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This Old House

SMART WAYS TO IMPROVE YOUR ROOMS

WINTER 2022

RADIANT HEAT / BUILD A DEMILUNE TABLE / COLORFUL COOK'S KITCHEN / CRAFTSMAN REMODEL



Time-saving trick for painting divided lights, page 48

How to Paint Like a Pro

Mauro Henrique shares his secrets for a first-rate paint job

PLUS

Designer tips for choosing the just-right shade of paint

The Saratoga project house's stunning reveal

Sneak peek at the Newburyport project

TOH Tribute:
A look back at Norm Abram's influential career

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HOUSE TOUR: REFRESHER COURSE

An interior designer breathes new life into her family's 1915 Craftsman, while enhancing its architectural character



COVER Photograph by Mike Casey



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EXTERIOR: ERIN LITTLE; PAINTING: MIKE CASEY; SILVA AND O'CONNOR: ANTHONY TIEULI. (OPPOSITE PAGE) BRYAN MILLER

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EDITOR'S LETTER

Change is good—really



I RECENTLY HAD MY HOUSE WHITEWASHED. In two weeks' time, the interior walls were blanketed white, to match the trim and ceilings. To the surprise of our talented designer/home stager, I agreed without fuss. We were preparing to sell, after all. I was practicing letting go.

In truth, not every bit of color was banished—which, I confess, made me unduly happy. We were allowed the pale-green dining room walls—they echoed the fireplace tile in the adjacent living room. The hall bath's lovely blue-green wainscot got the nod. We even added a deep-blueberry shade to the breakfast room sideboard, to tie into the powder room's floor tile. Simplifying the paint palette—along with drastically paring down the contents of our house—did make the space look bigger, brighter, and airier. Using color sparingly, and strategically, to connect rooms and create flow, was instructive. Other lessons learned in the process:

A fresh eye is worth paying for. If you've been in your house a long time, or are in a new one with no clue where to start, consider calling in a design pro. Their services are more accessible than ever, through major retailers and e-design companies. Designers make decisions about interiors all day long—witness the paint smarts on display on page 36.

Don't live with a paint color you dislike. "If you don't like it at first, you won't like it later," says *TOH* painter Mauro Henrique, who speaks from decades of experience—and shares his steps to a satisfying paint job on page 43. In my house, ever-popular Decorator White looked, and left me, cold. Repainting may be painful, but not as painful as living with a color you don't love.

If your house no longer fits, it's time to move or improve. The narrow three-story where my husband and I raised our kids felt both bigger (lots of rooms) and smaller (tight proportions) than was comfortable with our two sons out of the house. With no room to expand, it wasn't a good candidate for reinvention. But in many cases it's well worth reimagining existing space—witness the overhauls of the snug galley kitchen (page 20) and dated bath (page 24) in this issue. If you're lucky enough to be living in your forever home, the life-changing addition realized by the owners of the Saratoga project house (page 11) is truly inspiring.

At home in a rental for now, I'm living with other people's choices—and that's instructive, too, helping confirm some preferences (cooktop and wall ovens, please) and opening me to new possibilities (a wraparound porch!). But one of the rooms in our old house is still very present in my mind. With walls painted Horizon, the very palest of grays with a drop of blue, and bathed in northern light, our bedroom got an ethereal makeover that created a wonderful feeling of serenity and expansiveness. And what home couldn't use a little more of that?

Kathryn

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Around The House

What's happening in the world of **This Old House**



ATLANTA ADDITION

Special delivery

TO HONOR SOUTH ATLANTA'S first postmaster—the original owner of the house her family is renovating—Alivia Sage Hehn, 12, brought her cardboard model for a little lending library–postcard station to Decatur Makers, where woodworking instructor Char Miller-King and *TOH*'s Tom Silva helped her bring the project to life. The three built a scaled-up structure, with some lessons in power tools and joinery along the way, as camera operator Steve D'Onofrio filmed the action. "Alivia's imagination and a cool hands-on idea all came together," says Tom, who sees makerspaces as a great resource for people without their own workshop or tools. See how Alivia Sage's handiwork turned out in *TOH* Season 44.



ARTFUL HOMAGE

These walls do talk

After wallpaper remnants were uncovered in the Atlanta project house, homeowner Kysha Hehn wanted to return some colorful pattern to the parlor walls. Research led her to the African *sankofa* symbol (inset): A bird with its feet facing forward and neck craning back grasps an egg, as if carrying the wisdom of the past forward. Hoping the renovated house will do just that, Kysha asked designers Monet Masters and Tavia Forbes to create wallpaper featuring the graphic. "I love the symbol and its meaning," Kysha says. "And the wallpaper is just so beautiful."

Grab-and-go tool storage

A good night's sleep, breakfast, and strong coffee set most of us up for a good day. For Nathan Gilbert, add a well-organized tool trailer to the list. "I take pride in keeping my truck well stocked, well organized, and ready to go," says the *TOH* carpenter. Some of his tips: Keep the aisle clear for easy access; don't run low on "consumables," like fasteners; and return everything to its designated place—nail guns (inset) are always lined up bottom left. "It's well worth the time to plan and maintain an organized truck," says Nathan. "It makes the job go smoother."



SILVA, WALLPAPER: SARA FERGUSON; GILBERT: MIKE LAST; SANKOFA: ADOBE STOCK



STICK TIME IN UPSTATE NY

Are those smiles frozen?

When temperatures get tough—as in, 12 degrees F—the tough hit the hockey rink. At least that's the case at *TOH*'s project house in Saratoga Springs, NY. Each year homeowner Evan Williamson builds a backyard ice rink, installing side panels and a liner in late fall, then flooding the interior when the mercury dives. When the ice is set, he gathers locals for a face-off, and this time Jenn, Tom, Richard, and Kevin got to suit up. The score may have been forgettable, but not so the experience. Says Richard, "That night was tied for the coldest I have ever been in my life. But we had fun!"



REUSE AND REMODEL

Old tree, new outlook

When a house has been home to generations of your family, every nook and cranny holds memories—not to mention trees that have stood sentry for decades. For Evan and Whitney Williamson, and Evan's mom, Susan Brundige, reusing what they could was key during the renovation of their Saratoga Springs home. So when Susan asked that her new kitchen window be a salvaged sash, builder Matt Whitbeck knew just what to use for the frame, casing, and sill—wood from an old maple that had to come down. The window offers Susan a perfect view (left). "Susan gets the old sash and the salvaged maple—what could be better?" asks *TOH* host Kevin O'Connor. Maybe a tour of the entire renovated house? See the full reveal, page 11.

From fallen maple to finished window: (1) The tree is cut into usable pieces. (2) Whitbeck rips the boards. (3) Kevin sands the old sash. (4) Kevin and Whitbeck build the new frame.









HOCKEY: KATHRYN FULTON; KITCHEN: ERIN LITTLE

You did it!

Reader projects, tips, and triumphs



Birthday bench

TOH Insider: Dan Melanz (shown with his mother, Donna Melanz, and canine companion Simon), Madison, WI

I made this bench out of cedar, assembling it entirely with mortise-and-tenon joinery and pegs. I shaped the curved pieces on the band saw, created tenons with my miter saw, and used a trick from Norm for cutting angled mortises on the drill press. The bench was a birthday gift for my mom. She loves it!



Well-made bed

TOH Insider: Rod Sigler, Fort Mill, SC

My wife, Angela, sketched this bed, and I built it from pine 1×10 and 2×2 boards and ¼-by-3-inch slats that I cut to fit flush with the headboard frame. I tapered the legs using a jig I saw Tom make on *TOH*. I didn't want any nail holes visible, so I glued the boards and stapled them from the back. This is one of my favorite projects, not only because of the way it came out, but because my wife and I collaborated on it.



Optical profusion

TOH Insider: Richard Shick, Williamsville, NY

I'm an avid *TOH* fan and was intrigued when I saw Tom and Kevin make a 3D cutting board [Spring 2022 issue]. I took on the project, downsizing the boards a little, and made them as gifts for friends—11 in all! Since I work alone, I made a gluing jig rather than using tape, which was very helpful. I was thrilled with the outcome and received many compliments. Everyone wants to know how they're made. Thank you so much.

READER TIP



To find studs in plaster-and-lath walls, I use a rare-earth (a.k.a. neodymium) magnet. It easily detects the many nails where the lath is attached to the stud, plus it's less expensive than a commercial stud finder and takes up hardly any room in the toolbox.

TOH Insider:
Christopher Petrie, Toronto

READER TIP



I bought an old wood file and rasp that was badly rusted but still had great teeth. I degreased it, soaked it in white vinegar for a few days, used a brass wire brush to remove the remaining rust, let it dry, and then hit it lightly with WD-40. Perfection, and cost less than $5!

TOH Insider: Michael Schmid, Grand Island, New York



Kitchen enrichment

TOH Reader: Tiffany LoCoco, Massillon, OH

I recently bought my first house and completed my first renovation: my kitchen! The house was built in 1957 and hadn't seen many updates. I turned a hall closet into a pantry, relocated the range, and added a raised dining ledge. I hired an electrician to install new wiring throughout and gathered family to help me hang new drywall, including on the ceiling. I also insulated two exterior walls; hooked up a dishwasher; installed cabinets, countertops, and a sink; built and installed floating shelves; and added new trim and flooring. From demo to finish, it took about nine weeks and completely transformed the space. I've been a happy *TOH* magazine reader for years, as well as a big fan.



Case history

TOH Reader: Michael Pavia, Monroe, CT

Over the years I've collected design ideas from *TOH* magazine, and the top part of this leaded-glass china cabinet came from a photo in your April 2001 issue. The beaded corner boards on the bottom were inspired by a chest-on-chest project of Norm's. I made the cabinet out of cherry and used sliding-door hardware with no lower tracks. I've been with *This Old House* since episode 1 and thank the *TOH* family for prompting me to do many rewarding projects.

Room revamp

TOH Insider: Matthew Trimble, Blue Mound, IL

My wife, Celene, and I moved into our 1896 house two years ago, and this is one of our favorite rooms that we've fixed up. We removed the old ceiling and paneling, then insulated the walls with spray foam. I took out a window to accommodate the brick wall behind our new wood-stove, and installed a beadboard ceiling and Craftsman-style trim. I used a lot of skills learned from *TOH*, including bricklaying and drywall installation. Thanks for always being such a great resource, especially while we fix up our old house. We love watching *TOH*!



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WINTER 2022

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INSPIRING SPACES, DESIGN DETAILS, AND FINISHING TOUCHES



The new open-plan kitchen features an 8-foot-long stained-wood island with a farmhouse sink and a white-quartz countertop. Pale-gray perimeter cabinets stretch floor to ceiling.

From the TOH Job Site

Fit for generations to come

Renovating an ancestral home built in 1864 yields the structural and functional improvements the house needed, and the comfort and livability the family deserves

BY JILL CONNORS | PHOTOGRAPHY BY ERIN LITTLE

This Old House

SARATOGA LEGACY RESTORED

Heart-wrenching trade-offs, sweat equity, and creative problem-solving: Homeowners Evan and Whitney Williamson knew from the start that renovating their 1864 Dutch Colonial would require all three. After all, this wasn't just any old house. Located in Saratoga Springs, New York, the home had been in Evan's family for seven generations, and at one time, three separate family units lived under its roof. Having grown up in the house with his mother, he knew every inch of the rambling three-story structure his ancestors had built and added onto over the years.

Most especially, Evan knew its flaws, from the sagging floorboards in second-floor bedrooms to the subpar bathroom heating to the crazy maze of seven staircases that led from one tacked-on section of the house to another.

