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Online www.oldhousejournal.com
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A Man with a Plan

Let me tell you a quick story about Vitruvius, a pro-active Roman from the first century B.C., whose work still impacts us today.

We don’t know a lot about Vitruvius, but we do know that he was something of an engineering analyst in charge of special projects for Julius Caesar. After Caesar left the public sector, so to speak, Vitruvius made a good career move to overseeing siege engines, artillery, and other high-tech hardware for Caesar’s grand-nephew and heir, Octavianus.

Even with a management shake-up in the Empire, Octavianus had his ducks lined up. No fail-upwards patrician, first he consolidated his power in 31 B.C. by winning the big sea battle of Actium over Mark Antony and Cleopatra. Then, after an image makeover in 27 B.C., he became the Emperor Augustus, the new CEO of the western world. Augustus was not interested in territorial mergers, but he didn’t want to downsize the Empire either—just focus on core activities. With this in mind Augustus launched an ambitious capital improvements program for the city of Rome and related areas.

One of these projects was erecting the basilica of the Fanum Fortunae, a large temple on the Adriatic coast, and it seems Augustus tapped Vitruvius to be the point person. The trouble was, civil construction was not in Vitruvius’s job description.

He was a part of the military-industrial complex. Nonetheless, Vitruvius completed the building, probably seeing it as a crossover opportunity, by accessing ideas and data from towns he knew in northern Italy. Vitruvius may have also worked on a major aqueduct, the Aqua Julia, in 33 B.C.

All this is record because Vitruvius set it down in a kind of self-help book called De Architectura. Actually a ten-volume encyclopedia, it covers the whole nine yards of ancient architecture, from city planning and water works, to building materials and interior decoration. There are even chapters on timepieces and armaments, a logical synergy of technologies in the ancient world.

A millennium and a half after Vitruvius was gone, his writings were rediscovered by Renaissance architects looking for a better line-of-sight beyond medieval design concepts. Since Vitruvius wrote the book on building during the Golden Age of Rome, they co-opted many of his ideas and formulae for the Classical Revival of the 15th century. In fact, Vitruvius remains a design mentor behind most classically styled houses and financial buildings—not bad for a guy who never had vox-mail.

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The trouble was, civil construction was not in Vitruvius’s job description.

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The trouble was, civil construction was not in Vitruvius’s job description.
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Circle no. 99
**Comparing Codes**

As the president of a local heritage advocacy society, I was intrigued by your article on the New Jersey Rehabilitation Subcode [“A Code that Bodes Well” July/August ‘99]. I would be happy to see legislation that treats rehabilitation for what it is—expensive cyclic maintenance, not new construction. Don’t hold your breath waiting for implementation, though. Few civic building inspectors will like being the first to exempt a project from more stringent standards, thus opening themselves to possible litigation.

Up to December 1998, we had a similar piece of legislation in Victoria, our province’s capital. It provided that buildings constructed before 1950 could be exempted from the current code, at the inspector’s discretion. Never used, it has now been rescinded.

—SUSANNA HOUWEN
Vancouver, B.C., Canada

You ran an excellent story about changes in the New Jersey building code, but then too brief an explanation of the 25/50 rule. A nationwide survey would probably reveal that, outside of New England and the busybodys republic of California, only a handful of large cities have such stringent building codes. For example, here in Maryland, most residential repair, maintenance, or restoration work is exempt from even needing a permit. Permits are required for additions; however, homeowners can obtain the permit themselves, and they can do the work or contract it out. These rules apply equally to investors, contractors, and homeowners. Only plumbing, electrical, and HVAC projects require contractors to obtain permits.

—SHELDON STROH
Forest Hill, Md.

**Drawing Praise**

Many thanks for Mark Alan Hewitt’s lucid insights on the many-sided question “How Do Houses Grow?” [July/August ‘99]. The buildings illustrating each of the four parameters were wonderfully graphic, particularly the expanding houses and their footprints. Please do another photo and drawing article like this before too long—maybe with a West Coast perspective?

—TOD MAHLEN
Los Angeles, Calif.

Architect Mark Hewitt is based in the mid-Atlantic (Mark Alan Hewitt AIA, P.O. Box 289, 104 Mine Brook Rd., Bernardsville, NJ 07924; 908-630-9416), hence the regional buildings. Moreover, exceptionally clear examples of scale, such as the Bridget Smith House, located in Mine Hill (Ferromonte), New Jersey, are not common in every town. Nevertheless, we’d be happy to cover another part of the country next time.

Glad to hear too that you enjoyed Jerry Bruno’s illustrations. These figures, created on AutoCAD R14 and AutoCAD Lite software, were inspired by Thomas Hubkas’ classic study Big House, Little House, Back House, Barn (University Press of New England). —ED.
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ENDANGERED OLD GROWTH

THE INFORMATIVE ARTICLE "A Buyers' Guide to Wood Flooring" [July/August '99] is marred only by the approving reference to "newly sawn old-growth lumber." How can such wood be regarded as acceptable building material when the logging of our dwindling ancient forests is widely acknowledged as a practice that ought to be immediately halted? Conservators of old houses should also be conservators of old forests. Enlightened suppliers and customers, including many large corporations, no longer purchase wood products from endangered old-growth forests, such as those fast being leveled in British Columbia.

If restoration requires old wood, how much more socially responsible to use salvaged lumber or boards milled from old timber. Even for newly cut wood, there's an alternative to products from non-sustainable sources: wood bearing the seal of approval of watchdog organizations such as the Forest Stewardship Council.

—PETER C. STUART
Washington, D.C.

Chris Sy of Carlisle Restoration Lumber in Stoddard, New Hampshire, responds: It is important to distinguish between the terms "old-growth" timber and "virgin growth" timber. The old-growth timber being harvested in New England today is actually second- or third-growth timber, with the term "old-growth" simply reflecting the fact that these timbers are being allowed to reach maturity. Due to the clear-cutting that occurred in New England from the early colonial era through the beginning of the 20th century, most of the land in states such as New Hampshire was grazed by cattle or sheep. When the dairy industry disappeared, the forests returned, and now cover 80% of our state. These timbers are of a size and quality not seen since the late 1800s. Much of this success can be directly attributed to such forest management practices as selective cutting. Unlike the California redwoods (whose maturity is measured in centuries), pine timber in New England can reach its peak within 80 to 90 years. By carefully pruning this unique "garden," we are able to maintain a healthy and productive resource that will continue to be available for generations to come.

VINYL HASN'T GONE AWAY

I take issue with your argument that the point about "callous substitute siding jobs . . . has been made, and made again"
"Calling All Remuddlings," July/August '99. For example, in my neighborhood a 1763 Georgian-style colonial was recently stripped of its original siding (which was mostly intact and in great shape for repainting) and sided over with vinyl. I was away while the job was being done and came back to the horror of Tupperware! Had I been offered this remuddling job, I would have presented the homeowner with information on the historical importance of his home, suggested historic paint colors, and discussed ways to lessen maintenance costs. This is one of the sad cases I see every day, and it seems to be getting worse.

Each little difference (an aluminum storm door on a First Period Cape, two-over-two vinyl-clad windows instead of the original 12-over-12 divided-light sash) moves an old house farther and farther away from its origins, until it becomes all but unrecognizable. Please, it is time for us all to wake up! We, the professional renovators, remodelers, and journalists, bear the greater burden of responsibility.

—MIKE YOUNG
Epping, N.H.

WRIGHT LIGHT, WRONG STORE
WHOOPS! THE MISSION-STYLE wall sconces on p. 46 of the July/August '99 issue ["Finding Space for an Extra Bathroom"] are similar to a style available from Brass Light Gallery, but were actually purchased from Rejuvenation Lamp & Fixture Co. in Oregon (888-401-1900). The design is a classic representation of Prairie School lighting, ca. 1910.

WRONG CHURCH
THE CHURCH PICTURED on p. 88 of your July/August '99 issue ["Pensacola in the Panhandle"] is not St. Michael's Episcopal Church, but rather Christ Episcopal Church.

—JOSEPH R. LEDEW
Pensacola, Fla.
Remuddled No More by Mary Ellen Polson

Like many old-house owners, Jim and Pamela Toll DeVault live in a neighborhood that holds an annual Christmas party. Pam, a journeyman actress and a relative newcomer to Nashville, is inevitably asked which house is hers. "When I start to describe it," she says, "there's always someone within earshot who says, 'You know, she lives in the cheese-grater house.'"

Notorious far beyond the city's Historic East End, the "cheese-grater house" was one of the ugliest Remuddlings ever published in Old-House Journal (it appeared in the March/April 1992 issue; see page 16). "When this house was featured in Remuddling, it was literally bullet proof," says Jim, a commercial photographer turned renovation contractor. "There was steel siding over the windows—industrial, thick, 16-gauge metal. You couldn't come through it with an ax."

When the DeVaulpts bought the colloquial Foursquare for $45,000 in 1994, it was condemned and almost unrecognizable. A welding shed of corrugated steel and fiberglass on the rear of the house filled the entire back yard. The pier-columned entry porch had been torn off and the front yard sheared away. "If you opened the front door, you'd be 7' off the ground," Jim says. "We had to bring in 120 cubic yards of soil."

Inside wasn't much of an improvement. The...
“This is all cash-flow decorating. We bought the house condemned from the city because it was the cheapest thing that we could do.”

—PAM DEVAULT, HOMEOWNER
Above: You’d never know the kitchen cabinets were filled in with Bondo. Right: Pam and Jim rebuilt the damaged living room floor with oak strips salvaged from rooms where the flooring was beyond repair. Below: Twins Sam and Daniel in their decidedly non-period outer space-themed bedroom.

**LIMESTONE-FACED FOURSQUARE**

**OWNERS:** Jim and Pamela Toll DeVault  
**KIDS:** Ariana, 23; Tiolina, 18; twins, Sam and Daniel, 10  
**LOCATION:** Nashville, Tennessee  
**DATE OF HOUSE:** Ca. 1900  
**ON-GOING PROJECTS:** Keeping a house ready to show to prospective buyers around a robust family life.  
**OF INTEREST:** Pam has worked as an actress steadily since age 7. Now a screenwriter, she’s appeared in soaps (The Doctors, Somerset), TV serials and movies, and hundreds of commercials.

electrical, plumbing, and heating systems needed total replacement, and many interior features were damaged or missing. While Pam wanted to leave as soon as she walked in the door, Jim saw hidden potential in the house. “It had these wonderful beveled glass front doors, and leaded glass windows that were covered over on the outside,” he says.

At the time, Jim and Pam were not yet engaged. Pam agreed to buy the house, but she made Jim a promise. Yes, they were in love and planned to be married, but if he left her before the house was restored, she warned, she would hunt him down. Five years later, not only are the DeVaults still in love, they’ve succeeded in bringing the house all the way back, winning a city preservation award for their efforts.

