



HOUSES OF THE 1940s, 1950s,
AND 1960s ARE NOW OLD
ENOUGH TO SUFFER FROM THE
INDIGNITIES OF AGE AS WELL
AS CONSTANT ASSAULTS MADE
TO “UPDATE” THEM. APPLIED
THOUGHTFULLY, MODERN
MATERIALS AND METHODS WILL
MAKE THEM BETTER THAN NEW.

BY MARY ELLEN POLSON

Postwar

Like the Baby Boomers they nurtured,

homes built in the 20 years after World War II are mellowing with age. Somewhere between 25 and 30 million single family houses went up between 1945 and 1965—most of them in the newer, more compact styles variously called Ranch, split level, raised ranch, Atomic Ranch, Cape Cod, and others. Altogether they make up at least a third of the occupied homes in the United States.

As any Baby Boomer can tell you, getting older comes with challenges. The good news: Most of the homes built in the postwar era were stick-built from quality materials, with solid foundations and rugged brick, wood, or composite siding. Inside, walls are sheathed with smooth wallboard and floors laid with durable strip hardwood. Kitchen layouts feature the classic work triangle, and unlike many homes built before 1940, there was at least one bathroom.

Builders made good use of the many new materials developed earlier in the 20th century, especially when it helped curtail the rising cost of construction. Among the innovative products you can still find in postwar homes today are



Challenges

FROM TOP LEFT

Mid-century houses range from an architecturally significant 1939 Frank Lloyd Wright design to a 1940s raised ranch and a simple suburban ranch with a shallow hipped roof, built in 1947.

Postwar Challenges



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A 1955 Usonian-influenced house with cedar board-and-batten siding and a nearly flat roof exhibits some of the attractions of mid-century architecture, from horizontal emphasis to oversized windows.

The word **jalousie** originates from the mid-18th-century French and means literally **jealousy**, and by extension, screen, as in the screening of women from view in some Middle Eastern cultures.



Jalousie Windows

Since central air conditioning was nonexistent in most homes built before the mid-Sixties, the louvered panels known as jalousie windows were essential for houses in hot climates like Florida and the Deep South.

Jalousie windows and doors are typically made of angled glass slats joined on an aluminum clip track, which cranks them open or closed in unison. Because the slats tilt down at an angle, the window can be kept partially open even during a thunderstorm, providing some ventilation on hot days.

The earliest styles for windows and doors had panes from 4" to 6" deep. By the 1960s, as suburban development spread throughout the South, entire homes were outfitted with cranked louvered windows with larger glass slats and three to four louvers per window.

Jalousie windows posed several problems right away, however. They don't seal tightly when closed, allowing water and dirt to get in and conditioned air to seep out. In hot steamy climates like the Florida of my own childhood, metal parts tended to corrode and cranks easily broke or went missing altogether.

That said, it's possible to find replacement parts for jalousie windows and storm doors (see Resources, p. 87), and several companies offer new versions that resemble historic jalousies without the problems of the originals. Most are marketed only in locales with mild climates and/or trade winds, places like Hawaii and coastal Australia.

ABOVE While JELD-WEN's Breezway windows (made in Hawaii) may look like old jalousies, they seal tight and come with built-in screen and security options. All hardware is concealed and made from noncorrosive materials.

plywood and fiberboard; composite siding, roofing shingles, acoustic tile and floor tile; and early forms of insulation and electrical distribution boards.

Of course, some of these vintage products came with unforeseen issues. Early plywood and wallboard, for example, contain or were finished with materials that contained high levels of VOCs (volatile organic compounds). Fortunately for present-day residents (and perhaps bad for Boomers), any off-gassing took place within months of initial construction. More pernicious is the use of asbestos in all those composite products, lead in paints and other finishes, and formaldehyde in a variety of products, including insulation. Add in aging and obsolete plumbing and electrical systems, and you have a scenario where a significant chunk of the renovation budget for a 60-year-old house must go toward elements that are absolutely essential for health and safety, but won't be seen.

Let's start with plumbing and wiring.

If you have poor water pressure or unexplained leaks, you probably know there's a problem with the plumbing. As a cost-saving move, many postwar homes were plumbed with galvanized iron pipes rather than copper. Galvanized pipes



This old fuse box is loaded with obsolete wiring and it lacks adequate insulation.

are actually made of steel covered with a layer of zinc. Over years or decades, the zinc erodes and allows corrosion to build up on the inside pipe walls, reducing water pressure and contributing to poor water quality. Worse, the corrosion can form rust, creating the potential for lead accumulation, which then percolates into drinking water.

If you suspect your house is served by galvanized pipes, have the system inspected by a reputable plumber. If the plumbing is original and fully or partially corroded, the only way to ensure no lead gets into your water is to fully replace the galvanized plumbing and service lines.