So when the high school special-ed teacher and his wife, Whitney, a marketing professional, took possession of the house in 2020, they turned to local architect Matt Hurff and general contractor Matt Whitbeck to embark on a major overhaul. "Our number one goal was a solid, sturdy, safe house that honored the past but had enough improvements to last another seven generations," says Evan of the renovation, which *This Old House* documented as part of its 43rd television season.

While the project's initial timeline was 9 months, it eventually stretched to 13. "It ended up being the trifecta of delays: Covid, supply-chain issues, and the house being in worse shape than we thought," says Whitney.

"Every day there were problems, and every day there were solutions," adds Evan. "It feels amazing to be all done."

Continuing the tradition of multiple family units under one roof, Hurff's design called for a five-bedroom house for Evan and Whitney, plus a two-bedroom in-law apartment in the same part of the house where Evan's mom, Susan Brundige, has lived for more than 20 years.

The biggest change took place in the back half of the house, where Whitbeck demolished a jumble of additions to make way for the updated living spaces that Evan and Whitney wanted, with an open-plan kitchen-dining-family-room area on the first floor and a double-bay-windowed primary suite upstairs.

Wishes granted: The kitchen-dining-family-room area now occupies a sensational 27-by-27-foot space, with a rear wall of floor-to-ceiling windows and French doors. "The wall of glass is the statement for the whole house," says Evan, who with Whitney has spent years working on the back patio, lawn, and heirloom gardens, all the time unable to see them from inside the old house.

"The primary driver for the design was re-establishing the connection between the main living spaces and the backyard," says Hurff. "We put in a lot of glazing to create transparency between the indoors and outdoors."

Whitbeck's team brought in steel I-beams to provide the structural support needed to create the open layout. A coffered ceiling cleverly conceals all that steel and also holds chases for the plumbing lines. The kitchen's Shaker-style cabinetry, center island, and elegant pendant lighting make for a stylish prep and cooking zone in the



ABOVE: Homeowners Evan and Whitney Williamson gather at their new kitchen island with Evan's mother, Susan Brundige, who has an apartment under the same roof.

OPPOSITE, CLOCKWISE FROM TOP: French doors and walls of windows transform the back of the house, where an open-plan layout includes kitchen, dining, and family room areas. Glass doors lead from the dining area to the backyard. A gas fireplace provides a focal point in the family room space.

THESE PAGES
COUNTERTOPS: **Granite & Marble Works**
KITCHEN CABINETS: **Fabuwood, from Columbia Cabinets**
DOOR HARDWARE: **Baldwin**

STYLING: MANDY LYNE









midst of the family room and dining spaces.

On the street side, the facade remained essentially intact but for the roofline. Make-do alterations over the decades had resulted in a squashed-down gambrel; installing prefabricated attic trusses created a properly proportioned roofline and enhanced the third-floor living spaces. The front entrance maintains the feel of the house as it has always been. The porch, which needed little more than repainting, still serves as a welcoming entry point—times two. The right side leads to Susan's front door, while the left side ushers Evan and Whitney into their house.

The couple's two front rooms—a formal living room and an alcove slated for formal dining—are in the oldest part of the 1864 house, in their original footprint and with their windows intact, but with new walls, ceilings, and flooring. Although initially the couple didn't plan for big changes to the front rooms, structural issues meant Whitbeck had to take the spaces down to the studs in order to make the fixes—just one example of why the renovation took longer than expected.

"It was amazing what we found when we opened up the walls," says Whitbeck. "This is a 158-year-old house with a bit of everything when it comes to building techniques and materials." Working in the rooms above the front living room, the team found undersized, patched-together framing and deteriorating subfloors—discoveries that repeated themselves throughout the project.

"Evan and Whitney had big challenges right from the start," says *TOH* general contractor Tom Silva. "The house wasn't built well to begin with, there were a lot of additions over time, and they weren't built well, either."

As a result, Whitbeck and his team ended up reframing walls, ceilings, and floors throughout the old house and correcting weaknesses in the old rubblestone foundation.

"We definitely spent more money on the basement, shoring up joists, and redoing walls than we anticipated, but making sure the house would last another couple hundred years was the main thing," says Evan, whose commitment never wavered.

Now, in addition to being structurally sound, the house also has modern comfort built in for the next seven generations, thanks to a multifaceted

ABOVE: The living room occupies the front—and oldest—part of the 1864 house; original windows and trim were salvaged. Upgrades include the new wood floors and the cased opening to an alcove slated to be a formal dining room.

OPPOSITE: A step-down from the alcove marks the beginning of the new construction.

THESE PAGES
ROOFING: **GAF**
TRUSSES: **S.R. Sloan**
ICF: **Logix**
ELECTRICAL PANEL: **Schneider Electric**

(OPPOSITE PAGE) FLOOR PLANS: IAN WORPOLE

approach to air sealing and HVAC.

With so many rooms down to the studs, Whitbeck seized the opportunity to insulate the old parts of the house so they would be just as comfortable as the new parts. He used several different types of insulation—mineral wool, closed-cell foam, open-cell foam—depending on what he encountered. For example, for the party wall separating Evan and Whitney's living room from Susan's, he used mineral wool, favored for its flame-retardant and noise-reducing characteristics. In the old basement, he opted for closed-cell insulation, which, while expensive, yields higher R value per inch and acts as a vapor barrier. In the kitchen and throughout the new construction, Whitbeck used open-cell spray foam in the stud cavities around all the plumbing and wires.

Raising the comfort to today's standards required vastly improved HVAC. "We went from an ancient floor furnace with just one register to a multizone forced-air system with two cold-weather inverter heat pumps and all new ductwork," says *TOH* plumbing and heating expert Richard Trethewey. HVAC contractor Joel Schaperjahn installed one air handler in a closet on the third floor to heat and cool the second and third floors, and a second unit in the basement to serve the first floor.

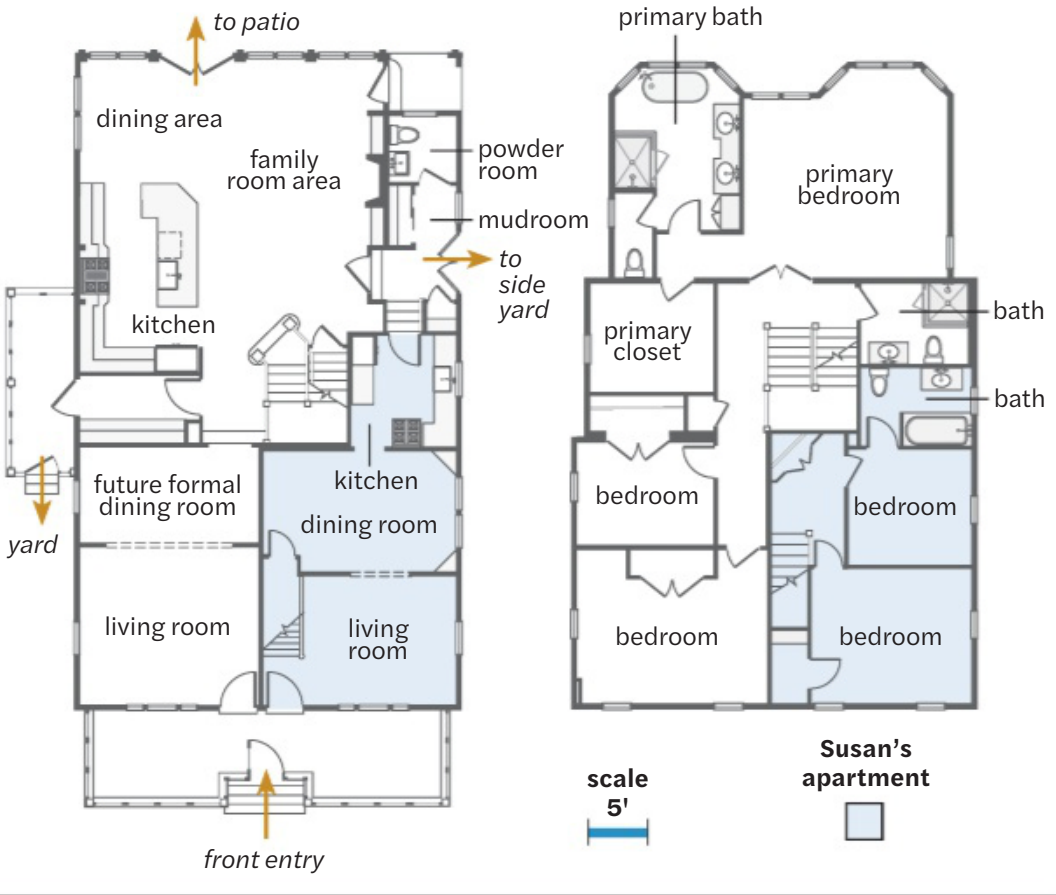
In part because of the new HVAC system, the house, which had never had air-conditioning, also received upgraded electrical service. "We did a



FLOOR PLANS

Honoring the home's tradition of multigenerational living, the renovation provides dedicated, private space for Evan's mother, Susan, in the right front side of the house (below), and room to grow for Evan and Whitney on the left. The original 1864 structure consisted solely of the two rooms on the left front, with additions built as the family grew. For this phase, the contractor rebuilt the entire back half of the house.





load calculation, and the new HVAC system and appliances increased the load to more than the 200 amps the house had," says electrician Stephen Ristau, who installed copper cabling and brought the house up to 400-amp service.

Better traffic flow was another key goal of the renovation, to improve on the web of staircases and entry points that had been built to serve different additions over the years. To provide common access while offering some privacy when entering from the driveway, Hurff transformed an old storage area plus part of Susan's old kitchen into a mudroom entry and powder room. This new entry space leads to two interior doors: one a short run of steps up to Susan's apartment and the other into the main house's kitchen-dining-family-room area.

A new central staircase replaces seven old stairways and climbs from the basement up to the third floor in the main house. "It's a work of art," says Evan, describing the run of oak treads and custom white balustrades that act as a spine through the three-story house.

The couple's second floor holds two front bedrooms left much as they originally were, with





ABOVE: A new mudroom leads two steps up into Evan and Whitney's house from the driveway.

LEFT: The new central staircase transforms traffic flow from the first floor to the third; it replaces seven existing stairways. The glass-panel door (on the left) leads from Evan and Whitney's family room area to the side-entry mudroom.

Susan’s side of the house

Evan’s mother, Susan Brundige, has lived on the right-hand side of the house for years, in rooms dating from the early 1900s. Her space features the handiwork of her ancestors—including wood floors and built-in corner cupboards. Although she gave up some square footage at the rear of the house to the renovation, she kept the rooms she loves most—and got a brand-new kitchen in the bargain.



ABOVE: The living-dining room’s early 1900s elements include natural-wood window and door casings, pine floors, and built-in cupboards.







TOP: Susan’s side of the front porch includes a comfortable seating area; the full porch features street-facing windows and a beadboard ceiling.

ABOVE: The focal point of Susan’s new kitchen is the awning-style window over the sink, made from a salvaged sash newly framed with maple milled from a tree felled on the property.

LEFT: A side entry from the driveway leads into the new mudroom, then four steps up into the kitchen.



ABOVE: A pedestal tub nestles in the light-filled bay window bumpout that is part of the new primary bath, which also has a double vanity and a frameless-glass-enclosed shower.

RIGHT: A second bay bumpout offers treetop views from the primary bedroom windows.