Considering what a mess the house was and how little money they had, it’s fortunate that Jim has a way with the want ads. “My husband is the King of the Classifieds,” says Pam, a hint of amused pride in her voice. “He reads all the classifieds every day. If anyone we know wants anything, they call Jim.”

Which brings up one of Pam’s favorite stories. One condition of the sale was immediate demolition of the warehouse. That left a sea of asphalt in the back yard. After pouring over the want ads for weeks, Jim located a man with a Bobcat earth mover for rent, someone who wanted clean fill, another person selling topsoil, and a man with a dump truck.

A few phone calls set things in motion. The man with the earth mover tore up the as-
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phalt and flipped the pieces into the dump truck. The truck operator dumped the asphalt at the clean fill site, then picked up a load of topsoil on the way back. “We went on like that for three days, until the asphalt was all gone, replaced by big piles of topsoil,” Pam says. “Then the Bobcat operator graded it and we had our yard.” The kitchen cabinets were free—Jim and Pam rescued them from a job site. A handyman friend filled in the grooved-plywood gaps in the ’60s-era cabinet faces with Bondo bodyfiller, then sanded the doors smooth and painted them. Even the Tennessee iris and monkey grass in the yard were gleaned from the thinnings of neighbors’ gardens. “This is all cash-flow decorating,” says Pam. “We did not come in with a lot of money; it’s why we did the work ourselves.”

For the first two years, the downstairs was uninhabitable. Setting goals helped nudge things along. In July 1997, the kitchen had no cabinets, plumbing, or electricity, but it was the most complete room downstairs. When Jim spontaneously invited his entire family to Thanksgiving dinner, Pam was astounded. “I looked at him and said, ‘Are you mad?’” she recalls. “And he said, ‘Everyone’s got to have a deadline.’ Well, it worked. We had 35 people here to Thanksgiving dinner.”

The DeVaults are really finished now, with plans to build a house on a 32-acre site in the country. (The restored Foursquare is for sale for $259,000; call 615-742-1125 if you’re interested.) Although the renovation wasn’t done with smoke and mirrors, a bit of fantasy often helped. “When it would get fractious and we were snarling at each other, one of us would fill a room with candles and drape the ladders with antique lace,” says Pam. “We’d live in that illusion for a day or so, and then say, ‘Oh yeah, I remember, I do love you and we really are doing this for a reason.’ Everybody feel secure? All right, let’s get all this junk out of here and get back to work.”

**SPECIAL THANKS to Andrew T. Cuyler of Nashville for bringing the DeVault’s “unmuddling” to our attention.**
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Circle no. 225
House Hunting Through the Revolving Door

The real estate market may be red-hot in many parts of the country, but even in neighborhoods rich with historic houses, there are exceptions. That’s why dozens of communities across the country have established nonprofit entities with a mission to connect unique older properties with willing buyers, wherever they may be.

Ed McCann, executive director of the Lynchburg, Virginia, Housing and Redevelopment Authority, says he’s gotten calls from all over the country about his program, although only locals have bought houses so far. “It’s given an opportunity to people who probably wouldn’t have thought of living in the inner city,” McCann says. “Some of these houses are really attractive.”

While many agencies get the word out through publications and the Web, their strongest asset is usually a revolving loan fund, which gives them the ability to buy or option endangered properties and hold onto them until a buyer can be found. In many instances, this seed money can have a ripple effect that spurs private investment throughout a neighborhood.

These nonprofit groups often distribute listings that include photos, prices, and descriptions of properties to preservation-minded individuals far and wide. Depending on location and condition, price tags can range from as little as $1 to market prices in excess of $250,000. Here’s an overview of some of the programs across the country:

- The City of St. Joseph recently created one of the first marketing efforts for older properties in Missouri when it joined with two nonprofit agencies to launch the St. Joseph

[continued on page 24]

B&B FOCUS

ABIGAIL’S ELEGANT VICTORIAN MANSION,
EUREKA, CALIF. Abigail’s isn’t merely a bed and breakfast—it’s a living, breathing interactive Victorian museum. Decorated in High Victorian style to match its pedigree, the 1858 Eastlake/Stick Style cottage boasts Bradbury & Bradbury reproductions of its own original wallpapers. The Axminster carpet is an 1882 William Morris design.

Owners Doug and Lily Vieyra will crank up the Gramophone for you, take you for a spin in the rumble seat of a vintage roadster, or treat you to one of hundreds of silent movies. In a town noted for its architectural treasures, this non-smoking inn is a gem.

Four rooms, $79-185, 1406 C St., Eureka, CA 95501, (707) 444-3144, www.bbhost.com/eureka-california
You aren't going to go through this unless you have proof that there are good houses for sale. We drove out here because we had to see these houses.

—JERRY NORTHCUTT
ATLANTA, GA.

[continued from page 23] Historic Properties Emporium. The emporium publishes a quarterly listing of broker-listed properties and homes owned or optioned by the nonprofit groups (816-271-4648, www.oldhouses.org). A brochure filled with brick Queen Anne and Shingle Style homes at rock-bottom prices was enough to bring Jerry and Tammy Northcutt all the way from Georgia. “I was really impressed,” Jerry says. “You aren’t going to go through this unless you have proof that there are good houses for sale. We drove out here because we had to see these houses.” Eleven of the 33 homes offered in the first issue have sold.

• Lynchburg, Virginia, offers a homesteading program in the city’s blighted College Hill neighborhood. For $1, buyers can purchase a historic home, but must agree to rehabilitate the home within three years and to use it as their primary residence for five years. Six houses have been sold since the program began in February 1997. (Contact the Lynchburg Redevelopment and Housing Authority, 804-845-9011.)

• In New Orleans, Operation Comeback promotes living within the city as a means of saving old neighborhoods. Allied with the Preservation Resource Center, the organization has notebooks with thousands of homes listed for sale. In 1998, 75 were sold. (504-523-4064, www.prcreno.org)

• Indianapolis, Indiana, markets homes though the Historic Landmarks Foundation of Indiana (317-639-4534) and also offers low-interest loans to property owners. The organization publishes a quarterly brochure called Fund for Landmark Indianapolis Properties.

• In Galveston, Texas, the Galveston Historical Foundation offers revolving funds for both commercial and residential properties. GHF also publishes a quarterly listing of houses 50 years and older that are for sale (409-765-7834, www.dickensonthestrand.com).

• North Carolina is one of the most active areas, with 16 revolving funds in cities across the state. Among the oldest is Preservation North Carolina, which has been marketing old houses in both rural and urban areas statewide for nearly two decades through its own revolving fund (919-832-3652, www.presnc.org.)

—ROBYN L. DAVIS, St. Joseph, Missouri

“...You have to have a hook.
If you give away a house, people say, ‘Well, I don’t know!’
So you have to attach a dollar value to it. We attached

$1

and it works.”

—ED MCCANN, LYCHBURG HOUSING AND REDEVELOPMENT AUTHORITY
Whitewash for Wood  Among the many paints and coatings once made on-site by the user, whitewash tops the list for variety as well as utility. Like chocolate chip cookies, there are scores of recipes for whitewash—not a few incorporating foodstuffs such as rice flour and sour milk. This mix, offered by the National Lime Association since the 1930s, uses less exotic ingredients and is ideal for wood on cottages, fences, and outbuildings.

8 GALLONS LIME PASTE
15 LBS. SALT OR 5 LBS. CALCIUM CHLORIDE (DRY)

Begin by making lime paste: soak 50 lbs. of hydrated lime in 6 gallons of clean water. Then dissolve the salt or calcium chloride in about 5 gallons of water, and mix thoroughly with lime paste, thinning to taste with more water.

Apply whitewash to dampened surfaces using a limefast (tampico bristle) brush. After brushing on one coat—which should appear as thin as milk—let dry and repeat. The calcium chloride version is less likely to chalk.

There's probably never been anyone like Frank Lloyd Wright, but Lyman Shepard comes close. After seeing his dramatic impression of the the iconoclast architect, we got to chat.

**Gordon Bock:** What brought you to perform as the self-styled "greatest architect in the world"?

**Lyman Shepard:** I've been involved with the restoration of the Frank Lloyd Wright hat, and more lines. One thing led to another, and I started giving formal performances to rotary clubs, corporate meetings, school groups—all over. I've been doing the show 30 to 40 times a year ever since I retired in 1984.

**GB:** Sounds like full-time work. Do you ever get bored?

**LS:** Mr. Wright re-invented himself so many times, I have no problem keeping the presentation interesting. It's all about his tumultuous life, as well as his dynamic, organic vision of residential architecture. I try to convey his message. At the turn of the century, Frank Lloyd Wright personified the push against Victorian architecture. In his early years especially, he was also living outside the customary milieu. I love doing it, and at my age I don't have to do it. I meet exciting people.

**GB:** What do you think of your alter ego?

**LS:** I have to laugh when I describe his personal life. Here's a man who had great control over his art, yet he couldn't manage his marriages, couldn't manage his finances, and couldn't manage himself. He was constantly falling off a cliff, then picking himself up.

I don't try to do the voice. However I do try to hurry, to get through the story in under an hour. Wright, of course, never hurried—except to get paid for a bill or to cash a check.

He would run it down to the Marshall Field Store in Chicago and immediately buy an oriental rug or Japanese print, make a down payment on a piano, grab a box of chocolates for his children—any of the luxuries denied him in his youth.

**GB:** Any thoughts on the current Wright renaissance?

**LS:** It's helped Prairie architecture in general come alive again after being dead and buried for so many years. It's also brought the other architects of the period out of the shadows.

Wright is a cult now. Besides all the books about him, you can buy ties, teacups, earrings. He would like that though. He thought of himself as a super person, just like the supermodels and superstars of our time. If he were around today he'd be on all the celebrity TV shows.

L**YMAN SHEPARD can be contacted at 804 Forest Avenue, Oak Park, IL 60302; (708) 848-2075.**
Spirited Exchanges
Some old-house owners have tales about
the ethereal side of restoration

The previous curators of Upper Wolf-
snare Manor informed us that there was
a ghost in the house and that he had
been seen by their daughter on more
than one occasion. So we were not surprised
when our own daughter reported that she had
come home from a party in the wee hours to
discover the ghost materialized in her bedroom.
"I don't have time to deal with you now," she
said tiredly, and the ghost obligingly disappeared.

I was conscious of the ghost because, in
the middle of a major job, tools would mysteri-
ously vanish. After spending a great deal of
time hunting for the item, I would abandon the
search and either go out and buy a replacement
or make do with a substitute. Weeks later the
tool in question would turn up in some out-of-
the-way place. So now I own two claw ham-
ers, two carpenter's rules, and identical twins
of a few others.