As for electrical wiring, the good news is that many houses of the 1950s and '60s missed the knob-and-tube era completely. That's fortunate, because aged knob-and-tube is considered such a fire hazard that modern building inspectors will stop work on renovation projects if it is still in use in the house.

The bad news is that most postwar houses didn't miss the fuse era. A common design for fuse boxes in homes built between 1940 and 1965 was the 60-ampere fuse box. (An ampere, or amp for short, is a unit of electric current.) Inside were four Edison-base plug fuses for branch circuits, and one or more fuse blocks for cartridge fuses to serve major appliances. Electrical junction boxes with 100-ampere or higher service appeared about 1985. Today, 200 amps is standard, but modern electrical needs are pushing even this higher standard, too.

While fuse panels are still legal in most places, having one in the house is usually an indicator that the wiring may be equally obsolete. Additionally, there is a risk of fire if, say, someone plugs a 20-ampere fuse in a slot for a 15-ampere fuse. The electrical wires can't handle the higher amperage, causing the wires to overheat. Once damaged, the danger remains even if the 20-ampere fuse is replaced with one of the correct size. *[text cont. on page 47]*



Even plywood and pressed-wood products gain patina over the decades.

Plywood & Wallboard

Think these should go? Think again. Both are historic: plywood has origins as early as the 18th century. Homasote, one of the first commercial fiberboards, dates to 1916. Both materials have undergone so many changes in just a century that it's possible to date a house based on quirks and characteristics in either material. Telltale signs include thickness, surface pattern, composition, even those fish-shaped plugs that appear in plywood made in the 1950s and '60s.

As finish materials, both plywood and wallboard may be important indicators of style as well as innovation. For example, Frank Lloyd Wright used plywood as an important design element on both ceilings and furniture in the 1958 Seth Peterson Cottage—dramatic now, with nearly 60 years of patina. And early wallboarding was tacked onto walls and ceilings with battens or stripping that makes for a homely period detail today.

10 *Misunderstood Materials*

As a result of hyper-remodeling and the complete gutting of 50- and 60-year-old interiors, many mid-century architectural features and materials are endangered. Here's what to consider saving when renovating, and why.



ABOVE Unadorned brick is a mid-century treasure to savor. Never paint it—you'll just create a labor-intensive job for some future restorer.

No. 1

BRICK & STONE

Avoid painting, removing, or altering original brick and stone walls, planters, and fireplaces. Removing paint from brick or stone is a labor-intensive process involving heat, chemicals, or both. Covering either with "updated" materials like stone veneer or tile can irreparably damage the surface, too.

No. 2

WINDOWS

Windows are a key style marker, part of the architectural envelope of the house. Rather than rip out original louvered, casement, or sash windows, beef up insulation and weatherstripping around the framing, or install storm windows. If windows are beyond repair, replace them with new ones matched as closely as possible to the style, light (pane) configuration, and operation of the originals.

No. 3

Laminate Countertops Vintage laminate (e.g., Formica, Wilsonart) is one of the most easy-care and durable surfacing materials ever made. If it's in good condition, freshen it up with replacement aluminum or chrome banding (see Resources, p. 87). If not, look for a Retro-style replacement pattern; just be aware that not all of the original patterns are available.

No. 4

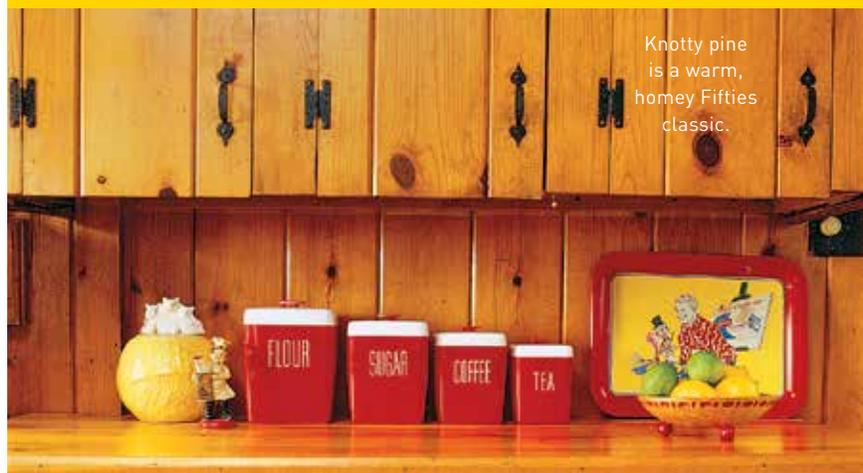
INTERIOR DOORS

Like plywood, an original hollow-core door can develop a pleasing patina over the years, particularly if it was a better quality door to begin with. Obviously, one that's missing or damaged (with baseball-sized holes, for instance), should be replaced—but not with a molded four- or six-panel door! Several manufacturers offer hollow-core flush doors in hardwood veneers for as little as \$70 per door. Fancier flush-door options are available, too.