THESE PAGES
BATH FIXTURES: **Kohler**
TILE: **Best Tile**
HVAC: **Mitsubishi Electric Trane**

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a renovated hall bath serving them, but the rear of the second floor is dramatically upgraded. There, two bay windows—one in the bath and one in the bedroom—provide the wow factor for the new primary suite. "The bay windows bring in so much light and give a great view to the backyard and the grapes that my ancestors planted," says Evan.

The third floor now includes two guest bedrooms, a bath, a man cave, and a laundry room, in space created by the new construction in back and the revised gambrel roofline in front.

Everyone agrees that the months of sweat equity—with Evan and Whitney doing some demolition, Evan painting inside and out, Whitney moving plants, and Susan helping restore windows and repoint the foundation—were well worth the effort. Viewed from the backyard, the new rear facade blends beautifully with the 100-year-old peonies and the grape arbor that the family has tended for years. "Evan's ancestors would be proud of the way these heirloom peonies, roses, and grapes came through," says *TOH* landscape contractor Jenn Nawada, who helped Whitney relocate some of the treasured plants to protect them. "They are all thriving."

ABOVE: The rear facade features a wall of windows and doors, creating an indoor-outdoor connection. Evan and Whitney can now easily access the patio and gardens, where grapes and peonies planted by earlier generations of Evan's family still thrive. The twin bay window bumpouts on the second floor are features of the new primary suite.

Though the lengthy and extensive renovation tested all concerned, *TOH* host Kevin O'Connor applauds the Williamsons' dedication. "Even with Covid and supply issues, Evan and Whitney never lost sight of the legacy of the house."

Evan admits he wrestled with how much they were changing and if it was the right thing to do. But seeing the finished house has given him peace of mind. "We were so involved in working on the house and there for every step, but I never imagined it would be this nice," he admits. "And I feel we really honored the past while bringing in new features that weren't possible before."

As it turns out, all the hard work to safeguard the home's future for his family will pay off sooner rather than later: Shortly after moving back into the renovated house, Evan and Whitney found out that they are expecting to welcome the eighth generation in early 2023.

Before & After: Kitchen

Designed for flexibility

A tight galley kitchen, a large dining room, and an unused entry porch combine for an adaptable, efficient, and stylish space that fits a WFH cooking teacher and her family to a tee

BY NINA MALKIN

Working from home is influencing renovations as never before. For culinary educator and recipe developer April McGreger, having a flexible kitchen is key for her career. So when she, her husband, and their young son moved into a 1925 semidetached Tudor home in Philadelphia, reconfiguring its galley kitchen was squarely on the front burner. "The kitchen only comfortably fit one person—tight for the cooking, canning, and baking I do, and unusable for classes and filming," April recalls. To solve their space problem, the couple called on Airy Kitchens' creative director Sean Lewis. He joined the kitchen and adjacent dining room with a wide arched opening, lining up the range, sink, and dishwasher along the back wall. Another smart move: creating a "floating island" on wheels that April can move around to suit her various projects. A command-center desk, fresh green paint, and warm wood surfaces lend the space a friendly yet efficient feel. As April sums up: "The finished kitchen is charming and lively, and it inspires me. I want to be here!"



The previous owners' renovation was relatively recent, so April reused several appliances, including the red pro-style range. To set off the vibrant green of the new cabinets, she had it sprayed black with high-heat paint and finished with an automotive clear coat.

BEFORE The back door led to an untapped vestibule, then into the galley kitchen's narrow workspace. Tall upper cabinets hung over the sink counter, making the space feel even more confined.

Photography by John Gruen



This simple command center "is where I keep my kitchen journal with recipes I'm developing, classes I want to teach, and ideas I want to try," April says. Corbel details repeat throughout the home.

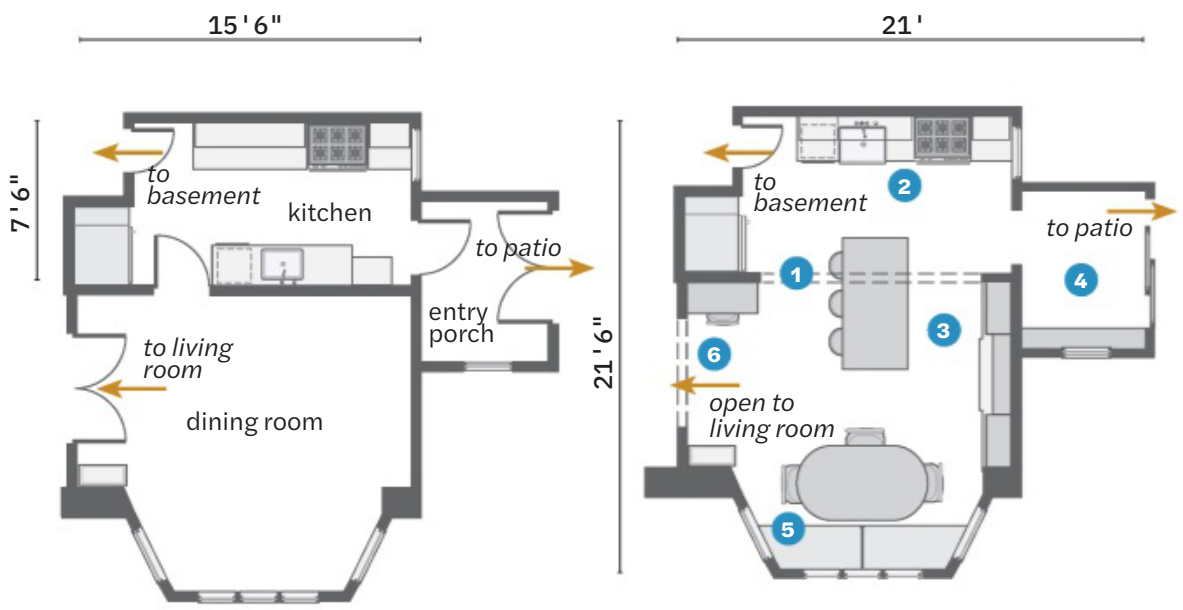
The good-as-new refrigerator is another holdover from the former kitchen, its location finally functional now that an in-swinging door from the dining room is gone. "If someone burst in when you were standing at the fridge, you'd be in trouble!" April recalls. The slim cabinet next to it is a pull-out pantry. Paint (cabinets): Farrow & Ball's Arsenic



FLOOR PLANS

before
About 100 square feet

after
About 300 square feet



Removing one wall and several doors created a free-flowing space for cooking, dining, and more.

1. Combined the kitchen and dining room with a wide arched opening in place of a solid wall.

2. Kept the range where it was and moved the sink and dishwasher to the left of it; the fridge stayed in its location, with new cabinets.

3. Built a 6-by-3-foot island on wheels; added a 17-inch-deep bank of hutch-like cabinets behind it.

4. Created a pantry by the back door, replacing a window and adding base cabinets below it; removed a door to the kitchen and traded in-swinging French doors to the patio for a slider.

5. Built a banquette in the window bay for an integrated dining area with under-seat storage.

6. Removed French doors to the living room for a cased opening; built a desk on an adjoining wall.

STYLING: ANNA MOLVIK. FLOOR PLANS: IAN WORPOLE

Shaker-style cherry cabinets, designed to resemble a period hutch, span nearly 9 feet of space that was vacant in the former dining room. Built just 17 inches front to back to ensure comfortable clearance, the lower drawers are "perfect for my baking dishes and cake, pie, and muffin pans," April says.

"We just aren't formal people," April says about the lack of a separate dining room. The dining table can seat up to eight, with a leaf added; for large parties, she rolls the island out of the way and sets up a folding table. Drawers and cubbies under the banquette store table linens right where they're needed.





April says she loves working at the new 6-by-3-foot island. Casters allow her to position the piece in a variety of ways, depending on the task at hand, from everyday cooking to teaching group classes to shooting videos. When entertaining, she uses it to partition off the cooking zone from guests coming and going from the backyard.



A PRO'S KITCHEN PRIORITIES

April McGreger's kitchen looks beautiful, sure, but it's also all business, with fluidity and efficiency built into the design. "I have certain tricks in setting up a kitchen that make cooking and baking easier," she says. Here, her top three.

1. Group like with like.
"I put all essential baking supplies in a drawer, mostly in wide-mouthed canisters for very easy access. I don't even have to take the canisters out of the drawer," April says. "Putting mixing bowls in the drawer right under the ingredients lets me throw together a batch of muffins in minutes." Similarly, all her canning equipment—pot, ladle, jar lifter—is grouped together, so when strawberries are at their peak, she's ready to jam.

2. Go deep—and shallow.
April relies on deep drawers and shallow shelves to grab what she needs quickly. "Deep drawers are great because you look down into them and can see exactly what you've got," she says. In a pantry, however, she prefers shallow shelves: Since items can't block one another, there's no maneuvering boxes and cans around, looking for supplies. "You can't use what you can't find," as she says. Words to organize by.

3. Stay accessible.
Yes, a kitchen looks neat when cookware and utensils are tucked away out of sight, but pros prefer easy access. "In commercial kitchens, there's almost always a utility rack over the sink or range to hang your most-used tools at the ready," April says. "Home cooks may not consider unnecessary steps while cooking and cleaning, but streamlining for convenience leads to greater efficiency and less frustration."

An underused enclosed porch off the kitchen was transformed into a storage pantry for small appliances, large essentials (pitchers, baskets, and grill tools), and April's canned goods. The counter functions as another food-prep surface, as well as a place to set platters on the way to the patio. The whimsical embellishments on the door casing are courtesy of April's artist husband.

Before & After: Bath

Relaxing retreat

A once dark and dated primary bath gets a breath of fresh air with soothing neutral finishes, including wood and marble

BY KATELIN HILL

Mirrors may make a space feel larger, but when they're glued to the walls they also magnify existing flaws—in this case, dated chocolate-brown tile and beige fixtures from the 1970s. "It was bad news," says one of the Englewood, NJ, homeowners of the drab primary bath she shares with her husband. Dreaming of modern upgrades like a walk-in shower and heated floors, the couple called in designer Jennifer Vreeland to see what she could do.

"They really wanted the bath to have a spa-like feeling," Vreeland says. "But anything too modern would have been jarring with their home, built as a carriage house in 1869." Gutting the space exposed the 12-inch-thick stone exterior wall, and pipe and vent stacks that couldn't easily move. So, keeping the footprint and general fixture placement, Vreeland put a large shower where the tub had been, giving it a bright, airy look with pale tumbled-marble tile and frameless glass. A traditional wood vanity and a custom built-in offer needed storage space; layered lighting makes it comfortable at every time of day. The owners' reaction? "They love everything," Vreeland says of the relaxing result. "The large shower feels luxurious, and the space is so much lighter and more open."





BEFORE Dated dark-brown tile reflected by mirrored walls, plus ceiling soffits and a curtained tub/shower, closed in the space, which felt at odds with the 19th-century house. Dim lighting made matters worse.

The mosaic-tile floor's blend of gray, tan, taupe, and creamy-white marble ties the bath's new palette together. Beige-painted wainscoting rings the room and blends with the shower walls for a seamless look.