One Sunday my wife and daughter were
in the kitchen preparing lunch, two male friends
were in the back yard raking grass, and I was in
the upstairs study overlooking the front yard.
As we gathered in the dining room for lunch,
one of the young men asked me, "What was I
doing wrong?" "What do you mean?" I replied.
"You were looking at me through the back up-
stairs window so sternly, I thought that I must
have been doing something wrong," he said. I
told him that I hadn't been near that window.
He reacted with a crestfallen, "Oh, and I see now
that you're not wearing a white shirt." We all re-
alized that he, too, must have seen a material-
ization of our curious ghost.

During the Civil War, nearby Norfolk and
Princess Anne County were occupied by Union
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The Japanese Influence  by Nina A. Koziol

Just as a pebble tossed into a pond sets ripples in motion, the Japanese influence—first felt here more than a century ago—continues to resonate in the American landscape. After cresting in the first decades of the 20th century, Japanese gardens fell from favor between the two world wars, only to rebound in a wave of popularity that has yet to abate.

Japan opened its ports to the West in the 1860s, but the craze for Japanese exotics didn’t catch on until Americans got a first-hand glimpse of supposedly real Japanese gardens at exhibitions in Philadelphia (1876) and Chicago (1893). Ironically, writes Kendall H. Brown in Japanese-Style Gardens of the Pacific West Coast (Rizzoli, 1999), these fantasy gardens liberally combined Japanese landscaping techniques separated by as much as 800 years.

Swooning over pagoda-style tea houses, crescent-moon bridges, waterfalls, and small, fish-filled ponds, Victorians were eager to add a touch of the Orient to their own gardens. Species long cultivated in Japan quickly infiltrated the late-19th-century American home landscape, including hydrangea, hosta, camellia, maple, magnolia, bamboo, chrysanthemum, azalea, ornamental grasses, plum, cherry, and dwarf evergreen.

Popular gardening books included tips on how to evoke a Japanese woodland setting by planting a few trees and shrubs and making a “stream” from pebbles. Diminutive courtyard gardens for nature meditation might feature stepping stones, a water basin, and evergreens suited to lower-light conditions. Austere dry landscapes, composed of sand and gravel carefully raked into stylized patterns around large stones, symbolized mountains, valleys, plains, and water.

Nursery catalogs offered Japanese-style stone lanterns, porcelain pots, bamboo (for both cultivation and fencing), and dwarfed plants (bonsai). Lanterns made of stone, wood, bamboo, or bronze, served as a focal point and a contrast with natural features.

Americans loosely adapted the Japanese tea garden as one of many theme gardens pop-
ular a century ago. A path of moss-covered stone led through a narrow outer garden into an inner enclosure containing a pavilion or teahouse. A large stone placed near the walk invited visitors to stop and examine nearby plants, such as iris or Japanese anemone. Waiting at the end of the walk was a water basin, illuminated by a stone lantern and surrounded by gravel and other carefully arranged stones.

The first Japanese-style gardens were well suited to the American bungalow, which began appearing at the same time. The average bungalow might have had a small L-shaped or side-lot garden traversed by stepping stones, while a more elaborate, U-shaped bungalow might incorporate an interior courtyard sheltered by pergola or arbors with strong horizontal lines. A tea house behind a bamboo screen, a stone lantern, and artistically arranged rocks and shrubs completed the bungalow's outdoor room.

The restrained Japanese-style garden relies on the "less is more" principle, offering plantings that are simple and restful, soothing to the eye and the mind. Consider adding these Japanese influences to your garden or lawn.

- Create a space for contemplation that provides a tranquil link to the natural world. Near a dry, horizontal pebble "streambed" or a real pond, use graceful, vertical plants such as variegated sweet flag or Japanese iris.
- Simplicity, not clutter or crowding, characterizes the Japanese garden, which may employ moss or grass as groundcover. Spurge, bearberry, and creeping juniper make a low growing green carpet.
- Include focal points, such as lanterns, water basins, arbors, ornamental stones, and patches of astilbe, anemone, or peony.
- Emphasize the soothing, monochromatic green of foliage. Evergreen—symbols of endurance—are good choices for a Japanese-style garden. Create seasonal highlights with one or two dramatic trees or shrubs, such as an azalea, weeping cherry, or Japanese maple.
- Bamboo and other grasses can serve as vertical focal points. Most bamboos tend to be invasive, so consider planting them in a submerged pot that prevents roots from taking over the garden.
- Combine plants with unusual textures, such as viburnum with Japanese holly, or an upright juniper with a redleaf Japanese maple.
- Use small shrubs that echo the shapes of nearby rocks, including boxwood, dwarf Hinoki cypress, or compact Mugo pine.
- To create an enclosed garden without erecting a fence, try Canadian hemlock, which may be pruned as a hedge or screen.
- Place a stone lantern near a walkway, gate, water basin, or pond. Surround the lantern with low junipers, and plant a single Japanese maple in the background.
- The sound of trickling water in a stone basin is a soothing addition to the garden. Use a small pump to circulate the water.
- Group plants randomly in threes, fives, or sevens—a more natural look than those planted in groups of two or four.

Nina K. Kozioł is a garden designer in Palos Park, Illinois.
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FRETT NOT Despite the delicate appearance of the spindelwork, these screen doors are sturdily built from Honduras mahogany. Choose from Folk Victorian, Prairie, or Arts & Crafts styling in one and two-door configurations. Prices range from about $400 to $700; hardware is extra. Call Touchstone Woodworks, (330) 297-1313. Circle 5 on the resource card.

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Next Ladder, Best Ladder by William T. Cox Jr.

While putting pen to paper, it dawned on me that I spend about 80% of my indoor construction time on a stepladder. Since I was well on my way to wearing out my present wood ladder—the second in 18 years—I decided to research the subject. After seeing what some folks buy for ladders, I had to share what I’ve learned.

An old carpenter’s bit of wisdom holds that you get what you pay for with ladders. A $29 ladder may look the same as a $129 ladder, but it is simply not going to last as long before it becomes unsafe. The difference rests in matching the ladder to the user and project. Consider all the painting, wallpapering, plaster repair, and moulding installation that goes into an old house restoration. Besides—I’m most reluctant to say this—there’s the personal weight gain that’s sure to come over the years. You need a ladder that will stand up to a lifetime’s worth of everyday use even if you don’t use it every day.

Cost vs. Safety As long as you handle it properly and never exceed the weight capacity, your ladder will stay as sturdy as the day you bought it. The key word here is sturdy. You don’t want that ladder to wobble—ever. Any movement in a ladder throws the user off balance (and I find carpentry hard enough to perform on a ladder without starting a juggling act). Make sure the ladder is fully open and the spreaders are locked. All feet must be on a firm, level surface whenever you set up the ladder.

The first time you buy a ladder, it pays to select the best you can find for two reasons: your wallet and your safety. Annualized cost will run about $6 a year no matter which type of ladder you buy. Surprised? A heavy duty ladder will outlast a light duty ladder by years simply due to its superior construction. The purchase price averages out over the ladder’s service life.

Weight Capacity All ladders are classified by type. There are four categories (see chart on page 36), each defined by how much weight a ladder can carry. This figure is the combined weight of the user, their clothes, tools, and any material carried up that ladder. Capacity is determined by how much static (dead) weight a test ladder can hold. The American National Standards Institute (ANSI) recommends a safety factor of four. This means the ladder is tested at four times the rated capacity to make sure it can handle the dynamic loads (climbing steps, leaning) and less than ideal conditions (poor or uneven leg support) inevitable in the real world. The difference between a Type IA and a Type III ladder is in the construction: size of the bracing, legs, feet, steps, and the size and number of fasteners. Basically everything else—angle of incline, spread, and warning labels—stays the same.

As of this writing, I weigh 210 lbs. At least once during a job, I carry 60 lbs of tools
or materials up my ladder. However, a man my weight shouldn’t go up a ladder rated Type III (200 lbs.) or Type II (225 lbs.) with a small flashlight. Oh, they’ll hold up for a little while, but they just can’t stand that load over any length of time. It took nine years to crush the treads on my Type I (250 lbs.) solid, fir ladder while exceeding the weight capacity for five years.

**WOOD VS. FIBERGLASS** Everyone should have two choices in life. Deciding between wood or fiberglass is a happy dilemma. Wood is the heaviest ladder material, and wood ladders require the most maintenance, but they are also the least expensive. Fiberglass ladders are low maintenance and medium weight, but cost the most. Aluminum makes the lightest ladder, but I would not choose one because metal conducts electricity. There are few places inside an old house where there is no danger of working around electrical circuits.

**DESIGN CHOICES** If I wasn’t all over my stepladder like an ant on a banana plant, I would have a platform ladder. Not one of those little kitchen ladders, real platform ladders have a solid stage from which to work and sturdy railings to place your legs against. If you do a lot of painting, order your ladder with a pail shelf ($20-$35). Don’t forget to account for height when shopping for either step or platform ladders. In a stepladder, the maximum standing height is actually 24” less than the manufacturers’ length specification. (OSHA requires top treads to be labeled “This is not a step.”)

Most important, fit the ladder to the job. Get down and move the ladder as needed. Keep your body centered between side rails and don’t overreach—a major cause of accidents. A stepladder is not designed to be left closed and leaned against a wall; the ratings are based on an open ladder. Inspect your ladder every time you set up, but never paint it—coatings hide warning signs of failure.

What ladder did I buy? I bought what I believe will be the safest ladder ten years from now: a Type IA (rated 300 lbs.), Extra Heavy Duty Industrial, 6 ft., fiberglass stepladder. It cost $150.00 sans shelf—but it should last the rest of my professional life.

**WILLIAM T. COX JR.** is a carpenter and writer in Memphis, Tenn.

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An Uncommon Life  by Janice Williams Rutherford

Christine Frederick often quipped her epitaph would read, "She Raised the Kitchen Sink." More than a tongue-in-cheek nod to her 1910s campaign to match counter height and homemaker, the phrase captured the impact of a remarkable woman who pioneered a career as a home efficiency expert.

From 1912 until well into the 1940s, Christine Frederick claimed a wide audience as a consumer advocate, advertising authority, and grandiloquent commentator on the home. She wrote for dozens of popular magazines and journals and authored two books on home efficiency: The New Housekeeping, (1913) and Household Engineering, (1919). Her most productive years coincided with the modernization of the American home. Although Frederick perceived herself as a thoroughly modern 20th-century woman, she traded in the 19th century notion that woman's place was in the domestic sphere. In an era of Progressive reform, she encouraged women to find fulfillment in new roles as efficient managers of home consumption.

