in

1929 astonished

crowds of architects and on-lookers with

its rational convenience and unconventional construction. The entire structure, estimated to weigh only three tons, was suspended from a single, central mast. Cables carried hexagonal walls made of casein which, because they supported only their own weight,

were essentially thin screens.

Fuller's original Dymaxion house remained just a proposal until 1945. In the face of ending war production and housing shortages for returning vets, the Beech Aircraft Company of Kansas tooled up to massproduce a revised version, incorporating a circular metal skin,

that was to be both affordable and portable. Like many promising pre-fabs, as a



Distinctly Southwestern, the **PUEBLO REVIVAL STYLE (1910–1940)** reflects a fusion of Native American and Spanish Colonial architecture with the characteristics of centuries-old adobe construction. Popular at the same time Tudor, Mediterranean, and other eclectic styles were sweeping the country, Pueblo Revival houses typically feature thick, smooth, light- or earth-colored stucco walls with round or blunted edges, and flat roofs with projecting *vigas* (hand-hewn roof beams), hidden by low parapets. Doors are usually planked or paneled; windows often have lintels. Smoothly stuccoed chimneys are often integrated into the overall mass of the house. While the Pueblo Revival style first appeared in California, it was most popular in Arizona and New Mexico, where new variations still appear today.

venture the Dymaxion Dwelling Machine never went beyond the first full-scale house—which still stands outside Wichita. However, it helped define the future of housebuilding with concepts that were completely original and scientifically based.

Or were they? Did Fuller know that, half a

world away and for hundreds of years, Mongolian nomads have been making and living in yurts that bear striking resemblance to his revolutionary residence? These felt-and-wood shelters, also erected with a pole and ropes, are moved from

site to site to follow herds. Given that Fuller's avowed goal was to "discover the principles operative in the universe," perhaps he tapped ideas closer to home. —GORDON BOCK

Buckminister Fuller modeled his 1929 Dymaxion Dwelling Machine (inset) with radial partitions that defined efficient sleeping, cooking, and living rooms. In the 1940s the Dymaxion Dwelling concept was fleshed out full-scale in metal as a house and a portable bomb shelter (left)—both surprisingly similar in form to the Mongolian yurt (below).





Before the advent of

Milk Paint



B&B FOCUS ANN STARRETT MANSION, PORT TOWNSEND, WASHINGTON Talk about building a monument to love. When wealthy contractor George E. Starrett built a grand Stick Style mansion in 1899 to honor his bride, Ann, he paid her the ultimate compliment: he had a New York artist paint her image on every panel of the domed ceiling in the mansion's three-storey tower. The eight panels form a solar calendar; on the first day of

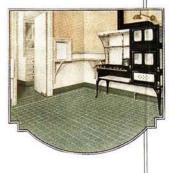
> spring, summer, winter, and fall, a burst of sunlight pierces one of the ruby-tinted windows and falls on the appropriate vision of Ann. The tower's remarkable freestanding staircase is a wonder in itself. 11 rooms, \$92-225, 744 Clay St., Port Townsend, WA 98368, (800) 321-0644, www.starrettmansion.com

Say, Isn't It Faux?

* * * * * * * * * * * * * * *

BEAUTIFUL, VERSATILE, and enduring, tile has been with us so long that even its imitators are historic. Take the faux-tile wainscots scored into the plaster of bathrooms and kitchens in the 1920s. Or consider Linotile, introduced by the Armstrong Cork & Insulation Co. in patterns designed to resemble the flooring in a Roman villa. In the teens and '20s, homeowners covered their kitchen walls with enameled sheet metal tile-a medium that had the virtue of being fireproof, but hardly kept the heat out of the kitchen. There were even "sanitary" wallpapers, pat-

terned to look like tiles, then varnished to make them almost indestructible. As we look ahead to 2010, it seems only appropriate that the real clay and ceramic tiles of a century ago are being revived in a big way. What's next? Cyber tile, perhaps?



advantage of a cheaper ingredient: surplus milk. This recipe, an OHJ favorite, uses a modern version of moo. NONFAT DRY MILK POWDERED PIGMENTS

manufactured coatings-in-a-can around 1870,

paint was made by hand, largely from earth pig-

ments and other natural materials. High-style

paints were based on expensive drying oils, such

as linseed, but in rural areas painters might take

OR UNIVERSAL TINTING COLORS (SOLD AT GOOD PAINT SUPPLIERS)

Start by mixing 1 cup of powdered milk in just enough hot water to make a slurry. Then add a little pigment at a time, recording the quantity. Continue to mix until the color is uniform and the desired shade; test on a sample board. Adjust color, then make a larger batch.

Historic milk paint is known for its durability and dead-flat sheen. Though primarily a homespun interior finish (and relatively rare in original examples), it remains popular in ochres and Spanish brown for "country style" cabinet work.



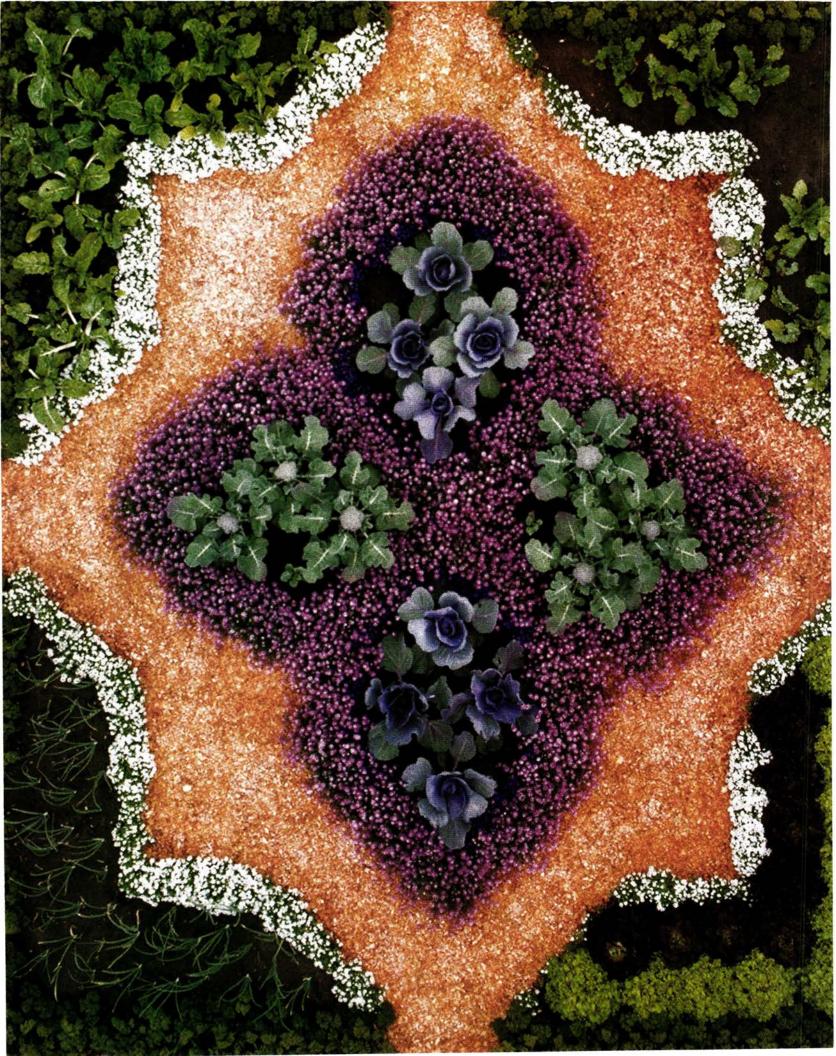
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VIEWED TO BE THE BEST."







Heirlooms for the Garden by JoAnn Gardner

N ALL THEIR VARIED, often quirky shapes and colors, heirloom fruits and vegetables are enjoying a well-deserved revival. Given the historic precedent for growing fruits and vegetables together in an all-purpose garden, what better place for a frankly decorative planting of these venerable edibles than just outside the kitchen door?

"The kitchen garden makes our senses swim in pleasure" wrote William Lawson in his 17th-century work, *A New Orchard and Garden*. Lawson was undoubtedly thinking of the Renaissance garden of his times: laden with fruits, vegetables, and culinary herbs, enclosed by a stone or brick wall. Here dessert fruits like apples, pears, peaches, and plums were trained in elegant, space-saving espaliers, branches spread against the wall in a perfect fan or vase shape.

Even as gardeners in this country segregated fruits and vegetables for home use into utilitarian orchards and prosaic vegetable plots, walled kitchen gardens in the classic design continued to thrive on large estates—notably at George Washington's Mount Vernon and Thomas Jefferson's Monticello. Jefferson, whose curiosity about plants was phenomenal, grew a great many types of each vegetable—over 50 varieties of peas alone, 30 kinds of cabbage, 15 different lettuces, and 10 sorts of turnips.

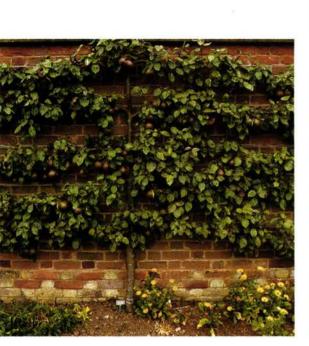
This exuberant style of kitchen garden



reached its zenith in the 19th century, when Victorians took the cultivation of fruits and vegetables to a fine art. The extravagant, bountiful gardens of rich estate owners went beyond all previous efforts to supply the household, for they also answered to whim. They devised ingenious methods to raise fruits, vegetables, and flowers out of season, providing everything from strawberries in winter to exotic bouquets to match the color of a lady's dress.

A wealth of antique fruits and vegetables are still available today in colors, shapes, scents, and flavors to accommodate a wide range of tastes. Whatever the size or design, a kitchen gar-

Opposite: Cabbages, low-growing flowers, and lettuces combine in a stunning geometric pattern. Above: Some of the heirloom varieties of root vegetables, tomatoes, and squash still grown today. Top: Vintage Bradshaw plums from a century-old gardening catalog. Thomas Jefferson, famous for his phenomenal interest in agriculture, grew a great many types of vegetables—over 50 varieties of peas alone, 30 kinds of cabbage, 15 different lettuces, and 10 sorts of turnips,



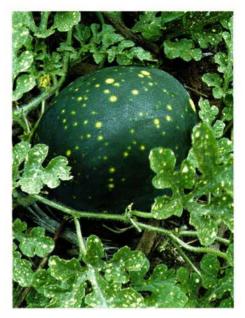
Heirloom Fruits and Vegetables

FRUITS

Apples Calville Cortland Delicious Grimes Golden Northern spy **Rome Beauty** Spatzenburg Yellow Pippin Apricots Moorpark Cherries Lambert Montmorency Morello Peaches Georgia Belle Stump-the-World Pears **Clapp's Favorite** Bosc Seckel Plums Count Althan's Early Laxton **French** Petite Victoria Quince Orange Smyrna Strawberries (Alpine) **Baron Solemacher** VEGETABLES Beans Kentucky Wonder Jacob's Cattle Painted Lady Scarlet Runner

Soldier White Dutch Lettuce **Baby Romaine** Four Seasons Tom Thumb Melons Honeydew Casaba Heart of Gold Honey Rock Pea Alderman American Wonder **Blue Pod Capucijners Thomas Layton** Mammoth Melting Sugar Pumpkin Cheese **Connecticut Field** Radish White Icicle French Breakfast Rhubarb German Wine Victoria Sauash Hubbard Turk's Turban Yellow Summer Crookneck Tomatoes Brandywine Amish Paste Burbank Abe Lincoln Pruden's Purple Yellow Pear Zapotec Ribbed





Right to left: An espaliered pear tree spreads across a brick wall; red currants, one of several fruits ideal for cordoning; and the moon beam melon, an heirloom prized for its delightful coloring.

den outside the old house inevitably suggests furnishings—benches, arches, glass bell jars and cloches, tall obelisks to support vines—to highlight the period atmosphere, whether it is based on colonial, Victorian, or cottage-type architecture.

Growing dwarf fruit trees and fruiting shrubs in a single flat dimension, as in espaliers, requires a lot of pruning, but the stunning visual effect and bountiful harvest is worth the effort. First used in France in the 18th century, espalier is a system of training the side branches to grow in a horizontal plane by wiring them on each side to a support. The best subjects were apples, pears, apricots, and cherries. An alternative system, known as cordon, reduces plants to a single stem affixed to a trellis or fence. Good choices for cordons are gooseberries, apples, pears, and currants.

The showy and delicious possibilities among heirloom vegetables are numerous, from the 1855 coral-and-white-flowered 'Painted Lady' runner bean, red-stemmed chard, purple cauliflower, and 'Black Beauty' eggplant, to the fantastic 'Turk's Turban' carnival-striped winter squash, grown before 1818. An entire kitchen garden could be filled with varieties of heirloom tomatoes, from deep red and purple to the small yellow early-19th-century pear tomato.

Salsify, Jefferson favorite, is a trouble-free root crop with creamy white skin and white flesh that tastes something like oysters. Rich Victorians cooked the silvery, spoon-shaped leaves of sea kale cabbage as a Christmas Day treat in a white sauce served on toast.

Among bush and pole beans are highly decorative specimens like 'Vermont Cranberry Bush,' with its the cranberryswirled pods and beans. Head and leaf lettuces include the gorgeous chartreuse, burgundy, and green looseleaf butterhead, 'Four Seasons.'

Even if you never harvest a single stalk for making wine or pie, rhubarb's enormous, arching green foliage and tall, upright cream-colored plumes "makes all our senses swim in pleasure," in Lawson's words. The crimson-stalked 'Victoria,' introduced before 1863, has never gone out of fashion.

JOANN GARDENER is the author of The Heirloom Garden (1992), to be reissued by Garden Way next year.

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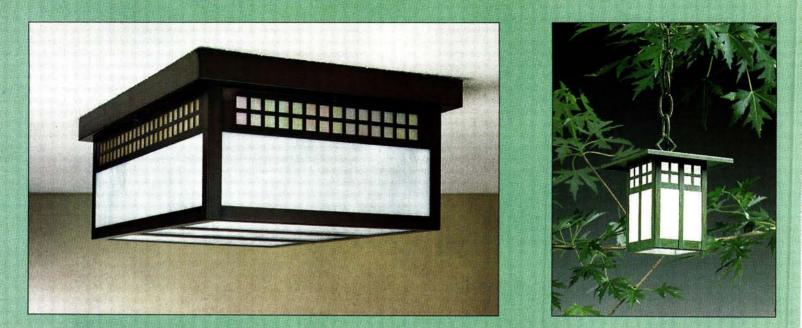
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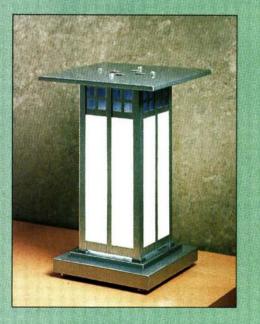
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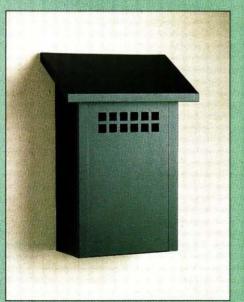
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BY MARY ELLEN POLSON

VIVA LA PLASTIC

Revive the laminate look of your 1940s or '50s kitchen with a Retro choice in WilsonArts' new Graphic Standards line. Select from 30 patterns, from the confetti-spattered Amusement (second from right) to the tablecloth look-alike, Picnic (far right). They're just \$3 to \$5 per square foot. Contact WilsonArt International, (800) 433-3222. Circle 3 on the resource card.

programming and





CLEAN AS CLAY

Porcelain lighting fixtures emerged out of the early-20th-century quest for cleanliness, along with tiled walls and ceramic bathtubs. These sleek beauties are 6" high and the streamlined shade accepts a 60-watt bulb. They're \$58 each from Rejuvenation Lamp & Fixture Co., (888) 401-1900, www.rejuvenation.com. Circle 4 on the resource card.



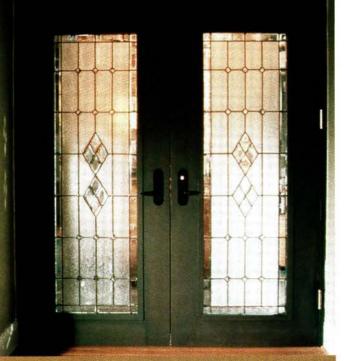
TAMING A SEAHORSE

This cast-iron door knocker is a reproduction of an original casting designed by *Wizard of Oz* illustrator and Roycrofter W.W. Denslow in the 1890s. It's available in two sizes—the 4 3/4" knocker shown here (\$65), or the original 9" size (\$95). Contact Dard Hunter Studios, (800) 986-3273, www.dardhunter.com. Circle 5 on the resource card.

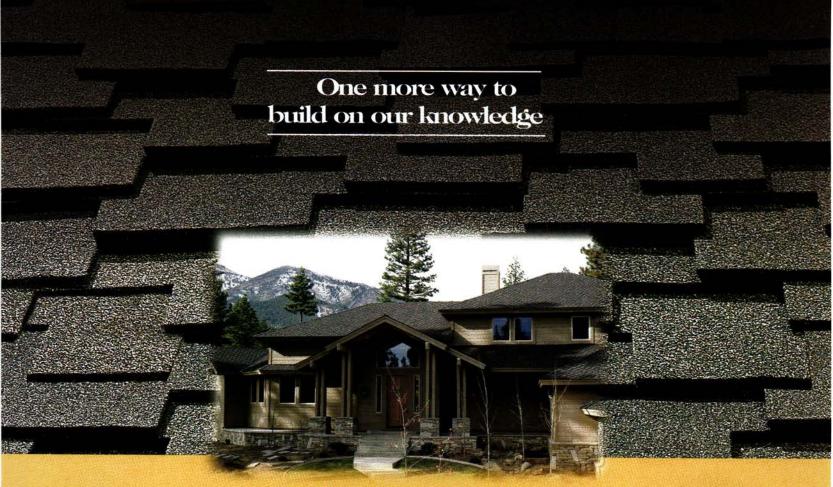




Angular, swing-arm, wall-mounted faucets have long been a kitchen convenience. This one features a handy soap dish right over the 12" spout. The cast-brass body comes in chrome on 8" centers. There's also an option for an 8" spout. Retail prices range from about \$81 to \$93. Contact Gerber Plumbing Fixtures, (847) 675-6570, www.gerberonline.com.