BEFORE: JENNIFER VREELAND

Photography by Kyle Caldwell

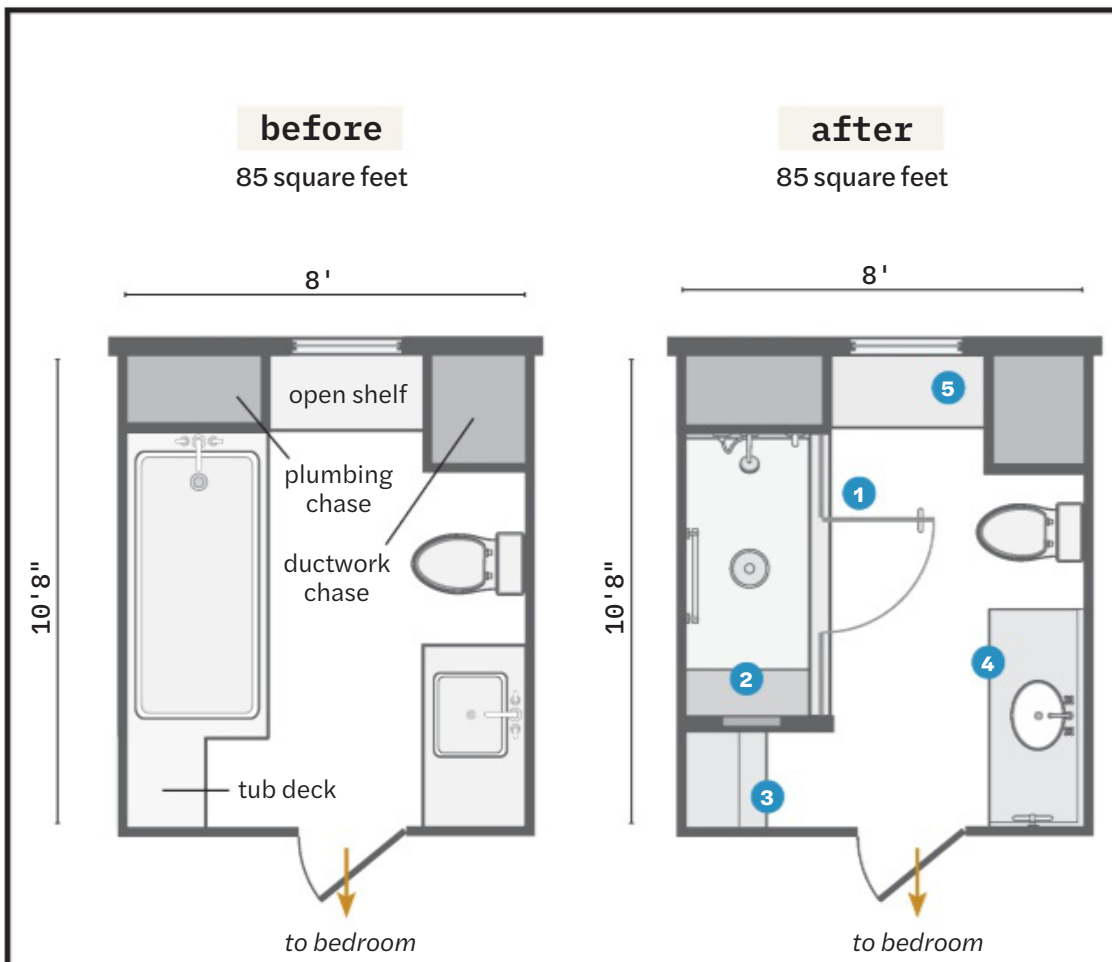


A slightly bigger single-sink vanity offers more storage space. The medicine cabinet is a surface-mount—it backs up to a plumbing stack—with outlets inside for charging electric razors and toothbrushes.



Custom built-in shelves put towels and decorative accents on display, while a lower cabinet hides away toiletries. A library sconce lights the recess.

FLOOR PLANS



FLOOR PLANS: IAN WORPOLE

Working with the bath's existing footprint and general fixture placement, the gut renovation turned a tub/shower alcove into a large walk-in shower.

1. Took the bathroom down to the studs, removing the drop-in bathtub and its decking; seized the opportunity to install in-floor heating and a high-efficiency vent fan.

2. Built a partition wall to create a new walk-in shower with a bench seat and a ceiling-mounted rainfall showerhead.

3. Added a custom built-in with open shelves over a closed cabinet in the corner between the bedroom and shower walls.

4. Made room for a wider 55½-inch single-sink vanity with a 40-inch medicine cabinet above it by shifting the toilet closer to the exterior wall.

5. Swapped a cluttered open shelf under the window for one that looks like a marble-topped window seat; it holds a lamp and a few select accessories.



Vreeland went to a local stone yard and matched the vanity's prefab Carrara-marble slab to one she used for the shower bench, niche shelf, shower saddle, and window seat. Tumbled 12-by-24-inch beige-marble tiles cover the shower walls.



Flat-panel wainscot painted a warm beige ties into the shower walls and follows the lines of the room. The shower's frameless-glass enclosure preserves an open sight line, making the space feel expansive.

GET THE LOOK

To create a timeless bath that feels up to date, try combining classic styles from various eras

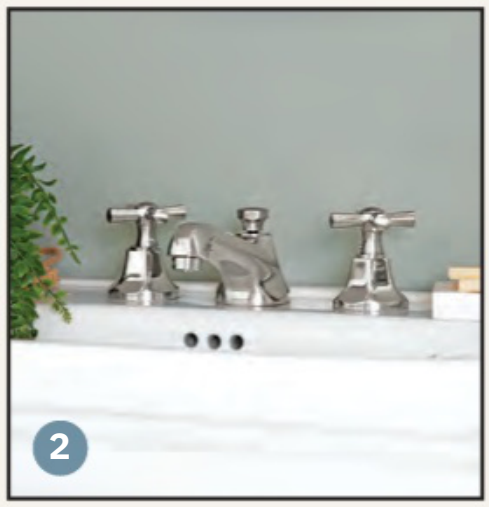
1. Pill-shaped light / *CRYSTORAMA LIGHTING*
Forgo the expected wall sconce with one or two of these fun mid-century-inspired ceiling mounts in matte black and antique gold. Capsule One Light Outdoor Flush Mount, $222; 1stoplighting.com

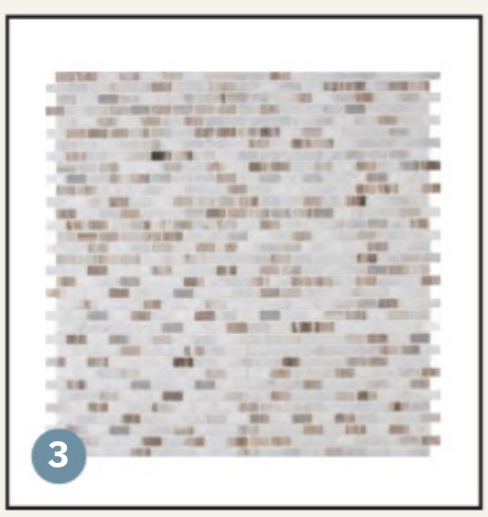
2. Cross-handled faucet / *RANDOLPH MORRIS*
A 1930s-style lav faucet looks right in many types of vintage homes. Deco Widespread Bathroom Sink Faucet, $299; vintagetub.com

3. Marble mosaic tile / *MSI*
Mini-brick tile in shades of gray, tan, and white marble adds a luxe touch underfoot. Palisandro Mini Brick 12-by-12-inch Polished Marble Mosaic Tile, $18.99 per square foot; homedepot.com

4. Furniture-like vanity / *HIGHLAND DUNES*
This one-sink vanity's marble top offers major deck space. Raised on feet, says Vreeland, it makes a small bath feel more spacious. Gerrell 60-inch Single Bathroom Vanity Set, $1,495; wayfair.com











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House Tour

REFRESHER COURSE

A couple with two young sons takes the starch out of a venerable California Craftsman, respecting its history while updating the interior and adding an overlay of fun

BY FRED ALBERT | PHOTOGRAPHY BY BRYAN MILLER





LEFT: Painting the walls, crown molding, mantel, and existing built-ins white lightened up the living room; the remaining dark-wood window and door casings offer a warm contrast. Floating a sectional sofa in the center encourages relaxation, and opens up a passageway to a balcony via French doors (above).



As an event designer, Alexandra Azat is accustomed to immediate results. Turn a bland banquet hall into a floral fairyland? No problem. Transform a flat lawn into a mossy, undulating landscape out of *The Lord of the Rings*? In just a matter of days, the metamorphosis is complete.

None of that prepared her for renovating a century-old Craftsman near Pasadena, California.

"I'm used to moving really, really fast," says Alexandra, who trained in floral design and helms three companies offering event, floral, and interior design services. "Living here and watching how slow the construction would go, there were times where I wanted to say, 'Just give me the paint! I'll do it!' "

While she laughs about it now, the process was a learning experience for the designer, who had never lived through a major renovation before. The night she and her attorney husband, Issa, moved in, the water ran cold in the primary bathroom and the tub faucet handle fell off in her hand when she tried to bathe her infant son down the hall. *What did I get into?* Alexandra recalls thinking, and that was before the pandemic—and a second pregnancy—threw a wrench into her renovation timeline.

Plumbing problems notwithstanding, the house proved to be an ideal project for the San Diego transplants. One of the first homes built in the Los Angeles suburb of Altadena, the 1915 home was brimming with Craftsman charm. Outside, broad, bracketed eaves shelter stucco walls punctuated with cozy iron balconies. Column-lined pergolas project from the front and rear, embracing the verdant landscape. Inside, dark-oak wainscoting and crown molding framed the generously proportioned rooms, and an expansive leaded-glass window flooded the central staircase with light.

"The structure was in fantastic shape," says general contractor Bo Zarnick, who oversaw renovations on the second floor and attributes much of the building's condition to the layer of diagonal 1×6 bracing covering the original framing. "There wasn't a settled floor or a sagging header," he observes, "and for a 100-year-old house, that's incredible."

Much of the credit goes to the previous owners, who watched over the property for more than 40 years. "They took really good care of the house," Alexandra acknowledges. "But they didn't really upgrade it." In addition to plumbing issues, the 4,720-square-foot house lacked insulation and had no air-conditioning downstairs. Then there was the wiring.

STYLING: ANDIE HUBER



OPPOSITE: Floor-to-ceiling cabinetry maximizes storage in the compact kitchen, where playful patterned-cement tiles replaced vinyl flooring. The custom walnut island is fitted with false drawers on the front; the other side holds a sink, a dishwasher, and recycling bins.

TOP RIGHT: With the washer/dryer moved upstairs, one end of the former utility room became an inviting breakfast room with a built-in banquette, complete with a brass footrail that echoes the light fixtures.



BOTTOM RIGHT: Homeowner-designer Alexandra Azat recruited her brother-in-law to help her install beadboard on the walls at the far end of the old utility room, now a moody mudroom with a Dutch door. "Every time I look at it, I'm like, 'We did this ourselves!'" she says.



EXPERT ADVICE

"Trust yourself. I told my carpenter I wanted the kitchen island to feel like an old piece of furniture. My architect said, 'Don't do a wood countertop. It's not realistic.' But I don't mind the small marks that show. I like things that age gracefully."

ALEXANDRA AZAT, *homeowner and interior designer, Plaster & Patina*

"When we bought it, it was all knob-and-tube," she says. "Our electrician was like, 'It's amazing that this place hasn't gone up in flames.'"

While Alexandra wanted to respect the home's history and character, she didn't want to live in a place that felt like it had been preserved in amber. "Sometimes these homes are so serious, and the way we live today isn't quite like that," says the mother of two young sons. "It's a balance between respecting the old, original architecture and making it playful."

Before moving in, the Azats made the necessary upgrades to the plumbing and electrical systems, insulated the attic, refinished the oak floors, and repaired and skim-coated the cracked plaster walls and ceilings. Then they tackled the exterior, replacing what Alexandra calls the "Band-Aid-tan and burgundy" color scheme with a pale shade of greige that unifies the structure and offers a softer backdrop for her climbing white roses.