Christine Frederick did not fit the profile of the middle-class American housewife for whom she wrote. Born Christine Isobel Campbell in 1883, as a child she spent an exotic three years in Russia with her newly divorced mother and two aunts, who worked as governesses for the Czarist aristocracy. After a nasty custody battle, mother and daughter returned to Missouri where they lived with wealthy maternal grandparents until her mother remarried and moved to Chicago. Christine graduated from Northwestern University in 1906 and taught for a year in Ishpeming, Michigan, before marrying J. George Frederick, a brash young executive with the fledgling J. Walter Thompson advertising firm. In 1907 they moved to the Bronx, New York.

Soon bored to distraction in their small apartment, and weighed down with what she often called the "drudgifying" labor of housekeeping (especially after their first two children arrived in 1908 and 1910), Frederick seized upon an idea for women whose main occupation was being mothers. In 1913 she published her first book, The New Housekeeping, and a year later Household Engineering. In these books Christine Frederick pioneered a career as a home efficiency expert.

As America's pre-eminent domestic guru for three decades, Christine Frederick guided women in the new science of modern homemaking. For her own life, though, she fashioned an independent, international career.

Opposite, clockwise from top: A classic 1913 time-motion study of a woman beating eggs (note man with stopwatch); Christine and "Mrs. Harvey" testing kitchen ranges in the 1930s. Speaking on products at a TV homemaker's party, about 1950. Above: Christine Frederick (in white) in 1932.
that was exciting J. George's friends: scientific management. Also called "Taylorism" after its popularizer, Frederick Winslow Taylor, this was the new pseudo-science of efficient labor as achieved by studying motion with charts and stopwatches.

She dashed off a series of four articles on applying efficiency principles to the household, titled them "The New Housekeeping", and sent them to Edward Bok, editor of the Ladies' Home Journal. The magazine was reaching well over one million subscribers by 1912, and Bok not only published Frederick's articles, he offered her a contract to answer the large volume of readers questions about housekeeping. When the young Frederick family moved to an old apple orchard on Long Island that same year, Christine established the Applecroft Home Experiment Station. From here she launched a successful career advocating the modernization of American homemaking.

Frederick argued that the same principles efficiency experts developed for the factory could revolutionize housework. Her first articles and books explained carefully timed motion studies designed to standardize ordinary household tasks—the exact motions necessary to cut dishwashing time by ten minutes, for example, or washday chores by fifteen. Frederick insisted on grouping tools and routing daily chores. Imitating managers of industry, she divided food preparation into tasks, arranged tools for a particular task into groups, then ordered the groups so that meals would be assembled with as few steps as possible. Kitchen floor plans illustrated precisely how her efficiency methods should be implemented. For preparation tasks, the owner placed the refrigerator next to a table under storage cabinets, which in turn stood next to the cookstove. The last work station in the line was the serving table. If the owner arranged clearing shelves, garbage pail, sink, and dish cupboards in the proper order, clean-up was streamlined.

According to Frederick, kitchens are workshops where efficiency rules over decor. Architects, she counseled, needed to design smaller kitchens used only for food preparation. Women should relax in other rooms, she believed, away from their work. Frederick banished the pantry of the Victorian era in favor of storage near food preparation areas. (In Applecroft she installed a pulley-operated cellar icebox.) Shelves, she said, should be open and one item deep to avoid fruitless reaching and searching. Frederick especially favored metal surfaces for easier cleaning—particularly Monel metal, the precursor to stainless steel. These innovations were right in step with the smaller, simpler Arts & Crafts bungalow that was proliferating across America.

In the 1920s Frederick made three tours of Europe as an invited speaker on home efficiency and advertising. Always receptive to the possibilities of new technologies, she became a tireless promoter of radio during this time. Frederick also
actively solicited test appliances so that she could report their labor-saving attributes to her readers. For many years, manufacturers were happy to comply. Critics have noted that Frederick's interests leaned more towards the manufacturer than the consumer. Still, when she measured the efficiency of a mechanical dishwasher or explained the chemistry of electric laundry machines, she aided homemakers who were just then learning the new equipment.

Such appliance research led Frederick into the advertising world. From here she logically turned her considerable skills in writing and speaking to the emerging field of consumerism. Frederick testified several times before Congressional committees on price maintenance and, in 1929, published a third book, Selling Mrs. Consumer. Her weekly syndicated column ran in Hearst newspapers for 27 years.

It's easy to argue that much of Christine Frederick's advice to women ran counter to radical feminist rhetoric of the era. More important perhaps is how precisely she judged the impact of new trends on the changing home. She helped her readers navigate the transition from the cloistered domestic stations of their Victorian mothers to the active, public lives of modern housewives. Her legacy is that her work reflects her times so well.

JANICE RUTHERFORD, Assistant Professor of History at Washington State University, is the author of a soon to be published biography of Christine Frederick.
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"The polished look of certain granites and marbles can seem glaringly modern in an old-house context, but there is an alternative: the honed finish, which resembles the matte look of soapstone."

—page 46

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"Even if it was practical to find all the sound areas and totally replicate the original mix, the historic patches would be like holes in a 'swiss cheese' of newer stucco."

—page 54

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September/October 1999

"It's hard to imagine a more turbulent span than the years between 1930 and 1950. In just 20 years, the world struggled through an economic catastrophe, engaged in a war of unthinkable proportions, and ushered in the nuclear age. Where houses and house styles were concerned, though, the American Dream House of 1950 looked remarkably like the Dream House of 1930."—page 58
Counter Intelligence

by Mary Ellen Polson

Men and women have been searching for a better kitchen work surface since the first Homo sapiens ground a handful of grain into meal on a flat stone. Two centuries ago, our ancestors chopped vegetables into pots over an open fire, or cobbled together meals on rickety hutches. Even 100 years ago, the most up-to-date kitchens were equipped with wooden counters and drainboards that, if not properly cared for, warped, cracked, and presumably left splinters. Now, with the 21st century barreling toward us, we’re faced with an astonishing dilemma: If we choose stone, should it be polished, or honed? Do we prefer the warmth of wood, or the utility of steel?

Chosen with an eye to performance, durability, and the right kind of authentic good looks, the kitchen work surface can be a unifying force in the creation of a vintage kitchen.

Opposite: Is it soapstone? Slate? Concrete, perhaps? Nope, it’s granite. The honed finish not only lightens the look of the stone, but gives it a sense of warmth that’s more than welcome in an old-house kitchen. Top: Stone is smooth and cool to the touch, even in hot weather.
Perhaps we’d rather have tile in a mix of period colors. Even laminates and concrete can mimic the look of traditional materials. Of course, there’s always the option of combining several surfaces all in the same room (see “The Kitchen Furniture,” p. 50).

Selecting an appropriate countertop for an old-house kitchen can be a tricky proposition, but never before has there been so much choice. All of these materials have their strengths and weaknesses, and at one point or another, all have been at home in what are now considered vintage kitchens. Whether they belong in your kitchen is up to you.

**Stone**

Arguably, stone is the oldest work surface, but it wasn’t widely available for use in kitchens until 15 or 20 years ago. Soapstone, slate, and marble have had a presence in the kitchen for well over a century; granite’s history is much more recent.

The polished look of certain granites and marbles can seem glaringly modern in an old-house context, but there is an alternative: the honed finish, which resembles the matte look of soapstone.

“A honed surface is a lot more appropriate in an older home,” says David P. Croteau, co-owner of The Stone Yard in Littleton, Massachusetts. “It’s very much like a sawn finish, whereas with a polished finish, you bring out all the color that’s there. Looking into a piece of polished granite is like seeing a reflection in a mirror.”

Before you buy, visit a good stone yard and inspect actual slabs of the material. Coloring, grain, and sense of movement vary so much that a small sample may not be a true indication of what you’ll actually get.

Left and center: Not only does Fireslate II, a cured concrete product, offer the heft and appearance of stones like slate (right) and soapstone, it costs substantially less.

—I can’t think of a better example of how long a counter will last than exposure to a bunch of seventh- and eighth-graders trying to burn the school down.” —GLENN BOWMAN, VERMONT SOAPSTONE CO.

**Soapstone**

Starting in the mid-19th century, soapstone was used for both dry and wet sinks and as work surfaces in butler’s pantries. It’s also the original laboratory countertop material, a testament to its durability. “I can’t think of a better example of how long a counter will last than exposure to a bunch of seventh- and eighth-graders trying to burn the school down,” says Glenn Bowman, owner of Vermont Soapstone Co.

Although soapstone is unaffected by chemicals or acids, it scratches easily, leaving a white residue (sand out scratches with fine steel wool). Also, the freshly cut stone oxidizes from a light grey to dark charcoal over a period of a few months.

“We recommend treatment with mineral oil to make the oxidation process uniform,” Bowman says. “If the counter is left untreated, it will oxidize in the high traffic areas sooner than the low traffic areas.”

Bowman suggests rubbing down a new soapstone counter with mineral oil once a month for the first year. Once the color has stabilized, “just keep the counter clean,” he says. Soapstone retails for about $55 to $60 per square foot, cut to size, finished, and ready to install. “It’s usually competitively priced with commonly available granites and marbles,” Bowman says.

**Slate**

Slate is another rugged, water-shedding stone that has a long history as a work surface, appearing in backsplashes and dry sinks well before the advent of indoor plumbing. In the early-20th century, slate laundry sinks were common—you could buy one from a plumbing catalog. Like other stones, slate can be polished or honed. And like marble, travertine, and solid surfacing (Corian and its imitators), it can be scratched.

Any stone countertop material intended for heavy use should be sealed. Otherwise, you’ll get staining. Stains enter the stone through tiny pits in the surface. Croteau recommends sealing stone countertops with a premium silicone impregnator, or PSI, such as the Lithofin brand. A .5-liter can covers from 150 to 200 square
Laminates We Love

The laminated countertop has been a fixture in kitchens for 50 years now, but like its flooring counterparts, its history goes even farther back. In a process not altogether different from that of linoleum or vinyl tile, laminates are made of layers of kraft paper that have been impregnated with synthetic resins, then heat-cured under pressure. The first plastic laminate was patented in 1909, but the material didn't begin to catch on for surfaces until the 1920s, when it appeared as a dark, wood-grained pattern on radio cabinets. By the 1930s, laminates were considered to be among the choicest materials for Modern theaters, diners, and stores. Formica's new "cigarette-proof" laminate, developed in 1931, was used throughout Radio City Music Hall in New York.

Like early asphalt tile (the forerunner of vinyl), it would be years before technical innovations produced the kaleidoscopic explosion of colors and patterns we associate with '50s laminates. When laminates finally did arrive, they did so in a big way: In the first seven years after World War II, 6 million new homes were built in the United States; 2 million of them had Formica in their kitchens, according to company documents.

Although many early laminate patterns have gone the way of the dodo, (Formica's Starburst among them—a mercy in the eyes of many old-house owners who've had to rip it out), others are still in production. They include Formica's "Boomerang" pattern (colored rubber bands on a solid ground) and a new line of retro designs by Laurinda Spear. Most laminate manufacturers also produce slate, marble, and granite lookalikes that give the illusion of fine stone at a fraction of the cost.