No. 5

Knotty Pine (and other) Paneling

Yes, natural wood darkens with age, but this Fifties favorite can be freshened with wood-specific cleaners like those from Howard Products. Resist the temptation to paint solid wood, especially if it's high-quality Douglas fir, redwood, or pine plank. As for that skimpy 1/8"-thick faux-wood paneling installed by the acre in the 1960s, rip it out and replace with a better material, especially if it was a DIY substitute for plaster or wallboard.



Knotty pine is a warm, homey Fifties classic.



Salmon-pink is one of the instantly recognizable colors of mid-century tile.

No. 6

Bath Fixtures

Original tubs, sinks, and toilets were well made back in the day, which is reason enough to keep them if they're in good condition. Fixtures in period colors (Mamie Eisenhower pink, jade green, buttercup yellow) are to be treasured. If that powder-blue tub just doesn't work for you, however, offer it online or to a local salvage dealer so it can find a loving vintage home elsewhere.



LEFT Here's new old stock (NOS) in Mid-century Modern styles from Liz's Antique Hardware, who has been offering it for years.

No. 7 DOOR & CABINET HARDWARE

Fortunately, you can still find places to buy authentic replacements for chevron pulls, bronze tab knobs, and dimpled passage sets. But there's also new old stock (NOS) sold on Etsy, eBay, and through salvage dealers, a good idea if you're going for period authenticity. Ironically, new reproductions are probably better made and less expensive than vintage originals.

No. 8 Original Kitchen Cabinets

Don't rush to rip out old cabinets, especially if they're made of solid wood or a unique material like steel. High-end wood cabinets in usable condition can be refreshed with cleaners and wood restorers, just like plywood and paneling. Steel cabinets have their drawbacks, but they are true to period and can be refinished by powder-coating, at a metal or body shop.

No. 9 CERAMIC WALL TILE

Tile made in the post-war years tends to be hefty and durable, with a depth and consistency of color that's hard to find today. Even if it's not initially to your taste, a two-tone color installation is classic for this era. Floor tile may be a different matter, however, since flooring tends to suffer from water damage and cracking. A new ceramic tile floor in a Fifties pattern may give the room a completely new feel that lasts until the next wave of restoration.

No. 10 Vintage Wallpaper

Wallpaper has long been a matter of personal taste, and tastes change. But period papers are an important record of the history of the house. If you're lucky, you may actually like the period paper you've inherited—chances are, though, that you do not. Leave a small sample on a wall (a full repeat, if possible) as a reference for a future owner. The sample might be inside a closet, or covered with a mirror or behind a piece of furniture.

BELOW Hung in a 1947 kitchen, the sweet strawberry-design wallpaper was purchased as vintage stock.





Concrete Block

A standard for foundations and later as a substructure under brick or other forms of cladding, concrete block is one of the most ubiquitous 20th-century building materials. An early form was the handmade picturesque rusticated concrete block. So called because the exposed surface resembled textured stone, rock-face block first appeared late in the 19th century, when innovations in cement making made it possible to press concrete blocks on work sites. When an inventor named Harmon S. Palmer created a machine that added textured or architectural faces to the blocks as they were pressed, rock-face block became a national phenomenon. The blocks were a staple of Sears kit homes, appearing from the foundation to the roof line.

Many of these early concrete installations suffer from deterioration, especially steps, porch walls, and other exposed areas. Luckily, there are several sources for modern rusticated block. Classic Rock Face Block, for instance, offers reproductions in 29 original patterns, including multiple “rock” designs—from shallow to heavy rock—and architectural designs like the beveled-edge panel, a face that creates crisp architectural lines.



ABOVE Reproductions of early 20th-century rock-face block designs are available for repair or new-builds, from Classic Rock Face Block. **LEFT** Original patterns for rusticated brick, sold through a ca.1908 Sears, Roebuck catalog.

Terrazzo

Invented by the Romans, terrazzo was reintroduced in commercial settings in the 1920s, segued to high-end homes like the designs of Richard Neutra in the 1940s, and became the indoor-outdoor flooring of choice in homes from Florida to California

during the 1960s. Terrazzo is a blend of aggregate—stone or marble chips—embedded in cast or poured concrete or cement. Once installed, terrazzo can last for decades with proper care.

Terrazzo is traditionally composed of two parts aggregate to one part Portland cement, bound together with just enough water to bring

the mixture to a cookie-dough consistency. Once leveled in place, additional stone chips are sprinkled over the surface to create a uniform appearance (min. 70% aggregate).