STAINLESS STYLE Shimmering with the sheen of solid steel, the Traditional Diamond is one of dozens of nearly indestructible door designs that recall the Art Deco era. You can even specify a door that's bullet-proof as well as beautiful. The pair shown here retails for \$15,200. Contact Next Door Company, (888) 791-4450, www.nextdoorco.com. Circle 7 on the resource card.



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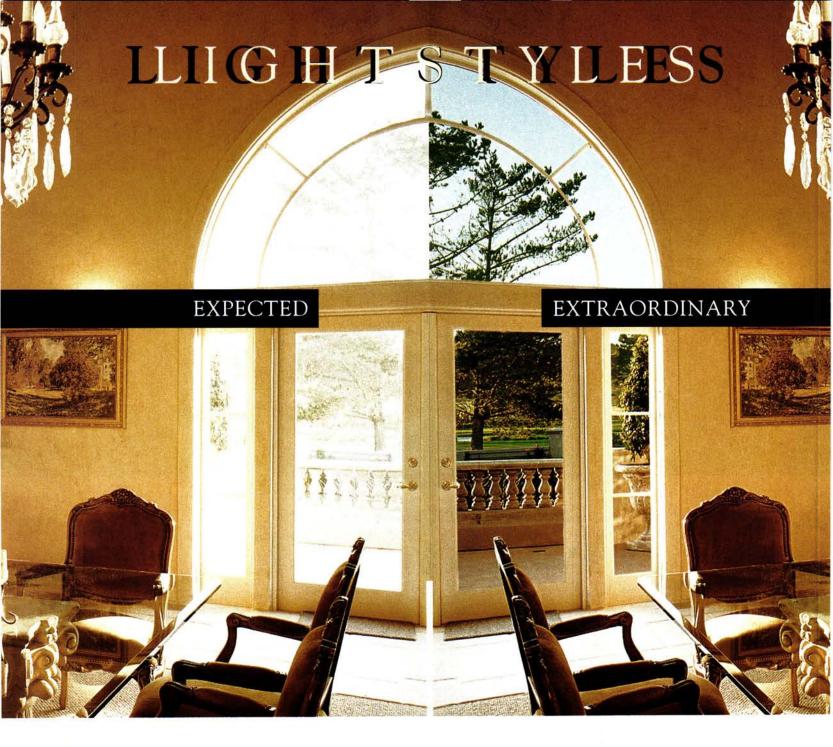
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Mending Broken Stones by Susan L. Maltby

R EPAIRING ARCHITECTURAL stonework, from window lintels to garden ornament, is not for everyone. Many stone building elements are heavy or ornately carved and best left in the hands of experienced stone conservators and restoration masons. However, when broken stonework is a baluster post, door threshold, or other manageable project, experienced old-house restorers can repair them successfully using tools and skills they already possess.

Professionals rejoin broken stones by pinning, a straightforward technique similar to dowelling together two pieces of wood. In the case of stonework, the reinforcing pins are threaded stainless steel rods, sold at good hardware stores and marine suppliers. Most conservators prefer epoxy for the adhesive, particularly where repairs must withstand the rigors of the outdoors.

The tricky part of pinning is laying out

the repair. The stone fragments must align accurately so that pins and their mating holes are in the right places. Begin by setting the stones in their proper positions; most parts will stay put on their own if the break is fresh. Once the pieces are reassembled, take a ruler and draw one pencil line across the object for each pin. These lines mark the alignment of the parts and the location of the pins. Long, rectangular repairs often require three pins, but for small repairs a single pin may do.

Using a carpenter's square, transfer the pencil lines on the exterior of the stone to one of the broken faces. Next, measure in from the edge of the stone and mark the location of each pin (see photo below). If there are three pins, position the center pin offset from the others. (This makes a stronger repair). When you have marked all pin locations, repeat the layout on When architectural stonework breaks through age or abuse, it's possible to rejoin the pieces using epoxy and pins.

Left: Lay out pin locations with a square (red lines in photo), then start pilot holes. Blow holes clean with a turkey baster or compressed air, but save dust for coloring crack mortar later. Right: Rectangular stones, such as this monument, typically use three pins, the center one slightly offset.



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The layout for pin locations is the most exacting step in the process and a good place to "measure twice and cut once."

the other face using the same dimensions.

RODS AND DRILLS Select pin stock according to the the size of your stone. You can buy stainless steel threaded rod from 1/8" to 1/2" in diameter. Then, using a carbide-tipped masonry bit, bore a small-di-

ameter pilot hole for each pin. Angle the hole perpendicular to the face of the break, keeping the drill as straight as possible. (If necessary, attach a level accessory to the drill, or have an assistant spot you.) Make the hole as deep as practical given the size of the stone and length of the bit. Then, when you have completed the pilot holes, go back and bore the finished diameter. Each hole should be slightly larger than the pin diameter to permit minor adjustments once the stone is assembled. For example, make a 1/4" hole for a 3/16" pin, or a 3/8" hole for a 1/4" pin. Work carefully and don't rush. Furthermore, if you are re-

pairing delicate ornament or fragile stone, resist the temptation to use a hammer drill, which can shatter the stone. Repeat the process on the other stone.

With bolt cutters or a sharp hacksaw, cut the steel rod into pins of appropriate length, just shy of the combined hole depths. Then blow the holes free of stone dust and flush them with acetone. Afterwards, place the pins in their holes, and assemble the stonework dry to make certain that all pieces align properly. This is your last chance to make adjustments. Carefully disassemble the parts and degrease the pins with acetone.

EPOXY PARTICULARS The condition of the stone that you are repairing will affect the epoxy that you choose. Dry stone-that is, stone that has been in the shop all win-

> ter or that always remains indoors-can be repaired with most epoxies. However, damp stone that is used outdoors requires an epoxy formulated for exterior settings. Check with the manufacturer to ensure that their epoxy will work with damp stone.

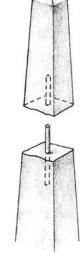
> The object of pinning is to adhere each pin to the stone pieces-not one stone to another. Working one hole at a time with tongue depressors or popsicle sticks, place a small amount of epoxy on the threaded rod and in the hole. Next, insert the pin in the hole, rotating it slowly as you go to ensure that it is well-seated. Then apply epoxy to the holes in

the other stone, using the applicator. Remember, it is important to keep the epoxy only on the pins.

When all is ready, carefully bring the two stones together, making sure that they are properly aligned. Then support the assembled stonework so that it remains undisturbed for at least 24 hours. Once the epoxy is fully cured, you can fill areas of lost stone 10 with a lime-based repair mortar.

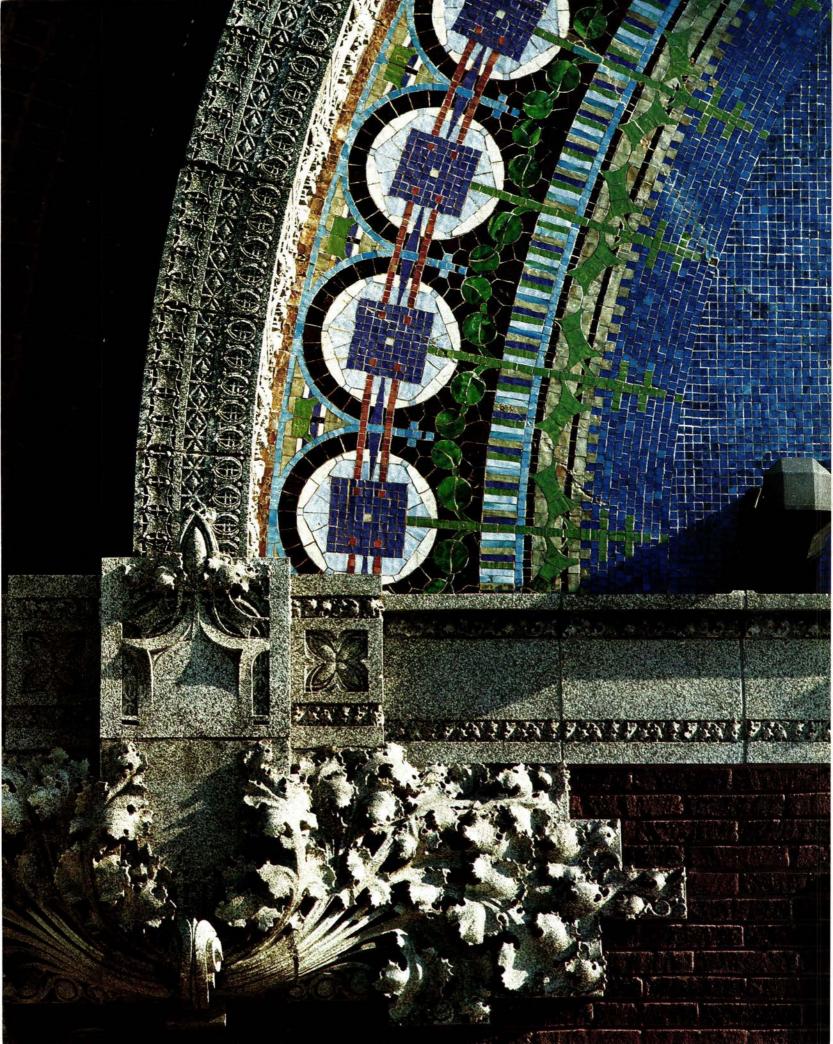
SUE MALTBY is a conservator based in Toronto, (smaltby@chass.utoronto.ca).

SUPPLIERS ABATRON 5501 95th Ave., Kenosha, WI 53144, (414) 653-2000. Masonry epoxies and consolidants. Circle 12 on resource card. PORTER CABLE CORP. 4825 Highway 45 North, P.O. Box 2468, Jackson, TN 38302-2468, (901) 668-8600. Hammer drills, power tools. Circle 13 on resource card. SIKA CORP. 201 Polito Ave., Lyndhurst, NJ 07071, (201) 933-8800. Epoxies for stone; consult website (www.sikausa.com). Circle 14 on resource card.



Pin perpendicular to the break, matching size to stone.





Another Side of Louis Sullivan by Paul E. Sprague

ITTLE OF Louis Sullivan's fame rests on the residences he designed, yet he played a pivotal role in the evolution of the American house. Through his theory of architecture and his own example, he inspired a number of midwestern architects, beginning with Frank Lloyd Wright, who broke new ground in residential design. Sullivan's

impact, however, was not simply on the composition of houses. He had broader interests. He wanted to invent a new style of "living architecture" as he termed it, a modern architecture.

Of course, Sullivan did not come to this realization all at once. In fact, he wrote *The Autobiography of an Idea* to explain the origins of his concept of developing modern styles from the cultural ethos.

Nonetheless this 1924 book helps sketch the personal life of this private man who left little in the way of letters, documents, and drawings.

SINGULAR SOURCES Louis Henry Sullivan was born in 1856 in Boston to an artistic family. His mother sketched and played the piano; his father was a dancing instructor. Because his mother's family was relatively well off, Sullivan was able to attend the prestigious Boston English High School. Graduating in 1872, the young man studied for a year at the newly founded school of architecture at MIT.

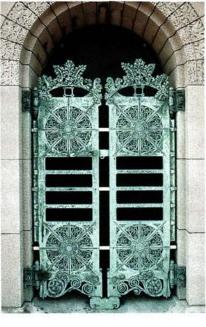
Sullivan's desire to formulate a new style has its roots in the generation of architects before him. In 1873, he moved to Philadelphia where he worked for architect Frank Furness

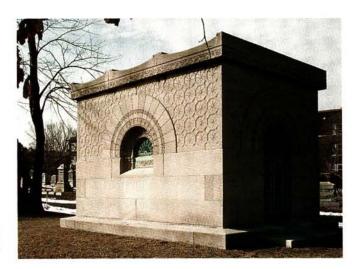


who was then mixing elements from historic classicism and medievalism. Furness's experiments in creating an original style out of historical bits and pieces may be traced to his teacher, New York architect Richard Morris Hunt. While studying in Paris in the 1850s, Hunt became interested in originality in architecture through a group of French architects known as the Neo-Grecs.

Leaving Furness in 1873, Sullivan moved to Chicago where he worked for William Le Baron Jenney. He then went to Paris for a year in 1874 to study architecture at the École des Beaux Arts, where both Hunt and H.H. Richardson had preceded him. Back in Chicago, Sullivan worked for various architects, the last being Dankmar Adler, with whom he formed the partnership of Adler & Sullivan in 1883. In

Opposite: Like an architectural rainbow, a glass and terra-cotta arch fronts Louis Sullivan's 1917–18 People's Savings and Loan Association in Sidney, Ohio. This striking detail from late in his career is surely designed by Sullivan himself, as he worked without personally trained assistants at this time. Above: Sullivan, age forty-four. The architect who gave form to the skyscraper and new vision to his profession was a man with lofty ideals. Right: Impressive bronze gates inset in a proscenium archway of stone define the entrance to the 1890 Getty Tomb at Graceland Cemetery. Far right: Viewed from a distance, the tomb displays the geometric character and original design vocabulary Sullivan brought to later buildings of larger scale.





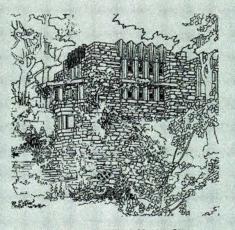
Style Follows Sullivan

The origin of Sullivan's desire for a new style was a belief that the "fittest" buildings for any age should be the product of the spirit of that age. It was wrong to borrow the forms and details of buildings that had been created as expressions of the mystical spirit of now-extinct cultures. Sullivan demanded instead that architects develop new styles for the industrial age —styles that did not take the architecture of ancient Greece and Rome or the Middle Ages as the point of departure.

By the early years of the 20th century, Wright had achieved this goal, though largely though the medium of residences for which he is so well known. However, the best of the younger architects to take up the challenge was Walter Burley



Frank Lloyd Wright's Dana House (1902) and Lawrence Memorial Library, Springfield, III.



The J. G. Melson dwelling, Mason City, Iowa, (1912) Walter Burley Griffin, architect, and Marion Mahony Griffin, delineator.

Griffin. He was inspired by Sullivan's call for a creative architecture after he heard the older man speak to a group of young architects in 1900—an impression that was reinforced when he worked for Wright from 1901 to 1906. By 1910 Griffin had come up with a rather severe, almost prehistoric style of his own best seen in the Melson and Blythe houses.

Inspiration aside, Sullivan preferred to plan his own buildings according to formal principles of symmetry and balance. He simply was not interested in new kinds of interior space arranged asymmetrically and revealed externally by picturesque massing—the approach introduced after the Civil War and favored by Wright, Griffin, and others of their generation. his early work with Adler from 1880 to 1883, Sullivan experimented with a kind of quasi-original architectural design similar to what Hunt and Furness had been producing in the 1860s and '70s.

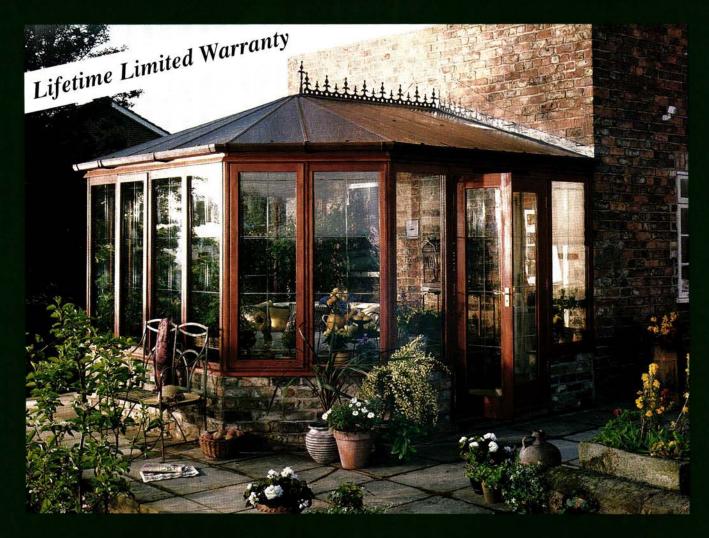
It was not until 1890 that Sullivan finally achieved a mature architectural and ornamental manner truly his own, the new style for which he had so long been searching. The key buildings are a tomb for the Getty family in Chicago, and a tall office building for Ellis Wainwright in St. Louis. Each is a simple geometric mass—a cube—articulated with a floral and geometric ornamentation largely free of historical references.

AN INSPIRING OFFICE Early in 1888, the young Frank Lloyd Wright joined Adler & Sullivan and, as Sullivan's personal assistant, was able to witness the fulfillment of his ideas first-hand. When Wright left Adler & Sullivan in 1893 to enter independent practice, he had already absorbed Sullivan's view that the highest aim of the architect should be to create an independent style of his own, a style that in some mystical way would reflect the cultural spirit of his time.