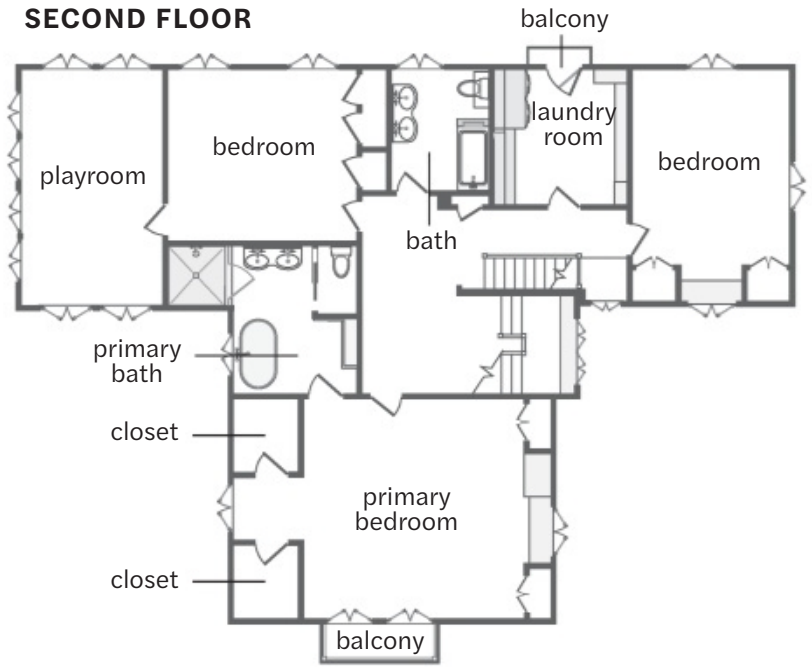
The first room to get the couple's attention was the primary bath, which featured an unnerving see-through fish tank in the wall between the shower and the toilet. They gutted the room and

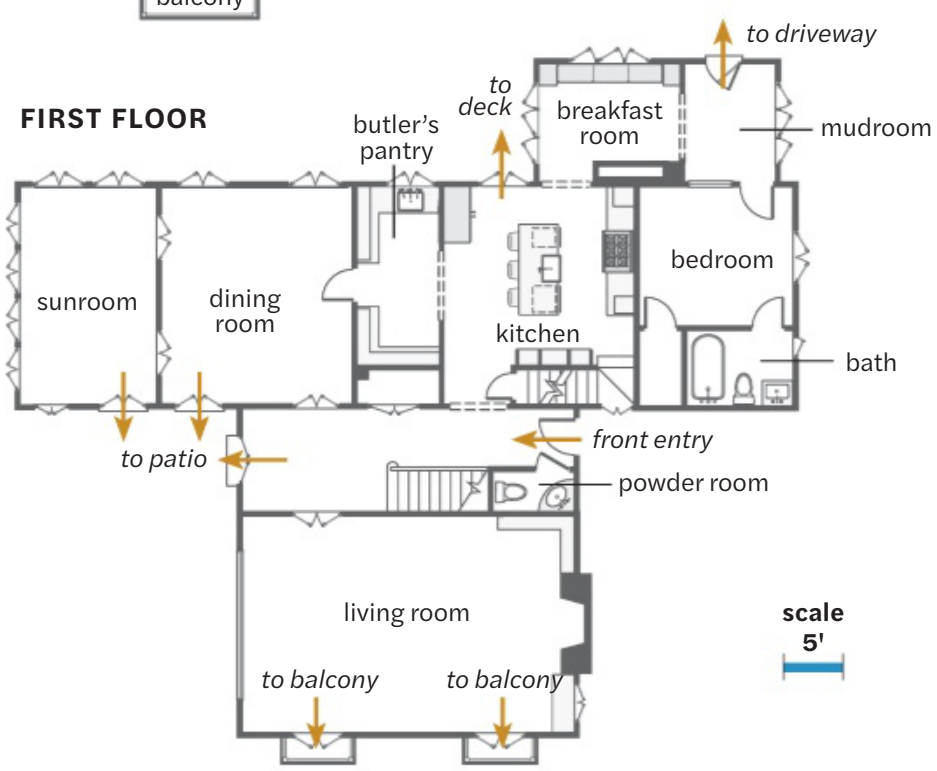
FLOOR PLANS

Inside the four-bedroom, three-and-a-half-bath house, the kitchen stole 2 feet from the butler's pantry, a utility room became a mudroom and breakfast area, and the laundry moved upstairs. Both second-floor baths were gutted, and the primary bedroom gained two walk-in closets.



Updates to the exterior of the 4,720-square-foot Craftsman include greige paint on the stucco walls, fabric awnings on iron struts that echo the balconies, and white climbing roses.





closed up a second bedroom door that opened into it, creating space for a new shower and a separate claw-foot tub, then gave the flat walls wainscoting modeled after the paneling in the dining room. The adjoining primary bedroom was spacious but short on closets, so one end was enclosed to form a pair of walk-ins.

Indulging a passion developed during her childhood among the classic vintage houses of Brookville, New York, Alexandra lavished the interior with wallpaper prints. Among her effervescent choices: a bold black-and-white floral in the primary bath; a banana-leaf botanical in the light-filled sunroom; and subtle leopard spots to offset the formality of the dining room.

The furnishings do their part as well. An oval table counteracts the dining room's boxy lines, as does a modern chandelier. "I just felt like that space was so old-school, we needed to fight against that a little bit," Alexandra says.

When it comes to original wood trim, homeowners tend to fall into two camps: preserve it or paint it. But Alexandra proves you can have it both ways, retaining the natural oak casings in the living room, for instance, but painting the crown molding, mantel, and cabinetry white to match the walls and brighten the room. In the entry hall, she preserved the stairway's oak treads and handrail, but painted the risers and balusters white for a fresher look.

Eager to amplify the house's architectural interest, Alexandra applied

EXPERT ADVICE

"Be patient. The first year of having real marble and unlacquered brass and raw wood can be a little painful, because the small stains really stand out. But once the items start to patina, there's nothing better."

ALEXANDRA AZAT,
homeowner and interior designer

FLOOR PLANS: IAN WORPOLE







TOP LEFT: An oval pedestal table loosens up the dining room, which is ringed with original oak wainscoting and moldings. The contemporary brass chandelier is echoed in the table's edging and the color of the velvet curtains. Subtle leopard-print wallpaper adds a playful note to the walls.

TOP RIGHT: In the butler's pantry, a wall of cabinets on the right was sacrificed to enlarge the kitchen, but the rest of the room was preserved and enhanced with a woven-paper wall covering above the counter.

BOTTOM: Wall frames added to the entry hall make the space more formal; stair risers and balusters were freshened with a coat of white paint. The cased opening on the left connects to the kitchen.



Renovation recap

THE HOMEOWNERS: Alexandra Azat (above) and her husband, Issa (who built houses before becoming a lawyer)—parents to sons Beau, now 4, and Brooks, 2.

THE HOUSE: A 4,720-square-foot Craftsman built in 1915 in Altadena, CA. It had great bones and was structurally sound, but hadn't been updated in decades.

WHY THEY CHOSE IT: The house offered that "something special" Alexandra was seeking—namely, period character on more than half an acre in a historical neighborhood.

WHAT THEY DID: Upgraded the wiring and plumbing, refinished the floors, insulated, and added central AC. Gut-renovated the kitchen and second-floor baths, turned a utility room into a breakfast area and a mudroom, and moved the laundry upstairs. Issa insisted on keeping a rear staircase to the basement, "and I'm so glad he did," says Alexandra, who plans to turn the lower level into a speakeasy.

BIGGEST CHALLENGE: "Renovating with small children at home."

LESSON LEARNED: Alexandra says the project reinforced for her the importance of living in a home for a bit before remodeling it. "If you want to curate each space, getting to know the house, the flow, and the light is really crucial."



ABOVE: A former crafts/storage room upstairs now holds the laundry; its Dutch door opens onto a balcony—convenient for emptying the house of construction debris during the remodel. A two-knob custom pullout (to the left of the washer/dryer) supports the homeowner's sewing machine. Shelves hold baskets that keep everything from toiletries to craft supplies organized.

wall frames along the entry hall and covered the walls and ceiling of the utility-room-turned-mudroom with beadboard painted a moody charcoal. "I like a cozy, enveloping space," she says of her color choice, which repeats at the other end of the room, where she carved out a breakfast area with a built-in banquette.

Figuring out the adjoining kitchen turned out to be the toughest puzzle of the renovation. Too small for the scale of the house and hemmed in by rooms and back stairs the owners didn't want to sacrifice, it seemed to resist any solution. Expanding the back of the house would have meant costly structural work and a long wait for a permit during the pandemic.

"It was not a good layout, so we decided to gut the whole kitchen," says architectural designer Luke Hamilton, who worked with Alexandra and contractor John Lopes to shave one wall of cabinetry off the butler's pantry, widening the kitchen by a crucial 2 feet. A new floor-to-ceiling storage wall went in along one kitchen wall, plus additional storage framing the range. To make the space feel larger, Hamilton widened the opening to the butler's pantry, so it looks like a continuation of the kitchen; added a door to a new deck addition in the rear; and lightened up the passageway from the front hall, so access feels more open and inviting.

The crowning touch is the walnut island that Alexandra designed and had custom-made. "I told my carpenter I wanted it to feel like an old piece of furniture," she says of the hardworking focal point, which holds a sink, a dishwasher, and a recycling center and rests atop demure brass feet. "I think it gives the space the grounding it needs."

As a child of immigrants, Alexandra traveled to Europe often when she was young and got to explore gracious country houses outfitted with white marble, natural wood, and unlacquered metal. "Seeing all those 'real' materials made me not afraid of them," says the designer, who introduced these same finishes throughout her own home. "People seem to want everything so perfect and polished now, and that's not me. I like patina." So if the island's walnut top gets nicked or the marble vanities get stained, she doesn't panic.

"It reminds you that you are living in the space," Alexandra adds, "and that there is life there, and love."



ABOVE: The ceiling in the primary bedroom was painted a warm gray-brown. The saddle-leather bench reminds Alexandra of her days as an equestrian—and helps keep the kids from tumbling off the bed.

NEAR RIGHT: The primary bath was enhanced with tall wainscot modeled after the dining room's, bold floral wallpaper, and a claw-foot tub lit by a chandelier.

FAR RIGHT: A curvy marble-topped console with two sinks is accented with hinged oval mirrors and delicate sconces.