Terrazzo is subject to a variety of perils, from subsidence and earthquake damage to yellowing, stains, glue, minor cracks, and carpet-tack holes. Provided the floor isn't structurally compromised, it can be brought back to its original luster with a good machine polishing and buffing, which will remove the old sealer and any paint or glue. It's essential to find a contractor with experience in polishing—not

LEFT In many Sun Belt states, cool terrazzo floors could be hiding beneath old wall-to-wall.

sanding—stone, concrete, or terrazzo floors for this step.

Minor holes can be filled with new terrazzo, or with epoxy that matches the base color of the terrazzo, followed by faux painting to mimic the aggregate. Larger cracks tend to occur around the metal divider stripes in period installations. They can be patched, but it isn't cheap. Luckily terrazzo colors have been standardized since 1931, so it should be possible to get a close match.

As a final touch, the surface should be sealed with a commercial penetrating sealer formulated specifically for terrazzo. Always use a neutral cleaner with a pH between 7 and 10.



THE PRO TIP



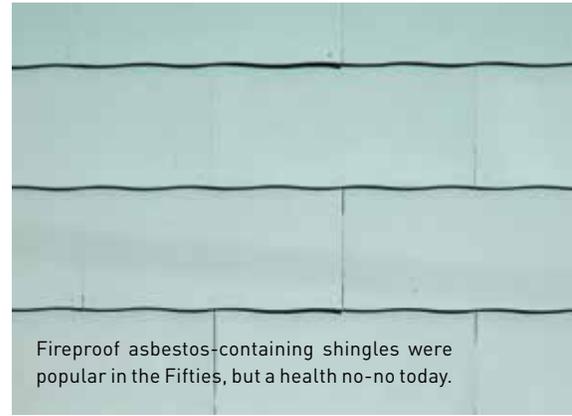
Asbestos is common in 20th-century homes. Floor tile, adhesives, insulation on heating ducts, plumbing, or electrical panels, plus cement or asphalt roofing and siding, early vinyl wallpapers, attic and wall insulation all may contain asbestos. Removal, if needed, should be handled by licensed pros wearing protective disposable suits with hoods, goggles, and NIOSH-approved respirators.

To fix it, the old circuit must be rewired. The modern standard is an electrical panel with circuit breakers, not fuses.

Beyond the electrical service panel, electrical wiring has gone through many changes since the 1960s to make it safer and more stable. There have been a few wrinkles, too. For example, aluminum wiring was used for a short time in the 1960s and early '70s during a period of high copper prices. Even then, outlets and switches weren't equipped to handle it, and aluminum wiring is considered a potential fire hazard today. Any plans for remodeling should include a full inspection of the existing electrical system to make sure it meets modern building codes.

Insulation has witnessed a similarly rapid evolution. If your wall or attic insulation contains vermiculite, you should be aware that 70 percent of this material sold between 1920 and 1990 came from a mine contaminated with asbestos. Obviously, any old insulation should be tested for asbestos, especially if it is exposed to the open air.

During the 1970s, many homeowners installed urea-formaldehyde foam insulation as a retrofit to save energy. A substantial number of these homes had high levels of formaldehyde in the indoor air soon after installation, according to the EPA. While the levels decreased rapidly after the first few months and reached background levels a few years later, you may still want to remove it and replace it with more eco-friendly insulation.



Fireproof asbestos-containing shingles were popular in the Fifties, but a health no-no today.

Speaking of asbestos, the material was rife in building products in the postwar years thanks to its fireproof properties. The good news: asbestos is only dangerous when it's deteriorating or disturbed. The bad news: when an asbestos-containing material is damaged, it releases microscopic fibers into the air, where they can be inhaled or swallowed. Exposure can cause lung cancer and a rare variant, mesothelioma.

The best approach to dealing with materials that may contain asbestos is to leave them alone if you can. That said, many banks will not write mortgages on houses that are known to contain asbestos, especially if it's wrapped around heating or cooling ducts. If you are planning a renovation that may disturb an asbestos-containing material, such as old siding or vinyl composite tile, have it tested by an accredited asbestos inspector. If asbestos is confirmed, the material should be removed only by a certified remediator. Removal is regulated at the state level: look for a licensed pro on your state government's website.

Lead paint may lurk beneath top coats of modern latex.

Lead paint, the bane of older homes, was in use until 1978 and can still be lurking on walls, windowsills, and siding. If you plan to do your own scraping and removal, follow the same guidelines that are required for commercial contractors in the paint-removal business. Wear protective clothing (including a well-fitting respiratory mask); use only low-temperature heating devices and vacuum-attached power tools to strip paint suspected of containing lead. Keep the work area well contained (with floor-to-ceiling plastic wrap securely taped, for example), and dispose of the debris securely and legally.