Sullivan's vision inspired a group of architects, some Wright's age, others a bit younger, to produce a vast number of buildings in their own new styles. Fate decreed that most of them would be

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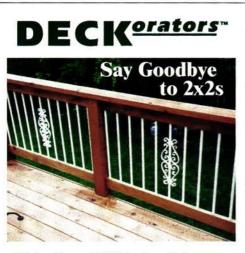
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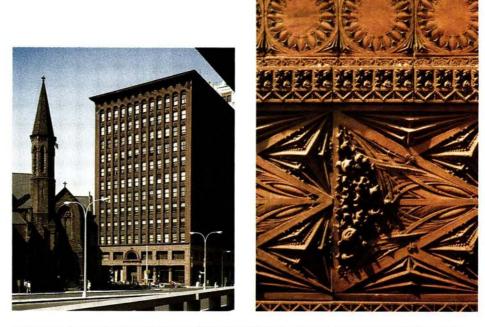


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Left: Today, Sullivan's office building for Ellis Wainwright stands as the birthplace of integrated design in steel frame construction. Right: Ornament in Sullivan's mature style (Guaranty Building, 1896).

houses but, as is evident from the few non-residential buildings by Wright and his contemporaries such as Walter Burley Griffin, their personal styles were just as valid for office buildings, churches, hotels and libraries. The same is true for Sullivan. The only reason why his new style flourished as commercial buildings was because these were the kinds of commissions his partner easily secured.

In fact, Adler's capable presence proved a double-edged sword, for after Adler & Sullivan dissolved their association in 1895, Sullivan found it difficult to obtain commissions. The rising tide of taste for architecture based on the historic styles, coupled with increased personal problems, brought Sullivan to a long period of professional and personal decline. For example, Sullivan and his brother Albert, who had been close, parted ways in 1897 never to see each other again.

Possibly looking for firm anchorage in his troubled life, Sullivan married for the first time in 1899. His wife, a woman his own age, remains a mysterious person. She was born in California as Mary Hattabough, but preferred the name Margaret. We now know that her father was a farmer and her first husband a house painter. How someone with her pedigree could have interested the sophisticated Sullivan is hard to imagine. She must have matured considerably after her first marriage in 1880, for she spoke French, was familiar with upper-class life in New York City, and hoped to become a novelist. By 1909, however, the marriage was essentially over and Margaret moved to New York to write her novel, which appeared in 1913. What happened to their child, born in 1900, also remains a mystery.

Sullivan's fortunes ebbed so far by the time Margaret left, that he was forced to auction off his library and art collection, partly to assist her move. Afterwards he managed to survive on occasional commissions, mostly for small banks in midwestern farming communities. As he carried them out, Sullivan never deviated from his slowly evolving modern style. Nor did he return to the historic styles that would have made his work more saleable. It was a sad fate for a man whose impact was so great through his work, that of his students, and the midwestern architects inspired by his ideas. 100

PAUL SPRAGUE is the emeritus Professor of Architectural History at the University of Wisconsin–Milwaukee, and the author of The Drawings of Louis Henry Sullivan.

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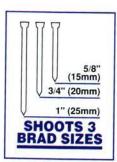
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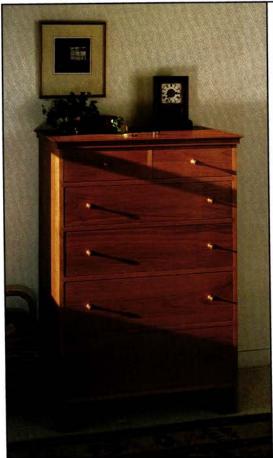


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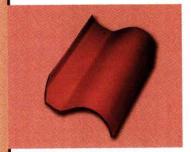
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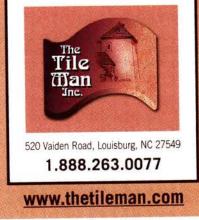
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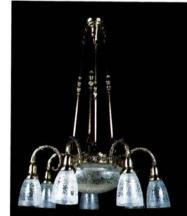




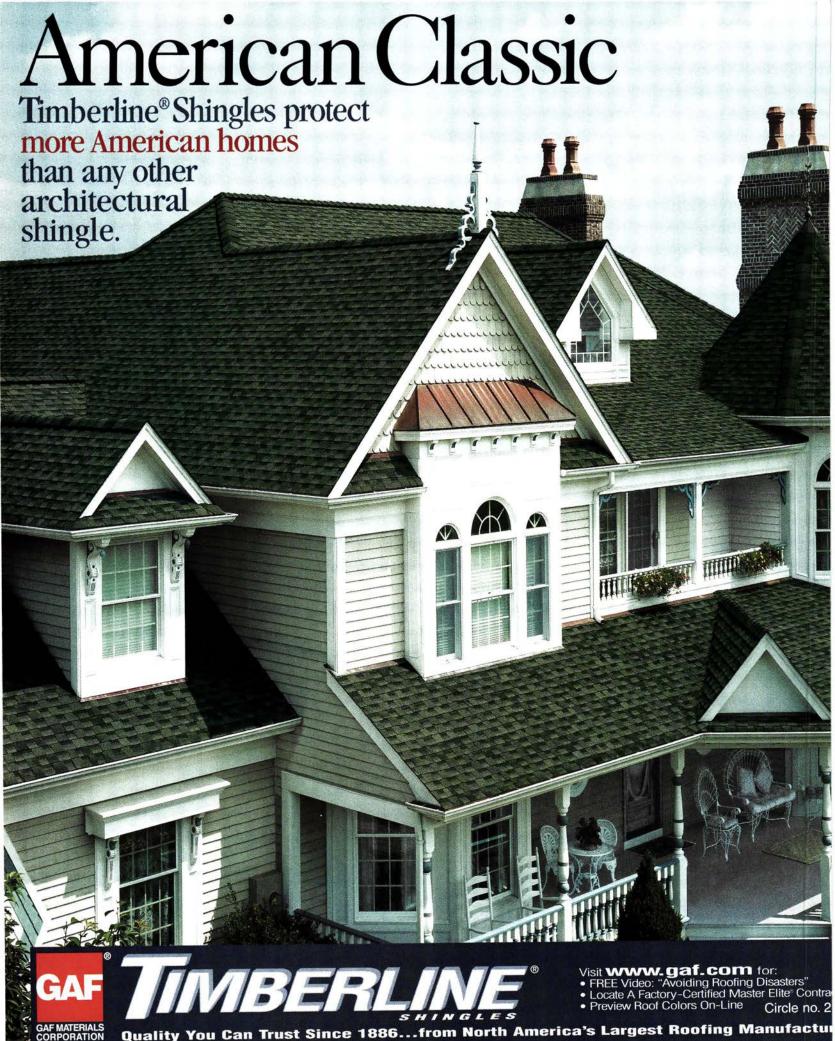






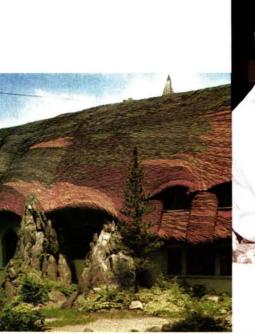






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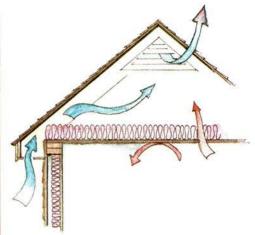
"Since these little Cotswolds and halftimbered Tudorbethans were actually built of modern stucco and structural tile, it made sense to evoke merely the visual essence of thatch in more practical materials."

-page 48



March/April 2000

^{*cc*} When you brush the first coat of clear finish over new paneling or a freshly installed floor, you start a miraculous metamorphosis. As the translucent liquid flows onto the wood, it enhances grain and intensifies color while protecting the surface in a durable armor. A clear finish is the ultimate covering for natural woodwork, but for some old-house folks, it is also the most vexing.^{*v*}—page 60



"Most of us know that insulating the attic keeps the house more comfortable in winter and summer. When the attic is poorly ventilated, insulation can't compensate effectively for temperature extremes."





THATCH IN AMERICA

"The harmony of color and irregular lines allow the thatched effect roof to literally melt into the landscape, like the old English thatched straw roofs." —Wetherbest Stained Shingle Co., 1929

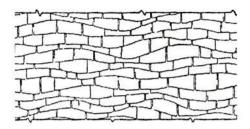
by Gordon Bock

HICK AND WOOLY, with roll-formed eaves and gables like the bangs on some Middle-Ages peasant, thatch is a medieval roofing material. A system of reeds, wheat, or straw secured in place with iron stakes, then shaped and trimmed by eye with special knifes, it was used across northern Europe, from the British Isles to Germany to Poland, on cottages, farm houses, and agricultural buildings of all levels. Thatch is a natural, fireprone material that requires regular maintenance by skilled thatchers, and was all but obsolete by the dawn of the Industrial Revolution in the 1830s. It had no future in the modern world-except in North America.

A century later in the heady housebuilding boom of the 1920s, designers, manufacturers, and builders rediscovered thatch as the ideal roof to cap the cottages and stockbroker duchies springing up in neo-medieval suburbs across the country—albeit with a technical twist. Since these little Cotswolds and half-timbered Tudorbethans were actually built of modern stucco and structural tile, rather than ancient wattle-and-daub, it made sense to evoke merely the visual essence of a thatch in more practical materials. The details of how they did it are little documented, but evidence of their success still hides quietly in neighborhoods across the continent.

A STRUCTURAL STYLE The thatched roof effect was more than an architectural fad. It took extra expense in labor and materials to pull off and, even in its most watered-down form, was never a shortcut to a novel roof. Though they were also suggested for many planbook houses, thatched roofs appeared on houses of the top architects working in the English-revival idiom, such as H. T. Lindeberg, and in premier architect-designed communities of

Roofed in a cedar blanket of curved eaves, rolled rakes, and undulating waves of shingles, this cozy cottage shines with all the classic features of the thatched effect.



The wave pattern (above) made a virtue of irregular exposure by laying shingles with curved butts so that course lines oscillated. These waves anchor the thatch effect on this house in Shaker Heights (right).

the era like Shaker Heights, Ohio. The popularity of the effect extended across North America, and took firm hold in environments as un-European as Texas, California, and the Pacific Northwest.

CEDAR AS A SOURCE The most likely simulacrum for the reedy cellulose of true thatch was the cedar shingle, and wood shingle manufacturers were quick to take advantage of the vogue. By 1925, the Creo-Dipt Company of North Tonawanda, New York, and the Weatherbest Stained Shingle Company of the same town were actively promoting specifications and details for the effect-which, not coincidentally, was best achieved with their products. It was a brilliant way to create a new market for a decidedly commonplace building material, one that also was being challenged by the asphalt shingle and insurance companies calling for greater fire protection.

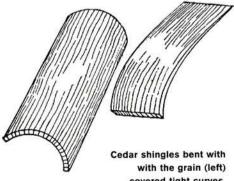
Curves were key to the effect. Through clever framing techniques, such as nailing curved furring strips to the top of each standard rafter, any roof slope could be built with a slight camber so that it was roughly 6" higher at the center than at the ends (see sidebar page 51). Carpenters would double up the framing at hips and valleys to accommodate blocking that produced a gentle bend at the change in roof plane, rather than a sharp crease. At eaves and gable ends they fitted more blocking shaped to make semi-circular look-outs.

Over all this gracefully rolling fram-



ing carpenters would nail 1" x 4" shingle laths, spaced about 3" apart. In an era before plywood, this lathing (similar to standard nailers used to support shingles and slates) was an effective way to maintain the tight, 20" radius curves at eaves, valleys, and gables. When the lathing and framing was covered over with wood shingles, the basic effect was complete.

Since the goal was to avoid corners and straight lines, thatched roofs required special shingles, and it was here that man-



with the grain (left) covered tight curves. Shingles bent against the grain (above) had a 20" maximum radius. ufacturers had their most opportunity. To continue the roof around the semicircular eaves and rakes, the cedar shingles had to be either soaked or steamed so they could be bent to the proper radius in a form. This process might be performed on-site by the contractor, or he could purchase the shingles pre-curved from a manufacturer.

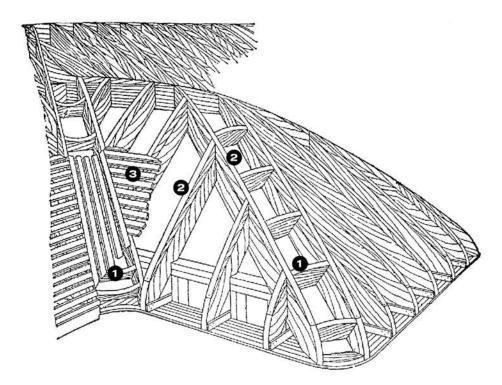
In keeping with a picturesque aesthetic, irregularity in the course lines was desired, not discouraged. To make the shingles lay in long, undulating waves, the roofer used shingles with butts sawn in curves or at a slight angle. Laying each shingle to the short side of its neighbor (and thus exposing progressively less wood to the weather) made the course line go up the roof; reversing the process brought it down. The same pattern could be approximated by laying square-cut shingles at an angle.

In fact, the best thatched roofs looked for every opportunity to play with regular dimensions. Carpenters often framed gable ends in a "rolling rake." In this method,



Conceited Carpentry

Theatrical framing techniques lay behind the illusion of cedar and asphalt thatch. Blocking (1) rounded all sharp corners at eaves, rakes, and valleys. Furring strips (2) added as much as 6" to the middle rafters, giving the roof a gentle camber that softened at the ridge. In the most elaborate houses, even the ridge pole was built with a bow. On top of it all, narrow wood laths (3) carried the shingles.

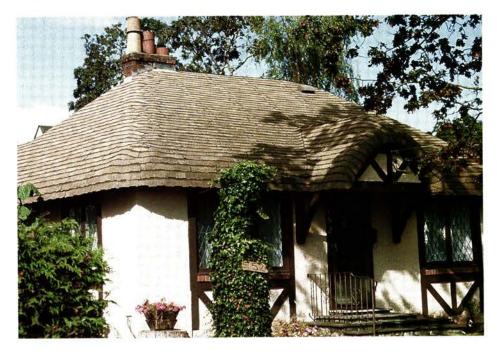


Santarella, shown here in a 1960s view, is a tour de force of construction, as well as asphalt thatched roofing. As Kitson's incredible roof started to take shape, he realized it would be too heavy for the wood-frame barn to support. Once the roof was complete, he began rebuilding the structure underneath in concrete. Santarella is now a Museum and Garden open to the public Memorial Day through October (P.O. Box 414, 75 Main Rd. Tyringham, MA 01264).





Above: As rendered in asphalt, the thatched effect probably always worked best with giant shingles—once a common product, but now seen mostly in interlocking types for windprone regions. Thatched effect roofs produced with T-lock shingles are common in the suburbs of British Columbia. Below: This Victoria, B.C. cottage gets its thatch from woodlike asphalt strips, a local product.



the radius of the rake increases as it moves up the roof, so that the thatch is widest at the ridge. Clipped or "bull nose" gables characteristic of Germanic thatched houses were equally popular on suburban incarnations. Architects even popped eyebrow dormers in the open field or at eaves just to cause bumps in the roof.

ARTISTRY IN ASPHALT It's easy to assume that the thatched effect is inherently linked to cedar shingles, and that other roofing materials—even further removed from the reeds and straw of the old country—were never original. However, this is not the case. As the asphalt shingle reached its first flush of popularity and diversity of patterns in the late 1920s, it's clear that many houses were designed for and originally "thatched" in asphalt.

Thatch in asphalt called on the same roof framing skeleton as for wood shingles, but with a few concessions to the nature of the material. Since the asphalt shingles had to be supported on a closed deck of tongue-and-groove boards, carpenters could not use the spaced lathing of cedar shingles, which took so readily to covering curves. This made it harder to build compound irregularities like cambered rafters and rolling rakes. Even though it was still possible to sheath an eave in a radius using many small boards, most builders considered it enough to leave rakes in a uniform cylinder and roof fields essentially flat, particularly in the tight economic times after 1930.

The roofing itself posed less of a problem. Asphalt shingles could be bent readily on the job, especially if they were warmed first. The only trick was to not break or knock off the mineral coating. Where shingles covered curves on rakes and eaves, they could be layed with the "stayput method." In this technique, the shingles were lapped not only at their heads, but to one side as well after being nailed in place. It didn't hurt that the first gen-

The immense thatched effect roof on the renowned Grove Park Inn is composed of formed clay tiles (inset). After nearly a century of service, the poured concrete under-roof that supports them is now being restored.

eration of asphalt shingles included products like giant individual shingles measuring 12" x 16" and more—far different than the various forms of three-tab strip shingle ubiquitious today.

One of the most remarkable examples of an asphalt shingle thatched roof all original and still functioning—is Santarella, the home-studio of sculptor Sir Henry Hudson Kitson in Tyringham, Massachusetts. Kitson, famous for his bust of the Revolutionary War Minute Man in Lexington, came to the United States from England around 1916. After a stay in the Boston area, he bought property in the western part of the state with a horse barn, which he converted to a studio. Kitson tried to put a true thatch roof on top of the existing barn roof using local rye, but when the thatch rotted he changed his approach.

Working from 1927 to 1930, Kitson built an elaborate second framework of pine boards—similar to an armature used in sculpting—supported by chestnut beams. Over this he layered brightly colored asphalt shingles, hand-cut to create patterns and waves that represent the leaves of the



Berkshire hills in Autumn. The massive roof, which

used 2,000 lbs. of nails, is over 20" thick in places and estimated to weigh 80 tons.

A CODA ON CLAY The thatch effect, untethered from its original material and application as soon as it crossed the Atlantic, has even been executed in clay tile, the most Mediterranean of roofing materials. By the 1910s, a ceramic tile company in Kentucky began producing a line of terra-

In many garden-variety Tudoresque houses, where there was neither the space nor the desire for the full-blown thatched effect, simpler methods and materials were just as appealing. In this Pasadena, California cottage, ridges get a simple, uniform roll, rather than increasing the diameter up the roof.



cotta red tiles designed to create a thatched effect roof.