Picking Paints

Colorful Character

Upbeat, quiet, daring, mercurial—paint colors are a sure way to bring some personality to your rooms. Uncertain where to start? Designers say you already know what you like. "People are naturally drawn to certain shades—they have visceral reactions to color," says Washington, D.C.–based designer Zoë Feldman. She and other smart design pros work with those preferences, factoring in the available light, other elements in a room, the home's architecture, and ultimately, how the homeowner wants to feel in the space—calm or energized, for instance. Whatever the desired mood, the recent trend toward white walls may already be over. "Post-pandemic, people are looking for ways to make their living spaces more interesting, and color is a part of that," says Feldman. Ahead: how designers think about choosing and using the just-right shade of paint. **BY NINA MALKIN**

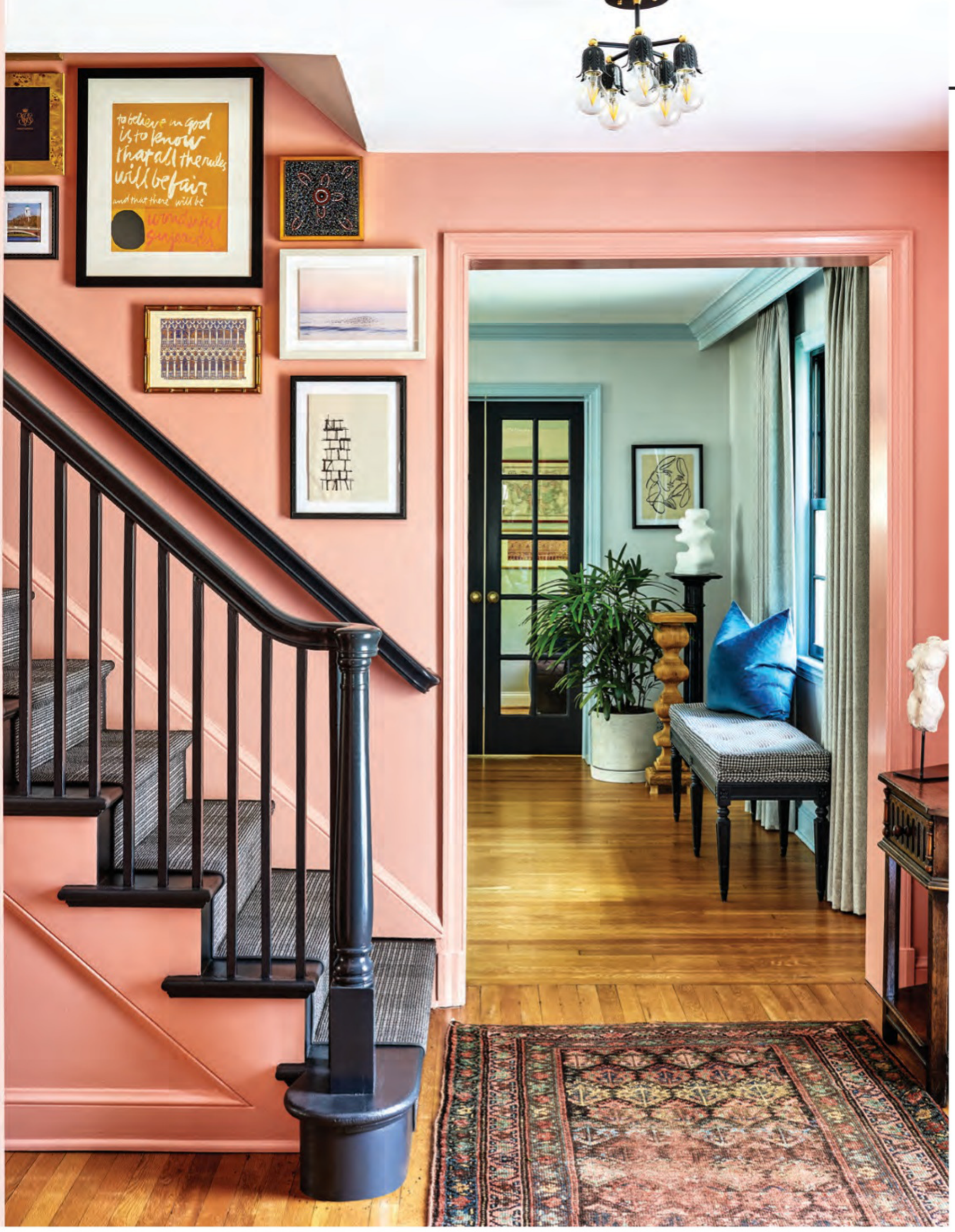
WARM WELCOME

A home's entrance makes its first impression, and the right colors ensure it's a positive one. "We went for a vibe that's warm and playful, classic yet modern," Feldman says of this entry in a 1947 Colonial Revival in Chevy Chase, MD. The saturated peach that covers the walls feels inviting and brightens a space that receives little natural light. Painting the trim the same shade in a more light-reflective semigloss helps visitors feel enveloped in the space. The blue-black on the stairs offers a dramatic contrast that grounds the look and makes it feel more current.

Of course, an entry is a taste of things to come. "Rooms that open onto each other should feel cohesive," says Feldman, who treated the walls in the light-starved living room to an ethereal gray-white tinged with blue, and the trim to a true sky blue. She repeated the foyer's blue-black accent color on the doors and windows. As complementary colors, blue and orange bring out the best in each other and look harmonious together. "But the quietness of the blue keeps the colors from competing," Feldman adds. The result: an unexpected, updated look that feels timeless.

PAINT: Benjamin Moore's Georgia Peach (entry walls, trim), Black Iron (staircase, French doors), and Brittany Blue (living room trim, built-ins); Farrow & Ball's Blackened (walls)

(OPPOSITE PAGE) STACY ZARIN GOLDBERG


to believe in good
is to know
that all the rules
will be fair
and that there will be

SOFT AND SERENE

Downsizing to smaller quarters needn't mean living in a cookie-cutter condo. The owners of this unit—a retired couple in Beaverton, OR—called on Portland designer Stephanie Dyer to make the place "a sanctuary that looks interesting and feels great to come home to," she says. The challenge, says Dyer, was to find a light, lively shade of paint that wouldn't close in the unit's fairly small footprint.

To start, she gave the living room gray-washed white oak floors and added bamboo plywood built-ins in a similar neutral shade, with the fireplace and TV fading into a matte-black recess. But it's the muted, dusty green that Dyer used to highlight sections of V-groove in the open shelves and reading nook that made all the difference—inspired by a piece of Pendleton fabric that the clients owned and loved, and that now covers a bolster in the nook. "It's earthy yet fresh," she says, "the kind of color that adds an element of surprise without overwhelming."

PAINT: Sherwin-Williams's Dried Thyme (beadboard accents)





> "Accent colors should be that surprise element that makes you go, 'Oh! That's interesting.' They direct and focus attention, so be sure to think about the statement you want to make in a space, and where the sight lines are." —**STEPHANIE DYER,** *Dyer Studio Inc.*

CHRISTOPHER DIBBLE (2)



ORGANIC, MOODY HUES

Three factors come into play when Portland, OR, designer Donna DuFresne arrives at a project's paint-color scheme: the client's personality, the home's architecture—and its location. "You probably wouldn't use them in Miami, but darker, moody colors suit the Pacific Northwest—they simply work with the air and light here," she says. This kitchen and pantry-turned-office belongs to a 1903 saltbox nestled in the woods of the city's hilly Northwest neighborhood, making the gray-green and charcoal hues a fit with the surroundings.

The saturated mid-to-deep-tone colors also echo the forest wallpaper and the gray hex-tile floor in the office (left) and linear backsplash (below). Overhead, undercabinet, and pendant lighting keep the spaces comfortable, says DuFresne. "The colors may read dark, but light plays delightfully through this kitchen—it's like looking through refracted light in a pond."

PAINT: Benjamin Moore's Caldwell Green (cabinets) and Sherwin-Williams's Iron Ore (trim, door)



> "People rarely ask us for a specific color. They tell us how they want a room to feel, and paint colors can achieve that. In this case, they evoke feelings of comfort and coziness."
>
> —**DONNA DUFRESNE,** *Donna DuFresne Interior Design*

CHRISTOPHER DIBBLE (2)

DRAMATIC TWIST

A formal dining room can feel fun—exactly what designer Kara Adam sought to serve up in this transitional Dallas home. "These clients love to entertain," she says. "They wanted the space to have some drama but also feel accessible for lively, lingering dinners with their family and friends."

The key ingredient in this dramatic design scheme: the teal paint color, a rich, green-tinged blue tempered with a gray undertone. "It's both bold and tranquil—it gives the dining room some soul," Adam says. Using it to wrap the walls, trim, and 10-foot ceiling, while keeping the furnishings quiet, allows visitors to experience the room as a whole, where a white ceiling or casings would add stark divisions. But it's the lacquer-like high-gloss finish that adds a special quality. "The finish really ups the ante, reflecting light to ensure that the space is cozy and romantic but never too dark," Adam says. "It looks striking by day in natural light, and with the chandelier, the space really glistens at night. It's magical."

PAINT: Sherwin-Williams's Tempe Star (walls, trim, ceiling)



MICHAEL HUNTER

"The dining room is a great place to up your design game with bold color. Use it to create a special moment, a destination that your guests cannot wait to enjoy." —**KARA ADAM,** *Kara Adam Interiors*



> Bright accents are lively, but in a peaceful, not agitating way. They work best where there's loads of natural light—in open spaces with tall ceilings, lots of windows. The more light, the more vibrant they look."
>
> —**ALISON KANDLER,** *Alison Kandler Interior Design*



BRIGHT IDEAS

"White is my go-to neutral, but an all-white room bores me," says Los Angeles designer Alison Kandler, who cures the blahs with hits of vivid color. Whether it's a citron-yellow pantry door or a green-and-blue checkerboard floor, "bright colors give a space an upbeat, light, and airy feel—they make people smile."

She begins by getting personal. "The first thing I do is send clients—separately—to the paint store to pick out five to twenty-five colors that make them happy," she says. "The colors you love reflect your personality, and when you use them in your home, your home shows who you are."

Don't go overboard with brights, she warns, or the space can come off as "circus-y." Kandler uses bright accents in unexpected places—a floor, a door, a sink, a light fixture, a ceiling. She mixes rather than matches, too, using touches of several different colors in a room.

Strong shades are not just for casual cottages, she adds. "A traditional house is where touches of bright color really bring a sense of whimsy, because it's so unexpected." ⌂

PAINT: Sherwin-Williams's Eye Catching (door), Farrow & Ball's Vardo, and Pratt & Lambert's Barberry (floor)

MARK LOHMAN (2)


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WINTER 2022

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KNOW-HOW YOU NEED TO GET HOME UPGRADES DONE RIGHT

RENO PLANNER

A better paint job starts here

TOH painter Mauro Henrique shares his best practices for achieving a flawless finish

BY DAN BORTZ | PHOTOGRAPHY BY MIKE CASEY



You could say that painting found Mauro, rather than the other way around. Recently arrived from his native Brazil, he was working on a construction crew, hoping to become a carpenter, when the painter on the job didn't show up. "My boss looked at me and said, 'Can you paint?' I said, 'I can try,' and picked up a brush," he says. "I found I really enjoyed the work."

After the job was done, he started practicing at home—"on the walls, inside closets, windows, trim, everywhere"—and making a study of his new craft. "My dad taught me to be very detail oriented," Mauro says of his handyman father. That meticulousness paid off: He got more and more jobs, eventually opening his own business. Then one day he found himself painting at the home of Russ Morash, creator and longtime producer of *This Old House*—though he had no idea who "Russ" was. Impressed with his work, Morash gave the young painter an on-camera role at the Newton project house. A segment on *Ask TOH* followed, and Mauro eventually earned an official place on the *TOH* team.

We caught up with him on a recent job, painting a colorful kids' room in Somerville, MA. Here's a look at the steps he takes to deliver a first-class interior paint job—and you can too.

> "Eighty-five percent of any painting project is the preparation. Filling holes, sanding, caulking gaps, and other prep work takes time, but it's essential to a good paint job. If you start with a well-prepared surface, with some practice you can master the other 15 percent."
>
> —**MAURO HENRIQUE**, *TOH painter*



Step-by-step prep

Here's how Mauro gets a room ready for paint

STEP 1 | Remove hardware. Take off window locks and lifts, doorknobs and strikes, electrical cover plates and light fixtures. Tape the screws to each piece of hardware and label its location; store the items together in a bucket—this makes reinstalling them easier later on.