A few custom installation tricks will enhance the period feel of a retro pattern. First, trim the outer edge with an extruded aluminum band or nosing, detailed with grooves (this will require custom metal work; check your local yellow pages for a sheet metal fabricator). A shallow backsplash measuring 4' x 3/4" should be bonded separately to the wall. The inside corner joint between the backsplash and counter can be finished with a thin strip of metal cove moulding (usually aluminum).

Like flooring tile, laminates were produced as sheet goods that could be cut, bent, and trimmed to fit. Although laminates in the '30s, '40s, and '50s were adapted to paneling, wainscoting, doors, and furniture, they seldom, if ever, appeared on floors. It has taken nearly a century, but that chapter is being written in the 1990s. And where does laminate flooring most often appear? Why, in the kitchen, of course.

The Kitchen Furniture

Before about 1910, "the kitchen furniture" meant exactly that—freestanding tables and cupboards, a couple of chairs, and usually a behemoth of a stove. While many wealthy Americans of the late-19th century never set foot in the kitchen, for most Americans, the modest farmhouse kitchen was still the center of hearth and home life.

Oddly enough, these simple kitchens are the inspiration for the freestanding furniture look now sweeping kitchen-and-bath showrooms from London to San Francisco. In a concept that goes far beyond the center island or work table, the unfitted kitchen has emerged over the last 20 years as a reaction to the cold, sterile, boxy kitchens most of us have known since childhood.

Rather than fit together kitchen cabinets, appliances, and runs of countertop in a seamless, wall-to-wall assembly, an unfitted kitchen is created around dedicated work areas composed of freestanding shelves, cabinets, counters, and appliances. In old-house kitchens, where windows, doors, and chimney flues pose logistical difficulties for standard kitchen components, a fitted kitchen can turn obstacles into opportunities. Not only does each discrete piece of "furniture" fulfill a specific function, it may literally fill a niche, adding architectural dimension to the space.

Granted, the freestanding kitchen carries a custom price tag well beyond reach for many of us. Elaborate as they may be, unfitted kitchens are catching on because they share one essential element of the simplest farmhouse kitchen: they emphasize comfort. Here are a few of the ideas behind the concept:

- A central work surface that combines the notion of a table with the drawers and accessories of an island. To accommodate different tasks, the surface may have levels that are higher or lower than the standard 36" countertop height.
- The return of the stove as a central presence in the room. Both vintage nickel-plated stoves and modern commercial-style ranges fit the bill.
- Dressers and cupboards that resemble fine furniture—yet conceal ample storage space, preferably at the proper ergonomic height for ease of use.
- Floor-to-ceiling cupboards that double as storage and display space.
- Combinations of materials and textures. Rather than an all-steel or all wood kitchen, a fitted kitchen usually incorporates different species of wood and/or stone with ceramics and metal. The result is both functional and aesthetically pleasing.

SUPPLIERS:

feet, depending on the porosity of the stone, and costs about $45. "It's relatively easy to do," Croteau says, "similar to polishing a piece of furniture." And don't worry—sealers don't necessarily change the color of the stone.

Like soapstone and darker shades of granite and marble, smudges and dirt stand out in high relief against slate's near-black coloring. It can also be less expensive than other countertop stones, especially if you live near the traditional slate-producing areas in the Northeast.

MARBLE Homeowners searching for clues to appropriate materials may want to look in the parlor; both marble and slate were prized for fireplace surrounds in many fine 19th-century homes. While mantel stone was usually polished, the hearthstone often had a natural cleft or honed finish, so either choice has historic antecedents. "When you're dealing with white stone, the contrast between honed and polished is so minor that most people won't notice it," says The Stone Yard's Croteau.

White, delicately veined marble was a favorite for backsplashes and wall wainscots in commercial and industrial bathrooms around the turn of the 20th century; and it's often available from salvage dealers. A marble slab set into another countertop material can be an economical choice for pastry chefs.

GRANITE Gorgeously patterned and nearly indestructible, the brilliant colors and luster of granite often fail to integrate well into a period-look kitchen—unless the stone is honed. A granite that's jet black when polished looks dark grey in a honed
finish. The lighter the color, the less the color changes when the stone is honed.

Slab granite wasn’t easily available to homeowners at reasonable cost until a couple of decades ago, when diamond saws were introduced. Had the technology been available, granite might have been just as popular as marble and slate were a century ago, Croteau says.

Granite is easily the most expensive stone for countertops, beginning at about $75 per square foot, with some extraordinary stones costing $150 or more. But although the slabs are heavy (18 pounds per square foot at a thickness of 1-1/4”), standard base cabinets are all that’s necessary to support the weight, Croteau says.

Concrete/Fireslate II Although Fireslate is not a true stone, this manmade material was invented to take the place of soapstone in labs, and the family resemblance is strong. Made of Portland cement, quartz sand, and a mineral binder called Wollastonite, the material is subjected to 400 tons of pressure and steam cured. Fireslate II comes in slabs of various thickness in light and dark grey, terra-cotta red, and pistachio green. Over time, the stone takes on a mottled quality. Since most stones cost $50 or more per square foot, Fireslate is a relative bargain at $22 to $31 per square foot. Although Fireslate is factory-sealed with a psi, owner Thomas Worthen recommends sealing the counter with tung oil once it’s installed.

Wood/Butcherblock
Handsome and warm in appearance, wood makes a superb cutting surface. It’s also far kinder to glasses and dishware than soapstone, slate, or granite.

At the turn of the 20th century, pine, oak, maple, and fir were favorite countertop materials; wood was even pressed into service as a drainboard for sinks—although it’s worth mentioning that once tile, steel, and laminates came into vogue, homeowners quickly switched from wood. Perhaps that’s because wood can scorch, scratch, and stain, and has a tendency to blacken when repeatedly exposed to water.

The classic wooden work surface is butcherblock, either as a freestanding cube or countertop. Usually made of hard maple, oak, or other water-resistant wood strips, butcherblock counters are bonded together with the grain edge face up for dimensional stability. Experts recommend sealing the surface with tung oil; even so, the surface can be tough to keep clean, and water will continue to pose a problem. You

Light on the Subject
Shiny work surfaces aren’t the only giveaway in a new old-house kitchen: often, recessed task lighting creates its own glaring statement—especially in combination with large expanses of polished stone or stainless steel.

These days, “can”’s3 lights offer more precision and subtlety than they have in the past. Designers are promoting them not only for task lighting, but for ambient (background) lighting as well. While recessed lighting can be just the thing for pinpointing light on a work surface without calling attention to its source, there are plenty of period alternatives.

Take the ca. 1920 prismatic light shown above, for example.

“The prismatic’s original design was to reflect and concentrate light downward for task lighting,” says Wayne Reckard, marketing director for Brass Light Gallery, which sells the lights. “As a general rule, they’re very efficient.”

A pendant that historically would have been rated at 60 watts would now probably be rated for 150 watts as a reproduction, Reckard says.

“That’s going to provide more than enough task lighting over an island or counter.”

The new halogens will be whiter, brighter, and hotter. If you must have halogen, the PAR bulb shown at right comes with an Edison base, so it will fit some reproduction light fixtures.
The Sunken Work Surface

Like counters, sinks have been fabricated from a wide range of materials as long as there have been kitchens: Slate and soapstone, marble and granite, porcelain and china, stainless steel and copper. Remarkably, sinks are still widely available in all of these materials—at prices that may surprise you.

Making the biggest splash these days is the farmhouse sink, an apron-front drop-in sink that’s variously available in porcelain, vitreous china, fire clay, soapstone, and more exotically, granite and stainless steel. No matter what the material, prices seem to hover between $500 and $1,200 for a farmhouse sink or traditional double basin. Browsing on the Web, you can find double-basin stainless steel sinks that cost more than a large farmhouse basin in granite.

Like the unfitted furniture look (see “The Kitchen Furniture,” p. 50), the farmhouse sink’s roots are English rather than American. It’s hard, though, to argue with the utility of the basic shape: A deep, squarish, slightly tapered basin that recalls the dry sink. With its white porcelain or fire clay apron, the farmhouse sink fits right into the freestanding furniture concept.

Sinks are mounted either under the counter (unrimmed) or over the counter (self-rimming). Since most farmhouse styles are self-rimming, you can play up the sink’s profile by over-the-counter mounting or play it down by undermounting.

For example, American Standard’s Country White sink plays up features borrowed from the freestanding porcelain sinks of the 1920s minus the legs: the drop-in sink has a high backsplash drilled for a wall-mount faucet, and there’s a pronounced lip near the rim of the apron. Rohl’s Shaws Original (shown at left) mounts under the counter for a sleeker look that takes nothing away from its pretty white face. Other farmhouse sinks, like Kohler’s Alcott model, can be tiled-in or undermounted.

Stainless steel sinks have been ubiquitous in American kitchens since the 1940s. Before that, sinks made of Monel (a nickel-copper alloy) were promoted as the sink material of choice in the 1920s. And long ago, even dry sinks were made from sheet metals.

Stainless steel sinks outpaced Monel sometime after World War II (the alloy is now prohibitively expensive to produce). These easy-care sinks are still widely available in one, two, and three-basin styles, some with integral drainboards. Although stainless steel is virtually indestructible, the best sinks are 18-gauge or heavier; commercial kitchens often specify 14-gauge stainless.

can seal the wood with multiple coats of polyurethane, but then you won’t be able to cut directly on the counter without harming the surface.

Butcherblock is an ideal material for specialized use—as an inlaid cutting board, for example, in a kitchen with different work surface heights. Butcherblock countertops cost about $18 to $20 per square foot; a 10” thick, 2’ x 2’ butcher block will run $500 or more.

Tile

Hard, durable, and as colorful as Fiesta, tile has been a favorite in American kitchens since the turn of the century. Back then, plain vanilla tiles in stock sizes kept counters and backsplashes looking hospital clean. Creamy-white “subway” tiles (3” x 5” or 3” x 6”) and 3” or 4” square tiles were standard. Once the fervor for the sanitary look abated, color worked its way into the kitchen in the form of accents, including V-edge cap tiles for counter trim, and narrow ribbon tiles. By the 1930s, countertops sported oversized hexagonal tiles in olive green, black, and bisque white, or pale yellow 4” square tile laid on the diagonal with accent trim in black, dark blue, green, or maroon.

While tile makes a tough work surface, it can chip and scratch (the brighter the color, the more noticeable the damage). The grout joints in early-20th-century tile jobs tended to be very thin—a boon for keeping the grout lines clean—but the technique may be hard to duplicate today. Modern, stain-resistant epoxy grouts are a big improvement over traditional Portland-cement grouts, which darken and stain over time.