Similar to cedar shingles manufactured for thatch, tiles were preformed to cover curved eaves, valleys, and gables of a standard radius. Though their use on residential buildings was limited, some 400,000 of these tiles were specified for the main roof of the Grove Park Inn, an Arts & Crafts landmark in Asheville, North Carolina, completed in 1913.

Despite a wane in widespread popularity after 1940, the thatched roof effect is still very much alive, particular in the red cedar producing regions of the Northwest and in the hands of craftspeople who specialize in its installation. Does North America hold a metal or rubber version of thatch? Maybe, just waiting to be found.

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Second Skins A Buyer

by Gordon Bock

HAT IF THERE were a way to pour on a new roof? There's probably no concept more tempting to anyone working on an old house than a product they can brush or roll over a decades-old roof to keep out the elements, yet retain the original materials.

Though technology has yet to present the ultimate brush-on roof useful for all old houses, chemistry innovations since the 1970s have spawned a variety of systems that come close. They can offer a costeffective solution for many old roofs with problems too big to patch, but too small to warrant reroofing. Since the industry is immense with many overlapping terms, here's some basic questions you'll want to consider if you think that a liquid roof may be for your old house.

what is a LIQUID MEMBRANE? There are many processes in the roofing industry



Water-based technology streamlined liquid membrane application to little more than product and roller. Basically sound roofs may require only primer and wearing coat.

that employ a liquid to create a protective, seamless surface. Generally, the technologies most popular for use over existing roofs fall into a broad class called variously *liquid membrane* or *cold-applied* roofing systems. In new construction, these systems are designed to cover many types of substrates—from plywood to rigid foam to concrete. This versatility can make them equally ideal for covering certain kinds of pitched roofs on houses.

The big boon to liquid membrane

A Buyer's Primer

for Liquid

Membrane Roofs

roofing arrived about 20 years ago when manufacturers perfected the technology for water-based systems. Water released the roofing industry from heat that was often necessary to keep bituminous compounds liquid enough to apply. (For example, *hotapplied* systems, such as "hot-mopped" built-up roofing for row houses, require on-site cookers for installations.) Waterbased technology also sidestepped the largescale need for solvents, making these systems far less noxious for the environment and, generally, very user-friendly.

How DO LIQUID MEMBRANES WORK? When the liquid in a liquid membrane evaporates, the solids bond to form a flexible surface that is not quite a single-ply roofing membrane, such as EPDM rubber (see March/April 1998 OHJ), but much more than a paint. Depending upon the system, some of these coatings are often called elastomerics—that is, coatings that can stretch to roughly twice their normal length. Components vary widely with the products, but generally they are based on of three types of systems:

MODIFIED BITUMINS — Asphalt or coal tar

Beside working well over a wide variety of substrate materials, from asphalt to metal, acrylic liquid membranes can be made in several colors traditional for roofs.

that has been combined with a polymer to improve characteristics.

RUBBERS — Manmade rubber in virgin or recycled form.

ACRYLICS — A large group of tough, stable synthetic resins.

Liquid membranes are frequently installed in multiple layers: 1) primer or base coat; 2) second coat; 3) top or wearing coat. As with paint, layer durability is a function of product quality, and you get what you pay for with liquid membrane roofs. Five gallons of one product might cost half of another, but when the final coating is thin, because a large proportion of the liquid has evaporated, the savings is lost. Fillers are poor economy as well. In acrylic systems, they may add bulk to the liquid, but they won't have the UV resistance of a 100% acrylic product.

WHAT ABOUT FABRICS? Many systems also have the option of using some sort of reinforcing fabric—usually woven from manmade fiber such as polyester. Like cellulose or fiberglass felt in asphalt shingles or roll roofing, the fabric adds dimensional strength to the membrane. Fabric also helps keep the coating in place as it flexes with the inevitable expansion and contraction of the substrate—particularly the case with metal roofs—and it helps bridge small joints and seams in the substrate.

Fabrics contribute performance to liquid membrane roofs, but they add to the costs, both in labor and material. More-

Liquid membranes are layered

according to product and roof needs. On top of primer/base coat, they may use:



CAROLINE DAVIS/PRESERVATION PRODUCTS, INC. (TOP)

A Coating Case History by Matt Gill

Y WIFESHARON and I have been restoring our 1868 Italianate country home since 1993. The house, which had been empty since the 1950s, needed all major maintenance items, including mechanical systems-heating, electrical, and plumbing-and roofs. On the main roof, we replaced the existing three-tab asphalt roof with a premium textured architectural shingle. The roofs over the porches and bay window, however, have a much lower slope, so they were originally covered with flatseam terne metal. Probably as old as the house, these roofs were full of rust holes, due to lack of maintenance, and starting to rot the wood decking underneath.

Though temporary fixes lasted for three years, when the roof over the bay window began to leak it was time to make permanent repairs. I looked into replac-



copper or new terne metal, but both required soldered joints and the skills of a craftsman. After studying the ads in OHJ, I decided that an acrylic coating product was a solution that I could

ing the roof with

The bay is only the first metal roof under restoration on the Gill Italianate. Porches come next.



apply by myself and still retain the look of the original terne metal roofs.

CARPENTRY COMES FIRST Before I could coat the roof, I had to repair all of the structural and surface damage in order to prepare a sound, straight base. For example, several roof joists had rotted off, so I sistered in new lumber. Since the parlor ceiling was already opened up, I was able to replace some of the rotten decking boards from below without disturbing the terne metal above.

In other cases, I had to cut open a portion of the metal roof, repair the deck, then reinstall the metal. Where there were large holes in the metal, I fitted in new sections of galvanized sheet metal, then anchored them to the deck with galvanized deck screws. Not surprisingly, much of the damage was near the built-in type gutters that edged the roof.

ROOFING IN ROLLS After I finished repairing deck damage and patching the old terne metal, I wire-brushed the entire roof, cleaned it, and applied a rust-inhibiting metal primer. The following day the roof was ready for the first application of acrylic coating. The product I used (Acrylic Roofing System by Resource Conservation Technology) recommends a roller with a ¹/₂" nap. After applying the first coat, you embed lengths of polyester fabric in the wet coating, then follow immediately with a second coat of acrylic. Since the coating dries very quickly, the fabric has to be applied within a few minutes of the first coating.



Left: Preparing the neglected terne metal roof meant wire-brushing off all loose paint and rust, and patching with new sheet metal (white areas in photo). Bottom left: Unrolling the fabric into the wet primer is one way to saturate the weave quickly. Below: The top layer holds the color and should be recoated every few years.



I found that the easiest way to perform the fabric step was to first lay it out dry, cut it to an appropriate length, then roll the fabric up. Next I would coat about a 2' section of roof and unroll the fabric into the wet acrylic. Then I would quickly apply the second coat of liquid on top of the fabric and continue to the next section.

Using this method, I applied the subsequent sheets, lapping sections by 3" or 4". At some laps I had to recoat the first sheet to get the second to adhere properly. (When I started the project, the air temperature was in the 90s, which greatly increased the coating setup time.) Since this is a four-coat system, I applied the third and fourth coats the following weekend after the others had dried thoroughly. The first two coats were concrete grey, but I picked patina green for the finish coats so they resemble weathered copper. The manufacturer recommends applying a new coating of acrylic every five years, a process which should maintain the roof indefinitely.

Overall I am very satisfied with the system and its ease installation. The cost of the roof, including carpentry repairs, was \$350, substantially less than the \$3000 estimates for a new copper roof. I logged about 35 hours total labor for the complete job—about $\frac{2}{5}$ of that time in repairs to the roof decking, soffits, and brackets. The next phase of our project will be to use the acrylic system on the two porch roofs. over, the expense of fabric is not in the material alone. During installation, reinforcing fabrics have to be thoroughly wetted down, which may require 30% to 50% more liquid than just a simple coating.

WHERE CAN YOU USE LIQUID MEMBRANES?

Generally, liquid membranes are most applicable for smooth roofs. In old houses, this makes flat or low-pitch built-up roofs good candidates, as well as metal roofs with both flat and standing seams. While many products have excellent adhesion to asphalt shingles, seamless coatings may not be ideal long-term for a roof that is supposed to breathe between courses.

Though a liquid membrane may provide an alternative to buying a new roof, it won't avoid good installation practices. Manufacturers usually recommend extra fabric or coating methods at roof penetrations, such as pipes and chimneys, flashings, and terminations at eaves and rakes. As with all coatings, good surface preparation is critical, particularly for water-based elastomers. Unlike solvent systems, water-based elastomers cannot redissolve, say, the chalky surface of an aged asphalt roof to secure a good bond. Rust and scale on metal roofs must be power-washed off and mechanically removed, if necessary, with wire brushing or gentle blasting. However, with a good installation, and regular maintenance recoating, a liquid membrane roof can be a second chance for an old-house roof.

Special thanks to Scott A. Bennung of Preservation Products.

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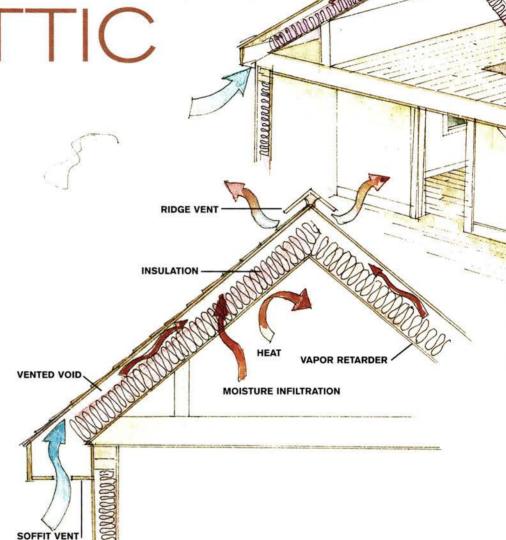
VENTILAT AN ATTIC

TTIC VENTILATION is one of the most poorly understood functions of a house, old or otherwise—particular in terms of its relationship to insulation. Most of us know that insulation helps a house stay more comfortable in winter and summer, cutting heating and cooling bills accordingly. When the attic is poorly ventilated, however, insulation can't compensate effectively for temperature extremes—or handle the potentially damaging moisture build-up that's likely to ensue.

Before the advent of air-retarding housewraps, weather-tight windows, and weatherstripping, houses tended to be fairly leaky. Cracks and gaps in the house's weather envelope allowed most of the water vapor created by respiration, cooking, dishwashing, bathing, and clotheswashing to escape. Even for old houses, this is no longer likely to be true. Houses are built (and restored) tighter these days, and contemporary households use far more water than those of a century ago.

Through the dynamics of air movement in a house, a lot of this moisture can end up in the attic, where it condenses on rafters and roof decking. Left unchecked, this condensation can saturate the roof, attic floorboards, insulation, and even walls and ceilings.

Properly ventilating an attic "has



everything to do with the performance of the roof shingles and the energy integrity of the insulation," says John S. Morris Jr., manager of contractor services for Globe Building Materials Inc. "If the insulation is wet, its R-value goes way down."

Modern building codes for ventilation require one square foot of free vent area for each 300 square feet of attic area. (Screens and louvers reduce the free area by two-thirds.) If the house lacks a vapor retarder between the living space and the attic, or lacks intake vents, the requirement doubles to one square foot for every 150 square feet of attic space.

While the gable vents found in many old houses may approach these minimum standards, they allow for only limited air flow, especially across the underside of the roof deck. A more effective means of ven-



The Thermal Effect

An effective ventilation system uses the thermal effect (the property of warm air to rise and cool air to fall) to create a natural circulation of air in an insulated attic. Placing intake vents at the lowest point in the attic (usually in the eaves) and exhaust vents at the highest point (the ridge) speeds the movement of air, wicking moisture from the attic in winter and excess heat in summer.

tilating an attic is to create a path that enables natural thermal patterns to exhaust the heat and moisture that tends to collect there.

Just as you would size a boiler to the size of your house, you'll need to size vents to the size of your attic. Intake and exhaust vents work in tandem, meaning they must be of equal air-flow capacity in order to work properly. (Building codes supply formulas to insure a proper balance of intake vents to exhaust vents.)

Since warm air rises, the exhaust vents should be placed at or near the roof ridge. (Ridge vents were developed for just this purpose.) Intake vents should be positioned as low as possible on the roof, normally in the eave soffits. If the roof is insulated (and it should be), there must be a void of at least $1 \frac{1}{2}$ " between the

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underside of the roof deck and the insulation, which should have a vapor retarder on the attic side. Once all the elements are in place, air at ambient temperature flows in through the soffit vents, helping to draw hot or moist air toward the roof ridge, where it can escape through the ridge vent.

While builders install ridge vents as a matter of course in new construction, adding one to an old house is usually a retrofit—a job that's best done when the roof needs a new set of shingles. Because of the relationship between poor ventilation and the potential for shingle failure, most of the major asphalt roofing manufacturers have developed ridge vents that work with their other roofing products.

"The biggest challenge we roofing manufacturers face is convincing homeowners that they need more ventilation," Morris says. Homeowners looking at a \$6,000 or \$7,000 roofing job don't usually want to hear that incorporating a new ventilation system will add 10 to 20% to the project's cost.

Those additional dollars can potentially offset every dime you'll spend on a new roof. "Proper ventilation can mean the difference between early failure and long life for a new roof," Morris says. "Doing things the right way will cost you a little bit more money, but it's going to save you a lot of grief in the long run." There's no magic to brushing on a clear finish that dries smooth and flawless, even over complicated surfaces. The keys are meticulous preparation and choosing the proper coating.

Working with Clear Finishes WHEN YOU BRUSH the first coat of clear

WHEN YOU BRUSH the first coat of clear finish over new paneling or a freshly installed floor, you start a miraculous metamorphosis. As the translucent liquid flows onto the wood, it enhances grain and intensifies color while protecting the surface in a durable armor. A clear finish—be it traditional oil varnish, modern polyurethane, or one of the new waterborne products is the ultimate covering for natural woodwork, but for some old-house folks it is also the most vexing.

With dozens of products on the paint store shelf, each one more or less suitable for old-house projects, choosing a clear finish can be confusing. No less intimidating for many restorers is applying a finish that is glass-smooth and flawless especially on vertical or inverted surfaces. Fortunately, the answers are as clear as the finish itself, once you have good tools and a few techniques at your command.

CREATE GOOD CONDITIONS To keep your varnishing project enjoyable, set up the best possible working conditions. You'll need good light to varnish, but never direct sun. On a hot surface the finish won't flow out right. Conversely, make sure there is adequate heating (between 60° and 70° F). If the room is cold, the finish will not set up appropriately, and you might

return the next day to find it full of sags and runs. Finally, avoid working on damp, rainy days. Excessive humidity prevents clear finishes from drying, and makes it hard for vapors to escape the work area.

Before applying the first coat, prepare as dust-free a room as possible. Vacuum floors, as well as all surfaces to be finished. Take the time to remove dust over door casings or in joinery cracks that you might inadvertently pick up with your brush. Although proper ventilation is important, don't create direct breezes with fans or windows, and designate your work area off-limits to other workers.

If your finishing project is new work, you will only get a smooth look and scintillating grain with scrupulous preparation. First, clean all wood surfaces before applying any stains or clear finishes. Bleach discolored areas, then wash or sand off fingerprints, pencil marks, chalk lines, and blemishes. Meticulous finishers routinely wash all wood surfaces with a rag dampened in denatured alcohol. Final-sand all surfaces with 220-grit sandpaper, sanding only with the direction of the grain. Lightly sand off any right angle edges and all sharp



The tools for top-quality clear finishing are ageless and low-tech. From top, left: a clean work pot to hold the finish in use; paint strainers for filtering out impurities; your chosen product; thinner or other solvent for clean-up; a quality brush; sanding pads and tack cloths for preparing and cleaning existing surfaces.

Finish Types for New Work

Though some manufacturers would have you believe one product is acceptable for every application, you can narrow the choices to three common brushable clear finish types.

OIL-BASED VARNISH-Until about 25 years ago, oil-based varnish was every homeowner's favorite clear finish. Oil varnishes might be individually formulated to fit various needs-floor varnish, trim varnish, marine varnish, artist's varnish, and furniture varnish-but each was composed of the same basic ingredients: oil, resin, driers, and solvents. It's not uncommon to find a decades-old oil varnish finish in good condition. Despite this track record, many coatings manufacturers no longer produce oil varnish, but it can be had with a little hunting. Varnish is a joy to apply, dries to a very clear, elastic finish, and provides good protection against spills and scuffing on trim, doors, and floors. On the downside, varnish dries slowly, yellows with age, requires solvents for clean-up, and is not as abrasion and water resistant as polyurethane.

OIL-BASED POLYURETHANE—Over the last 20 years, oil-based polyurethane has displaced varnish as the best selling clear finish. Manufacturers addressed early complaints that polyurethane looked like a heavy plastic coating, and now it's impossible to tell the difference between a varnish or a polyurethane finish. Similar in composition to oil varnish, yet much harder due to the addition of polyurethane resins,



On protected exterior surfaces—doors, porch ceilings, or sidelights—use spar varnish or exterior polyurethane with UV absorbers. However, if your exterior surface is not protected by a porch, hood, or awning, you're bound to fight a never-ending maintenance battle.

polyurethane provides extraordinary resistance to moisture, alcohol, and abrasion. It's a great choice for kitchens and bathrooms where humidity and moisture are a problem. Since polyurethane dries faster than varnish, the time between coats is shorter. But like varnish, polyurethane requires solvents for clean-up, and it yellows with age.

WATERBORNE POLYURETHANE—It's no wonder that a mere 10 years after they first appeared waterborne polyurethanes are popular with both professionals and do-it-yourselfers. In warm, dry weather, you can apply three or more coats in one day, shortening the customary three or four days for a small project to 24 hours. As with latex paint, waterborne polyurethane produces very little odor, and brushes clean up with water.