STEP 2 | Clear out obstacles. Whenever possible, relocate furniture to another room so that you can easily navigate the space where you'll paint. Cover whatever can't be removed with plastic sheeting, and clear a pathway that's at least 3 feet wide.

STEP 3 | Protect floors. Pros generally avoid using painter's tape—it's time-consuming to apply. One place Mauro always tapes: along the bottom of baseboards. Then he tapes a wide border of rosin paper to this strip of tape, and covers the rest of the floor with plastic-lined canvas drop cloths—these prevent any spilled paint from seeping through. "Protecting the floor will save you time, and headaches, in the long run."

STEP 4 | Fill holes, gaps, and cracks. Closely inspect walls and trim for imperfections; patch holes, dents, and dings by using ready-mix spackle on walls or wood filler on trim. On plaster walls, Mauro uses joint compound and mesh tape on wide cracks and flexible patching compound on smaller ones. Fill gaps around trim by cutting a caulk tube close to the tip and running a small bead, pressing down and pulling the caulk gun toward you as you work; then run a wet finger on it to smooth it out.

STEP 5 | Sand and remove dust. To create a smooth, even surface for painting, scuff-sand moldings, doors, and windows with 220-grit paper. Use a pole sander with 120-grit paper to smooth walls. (If you're working on paint that could be more than 45 years old, be sure to test for lead first.) Thoroughly remove sanding dust with a vacuum equipped with a HEPA filter, followed by a damp rag or tack cloth.

MAURO SAYS

"Don't overcaulk gaps. Cutting the tip of the tube too big results in messy joints. Measure the gap, and use a caulk tube that's marked with lines indicating where to cut depending on the size of the gap. Or start small, near the end of the tip, and adjust as needed."

Pick the right primer

Primer isn't always necessary—if you're recoating walls and trim that are in good condition and were previously covered in a similar shade and formulation, for instance. But with new drywall and fresh plaster, primer is essential to seal the surface. And if you're applying a light color over a dark one, the previous paint job is damaged or deteriorated, or you're coating a porous or slick surface, using an appropriate primer will ensure optimal coverage.

Walls: A general-purpose water-based, 100 percent latex formula should do the trick here. If you're making a big color change, ask your paint store to tint the primer to ensure even coverage.

Bare wood trim: Mauro relies on oil-based primer for this: "It fills and seals the pores, so that whatever paint you use will adhere well."

Painted wood trim: For trim previously painted with latex, a water-based latex primer is fine. But if you're unsure what type of paint was used, you may want to use one that's oil based.

Clear-coated wood trim: If trim has a coat of polyurethane or varnish, shellac primer will provide the best adhesion. Note: Since both oil-based and shellac primers give off volatile organic compounds (VOCs), which can damage your lungs, be sure to work in a well-ventilated space.

MDF: For medium-density fiberboard moldings or built-ins, choose a shellac- or oil-based primer; water-based formulas can cause the material to swell and crumble.

Masonry: Got an exposed brick wall or chimney indoors? Seal the pores with a water-based latex primer.

Metal: Use oil-based primer on ferrous metals, which contain iron, to prevent rust, and a water-based latex metal primer on nonferrous surfaces.

Plastic: If you're painting laminate, go with a bonding primer, a modified acrylic formulation made to adhere to slick surfaces.



PAINTBRUSH: COURTESY PURDY; PAINT ROLLER AND COVER: COURTESY WOOSTER; TAPE: COURTESY FROGTAPE; CAULK GUN: COURTESY DRIPLESS

Go-to painting tools

Some of Mauro's must-haves for interior paint projects

1 Paintbrush: "Always buy high-quality brushes," says Mauro. "They're built to last and don't leave bristles behind on surfaces." For latex paints, that means brushes with synthetic bristles—a 2½-inch angled sash brush is his go-to for cutting in. For detail work, he likes a 1½-inch sash brush, and to cover large, flat areas, a 3-inch straight brush. He uses natural hog hair (a.k.a. China bristle) brushes with oil-based paints, and disposable foam brushes for one-time touch-ups. *SHOWN: 2.5-inch Clearcut Glide nylon-polyester bristle brush; purdy.com*

2 Paint roller and roller covers: Mauro relies on lint-free microfiber covers. He chooses from three naps: ¼ inch for smooth surfaces, ⅜ inch for semirough surfaces (most common indoors), and 1 inch for textured surfaces. Starting with a sturdy roller frame, he adds a screw-in extension pole for coating ceilings and other hard-to-reach areas. *SHOWN: 9-inch Sherlock roller frame and ⅜-inch Pro/Doo-Z woven roller cover (striped), woosterbrush.com; ⅜-inch Ultra Finish woven microfiber roller cover (white), purdy.com*

3 Painter's tool: Mauro uses this classic multi-tool for scraping out joints, cutting tape, prying open cans, cleaning roller covers, and more. This version boasts many more features than the original 5-in-1. *SHOWN: Clauss Non-Stick STIFF 14-in-1 Painter's Tool; amazon.com*

4 Pole sander: A sanding head fitted with 120-grit sandpaper and a pole smooths walls for painting. "Sweep the sander side to side as you work your way from the top down," Mauro advises. *SHOWN: 3M Drywall Pole Sander; homedepot.com*

5 Painter's tape: To mask off finished surfaces, like floors, Mauro uses low-tack painter's tape; he burnishes the edge with a putty knife to ensure there's no bleed through. *SHOWN: FrogTape Delicate Surface Painter's Tape; amazon.com*

6 Caulk gun: Mauro likes a manual gun that has a built-in tip cutter and a hinged steel pin for puncturing the seal on a tube of good-quality, paintable white acrylic caulk. *SHOWN: Dripless ETS2000 caulk gun; amazon.com*

MAURO SAYS

"Always buy top-of-the-line paint. It costs a little more per gallon, but it goes on better, looks better, and gives you a more durable finish that will last longer."

Make a plan: what to paint when

Following a logical order for any paint project is crucial, Mauro says. "It saves time and protects your work—you won't be brushing up against or dripping paint on wet surfaces, so you won't have to redo them." The general approach: work top to bottom.

1. Start with the ceiling. First, cut in a 1½- to 2½-inch-wide band along the perimeter with an angled sash brush (see "Technique Basics," opposite), then use a roller on an extension pole to cover the broad expanses. Do two coats. "If you miss any drips, spatter, or errant brush marks on walls or trim, you can fix them as you move on," says Mauro.

2. Then paint the trim, windows, and doors. Tackle crown molding first, followed by windows (see "How to Paint Divided Lights," page 48) and their casings, then doors and their casings. If you have the space, remove doors to another work area where you can lay them flat; paint them while the rest of room is drying. Finish by painting any wall paneling or other trim.

3. Cut in and roll the walls. With much of the detail work out of the way, you can paint the walls. This is an opportunity to create a crisp border with previously painted surfaces if the line is uneven.

4. Paint baseboards last. Since you're working with gravity, any fallen paint droplets that you missed cleaning up can be addressed now. Start by cutting in along the top of the molding, then work your way down to the floor.

TECHNIQUE



How to hold a paintbrush

The right grip allows you to control the flow of paint. Start by holding the brush like a pencil, with your index finger touching the ferrule along the narrow edge, your thumb on one side, and your remaining three fingers on the other. This works well when cutting in. "But it's okay to adjust your grip as you go, depending on what you're doing," says Mauro. "It helps fight hand fatigue."



How to load a paintbrush

Never dip your brush into a can of paint. "You risk contaminating the whole can if debris or dust gets in," says Mauro. Always pour paint into a small paint pail; fill it about halfway. "To load the brush, dip the bristles into the paint about the width of two fingers," he says. "This prevents dripping, and also prevents you from having to clean the entire brush when you're done, which saves time." Tap it lightly against the side of your bucket to work the paint into the bristles and remove any excess.

BASICS

Practice the fundamentals for a first-rate finish

How to cut in with a paintbrush

When painting a room, you want to start where two surfaces meet and a roller can't reach: where a wall meets the ceiling, where a wall meets another wall, and along trim and baseboards. These areas call for a special brush sequence, called cutting in.



> **Starting position:** Beginning in a corner, place the brush's bristles against the wall about ½ inch below and nearly parallel to the adjacent surface. Gently push them up to that edge.

> **First stroke:** Angle the leading edge of the brush slightly away from the edge of the adjacent surface as you pull the brush in one smooth stroke, about 12 to 14 inches long. Apply light pressure at first and increase the pressure slightly near the end of the stroke, pulling the brush down slightly and away from the edge you're cutting in. Go back and smooth out any visible brushstrokes on the lower edge, brushing in the same direction.

> **Second stroke:** Position your brush about 12 to 14 inches away from the first stroke and repeat the steps above, moving in the opposite direction. Continue across the wall, always placing the brush on dry wall and pulling it into the fresh paint left by the previous stroke, until you reach the next corner.



How to roll a wall

Moderate, even pressure is the key to smooth, even coverage

> Fill the paint tray's reservoir below the ridges. Dip the roller cover in, then distribute the paint evenly by rolling the cover over the ridges. "If the roller is covered with paint, you have enough," says Mauro. "It shouldn't be dripping."

> Starting near the top, at the edge of the cut-in area, place the roller flat on the wall; roll on the paint in a W or N shape, overlapping the previous stroke by 30 to 40 percent as you fill in the gaps. Don't press too hard or try to stretch the paint toward the end; this can cause ridges to form. Focus on applying a smooth, even coat, working in a 3- to 4-foot-square area.

> When you've covered the wall, run a lightly loaded roller along the perimeter to blend in the texture of the brushstrokes you made while cutting in.

> Let the walls dry for about 1½ hours, then repeat the cutting in and rolling sequence to apply a full second coat.

TIP **Make a custom-fit disposable paint-tray liner with aluminum foil. Buy a roll that will cover the full width of the tray, up the sides and around the edges. Carefully press down a foil sheet so that it conforms to the contours of the tray and won't shift around. When you're done, you can peel it off and toss it.**

A quick guide to paint finishes

Paint comes in a variety of light-reflecting sheens. Here's how Mauro approaches which one to use where

Flat: The lowest sheen, which means the paint soaks up the available light. "It's ideal for no-traffic areas like ceilings and hides surface imperfections."

Matte: A slightly reflective sheen that's a bit more durable, and hides minor imperfections. While not as washable as paints with more sheen, it takes touch-ups better if the painted surface gets scuffed later on. Excellent for low-to-moderate-traffic areas like bedrooms.

Eggshell: A soft, velvety sheen with a bit more luster than matte paint, more stain resistance, and more washability. "It lends itself to areas with moderate to high traffic, such as kitchens, bathrooms, and hallways, where durability is essential."

Satin: A glossier sheen with a pearl-like appearance. It's easy to clean, so it is well suited for cabinets.

Semigloss: A sleek, radiant sheen that's scrubbable. Mauro's choice for trim, doors, and playrooms.

High gloss: A brilliant shine with a glassy sheen. Mauro uses it to add vibrancy to entry doors, accent walls, or ceilings.

MAURO SAYS

"The sheen you select can have a big effect on the final product, both in terms of how it will look and how it will wear. Be sure to factor in the condition of your walls or trim, as well as how much traffic it will be subjected to."



How to paint divided lights

Whether you're working on windows or doors, taping off glass is time-consuming. Mauro knows a better way

1. Prep the glass. In lieu of tape, use a 2-inch square-tipped brush to apply a wide band of liquid mask along the edges of the glass (Associated Paint Masking Liquid H2O; amazon.com). When the opaque liquid dries clear, brush on a second coat. When the second coat is dry, you're ready to paint.