Tile is one of the least expensive countertop materials, and also one of the most expensive. Plain 4” x 4” tiles in standard colors can cost as little as $2 to $4 per square foot, but handmade art tiles can cost $25 per piece or more. Installing a tile counter is usually more complex than laying a stone slab or laminate countertop, and can easily run twice the cost of the materials.

“A honed surface is a lot more appropriate in an older home. It’s very much like a sawn finish. Looking into a piece of polished granite is like seeing a reflection in a mirror.” —DAVID P. CROTEAU, THE STONE YARD

Metal

Stainless steel, in widespread use since the late 1920s, is the king of 20th-century metals. It lasts practically forever, won’t stain or rust, and best of all, it’s easy to clean and sanitize. It will scratch, however, and its industrial appearance lacks warmth. Stainless steel came into its own in the 1940s and ’50s—occasionally in all-steel kitchens where counter, backsplash, and even the cabinets were made of steel. (Not exactly an inviting environment on a hot summer evening!)

Although steel counters are ubiquitous in commercial kitchens, installing one at home usually requires custom fabrication; at about $45 to $50 per square foot, the cost approaches that of stone. If you like the look of steel, consider incorporating a stainless-steel sink and drainboard into your kitchen design, or add a freestanding work table topped with a metal surface.

Whatever work surfaces you choose to integrate into your kitchen, keep the tone of the materials appropriate to your home’s period and style. A common complaint is that brand-new kitchens in old houses often look out of place. So unless your home is a ’40s Cape Cod or classic Ranch, nix the sleek, reflective surfaces. “Look at Sturbridge Village, for example,” says Croteau. “There isn’t a single piece of shiny surface anywhere, because it wouldn’t be appropriate.”


JOE YUTKINS

OLD-HOUSE JOURNAL 53
Stucco is an ancient, armor-tough covering, especially as used over masonry in the Mediterranean world. It tends to fare less well, however, in the deep-frost snowbelt of North America. Such is the case at Edith Wharton's home, The Mount, in the hills of Lenox, Massachusetts. The ongoing restoration of this landmark building presents a unique opportunity to learn about what's possible with large-scale, century-old stucco.

By the mid-1980s, when Edith Wharton Restoration, Inc. assumed care of the building, its four storeys of marble-white finish coat showed clear areas of delamination, as well as extensive cracks and spalls. Tests indicated that every 20” or so there was a loss of bond. Worst of all, perhaps, were years of well-intentioned patches and repairs with hard portland cement—as damaging to the surface as they were unsightly.

Even if it was practical to find all the sound areas and totally replicate the original mix, the historic patches would be like holes in a “swiss cheese” of newer stucco—of different ages and flexibilities. Furthermore, the scratch and brown coats, which comprise 80% to 90% of the system, were still in good shape. Since these coats actually are the details of the building—the quoins, raised panels, and mouldings—it was clear the finish coat could be treated as a sacrificial layer, ready for complete renewal.

Finding the Formulas

Faithfully replicating the finish coat required researching appropriate methods and materials. The first issue was trying to match the crisp, smooth surface texture. After testing a variety of tools on sample panels, the stucco crew decided that steel floats followed up by rubber floats produced the best results. Steel floats are stock masonry supply tools, but the rubber floats turned out to be special order items.

The other critical issue for the stucco was...
the mortar mixes for each of the coats. As with all historic masonry restoration, new mortar must not be harder than the existing mortar or there will be damage to the surface. The age of the building hinted that the stucco might be an old-style soft lime stucco—that is, the simple lime-and-aggregate mix common before Portland cement became popular. Indeed, laboratory analysis of the coats came right on target with documented historic proportions. The final mix was: 1 part hydrated lime: 2-1/2 parts crushed marble stone, plus 1/12 to 1/15 parts white Portland cement. The Portland cement, added to increase setup time was a modern concession so small it would not affect hardness. The scratch coat was the hardest at 3/4 lime: 1 cement: 2 sand. The brown (second) coat used an intermediate mix of 3/4 lime: 1 cement: 4 sand.

**Big Crack, Little Crack**

Once the course was set to replace the entire finish coat in kind, the first repair step became removing all the ailing material. Originally, the strategy had been to gently blast the surface with a baking soda medium. However the hard-Portland repairs proved too tenacious, so the crew wound up peeling the surface away with hand- and pneumatic-powered chisels. They returned to blasting later, however. Remarkably, this system, delicate enough to remove graffiti on busses, had the power to clean the brown coat of any residual finish stucco, leaving the original brown coat scratches sharp, deep and ready for a good mechanical bond with the new finish coat.

Besides 90 years of settling and uneven maintenance, the stucco suffered worst from direct water contact through splashback, leaking eave soffits and gutters, and split or missing downspouts and gutters. In these areas, excessive deterioration indicated the restorers had to rebuild the full system.

For the most part, though, repairs were
A SKETCHY HISTORY

Flush with success as a novelist—and, more importantly, a design authority after The Decoration of Houses—Edith Wharton set to work in 1901 to realize her own vision of classical architecture in the Berkshire Mountains of western Massachusetts. Her richly detailed mansion, The Mount, was modeled on European villas of marble and stone, yet executed in the humbler construction of a stucco skin over a hemlock balloon frame.

Ironically, there is no mention of stucco in any of the surviving construction documents. In fact, the original specs call for an exterior of terra-cotta and local Lee marble. At some time during its early stages, the building cladding switched to stucco, probably as an economy move. Fortunately for the restorers, the original builders did not cut corners here. The stucco system is anchored by heavy galvanized wire lath, an advanced material at the turn of the century. Equally lucky was finding it in very good condition. Had the lath been plain steel, it surely would have rusted where water penetrated the mortar coats, and the whole system would have failed.

The stucco told other tales. The restorers found bits of charcoal in the base coats, indicative of heated water in the mortar. Some areas even showed crystals characteristic of cold weather work. Building this massive house in little more than 14 months must have meant pushing the building season to its limits—with the aid of some good weather and a few tricks of the trade.
limited to either cracks or patches. To repair average cracks, the crew dug out the stucco to a 1-1/2" width, working down to the lath and undercutting the edges to a 30 degree angle. Then they prepared the edges with a masonry bonding agent, and filled the void in stages with matching scratch- and brown-coat mortar. Small cracks and fissures were simply treated with bonding agent, then “sutured” with small-mesh fiberglass tape to prevent their return under the new finish. Large cracks and patches received the same treatment around their perimeter to reinforce the bond between old and new mortar.

**A Marble-Smooth Finish**

Applying the new finish coat meant working essentially from the inside, out—that is, first big areas, such as the fields between windows, then the details such as quoins and raised panels. Moreover, the stucco crew had to complete whole sections at a time, working from the top of the building, down. Stopping half way, then resuming the plastering would leave “cold” (unbonded) joints in the stucco that would show up as cracks or other flaws over time. This process takes teamwork as well as skill and experience. Generally, one man could apply the stucco with a steel float, to be followed up immediately by another with the rubber float.

While no problems appeared after the first winter, it was apparent that the stucco absorbed water in bad weather. Since repeated cycles of wet/dry stucco raised the potential for damage down the road, the restorers decided to paint the stucco with Keim paint, a unique silica-based masonry coating. It proved to be a good match with the stucco and should keep its alabaster beauty for decades to come.

**Special Thanks** to Eugene Ivan Chenko and Al Paolucci of New England Stucco (Chicopee, Mass.) and David Andersen, Edith Wharton Restorations.
From Dark Times to Dream Houses

Though seemingly static, the watershed years of the Depression and World War II incubated novel building materials and design concepts that foretold a different kind of house after 1945.

by Shirley Maxwell and James C. Massey

It's hard to imagine a more turbulent span than the years between 1930 and 1950. In just 20 years, the world struggled through an economic catastrophe, engaged in a war of unthinkable proportions, ushered in the nuclear age, and prepared to explore outer space. Where houses and house styles were concerned, though, the American Dream House of 1950 looked—on the outside, at least—remarkably like the American Dream House of 1930. Most new home buyers wanted the same, safe Colonial Revival-style house or Cape Cod cottage, but with a redesigned, thoroughly updated interior.

What the era lacked in style, it made up for in substance. Here's how these two particularly charged decades fused into the housing explosion that is still making architectural waves half a century later.

DOWN IN THE HOOVERVILLES In the 1930s construction and related industries nose-dived from the optimistic heights of the 1920s into the muck of the Depression. Yet, through it all, house building continued, especially after the National Housing Act of 1934. By insuring large, low-interest, long-term mortgages under the Federal Housing Administration (FHA), the government did its best to jump-start the stalled housing industry. While FHA's benefits were enormous, its appraisers were conservative and not inclined to take risks for the good of modern architecture.

The ready-cut house, a phenomenon of the early 20th century, was fading by 1930, as cash and material shortages took their toll on manufacturers such as Sears, Aladdin, and Montgomery Ward—and on their customers. Daunted by rising foreclosures, Sears abandoned its once-promising venture into mortgage lending but continued to produce updated though still traditional designs.

Meanwhile, some of the most talented architects stuck to their creative guns. After
Clockwise from above: A small, shingled Colonial Revival typical of the 1930s; this elemental English Cottage is the "Bellewood", a ready-cut house from Sears sold only from 1931 to '33; a splendid entry to a 1930s Art Deco house; by 1930 when this house was built, the picturesque Old English Style was simpler, but retained complex roof forms; the sweeping front eave and gambrel roof mark an unusually fine Dutch Colonial.

By 1950, the affordable, "everyman house" was no longer a bungalow or Foursquare but the basic ranch—a dwelling developers threw up by the thousands.
A New World of Materials

The Depression pushed manufacturers and builders not only to look for cheaper and better building materials but, to use them more creatively. Large exhibitions such as Chicago’s 1933 Century of Progress and the 1939 New York World’s Fair showcased the products of this astonishingly innovative period. Plastic appeared in a variety of new forms, ranging from improved versions of Bakelite (formerly available only in black and brown but now sporting clean, bright colors) and Formica (invented in 1913 as an insulating material) to clear Lucite (used in custom furniture).

Other new man-made resins and glues led to replacements for increasingly scarce and expensive natural products. Plywood, invented as a hardwood substitute in the late 19th century, metamorphosed in the 1930s into dense panels of soft fir that were sturdy enough for structural use. Sheet panel products—Masonite, Celotex, Beaverboard, Sheetrock, and Homosote, for instance—became household words. In fact, the Century of Progress exhibition displayed a house constructed of Presdwood panels (a Masonite variant) that was developed for exterior use in 1931, while the 1939 World’s Fair featured an entire House of Plywood.