But it's not all roses. Waterbornes are watery and relatively thin when dry, so they're trickier to apply than traditional clear finishes. With this in mind, some manufacturers offer special waterborne sealers that sand easily and promote a quicker build-up of material. Waterborne clear finishes dry clear and do not yellow. For most applications this is a benefit, but over some dark or dark-stained woods, it may leave a faint milky film. To overcome this problem, finishers tint their waterbornes amber to compensate for the lack of color in the finish. Apply all coats of waterborne polyurethane unthinned, sanding between coats.

The Deal on Sealers

Some clear finish manufacturers sell sanding sealers specifically designed to be a first coat over unfinished wood. These products usually take less time to sand and recoat than applying the finish as the first coat. Sanding sealers also create an exceptionally smooth base for subsequent coats. Never intermix different brands of sealers and finishes, however, and do not use varnish sealers with polyurethane finishes. If you cannot purchase a sanding sealer for your oil-based polyurethane or oil-based varnish, thin the first coat by 10%—15% with an appropriate thinner. Most manufacturers do not recommend thinning waterborne finishes.





A Bit on Brushes

corners-for example, the arris where door stiles and rails meet panels. Finally, remove any remaining dust with a tack cloth.

Make sure all surfaces are completely dry before coating. Whether you use sealer or finish for the first coat, sand it when dried with 220-grit or 280-grit paper, then clean the surface with a tack rag before the next coat. Although many sealers are designed to dry quickly, actual drying and recoating time will vary with temperature and humidity.

If you choose a waterborne product for your finish, it's a good idea to first brush a coat of water on the surface. Waterborne finishes significantly raise the grain of the wood. This makes the first finish coat rough. The water raises the grain in advance so you can sand it smooth before the first coat. This step is especially important if you're using a waterborne finish over stain. (If you over-sand the finish, you might abrade through the stain.)

PREPPING OLD WORK Even though existing clear finishes are, in effect, already sealed, they require fastidious preparation of a different kind. First, wipe the surface well with a cleaner to remove hand oils, food, and surface contaminants. If the finish has been maintained with waxes, polishes, oils, or rejuvenators, clean with an appropriate solvent, such as VM&P naptha. Ventilate the area well, and change paper towels or rags frequently to remove, rather than smear, wax or oil.

The most insidious contaminants are polishes and oils that contain siliconethe curse of woodwork and furniture refinishers. Silicone causes "fisheye," a defect where your fresh coat of clear finish is suddenly marred by small craters that won't disappear with a second coat (see page 64). The trouble is, silicones are tenaciously difficult to remove. A swipe of a cleanser or solvent won't do the job, but careful cleaning with ammonia might work. You can also try spraying a thin coat of shellac over the surface to seal the silicone. Many professional finishers shrug off excessive cleaning and mix a drop or two of fisheve eliminator in their finish. Available for both oil-based and waterborne finishes, fisheye eliminator stops the problem by adding silicone to the new finish, thereby reducing the surface tension between the old and new coatings.

To get a good finish, use a good brush. For oil-based finishes, soft white, Chinese

bristle brushes work fine and are reasonably priced (\$5 to \$15). For a superior finish, I

use a quality nylon-polyester blend. For very small projects, a foam brush works fine.

prefer a bristle and ox hair blend brush (\$15 to \$30). When applying waterborne finishes,

To ensure that your new coat is anchored adequately, scuff up the old finish with sandpaper to create a mechanical bond. If the finish is hard and in good repair, 150-grit or 180-grit sandpaper is fine. If your finish is thin and brittle, but doesn't need stripping, use 220-grit or finer



Finish Types for Old Work

When you want to apply a new coat of clear finish over an existing finish, you should use the finish that is most compatible with the old finish. To do this, you must determine the nature of the old finish—a step that is sometimes easy and sometimes not. Here are a few tips to help identify old finishes:

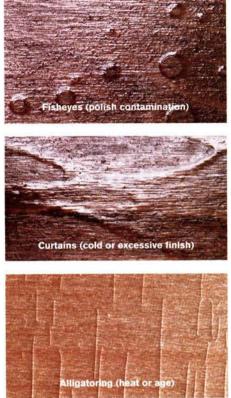
 If your finish is very old (75 years or more), dark, and melts easily with denatured alcohol, it's probably shellac. In this case, recoat with shellac (See Jan./Feb. 1995 OHJ), oil-based varnish, or oil-based polyurethane.

If the finish is 15 to 50 years old and unaffected by alcohol, it is probably varnish or polyurethane. In this case, oil-based varnish or polyurethane is the best choice for refinishing.
If the finish is recent—say within the last 10 years—and dissolves with alcohol, it's probably a waterborne clear finish and should be finished with a waterborne finish. sandpaper. Stores even sell surface preparation liquids intended to replace the elbow grease of sanding. Professionals disagree on their value, but a bonding solvent is better than no sanding at all. Apply a test patch of finish to make sure there are no contaminants left behind. If your test patch scrapes off easily with a fingernail, the surface needs more preparation. As with new work, vacuum and tack off any dust before you apply your first coat.

KEEP IT CLEAN Never shake a can of clear finish to mix the contents. Shaking creates bubbles that show up on the finish as little dots or blemishes. Rather, stir the finish with a clean paint paddle, lifting material from the bottom of the can until the all the finish has the same consistency. This is especially important if you choose any sheen other than glossy, because the additives that create the sheen will settle.

To avoid introducing dust and par-

Common Finish Defects (and their causes)



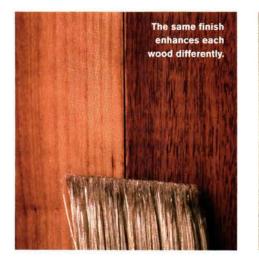
ticles that will mar the surface, experienced painters never pour more finish from the can than they need for one coat. They also never pour finish back into a virgin can. Instead, at the end of the workday they discard any leftover material, or save it in a separate container. When you work from an old can of finish, always strain the material through an inexpensive cone strainer. If your can is brand new, it shouldn't need straining, but if the new material feels excessively rough after the first coat dries, strain it for the remaining coats.

When you apply any clear finish, use a clean work pot and brush that has never been in paint. If you drop your loaded brush on the floor or foul it with dust, don't put it back in the clean finish; stop and clean the brush or get a new one. When using an oil-based finish on consecutive days, you can defer daily brush cleaning by wrapping the brush in plastic wrap and storing it in the freezer. **APPLY THE FINISH** To get a feel for how your chosen finish brushes on, it's a good idea to practice coating a sample board. The customary clear finish on new work uses three coats. First, a coat of sealer or thinned finish. Follow this with a light sanding and an unthinned second coat of finish, using the sheen of your choice: flat, eggshell, satin, semi-gloss, or gloss. When the second coat dries, sand it with 320-grit paper, tack the surface, and apply a third, final coat. Work from top to bottom but, when finishing doors or cabinetry, always brush-in the panels first, then advance to the surrounding stiles and rails. When possible, detach doors and support them horizontally to reduce the opportunity for sags and runs. Always remove all hardware first.

It's best to dip your brush partially into the finish, patting out the excess on the side of the can. Apply your brushload of finish over the surface in a long sweeping movement, not all in one place. Then brush the finish out evenly in long strokes, working in the direction of the grain. On vertical surfaces, you'll find that finish has a tendency to accumulate and run down the rails long after you've moved on. To avoid this, wait until your brush is almost exhausted of material, then apply the finish sparsely at lower panel areas.

Finishing overhead is tricky. To prevent finish and thinner from running down your hand, never use a brush that has just been cleaned. If you have a large area to finish, wrap a cloth around the ferrule to catch the excess.

The first coat of clear finish on new work usually goes quickly. The reason is, you can readily see where you've applied





Touching-Up Is Hard to Do

It is always difficult to touch-up a small ding or scratch on a finished surface without leaving evidence of the repair. The best way to do this is to first stain or seal the damage. Then when this dries, recoat the entire element. If, for example, there is damage on one side of a door casing, finish the casing from top to bottom, making a perfectly clean break at the upper joinery. Generally, professionals do this with careful brushwork alone, but masking the joint with painter's tape also works fine.

finish, due to the color change in the surface. The finish also penetrates the wood some, which reduces the incidence of runs and sags. The second and third coats, though, are not as easy. Even though a freshly applied brushload of clear finish looks wet—really wet—it is difficult to see exactly where you've applied the material and where you've stopped.

To make matters worse, as the finish dries the wet appearance dulls, and random areas of drying finish usually look like holidays (skips in the finish). Resist the urge to return to these areas because drying finish should not be touched up. Most professionals avoid this problem by consistently inspecting their work from a raking angle, or by directing a strong light on the working surface from a raking angle. The key is to use the best light possible; daylight is ideal, but not direct sun.

Perfectionists might want to apply a fourth and fifth coat for a deeper appearance, sanding and tacking between each coat. After all, that look of wood glowing warmly under a rich layer of amber is the beauty of a clear brushed finish.

STEVE JORDAN is an architectural conservator with Bero Associates Architects in Rochester, New York, a painter for 20 years, and a devout fan of old-fashioned varnish.

Special thanks to UGL/ZAR and Historic House Parts (www.historichouseparts.com) for help with location photography.

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HOUSE HOW-TO

BASICS

Cleaning a **rbl**e Mantel

HE MARBLE MANTEL in my apartment is easily the plainest in the building, an 1865 Second Empire row house in Boston's historic South End. But it's still white marble, that lustrous, luxurious material that recalls the snow-white peaks of Carrara or it would, if only the mantel were *clean*.

BY MARY ELLEN POLSON

When I moved in, the top surface was pitted in places and stained with a combination of soot, rust, and what appeared to be coffee rings. Rust-colored stains and more soot grimed the fireplace surround. I've since discovered that stains that looked the toughest cleaned up with a little bit of soap and water, while seemingly innocuous stains defied repeated treatments using an arsenal of chemical weaponry.

Despite its great age, this marble mantel at Gainswood in Demopolis, Alabama, is in top condition. Marble was a favorite material for mantels between 1840 and 1880.



OLD-HOUSE BASICS



Soot and smoke often dissolve freely in a bath of soap and water. Use a stiff, natural-bristle brush and a non-ionic detergent, such as lvory Liquid.

Types of Stains

MOST STAINS ON marble fall into one of five categories: *soot* or *smoke*, *oily stains*, *adhesives*, *organic stains* such as coffee and tea, and *rust*. If the mantel will come clean at all, each of these problem stains usually responds to a specific solvent that unlocks the stain within the stone. That said, it's not always easy to determine the cause of a

specific stain. Plan to experiment with several different cleaning agents, particularly if your mantel appears to have multiple types of stains, as mine did.

Since marble is porous and easily damaged by acids or abrasives, teasing out certain stains requires a bit of finesse. While a number of commercial marble cleaners are on the market (see "Suppliers," p. 78), it's relatively easy to



Applying a Poultice

To draw stains out of marble without damaging the surface, apply a thick layer of absorbent material, such as whiting, Fuller's earth, baking soda, or paper towels (1), then wet and activate it with the proper solvent. (2) Here, a 20% solution of hydrogen peroxide is sprayed onto the absorbent, which should be at least 1/4" thick. (3) To keep the poultice wet, cover it with plastic wrap taped in place.





create your own cleaning agents, usually with materials available at the local hardware store.

Basic Cleaning

MIX UP A SUDSY BATCH of a non-ionic detergent, such as Ivory Liquid, with warm water, and scrub the mantel with a medium-stiff, natural bristle or plastic brush. (Avoid wire brushes, steel wool, or other metal utensils.) Use a toothbrush dipped in suds to clean tight spaces.

If the mantel is still dirty after this initial cleaning, use a stronger cleaning agent—ammonia diluted with water, or full-strength if necessary. Organic stains may respond better to a mix of hydrogen peroxide and water. Be sure to wear rubber gloves to protect your skin when you're working with these chemicals.

While you can also try a little diluted household bleach on persistent stains, bear in mind that bleach may etch the stone. (Never combine bleach with ammonia; together they produce a toxic gas that can cause severe damage to the respiratory system.)

Creating a Poultice

IF YOUR MANTEL is particularly dirty, there will probably be some residual staining—discoloration deep in the pores of the stone. One of the most effective techniques for drawing out persistent stains is to use a poultice made from a thick layer of an absorbent material, activated by the solvent that works best for that type of stain. As a rule, leave the poultice in place for at least 24 hours, under a layer of plastic wrap sealed with painter's tape.

The wet poultice allows the solvent to penetrate deeply into the stone. As the poultice gradually dries out, the solvent migrates back into the absorbent material—drawing the stain with it. For best results, the poultice should be at least 1⁄4" thick; the thicker the poultice, the more thoroughly the cleaning agent can work.

Almost any color-neutral absorbent material can be used in a poultice, from shredded toilet paper to commercial poultices formulated specifically for marble (see *absorbents* under

OLD-HOUSE BASICS

"Materials Check List," this page). While most of these materials are essentially inert (such as plain paper towels), some contain an active ingredient and should be used for specific types of stains. Baking soda, for instance, is an effective alkaline cleaning agent when wet with water. One caveat: If you're working with a darker marble, avoid using any of the powders as poultices. The fine particles may settle in the pores. Blotting paper or paper towels are better choices.

Once the poultice has done its work, remove it with a plastic or wooden scraper, preferably before it has thoroughly dried. Wash the marble with mild detergent, then rinse and dry the surface. Now for the bad news: Even if you've correctly identified the stain and used the right solvent, you may have to apply the poultice two or three times to completely remove the discoloration. Particularly old or deep-seated stains may not respond to any cleaning method.

SMOKE AND SOOT. If you still have dingy gray

place 48 hrs.

or yellow stains after a thorough cleaning, mix up a ¹/4"-thick poultice of baking soda and water. Seal the poultice with either plastic wrap or a layer of damp cloths and leave it in place at least 24 hours, or until almost dry. As an alternative, try diluted liquid chlorine bleach applied directly to the stone.

OILY STAINS. Wax, butter, crayons, even cold cream can eventually soak into marble, creating a persistent stain. Before applying a poultice, clean the area as you would a paint spill—with paint thinner, mineral spirits, naptha, or acetone. If there's still a residue, use one of the above agents with the poultice method.

ADHESIVES. To remove sticky substances such as gum or tar, try chilling the area with a piece of dry ice. The intense cold should make the spot brittle and easy to pop off. One warning: make sure the mantel surface is completely dry. Any moisture in the stone could freeze and crack the marble. If there's still a residue, try rubbing

Problem-Solving Poultices TYPE OF STAIN METHOD **BEST MEDIUM** ACTIVE SOLVENT Smoke/soot Thick poultice Baking soda. Water mixed with baking soda to (1/4"+)make a cleaner. Water mixed with bleach. Oily stains (wax, Thick poultice Any of the Acetone, naptha, or mineral spirits. (1/4"+)crayon, butter, some absorbents. adhesives) Adhesives Chilling Dry ice; otherwise, None, but be sure marble is (tar, gum) try acetone. completely dry, otherwise dry ice may cause it to crack. Organic stains (tea, Thick poultice Any of the Full-strength ammonia or 1 part coffee, juices, etc.) (1/4"+)absorbents. hydrogen peroxide to 4 parts water. Rust (stubborn Two-part poultice; Any of the powdered stains) last step left in absorbents.

STEP 1: Sodium hydrosulfate solution (1/4 lb. to 1 qt. water) applied for 15 minutes, followed by STEP 2: Apply 1/4" layer of sodium citrate crystals and a 1/4"-thick layer of powerdered absorbent, soaked w/water.

Materials Check List

If you're faced with tough stains of an indeterminant nature, you'll probably need to experiment with several of the cleaning agents and absorbents listed here.

CLEANING AGENTS

- Non-ionic detergent, such as Ivory Liquid
- baking soda
- acetone, naptha, or mineral spirits (paint thinner)
- hydrogen peroxide
- household ammonia
- chlorine bleach
- sodium hydrosulphate crystals*
- sodium citrate*
- commercial marble cleaner (see Suppliers)

ABSORBENTS

- plain paper towels
- . Fuller's earth
- whiting (powdered chalk with lime content)
- marble dust
- talc

 commercial poultices formulated specifically for marble (these will contain one or more of the above absorbents)

BASIC SUPPLIES

- natural bristle brush (medium-stiff)
- plastic spatula
- plastic wrap
- painter's tape
- wet-dry finishing sandpaper (120-, 220-, and 320-grit)
- marble polish, such as Renaissance Wax
- buffing cloth or buffing attachment

*Check your Yellow Pages for chemical supply houses

OLD-HOUSE BASICS

SUPPLIERS

ACE HARDWARE

(basic supplies) 2200 Kensington Ct. Oak Brook, IL 60523 (630) 990-6600 www.acehardware.com Circle 31 on the resource card.

BOSTIK (Alkaline and marble cleaners) 211 Boston St. Middleton, MA 01949 (800) 726-7845 www.bostik.com Circle 32 on the resource card.

CUTLERY SPECIALTIES

(Renaissance Wax marble polish) 22 Morris Lane Great Neck, NY 11024 (516) 829-5899 Circle 33 on the resource card.

HMK STONE CARE SYSTEM (stone cleaners and sealers) 1555 Burke Ave., Suite C San Francisco, CA 94124 (800) 424-2465 www.hmkstonecare.com Circle 34 on the resource card.

MARBLELIFE (Stone and marble cleaning/restoring) 805 W.N. Carrier Pkwy. Suite 220 Grand Prairie, TX 75050 (800) 627-4569 www.marblelife.com Circle 35 on the resource card.

PROSOCO (Marble restorers and cleaners) P.O. Box 171677 Kansas City, KS 66117 (913) 281-2700 Circle 36 on the resource card.