Inside the house, cement asbestos and vinyl composition tiles took the place of more traditional (but still very widely applied) linoleum, cork, or rubber tiles. Cement asbestos (one brand was Cemesto) was also used for wall panels. Structural pigmented glass sheets (Vitrolite, Carrara) came into colorful use as wall surfaces in bathrooms and kitchens. For exterior walls, the versatile glass block, developed in 1932, provided structural strength and pattern as well as a source of natural diffused light.
a long hiatus, the indomitable Frank Lloyd Wright returned to the American architectural scene with his own brand of modernism. His 1935 design, Fallingwater, is a landmark expression of the International Style. Wright also produced many smaller, more affordable Usonian designs intended for his middle-class clients. These little flat-roofed houses are considerably warmer in mood, with wooden walls and space-saving built-in furniture.

Several European emigres imported the hard-lined International-Style concepts of the German Bauhaus. Among them were Walter Gropius and Marcel Breuer at MIT, and Ludwig Mies van der Rohe in Chicago at the Illinois Institute of Technology. Their houses were characterized by a severe geometry, straight lines, flat roofs, glass walls contrasting with vertical boards, and an absolute lack of ornament. In California, Richard Neutra, Rudolf Schindler, and Eric Mendelsohn, although not of the Bauhaus School, designed houses that were strongly International in style.

Most 1930s houses were little, smaller by a couple of hundred square feet than even a decade before. That’s why so many people could afford them, even during hard times. To minimize the impact of less space, quick-thinking builders adjusted house layouts and emphasized the use of outdoor spaces. Open floor plans and expanses of glass visually enlarged the tiny rooms. Smaller, cleaner furnaces using oil, gas, or automatic coal stokers, freed up basements for supplementary living spaces, such as family and recreation rooms.

The kitchen became a sanitary, satisfying (and stylish to boot!) home laboratory, with an electric or gas stove, refrigerator, and continuous counters covered with linoleum or metal. In fact, the magical power of electricity was felt everywhere in the house, from the radio in the living room to the electric ceiling fixtures. Thoroughly modern houses these were—but totally traditional in style.

**A WAR TO BE WON**  Just as the Depression seemed almost over, war broke out in Europe in 1939, bringing even more problems and scarcities to the housing market—and ironically, a different kind of housing boom. In the communities surrounding military bases and large defense plants—“Arsenals of Democracy”—housing shortages threatened the efficiency of the war effort. Managers quickly transferred assembly-line skills to the construction of houses, using modular designs to conserve time, labor, and materials.

Since little effort or material could be spared for ornament, the war was something of a proving ground for minimalist modern design, including experiments by prominent architects like Gropius, Neutra, and Louis Kahn. Corrugated sheet-steel Quonset huts were the answer to many of the military’s most pressing spatial needs, from personnel barracks to airplane hangars. In a miracle of recycling, war workers moved into 38,000 trailers constructed of Homosote—boards of wood pulp and ground newspapers bound with artificial resins.

**BACK FROM THE FRONT**  After the war, the federal government vastly expanded aid to home ownership for returning GIs. Federal funding through the Veterans Administration mortgage loan program, FHA, and other agencies also led to federal standards governing the buildings that qualified for loans. In all, 5.1 million housing units went up between 1946 and 1949.

Despite a steady decrease in lot size, and the architectural profession’s high hopes for a new modern architecture, postwar Americans continued to favor detached houses built one at a time in the styles popular before the war—especially Colonial Revival in progressively smaller and less ornamented versions, and the always minimal Cape Cod cottage. The promise of prefabricated houses—that is, houses assembled from large, factory-built sections—never reached its full potential. For
one thing, contractors and the building industry in general resisted the concept. For another, the average home buyer distrusted new materials and remained stubbornly loyal to traditional styles.

Though they made their first appearances in the 1930s, two style innovations—the ranch house and the split-level—came into their own mostly after the war. Theoretically based on houses found on old California ranches, the ranch house of the mid-20th century was long and shallow, with a low gable roof. An attached carport or garage at one end gave it even more length. Informal and picturesque, it most often had a shallow front porch that frequently stretched the length of the house. The front façade usually was not a straight line but receded or projected at one end or in the middle (or both), adding to its casual air.

Popular as the ranch house grew, the split-level quickly surpassed it in the postwar years. Unlike the dead-level ranch, the “two-storey split” house offered an opportunity to separate adult spaces from children’s areas. The 1937 Sears Modern Homes catalog featured two split-level designs, but only after World War II did the split-level become the standard alternative to the two-storey Colonial Revival house. The basic split had a garage on the lower level (below grade), bedrooms above the garage to one side of the front door, and the entrance and living spaces at mid-level (usually ground level) to the other side of the door. Separate gabled roofs covered the two sections.

Increased land and labor costs left postwar houses even smaller than houses of the 1930s, but they made up for it with more open floorplans and greater utilization of the outdoors. The patio became an adjunct to the kitchen, a place to cook and serve outdoor meals. This was especially helpful because the dining room was the first casualty in the postwar space battle.

The building phenomenon that would really characterize the 1950s and much of the 1960s is the planned, homogeneous community. The first, Levittown, sprang from a Long Island, New York potato field in 1947; others, including one in Bucks County, Pennsylvania, followed quickly. Using an assembly-line approach to on-site building methods, developer William Levitt’s crews were erecting a house every 16 minutes by 1950. These new “towns” had schools, parks, shopping centers, and a consciously homogeneous population—that is, all-white, mostly young, virtually all married couples with children and moderate incomes. The earliest Levittown house had four rooms (two bedrooms, a living-dining room, and kitchen), one bath, and an expandable attic under its steep Cape Cod roofline. Later Levitt Houses were larger with carports, and closer to the ranch house in style.

Not all postwar houses were cookie-cutter Cape Codts. Some melded thoughtful design in a comfortable modern idiom and careful siting on well-landscaped lots. A community of such houses is Hollin Hills near Alexandria, Virginia (Charles Goodman, architect), begun in 1950. The number of distinctive, individually designed modern houses increased as more and more architects were trained in the Bauhaus manner (having gone to architecture school on the GI Bill, naturally). Probably the most important of these is Philip Johnson’s beautiful Glass House (1949) in New Canaan, Connecticut.

By the 1950s, however, architectural style probably had become almost a secondary consideration for most buyers. As long as they weren’t presented with a residence that was shockingly avant garde, what they were after was not any particular style, but a super-modern, fully functioning, single-family house with ample outdoor space and all the mechanical and electrical conveniences the postwar world had to offer. Former amenities had become the new “necessities” that would sell houses in the coming decades.
Clockwise from left: A Cape with ranch house proportions; the prototypical split-level; Hollin Hills, set high standards; an Art Deco postwar house.

William Levitt cloned thousands of no-frills Cape Cods in whole new communities that bear his name. Enlivened only by dormers and, perhaps, corner windows, these spare houses were dream homes to returning veterans.

Probably the most important house of the postwar era, architecturally speaking, is Philip Johnson's Esherick House, a steel-framed tour de force.
As functional as it is beautiful, 20th-century builders' hardware is also a lot of fun. Manufacturers were wonderfully inventive with doorsets, hinges, and handles in the years before World War II, mass-producing products from a remarkable range of materials, from chrome-plated steel to resin-coated kraft paper. Whether your taste runs to hand-hammered copper, brushed nickel on brass, or candy-colored plastics, 20th-century hardware has something for you. While the range of choices has widened considerably in the 1990s, it can be tricky to find just the right stock to complement your house. This is especially true if yours is one of the eclectic revival styles of the 1920s, '30s, or '40s. Here's a guide to some of the most popular hardware styles for 20th-century houses.

**ARTS & CRAFTS**

Hand-hammered copper may be socially obligatory in Arts & Crafts reproductions today, but with the exception of artisan-made pieces, it was fairly rare at the turn of the century. "The base metals were usually brass or iron unless the
piece was really fine,” says Terri Hartmann, manager of Liz’s Antique Hardware. “Arts & Crafts hardware has straight, somewhat blocky shapes and very simple lines, sometimes with incising, but nothing very elaborate.” The more commonplace door and entry sets—ubiquitous in bungalows along the West Coast—usually had applied finishes; brass pieces were often nickel-plated, for example.

**ECLECTIC REVIVAL** During the 1920s and ’30s, architects and builders borrowed heavily from Old World styles of the past in their residential designs, creating houses as diverse—and derivative—as Spanish Colonial Revival, Chateauesque, Tudor behan, and even Egyptian Revival. Whatever the name, the hardware was usually made of black iron, and style differences were subtle, if they existed at all. For Spanish-style homes, pieces were often hammered; on the West Coast (but not elsewhere), they were nickel-plated, Hartmann says. In Tudor Revival-style buildings, the ends of strap hinges, door levers, and handles were often finished with heart shapes.

The lines between different styles of builders’ hardware were often so blurred that reproductions intended for one style of home may also work in another. Take Acorn Manufacturing Co.’s Warwick line, for example. “Although it originally came from England, it appears much more Mediterranean or Spanish,” says Acorn’s Eric DeLong. “It’s perfect for a Revival-style home.”

**COLONIAL REVIVAL** Interior door sets for Colonial Revival dwellings were spare and simple: usually a faceted crystal or glass doorknob set against a simple brass rosette instead of a doorplate. The prettiest knobs are actually crystal; at some point (probably during the Depression), manufacturers stopped adding manganese to the knobs. As a result, some of the clarity and beauty of the glass was lost.

**ART DECO AND STREAMLINE** Although there weren’t many Art Deco homes built in America, chevron shapes and other stylized French forms became common in builder’s hardware of the late ’20s, ’30s, and early ’40s. Fittings were usually chrome-plated steel or brass. Hardware for cabinetry and furniture was more fanciful, incorporating brightly colored Bakelite and other novel plastics. Regarded as a later phase of Art Deco, Streamline/Moderne styling emphasized sweeping, aerodynamic curves and circular forms. In hardware, the forms became much simpler. Pieces were often made of composition metals, and chrome-plated. “Think of a very simple chrome kitchen handle,” Hartmann says. “That’s the epitome of Streamline.”

As you shop, keep in mind that many of the bronze, brass, and copper finishes on period hardware sets are just that—specialty finishes bonded to a humbler base metal. While many reproductions do an excellent job of mimicking original profiles and shapes, they lack the patina that only age can give. “People want ‘antique brass’ to match real antique brass hardware,” says Andrea Ridout, the owner of Nostalgic Warehouse, who has been working to perfect such elusive finishes for 10 years. Her company will soon debut an antique copper finish based on hardware 80 to 90 years old. “It’s a dingy, grungy, authentic finish,” Ridout says. “It’ll look great in an old house.”
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Wood shingles might be the most versatile roofing and siding material ever used. Installed in rows, waves, alternating widths, and myriad patterns, shingles became so integral to the design of some houses, they were dubbed Shingle Style, an honor few building materials can claim.

Tour most modern housing developments and you probably won’t see a lot of genuine wood shingles. That’s because shingles are expensive to purchase and tedious to install. The good news is, it’s easy to replace a few damaged or deteriorated shingles on an old house, providing you have the right tools and a little patience.