MTA INC./STAR SYSTEM PRODUCTS (Marble cleaner/restorers, poultices, and polishes) P.O. Box 397 Manchaca, TX 78652 (800) 356-2505 Circle 37 on the resource card.





To refinish scratched and pitted marble, use wet-dry sandpaper (left), progressing from rough (120-grit) to fine (320 or better). Follow up with buffing powder, then a polish specifically for marble (right).

the spot with acetone, or if necessary, use an acetone poultice.

ORGANIC STAINS. Tea, coffee, juices, and dyes transferred from paper and textiles can all leave troublesome stains on porous marble. Try cleaning the stains with diluted or full-strength ammonia, or alternatively, apply a mix of one part hydrogen peroxide and four parts water. If the stains persist, use either full-strength ammonia or 20% hydrogen peroxide as the active ingredient in a thick poultice.

RUST. One of the most stubborn stains, rust can penetrate marble from flower pots, nails, tools, steel wool, and even some types of soil. While you may be tempted to use commercial rust removers that contain oxalic acid, keep in mind that these can etch the surface of the marble. Commercial poultices are often effective on many of these tough stains, although they won't work in every instance. For the worst rust stains, you may want to try the following process, provided you can locate the necessary chemicals at a local chemical supply house.

• Dissolve ¹/₄ lb. sodium hydrosulfate crystals in a quart of water. Apply this solution to the stain with a clean, wet cloth. Leave the cloth in place for at least 15 minutes.

• Remove the cloth, and layer about ¹/4" of sodium citrate crystals over the spot, which should still be wet.

• Cover the crystal layer with a thick poultice made from water and one of the powdered ab-

sorbents, such as whiting or talc. Cover the poultice with plastic wrap, taped in place.

• Allow the poultice to work for at least 48 hours. Remove the plastic, and let the poultice dry out. Once you've removed this poultice, clean the surface with warm suds, rinse, and dry.

Evening the Finish

ONCE THE MANTEL is as clean as you can get it, you may find the marble has lost its polish. You may be able to restore some sheen by applying a polish formulated specifically for marble. If the surface is still rough after polishing, try a combination of wet-sanding, buffing, and polishing techniques to restore the finish.

WET-SANDING. If the surface is very rough, begin with a 120-grit wet-dry paper, available in hard-ware stores. If the finish is in relatively good shape, begin with a finer paper, such as 220-grit, and progress to a finishing grade, such as 320. Some darker marbles may require finishing with grades as high as 600-grit. Be sure to keep the surface wet as you work, flushing with water to remove particles.

BUFFING. Buff the wet-sanded surface with a moistened felt pad or buffing wheel and a buffing powder, such as tin or aluminum oxide.

POLISHING. Apply a good quality marble polish with a soft cloth. Rub the polish into the surface to protect and revive its shine. A little buffing should bring out the full luster of your cleaned and restored marble mantel.

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HOUSE ADVISOR



Double front doors might mean a duplex, but the basic house form is clearly a bungalow.

KNOCK TWO TIMES

We've been told this 1905 house is a Craftsman-style duplex with interior "coffin doors." We're puzzled. Can you help?

> — Eileen Montgomery Houston, Tex.

THOUGH THE HOUSE does not sport the Swiss Chalet-like details usually associated with the Craftsman style—a term popular on the West Coast for Arts & Crafts houses evocative of architects Greene and Greene-it certainly is a bungalow. At 1-1/2 storeys with a full width porch, the house fits the basic definition of this widely varied type. While many bungalows have gabled roofs, hipped roofs such as seen here are also common. That pronounced kick at the eaves adds a bit of flourish to an otherwise prosaic façade, especially when repeated in the dormers. In fact, if the house had been built with another storey it would look close to a Foursquarethe bungalow's down-home architectural cousin.

Without seeing a floor plan, there's little to say about the possibility of a duplex or the purpose of those double front doors. (Garden-variety bungalows were generally just enough living space for one family!) As for your "coffin door," this macabre name is popularly applied to any unlikely, seldom used door. In 19th century houses, the coffin door often opens off a parlor, the customary room for funerals. Since it bypassed the front door hall and the inevitable close quarters of the second floor stairway, the coffin door supposedly expedited the last journey of the casket and its passenger.

FINDING STOVE MICA

Do you know where I can get isinglass for antique stoves? My parlor stove has round panes-some of which are broken. — BILL WITT

STEVENS POINT, WISC.

THE ISINGLASS USED to make little windows in countless wood- and coal-burning stoves is actually sheet mica, a transparent stone crystal. A good source for isinglass, as well as many other traditional goods, is Lehman's Hardware (1 Lehman Circle, P.O. Box 41, Kidron, OH 44636; 888-438-5346). Order the isinglass in stan-

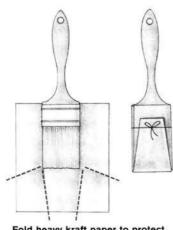
dard sizes (up to 6" x 8"), then cut to fit with scissors.

Isinglass added windows to stoves such as Baltimore fireplace heaters.



BRUSHING UP

I spent years treating any paintbrush as a disposable tool before realizing that good care is easy and more economical. In particular, a sash brush will be useless for cutting-in sharp edges if the bristles get bent out of line during cleaning and storage. To avoid cowlicks in your brushes, form the damp bristles into their proper shape after each final cleaning. Then, when the brush is dry, store it



Fold heavy kraft paper to protect brushes, then tie and store.

in the original package or wrap it in heavy paper. This way, the brush won't rest on its bristles.

> — MIKE SCHULTZ Portland, Oregon

SLICK SLATE

When the honed slate floors in my old house were looking shabby, I tried this mixture. Combine 3 or 4 parts turpentine with 1 part boiled linseed oil. Rub in a few drops per several square feet of slate, using a soft, lint-free cloth, to turn the stone dark and shiny.

— Meg O'Ryan Chicago, Ill.

CARPET CLEAN-UP

After pulling up 1960s carpeting, we faced patches of rubber backing stuck to pine floors. What to do? Our paint store recommened Xylol (generic name xylene) as a solvent. Working with plenty of ventilation, it did the job.

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HOUSE PRODUCTS



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SOUND AND LIGHT SHOW

THE LASER TARGETING Range Finder combines the measuring abilities of ultrasound with the visual acuity of a laser beam. The laser zeros in on the target area,

while the ultrasonic beam bounces off a flat, solid surface to determine the measurement. The Range Finder works accurately in hard-to-reach areas and measures distances of up to 60'. This tool is also a calculator: it adds, multiples, subtracts, and computes volume. The Range Finder sells for about \$70 in building supply and home centers. Contact SONIN, (800) 223-7511, www.sonin.com. Circle 8 on the resource card.



CLEAN SWEEP

PLASTER REPAIR and other interior projects can produce fine particulates, considered a health threat because they settle deeply in the lungs. Give your old house a clean sweep with a vacuum cleaner equipped with a HEPA filter. Miele's sealed system vacuums capture hundreds to thousands of times more particles per minute than conventional vacuum cleaners. Prices range from about \$600 to \$999. Replacement filters cost about \$70. Contact Miele, (800) 579-4555, www.mieleusa.com. Circle 9 on the resource card.

CONSTANT CUTS

AT 19.2-VOLTS, the cordless Saw Boss leaves its competitors in the saw dust. The 6" circular saw made more than 100 cuts on a pine 2" x 4" on one charge in independent testing—six more than the next closest brand. The Saw Boss also zipped through more than 145' feet of $\frac{1}{2}$ " plywood. The saw retails for about \$299 in building supply centers. Contact Porter-Cable, (901) 668-8600. Circle 10 on the resource card.



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- Dust collection bag sold separately as an accessory.

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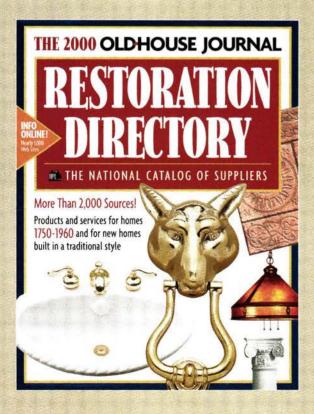
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SPECIAL ADVERTISING SECTION

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CREATE A LASTING IMPRESSION

Windows and doors play an essential role by defining a home's personality and creating a lasting impression. A portal for people, light and air, windows and doors can change the way a home looks and feels. In historic homes, the proper windows and doors can make the difference between an authentic restoration and one that isn't quite right. Historic homeowners should remember it's important to choose windows and doors that not only enhance the value and beauty of their home, but also keep utility bills in check.

Products that Offer Style and Efficiency

Successful restorations incorporate materials that provide beauty and efficiency. Savvy restorationists realize that choosing the right windows and doors is important, and can add value to the home. For this special section, we've gathered a variety of companies that manufacture windows and doors for historic homeowners.

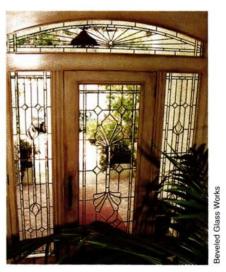
Energy Efficiency Ratings Adopted

Today's energy efficiency rating systems and certifications make it easy to find energy efficient products. The U.S. Department of Energy collaborated with manufacturers of windows, doors, and skylights and found windows that display the EnergyStar rating decrease utility bills up to 15 percent. In addition, ratings by the National Fenestration Council (NFC) indicate a product's R-value and U-value determine its energy efficiency.

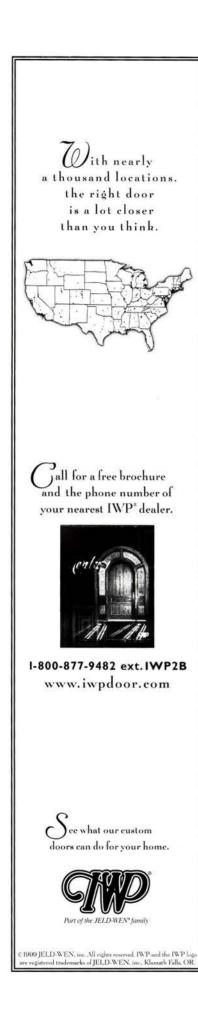
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See the following listing for company details.

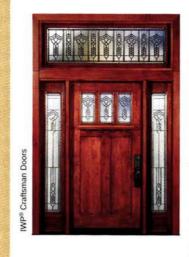








SPECIAL ADVERTISING SECTION



^{continued} Variety Defines Today's Product Lines

Made from materials ranging from wood to vinyl to steel, today's windows and doors are available in a wide variety of styles that are easy to install, operate, and maintain. Homeowners will find products to suit nearly every renovation project. Whether you are replacing windows in your Arts and Crafts bungalow home,

looking for just the right door to complete the façade of your newly refurbished classic Cape Cod, or in the market for something more traditional for that historic Victorian farm house, today's windows and doors are versatile yet functional.

Homeowners Benefit from Innovation

With manufacturers constantly developing innovative new products, homeowners are reaping the benefits. Take a look through the following special section for some fresh ideas on how to incorporate beautiful, energy efficient windows and doors into your next project.

OLD-HOUSE JOURNAL

Windows and Doors Special Advertising Section

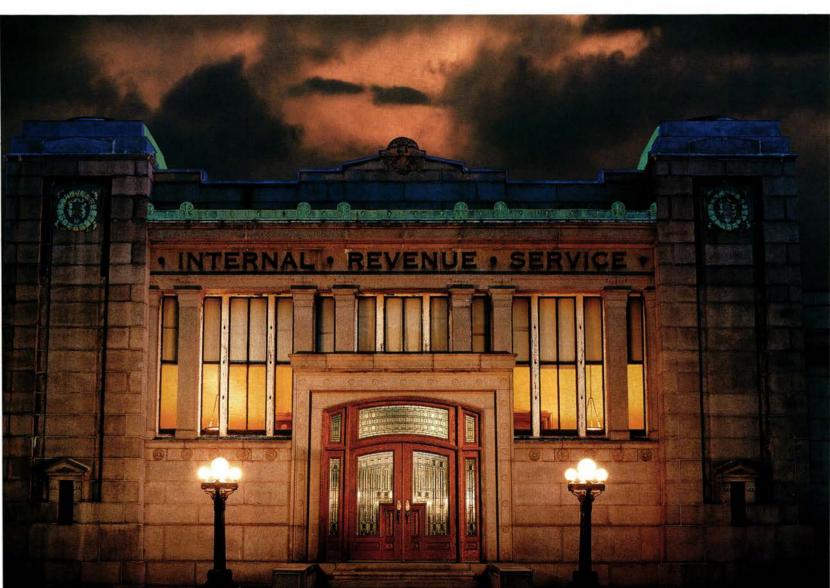
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GOOD BOOKS





The Country House

EST YOU THINK the word "country" refers to a late-20th-century style of interior decorating, two books have come along to redefine the country house as an elegant chapter in architectural and social history. We are talking here about an upper-class concept, associated chiefly with Great Britain and Ireland but later flourishing on American soil—the estate, the country seat, the second house away from the city.

It is a type dating to the Middle Ages. ("In the smaller country houses, the floor might be of beaten earth mixed with oxblood . . . covered

"Country house style is a unique blend of two opposite and seemingly contradictory qualities: elegance and informality. The style is deeply rooted in the past, and firmly based in the countryside."

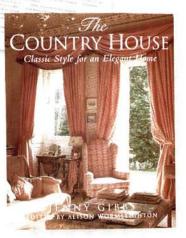
by loose rushes. The rushes were seldom changed, just added to. One contemporary account said that under the floor 'lies unmolested an ancient collection of . . . everything that is nasty' and others simply referred to it as 'the marsh.") The idea evolved along with notions of comfort (we can be thankful) through the Tudor and Elizabethan periods, the Jacobean, through the 17thcentury English classicism of Inigo Jones, the Baroque of Louis XVI decor in England, on to the Palladian phase and into America, where the houses of Virginia gentlemen are followed 150 years later by the Newport and Long Island retreats of the super wealthy. A complex history emerges from study of these two books, so different from each other.

The Country House (shown at the top of the page) is broad—a once-over introduction full of enticing color photographs that inspire oohs and aahs, and also decorating ideas for a classic approach to interior harmony. Long Island Country Houses and Their Architects, 1860–1940, is academic and specific, following the commissions of name-architects in this playground of the moneyed during the golden years of the American country house. It is archival

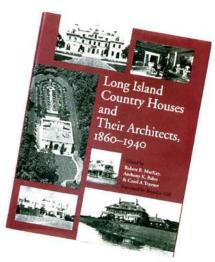
> and black-and-white, the type is too small—yet it is a fascinating read. Architectural scholars of the Queen Anne, Shingle style, Tudor, and Colonial Revival will revel in this encyclopedic record: 500 pages of thumbnail descriptions and

period photographs of seminal houses. Those interested in the summer-house phenomenon, period architects, or in New York or Long Island history also will want this one-of-a-kind project on their bookshelves.

AN EASIER BOOK with broader appeal, *The Country House* is largely English (understandably) but includes many houses in Scotland, Ireland, America, and Scandinavia. Fast-paced text outlines the history of the country house from the Middle Ages to the 20th century. What it lacks in depth, it makes up for in its clear timeline per-

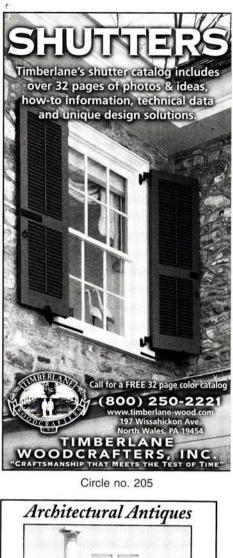


THE COUNTRY HOUSE CLASSIC STYLE FOR AN ELEGANT HOME BY JENNY GIBBS Distributed in the U.S. by Sterling Publishing, 1997; 192 pages; softbound; \$29.95 through book sellers.



LONG ISLAND COUNTRY HOUSES AND THEIR ARCHITECTS, 1860–1940 FOREWORD BY BRENDAN GILL

Norton & Co., 1997; 563 oversize pages; hardbound; s85 through book sellers.



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Harborside, ME 04642 (207) 326-4938 Call to order video or to receive free brochure spective and in rewarding trivia (such as the root of the President's "cabinet," and the words "apartment" and "upholsterer"). After a chapter on the development of the country house, the book proceeds by room style, moving from the entry to the sitting and dining rooms, the study, the bedrooms, the conservatory, and even the kitchen and bathroom. The book also presents glorious color photographs of sumptuous interiors worth study today.

Long Island Country Houses is not so much inspirational as it is architectural gossip: a heady reference to the pleasure palaces of the rich and famous, old money and new, and the architects who served them. At first look academic and stuffy, the heavy hardcover is impossible to put down, peppered with biting-but-true reflections by Brendan Gill (in the Foreword) and eye-opening revelations about clients who survived bad families or the Titanic disaster, and the architects who prospered on talent, connections, and often both. (Gill can be poetic, as well: "... to where the moors of Montauk pitch headlong in a scatteration of glacial boulders into the foaming Atlantic, the entire island amounts to a treasure-house of domestic architecture in a score of styles.") It's about the Morgans, Vanderbilts, Astors, and Whitneys . . . and McKim, Mead and White, Cass Gilbert, Calvert Vaux and Beatrix Farrand, Brice Price, and Ogden Codman. In hundreds of black & white photos, a specific evolution of architectural style develops, unique to the American dream.

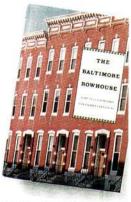
WHILE WE'RE ON the subject of regional architecture, a third book, just recently released, is worthy of attention here. *The Baltimore Rowhouse* is about city instead of country, working-class rather than upscale, and thus an important foil to the other books. Although region-specific, this book carries national significance in its exploration of the row-house phenomenon and its inherent meaning to city life (whether in New York, Chicago, or San Francisco). It also recounts the changing fortunes of Baltimore rowhouses, from their origins as speculative housing for immigrants to their salvage and revival by back-to-the-city pioneers during the 1970s and 1980s. It explains the troubling dichotomy today, between houses owned by a new class of wealthy professionals and others being demolished at an unprecedented rate as a way to deal with Baltimore's vacant housing crisis (a problem not unique to Baltimore).

"Baltimore has declared war on huge swaths of its formerly treasured row houses, whose distinctive architecture has sheltered waves of immigrants and the city's working-class for over a century, but which city officials now describe as derelict," stated *The New York Times* in June of 1999. "More than 4,000 row houses have been bulldozed in the past three years . . . part of the city administration's mission to remove unsafe urban eyesores. Thousands more have been abandoned and will be demolished . . . the city has no comprehensive plan to replace them and is not sure what it will do with the empty land."

For those of us with a long memory in the preservation movement, it sounds chillingly familiar. The rowhouse streetscapes and their neighborhoods are the defining characteristic of Baltimore. With the destruction of so many of them some estimates put it at 20% of the stock by 2004—Baltimore's identity will change forever, and neighborhoods that nurtured generations of working class residents will disappear. —PATRICIA POORE

THE BALTIMORE

BY MARY ELLEN HAYWARD AND CHARLES BELFOURE Princeton Architectural Press, 1999; 211 pages; hardbound; \$30. through book sellers.

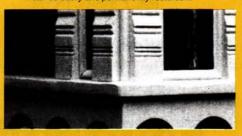




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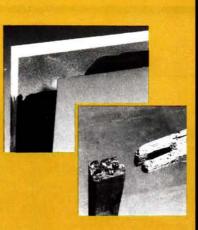
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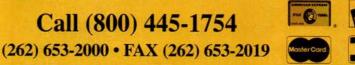
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Circle no. 164



Seattle's Vintage Villages

VEN IF YOU have never been to Seattle, you may feel as though you have. You may be weary of hearing how swell Seattle is best coffee, biggest planes, mightiest monopoly, blah, blah, blah. But here's the real deal. It's a cover. People who live in Seattle aren't obsessed with Starbucks, Boeing, or Bill Gates. They want you to tour the Space Needle and then get the heck out of the Emerald City before you glimpse what really makes it sparkle.

Seattle's big draw is its vintage villages. Residents find neighborhoods that fit them like custom slippers, from the classic silk slip-on of Denny Blaine to the gaudy faux-fur scuff of Fremont. And each of these urban gems is a snug fit, because geology defines clear neighborhood boundaries with hills, lakes, and a saltwater sound. Most close-in Seattle neighborhoods are chock-a-block with early 1900s single-family homes on small city lots.

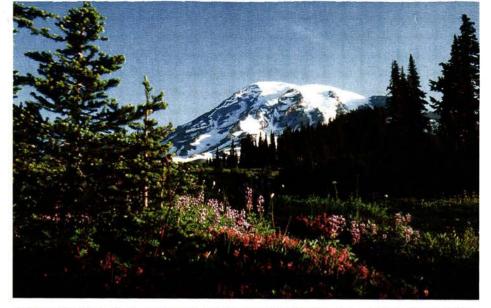
The first building boom began in 1898

with the Klondike Gold Rush. Thousands of miners who beat feet to the Yukon didn't get rich, but Seattle merchants who provisioned them hit pay dirt. Since then, there has been an economic progression away from natural resources and into the rarefied air of ideas. Gold,



Seattle residents find neighborhoods that fit them like custom slippers, from the classic silk slip-on of Denny Blaine to the gaudy faux-fur scuff of Fremont. BY JENNY CUNNINGHAM

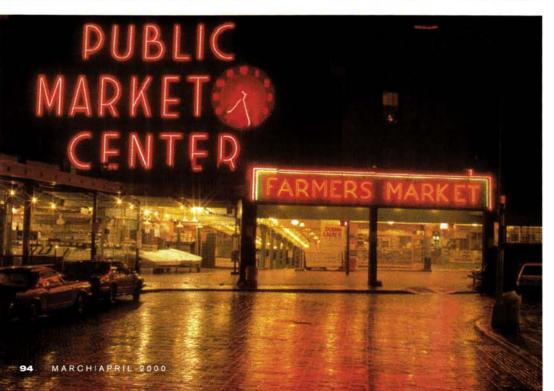
With volcanic Mount Rainier as a backdrop and the Jetson-era Space Needle to the fore, there's no mistaking the spectacular Seattle skyline. Even as Seattle looks toward the future, its denizens live cozily in a host of historic neighborhoods. Many feature skyline or water views.



Clockwise from top: Another peek at Mt. Rainier; the view from Queen Anne Hill; the Public Market, a downtown fixture for decades; one of the few Queen Annes on Queen Anne Hill.







trees, trains and planes make way for the Pacific Northwest's employer of the future: software and Internet companies. The latest boom is good and bad news for Seattle's historic homes, as high-tech workers flush with cash move into the city's oldest neighborhoods. While some restore homes to their former splendor, others bring in the wrecking ball.

I QUEEN ANNE HILL One neighborhood under development pressure is Queen Anne Hill, on Seattle's tallest hill. From downtown, drive up Queen Anne Avenue and turn left on West Highland Drive. First stop, Kerry Park. No need to know the address. This view stops traffic. On a clear day (and there are some) the Space Needle, downtown skyline, the state ferries, and the floating bulk of Mt. Rainier all shout "Seattle!" It's the same Cascade view that inspired architect Andrew Willatsen when he designed the Prairie-style house in the 200 block across the street in 1914. The clean lines of the gabled-roofed home may remind you of Frank Lloyd Wright. Willatsen worked with Wright in his Oak Park Studio.

Walk west down Highland for a peek at western Washington's other mountain range: the Olympics. On the way, you'll pass the half-timbered Stimson House, a 1904, chalet detailing, in the 400 block. Queen Anne is named for the architectural style, but few examples survived that darn wrecking ball. Find one at 520 West Kinnear Place. If you take a fancy to the 1889 dowager with tower and conical roof, you'll be interested to know it was recently on the market for \$1.1 million!

I FREMONT Queen Anne may have lovely homes, but it isn't the center of the universe. That's Fremont. Take the landmark 1916 drawbridge over the ship canal from Queen Anne. Right away, you'll see the public art that illustrates Fremont's motto, "De Libertas Quirkas." If your Latin is a bit rusty, that's "the freedom to be peculiar."

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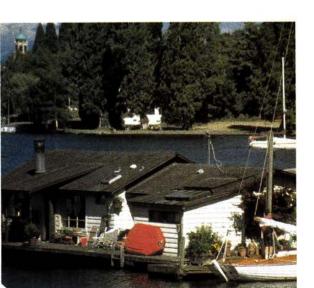
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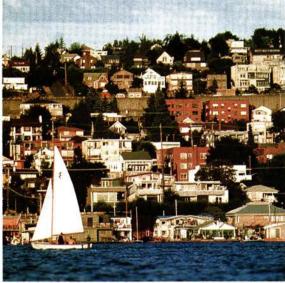
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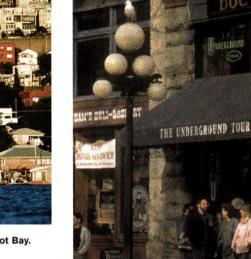
Clockwise from left: A totem pole overlooking Elliot Bay. A sailboat on Lake Union skims by the Eastlake neighborhood. Pioneer Square, a grunge hangout. Sailboats tied to the front deck often tower over the floating dwellings in the houseboat neighborhood.

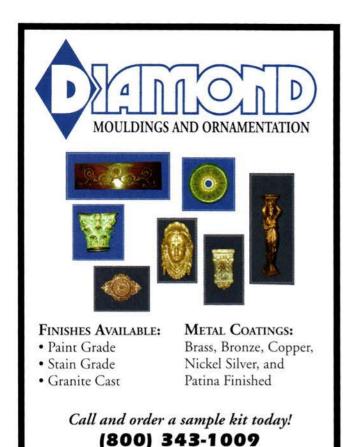
Fremont didn't start out strange. When Seattle annexed Fremont in 1891, it was a plain-Jane mill town. In the 1960s, the decline of mills and rise of suburbs left Fremont forlorn. Then artists discovered Fremont's cheap rents and Seattle's "Left Bank" was born. A signpost at the intersection of North 35th Street and Fremont Avenue points to attractions near (Troll-2 blocks) and far (Milky Way-69 light years). Let's start our tour one block west of the sign at the Fremont Rocket (North 35th Street and Evanston Avenue North). The rocket is a 1950s artifact from the Cold War, intended to power a missile to Korea. A few years ago, Fremont activists strapped the rocket to a building, festooned it in neon, aimed it toward the mayor's office and proclaimed it "art." One block north on Evanston Avenue, check out a humorous statue of Lenin, rescued from a Slovakian garbage dump after the 1989 revolution.

Now a glimpse of old Fremont. Walk east to the library, which is on the National Register of Historic Places (731 N. 35th St.). Completed in 1921, it's one of the only Carnegie libraries designed in a California Mission style. The old houses of Fremont perch above the little downtown. Stroll around North 42nd and Francis Streets to see an array of early 20th century builder's homes. Bungalow, Classic Box and Cotswold cottage styles are woven into a pleasant architectural sampler quilt. Cap off your Fremont tour with a visit to Seattle's famous mythic figure under the Aurora Bridge at North 36th Street. For years, friends told me there was a troll tucked under the bridge that ate VW bugs for lunch. I thought they were kidding.

I HOUSEBOAT NEIGHBORHOOD/EASTLAKE It's unclear when Seattle's first houseboater strapped together a cedar log float and built a home on it on the east side of Lake Union. By 1908 a Seattle newspaper complained, "Houseboating has become a permanent institution." The article described houseboaters as a "lazy crew . . . forgetting that the real object of life is to make money." A couple of communities on Lake Union proved unsinkable. You'll find the largest houseboat colony floating off Fairview Avenue East between East Roanoke and East Newton Streets. The docks are private, so the best way to see the houseboats is to take to the water yourself. Moss Bay

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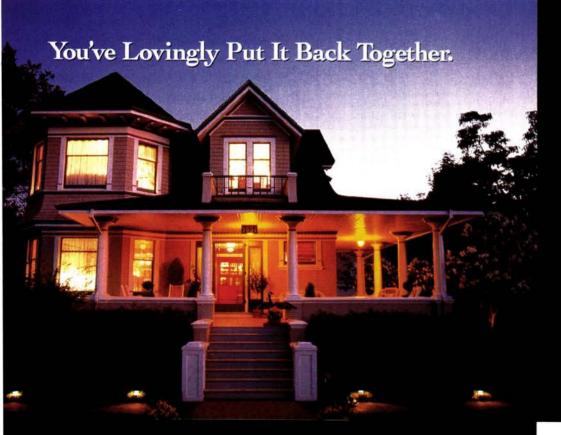


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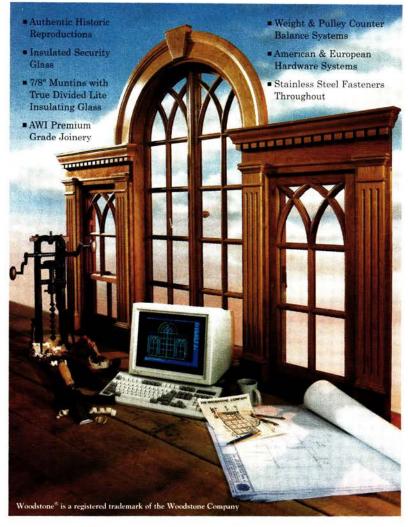
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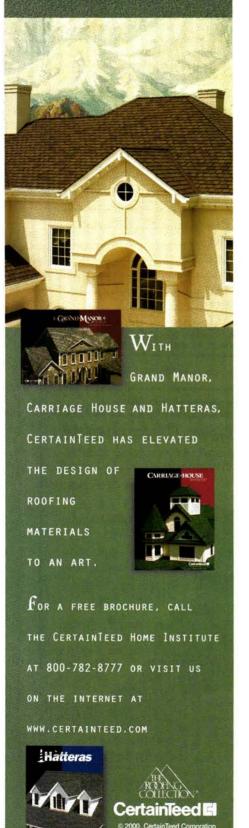
From the water, you get a feel for the romance of the houseboat neighborhood. Most of the homes are simple 1920s cottages with overflowing flower boxes. Only the lovely sailboats parked in the "front yard" hint at the houseboat's new-found respectability. In other words, that simple cottage would set you back half a million. I DENNY BLAINE The final neighborhood on our tour, Denny Blaine, has always been respectable. Leave the hardworking docks of Lake Union and drive along the winding wilderness of Lake Washington Boulevard. The "wilderness" is actually part of a comprehensive park plan designed in 1902 by the celebrated Olmsted Brothers. The curving boulevard strings pearls of parks together.

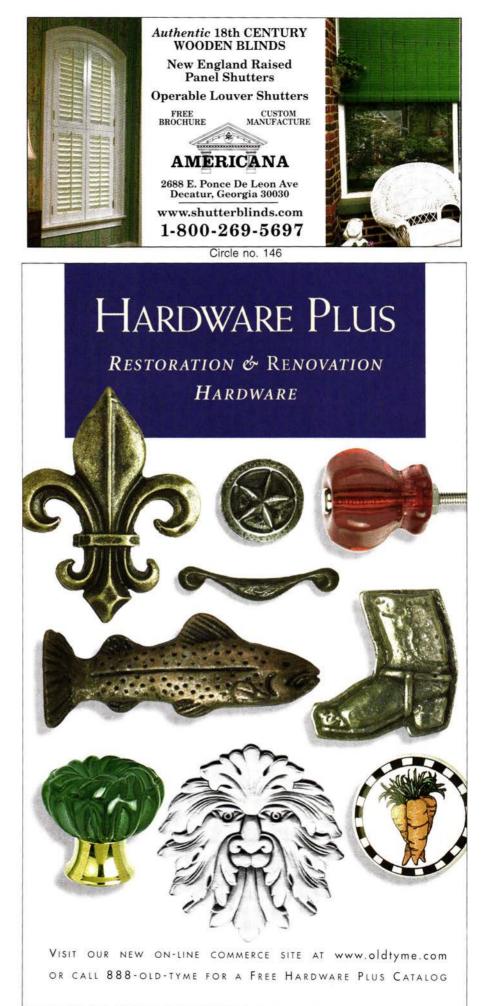
Just north of Viretta Park is the home of neighborhood founder, E.F. Blaine. You may be surprised to learn that the genteel 1902 manor house was also the home of the late grunge rocker Kurt Cobain. Cobain's widow (the infamous Courtney Love) sold the house, but fans still leave flowers on the bench in Viretta Park. Above the park, you'll find the home of one of Seattle's most beloved architects, Ellsworth Storey. Two homes, actually, in the 200 block of Dorffel Drive East, built in 1903 and 1905. The shingled homes meld Swiss Chalet and English Arts & Crafts characteristics into Storey's own blend of understated elegance. There is nothing understated about the Pantages Mansion on 36th Avenue East, built in 1909 for theater tycoon Alexander Pantages and still in private ownership. But what style is it? Architecture books call it everything from "California Mission Revival" to "vaguely Norman." Like most Seattle residents, Pantages was content simply to call it "home." 12.

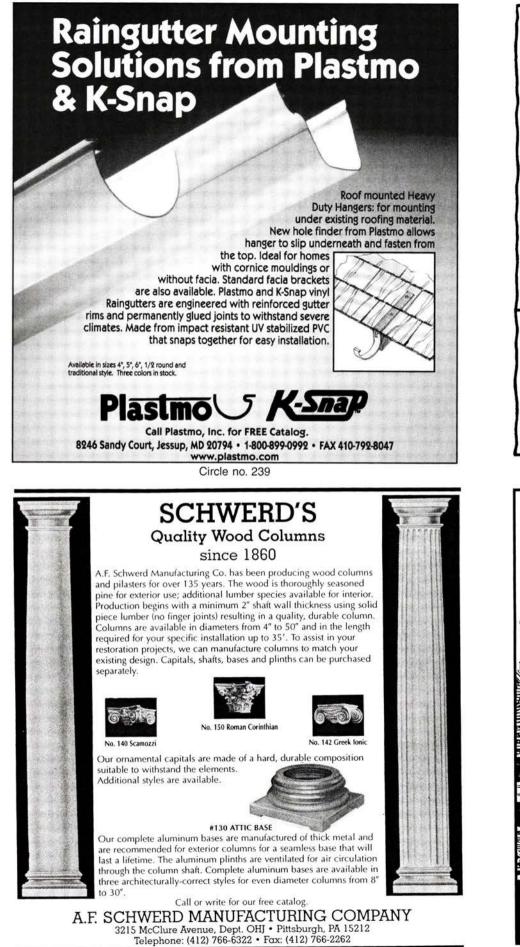
JENNY CUNNINGHAM writes from Queen Anne Hill.