Shingle pullers, which also remove shakes and slates, work by hooking the tool onto a hidden nail, then striking the handle to dislodge the shingle.
A CUT ABOVE
The best quality wood shingles, sold as No. 1 Blue Label, are cut from clear 100% vertical grain heartwood lumber. Because the wood grain runs perpendicular to the shingle width (bottom shingle in photo), vertical grain shingles resist wear, warping, and take paint best. I recently purchased a bundle for $110. Less expensive shingles include flat grain and sapwood cut shingles in each bundle. In flat grain or plain sawn shingles, the grain runs roughly parallel to the shingle width (top shingle), making them more warp and wear-prone. Most wood shingles are rebutted and rejoined—that is, the mill trims sides parallel and saws butts at right angles for a neat installation. Shingle manufacturers and carpenters agree: the added durability of top quality shingles is worth the difference in cost.

Left: If you only need to extract a shingle or two, split them out with a hammer and chisel. Work in two places where the nails are likely to be and the shingle will come out easier. Right: You can also use a shingle puller to push old nails out of the way (shown here), or to hammer them down.

**Shingle Semantics** Wood shingles are tapered pieces of heartwood sawn to uniform thickness and length and, in many locations, used for roofing long before sidwall cladding. Historically, shingles were cut from durable local woods, such as cypress, redwood, red cedar, white cedar, oak, and pine. However, the most common shingle wood today is western red cedar (*thuja plicata*), a species esteemed for its fine straight grain, light weight, and resistance to rot and insects.

The terms shake and shingle are often used interchangeably. Unlike shakes, shingles are thick with very rough split faces and a split or sawn back. They are installed with felt paper alternating between each layer to prevent roof leaks. Shakes are a product promoted in the 1940s and '50s to create an uneven, rustic appearance. While appropriate for houses of this era, they do not resemble historic shingles, which were generally thin and smooth.

In traditional single-course siding, shingles are installed from the bottom of the wall, beginning with a double course to cover the joints of the first layer. To keep courses straight, the installer snaps a chalk line and tacks a long straight board along the line as a guide. In all applications there are at least two layers of shingles covering the sheathing; in some narrow-coursed effects there are three layers.

The other common system, double-course siding, is a way of installing two layers of shingles on each course, creating deep shadow lines that accentuate the horizontality of the wall. The first or under layer is a No. 3 or No. 4 quality shingle, which is covered with a higher quality No. 1 or No. 2 shingle. The butt of the exposed shingle extends about 1" down from the butt of the under shingle. This method is common on houses from the 1930s to '50s.

**Removing Shingles** If you have a few damaged or deteriorated shingles, there's no need to reshingle the entire wall. However, there are a few tricks to removing and replacing individual shingles without creating a headache. On single-course siding, the nails are hidden under the butt of the overlapping shingle. On double-course siding, the nails are hidden and exposed. If you have one or two bad shingles, you might be able to jerk them out with pliers. You can also loosen shingles by splitting them apart with a hammer and chisel. When removing...
shingles this way, the old nails will remain in the wall. If you can get to them, try to remove or flatten nails against the sheathing with a hammer and flat pry bar.

If you have a lot of shingles to replace, it’s best to invest in a shingle puller. These tools have long thin blades with hooks on the end to snag concealed nails, and an offset handle that protects your hands from injury. (As some roofers confide, you can even ram the handle with a hammer for quick removal of stubborn nails!) Shingle pullers also work in reverse. By driving the tool upwards, you can sometimes push nails out—or at least out of the way of the new shingle. Shingle pullers are not common hardware store items, but you never know where they might be sold. I bought one at a chain lumber company for a reasonable $23; the best examples cost $50 and up.

**Replacing Shingles**  Now for the fun and easy part. If you are only replacing one shingle, you can trim it to size with a jigsaw and small plane. To install the shingle, begin by gently tapping it back in the empty space using a block of wood to protect the butt from hammer dings. If you are replacing more than one shingle, take care to always cover the joints of the underlying shingles. Should hidden nails split your shingle, slide a piece of sheet aluminum under the split for protection, or cut slots in the top of your replacement shingle that correspond to the nails.

If you replace one shingle or only a few in one row, the pressure of the overlapping shingles might adequately hold the new shingle in place, but don’t count on it. You can also hold the new shingle in place with a “babbie,” a 1” wide strip of copper or aluminum nailed to the wall under the new shingle. Once the new shingle is in, you bend the end of the babbie up so it hooks the butt of the shingle.

Nails are the best fasteners, and seasoned shinglers dig into their bag of tricks for special techniques to hide their nails.

**METHOD #1** Push your shingle up to within 1” or so of the correct placement. Then take two nails, one for each side, and carefully nail them just below the butt of the overlapping shingle, angling the nails slightly upward. Then gently drive the shingle into place. If done correctly, the nails will bend without splitting the shingle and disappear under the butt of the overlapping shingle.

**METHOD #2**  Hammer the shingle nearly home as above. Then drive two nails almost through the shingle without penetrating the backside. Run your shingle puller or flat pry bar under the overlapping shingle, gently lift it up, then nudge your shingle and nails into place. Afterwards, slide the flat part of your bar over each nail and drive it home by hammering the top of the pry bar.

**Large Repairs**  In large areas of deteriorated shingles, remove old building papers and nails, inspect the sheathing for damage, and install a new layer of building wrap. As with a

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**The Two-Course Menu**

Most roofs are shingled in the same general fashion, but there are two common methods for sidewalls. Single-course siding (left) uses one grade of shingles, lapping them for roughly half their length. Nails are always hidden. Double-course siding (right) typically calls on two grades of shingles—a less expensive type for the undercourse. Since two layers are used, the exposure is usually wider than traditional shingling, and the extra width dictates an exposed nail.
Right: To replace a shingle, tap it in just short of position, then drive two shingle nails almost home right below the overlapping butt.

Far Right: Gently hammer the shingle in place with wood scrap so the nails are hidden.

Below: The business end of a shingle puller (center in photo) has hooks that cinch the nails. Other standard shingling tools are a hammer, chisel, and hand plane, along with a razor knife and chalk line.

new house, begin at the lowest point and work up, taking care to keep your courses level with the remaining courses. Shingles are usually staggered and trimmed to fit to both inside and outside corners, but they can be butted into corner boards. In either case, flash behind the corner with felt paper.

When you select replacement shingles, install the rough or sawn side out. Shingles with a smooth surface will not match the texture of adjacent shingles. To fasten each shingle use two corrosion resistant nails long enough to firmly grip the sheathing. Space each sidewall shingle between 1/8" and 1/4" apart, and fasten nails 1" up from the butt of the next course that will be applied. Position each nail 3/4" to 1" from the side of the shingle, 1" to 2" up from the exposure line of the next course. Drive the nails flush with the face of the shingle without crushing the wood. Use only stainless, aluminum, or hot dipped zinc coated nails in traditional applications. Small headed, thin shank "splitless" siding nails are best. Finish nails are acceptable but they are slightly larger and have less holding capability. If the nails are exposed on unfinished or clear finished shingles, use only stainless or aluminum nails. Do not use common or electroplated galvanized nails.

**Finishing Touches** Unfinished cedar wood shingles weather beautifully, first turning gray and then golden brown. If you want a natural appearance, you'll get improved durability and even weathering by applying a penetrating wood preservative to the shingles. For the Cape Cod weathered gray appearance, purchase bleaching oils to accelerate the aging process.

**Special thanks to Ted Robertson of Kirkwall Construction and L.P. Connolly General Contracting for assistance with this article.**

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RENAISSANCE RINGER
Word is this house was built in the late 1800s. Chimneys used to come up through the roof on either side, and the front porch is definitely newer. Can you call the style?

— Bill Swalwell
Hampshire, Ill.

Despite the changes, we'd say this house is a basic yet textbook example of the Italian Renaissance style, built well into the 1930s. When McKim, Mead & White completed the ground-breaking Villard houses in New York in 1883, they reignited the vogue for Italianate architecture, though in a much more refined mode. Many Italian Renaissance houses are high-style, sophisticated buildings designed by trained architects—not a few of whom had been to Europe to see the originals. Like the Beaux Arts style popular in the same era, they are almost always built of masonry (or masonry veneer) in understated, symmetrical shapes, but with elaborate, classical detailing.

That low, hipped roof with deep eaves is a standard feature of the Italian Renaissance idiom—that or a flat roof with parapets. Equally telltale are the eave brackets and the awninglike copper porch roof on the left. The front porch probably did come later; Italian Renaissance houses often have recessed porches in a Palladian window form. It's not a bad match, however. Though the porch appears to be Colonial Revival, with the balustrade topped by urn finials, it fits the Georgian-style massing of these thoroughly Mediterranean houses.

JACK OF ALL TRades

Need to lift a tall, 8' x 8' wooden support post in a garage, I called on a technique that I learned from my uncle, a farmer by trade. Rather than trying to bolt some sort of cleat to the side, I found a short length of similar-sized timber and lashed the two together with a few wraps of heavy chain.

Then I positioned my hydraulic house jack on a sound base directly under the short timber. As I carefully raised the jack and block, observing all proper safety measures, it cinched up the chain, lifting the post with it.

— Fred Hollywood
Long Beach, Calif.

STRIPPER WRAPPED IN PLASTIC

I confess upfront: I'm sending in a tip that has already appeared in Old-House Journal. But since I had forgotten it over the years, I assume other readers have, too. Low-tech and effective, it deserves a reprise: To let liquid paint stripper really work, lay it on thick and then wrap it in plastic (a dry cleaning bag, food wrap, etc.). Not only will the paint get softer faster, but you'll also experience less smell in the room. Check progress after 30 minutes. Only rarely will you have to reapply stripper.

— Peter Eliot
Portland, Maine

Unlike the 1850s Italianate style, Italian Renaissance houses might be stone or stucco, but never wood.

FITTING RESPONSE

We're restoring a two-storey opera house built in 1901 and want to match the original balcony railing. Do you know of a source for appropriate fittings?

— John Vorndran
Stoughton, Wis.

The railings you describe are generally called pipe or tube railings, and were common for many purposes. Lengths of hollow rail, threaded on each end, screw into ball-shaped elbows, tees, and crosses to assemble the desired design. Industrial applications typically used railings of black or galvanized iron. A marine or decorative installation, such as in your building, was more likely brass or bronze. Tubes came in standard sizes of 2", 2-1/2" and 3". Since pipe railings are not standard hardware, you'll need a specialty supplier like Brass Works (1167 Massachusetts Ave., Arlington, MA 01276; 781-643-2230). They stock fittings for both hand and foot rails.

Ball crosses and tees are the signature fittings of pre-1940s pipe railings.
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