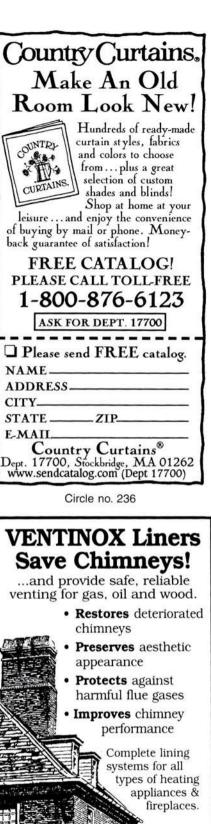
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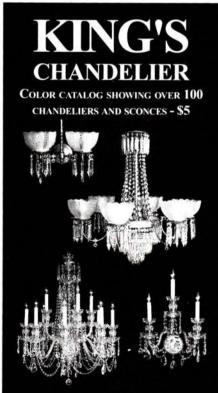
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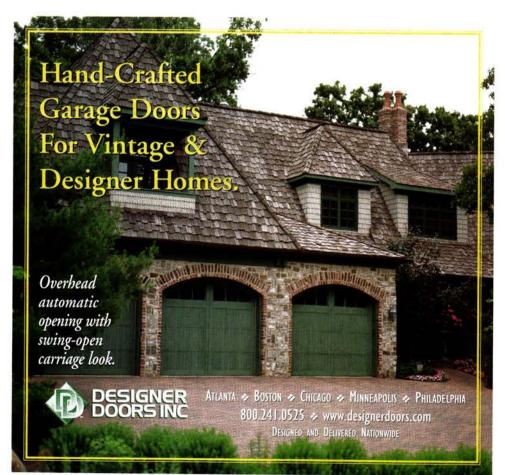


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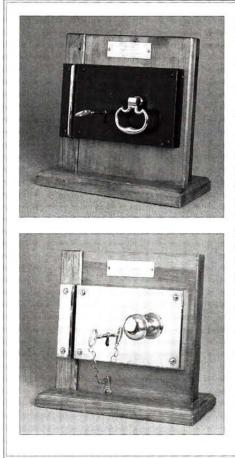
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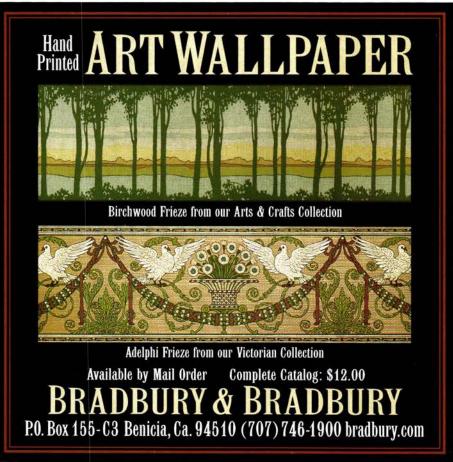
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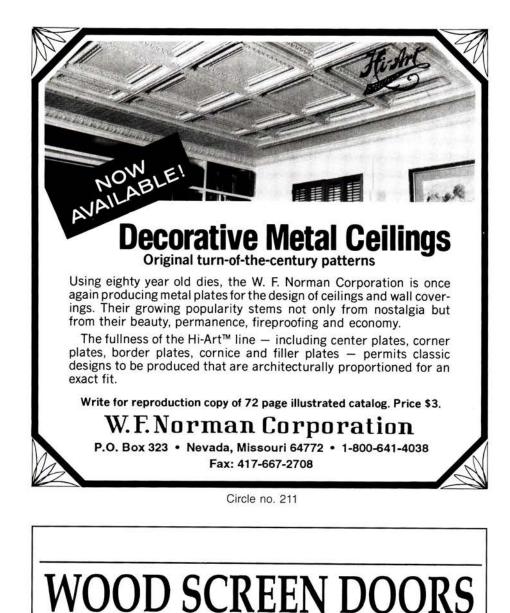
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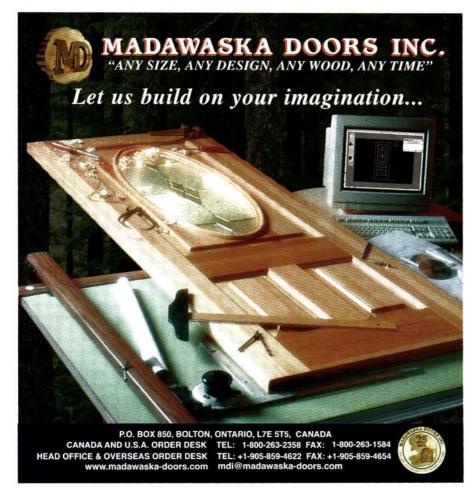


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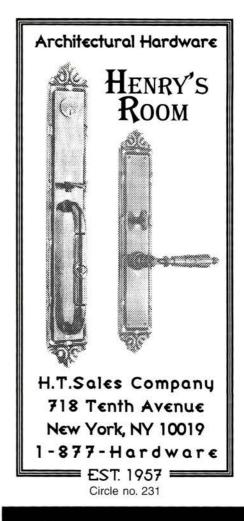
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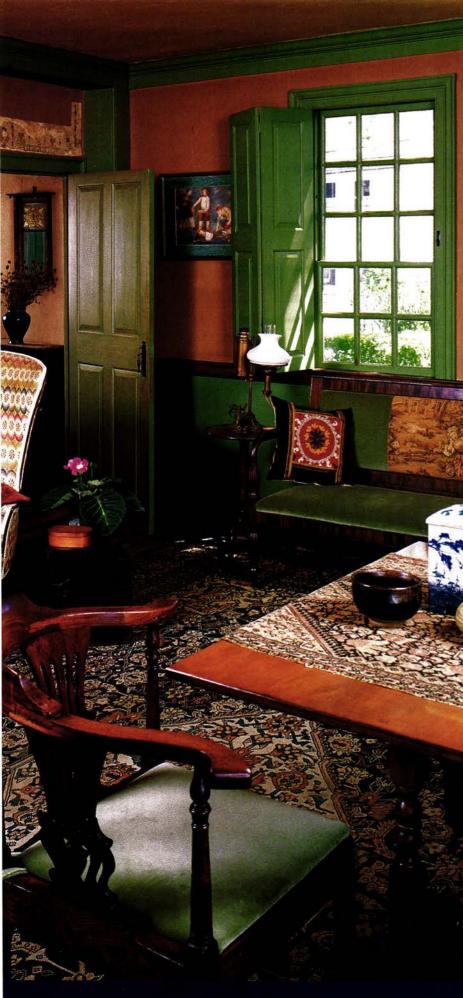
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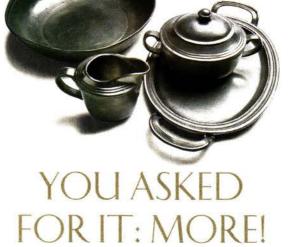


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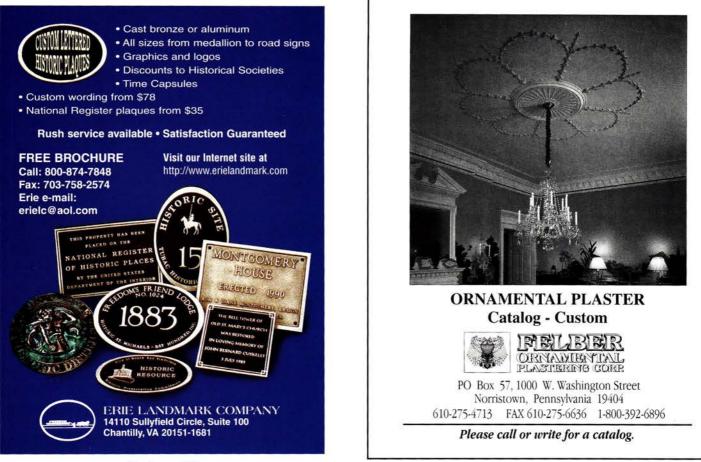
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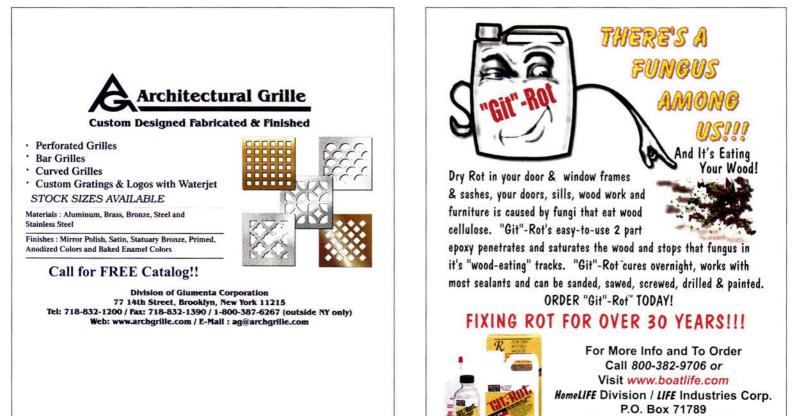
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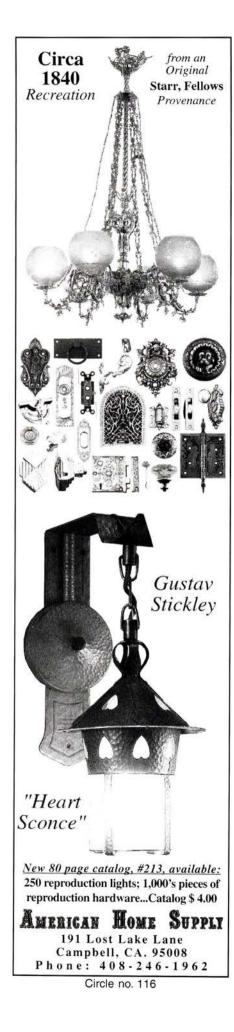
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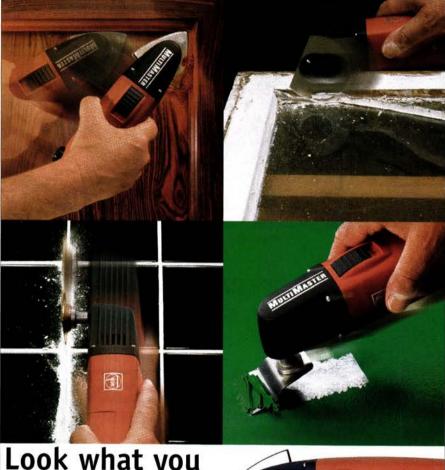
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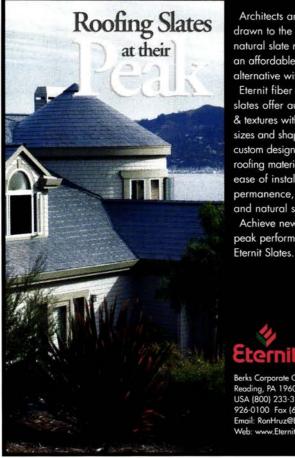


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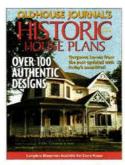
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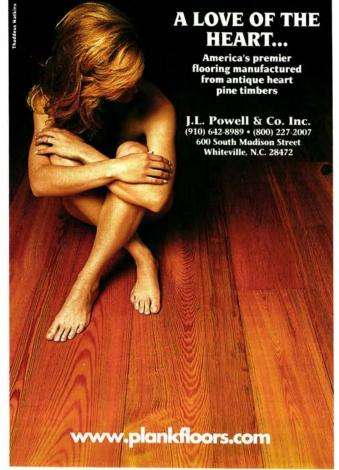


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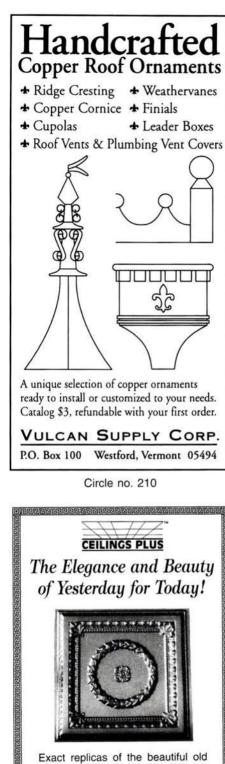
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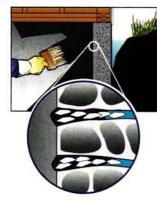
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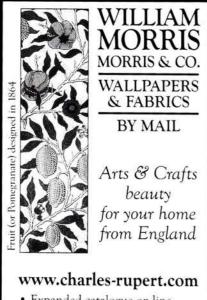
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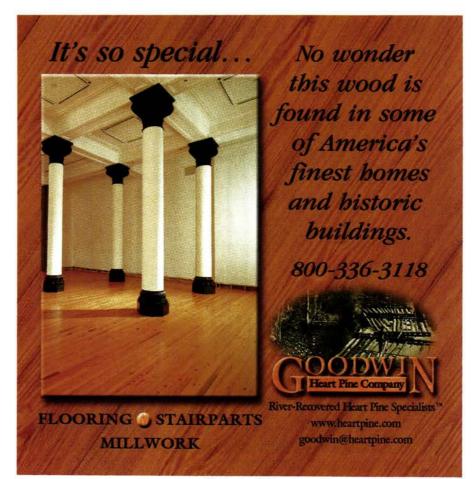


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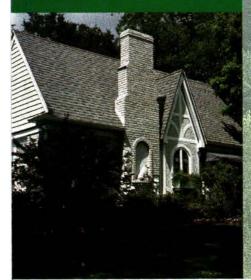
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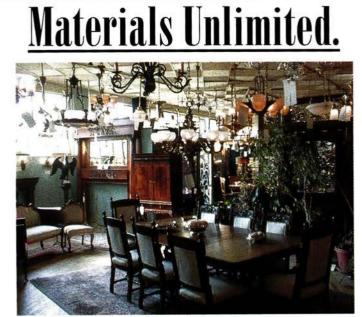
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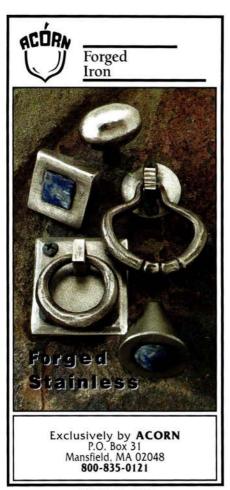


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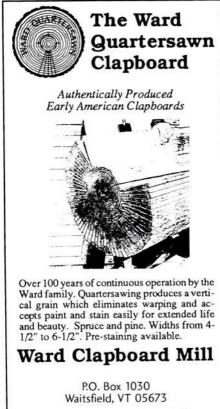
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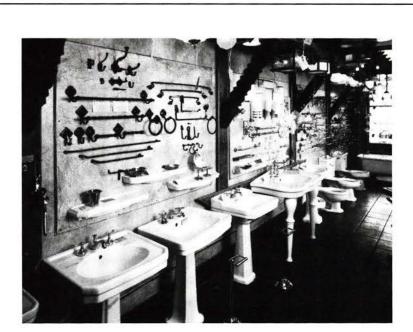
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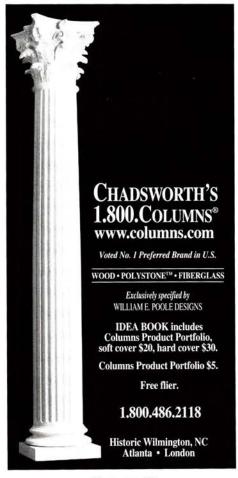


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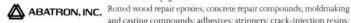


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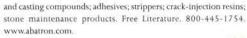












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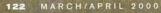
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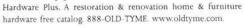
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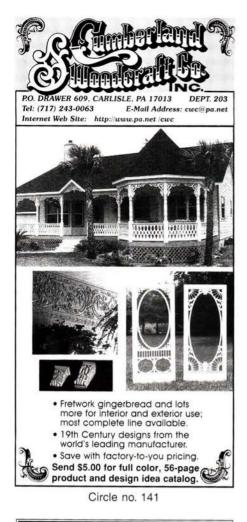
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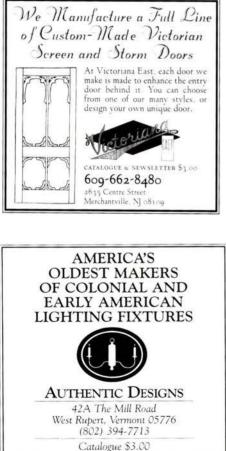
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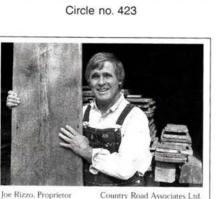












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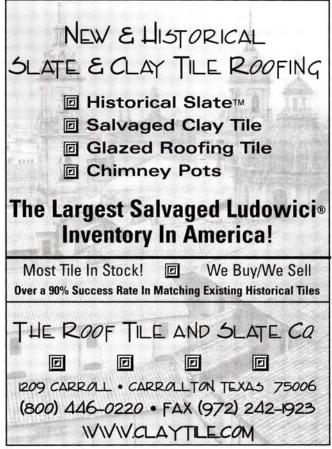
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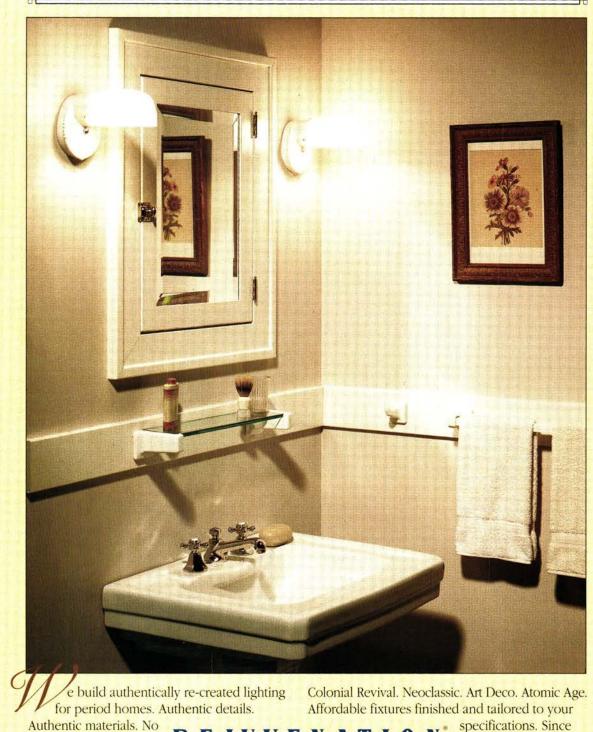
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