2. Paint the muntins. Use a small 1½ -inch angled sash brush to cut in along the inside edges of the muntins; then paint the flat fronts.

3. Paint the perimeter. Using the same brush, coat the stiles and rails. Allow the paint to dry for at least 90 minutes. Then repeat Steps 2 and 3 to apply a second coat.

How to paint a straight edge without painter's tape

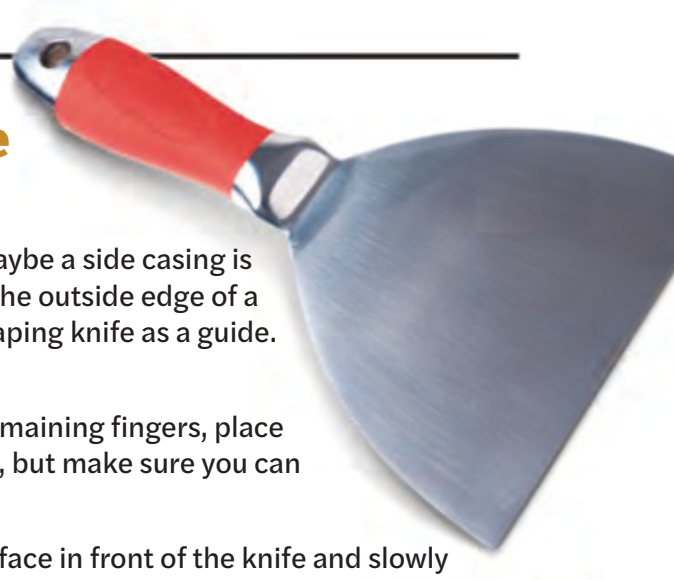
Sometimes painter's tape just isn't an option: maybe a side casing is too close to an inside corner, or you're painting the outside edge of a window sash. Then Mauro uses a wide putty or taping knife as a guide. Here's how:

1. Holding the blade between your thumb and remaining fingers, place it along the edge you want to paint. Grip it firmly, but make sure you can slide it.

2. Touch the bristles of the paintbrush to the surface in front of the knife and slowly drag both hands down the joint at the same pace.

3. Stop when paint starts to accumulate on the blade. Carefully lift it straight off to keep paint from bleeding onto the adjacent surface. Wipe the blade clean.

4. Continue down the joint in the same manner. Once you reach the end, flip the brush over and paint in the opposite direction to smooth out your brushstrokes.



PUTTY KNIFE: ISTOCK

Need to match paint that's already on a wall?

It's a common quandary: You need to touch up a wall, but you don't know what paint the last homeowner used. **"Best-case scenario, you find a can of paint in the basement that matches the color of the wall,"** Mauro says. No luck? **Don't waste your time with paint-matching smartphone apps**; instead he uses a utility blade to remove a small piece of drywall paper from behind a piece of furniture near the baseboard line—an area that can easily be patched later. **"Take it to a paint-store specialist, who can match the color and the finish."**





Do cleanup right

Take the time to carefully remove protective coverings and thoroughly clean the tools you've invested in

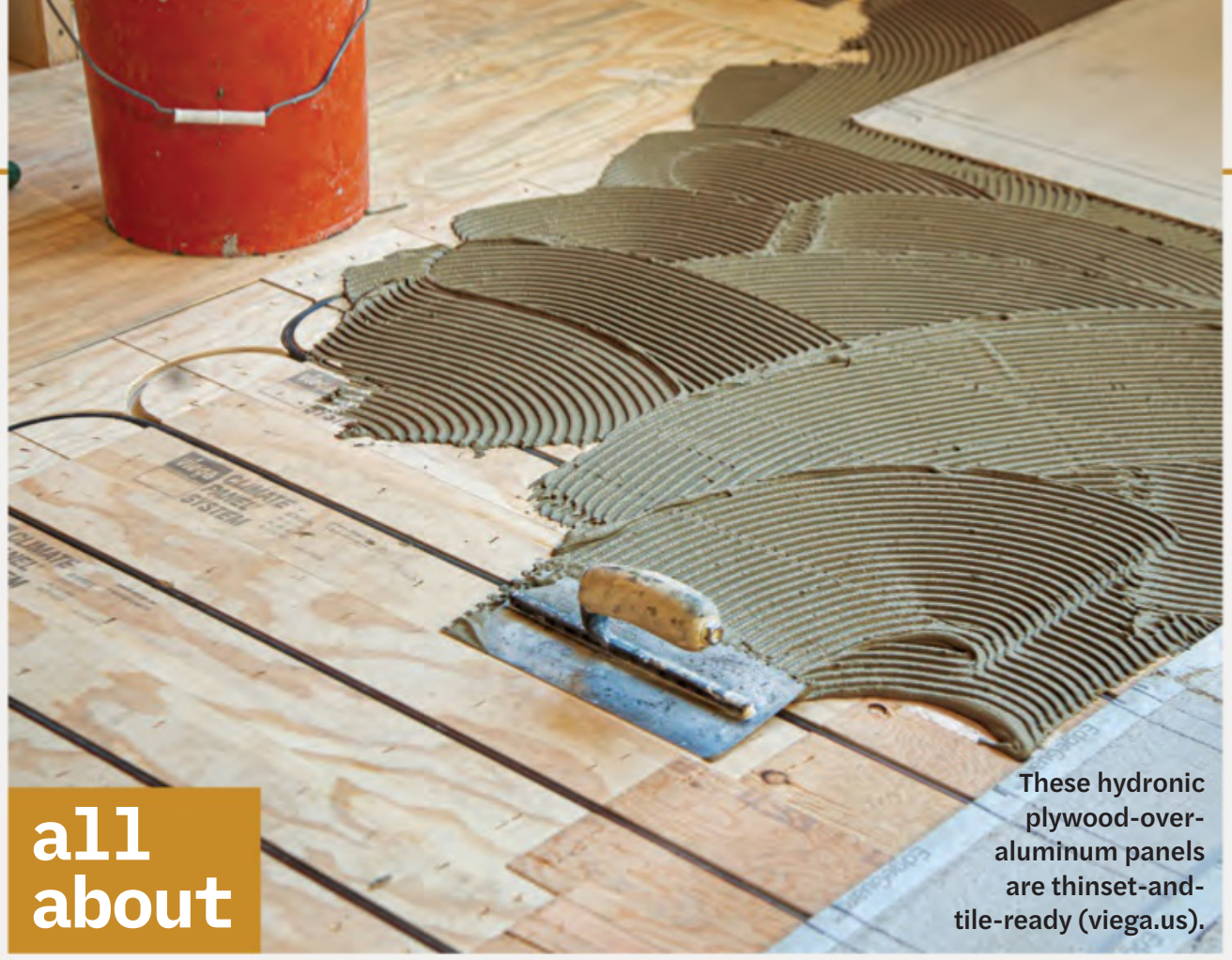
Remove dried masking liquid: First, make sure paint is dry—it's best to allow 90 minutes. You don't want the paint to peel off along with the protective barrier. Use a utility blade to score the mask along the edges of the glass; then lift it off in one piece (left).

Pull up painter's tape: Once paint is dry, carefully pull off painter's tape at a 45-degree angle to keep from taking paint with it (below left). If the edge is sealed with paint, score along the paint line with a putty knife first.

Clean paintbrushes: To get rid of latex paint, run the brush under warm water with the bristles pointed down; use your fingers to work a few drops of dish detergent into the bristles, keeping water away from the ferrule. Press bristles up against the sink wall and scrub off any stuck-on paint with a plastic or nylon scrub pad. Avoid aggressive metal combs and brushes, says Mauro; they can damage the bristles. To clean off oil-based paint, swirl the bristles in odorless mineral spirits.

Remove excess moisture with paper towels, then spin the brush handle between your palms. Never place wet brushes in a container with the tips up, where moisture can seep into the metal and cause it to rust. Lay brushes flat or hang them on a hook to dry, then store them in their original sleeve to keep the bristles in shape.

Clean paint-roller covers: First, run the curved blade of a 5-in-1 tool down the cover to remove the paint. With latex paints, pull the cover halfway off the frame and run it under warm water, using a hand to push the paint out of the fibers. With oil-based paint, pour solvent into a paint tray and dip and roll the cover in the tray a few times; replace with clean solvent for a final rinse. Blot the cover with paper towel, and stand it on end to dry.



These hydronic plywood-over-aluminum panels are thinset-and-tile-ready (viega.us).

all about

In-floor radiant heat

Whether it's warming a large addition or a cozy bathroom, radiant heat underfoot invisibly ups the comfort level. Here's the lowdown on some of today's most popular systems

BY SAL VAGLICA

Step outside into full sun on a cold winter day, and you'll feel warm even when the air is chilly—that's radiant heat. Infrared radiation warms objects and people, not just the air, so it's more efficient at bringing surfaces like the floor closer to what your body perceives as the temperature sweet spot: around 70 degrees F. Plus, you've probably noticed that when your feet are warm, you tend to feel warm all over.

In-floor radiant heat is produced either with a hydronic system that pumps hot water through plastic tubing or with an electric system, where the heat is created with cables, similar to a heating pad. In a house that already has a boiler, hydronic tubing can often tie in to existing equipment; it can heat a whole floor, or even an entire house. Electric radiant can connect to any household's service panel but can be costly to run, so it's usually confined to discrete spaces, like a bathroom or mudroom. Climate is a factor, too. To realize the economic benefits of a hydronic system, it's best in locations with winter temperatures that require consistent heating.

It is radiant's even, consistent heat that makes it so appealing. It also can be easier to live with than forced air, with no furnace filters to change, no whistling ductwork, and no restrictions on where furniture can go to avoid obstructing the airflow.

While some elements of a radiant heating system are DIY-friendly, it generally requires working with an experienced pro. Installations can range from a simple electric mat that heats a powder-room floor and is controlled by a single thermostat to a complex web of water-filled tubing designed based on a house's size, energy costs, and number of zones. Here's what you need to know about the different options that are available and how you might be able to put them to use.

VITALS

How much to install it?

If you have a boiler, the materials and labor to add a hydronic radiant floor system range from $6 to $20 per square foot. Expect to pay from $8 to $15 per square foot for an electric radiant system.

Is it energy efficient?

In a well-insulated home, a hydronic radiant system can be up to 30 percent more efficient than forced air. You can spend $1 to $5 per day to run either type of radiant, depending on your utility costs.

How long does it last?

Hydronic parts should be good for 40 to 50 years. While a boiler's average life span is 15 to 20 years, it should last longer since radiant heat doesn't require the very high water temperatures that radiators do. Electric radiant should last nearly as long as a hydronic system.

DIY or hire out?

Hydronic systems are supplied and installed by a plumbing contractor. DIYers can fasten aluminum transfer plates and clip in PEX tubing between ceiling joists, but will need help designing the system and a plumber to connect the boiler. Electric radiant is more DIY-friendly, but you'll want a pro to make the final electrical connections.

ANTHONY TIEULI

Is radiant floor heat right for you?

Here's what to consider when deciding if a radiant system is a good fit for your reno

PROS

✚ **QUIET** You won't hear air blowing through ducts and out of registers. Hydronic is quieter than its cousins, radiator and baseboard heat, whose pipes can cause banging or metallic tingling as aluminum fins heat up. Electric radiant is silent.

✚ **COMFORTABLE** With the temperature of the floor closer to your body's preferred temperature of about 70 degrees F, you feel comfortable even when the air temperature in the house is cooler.

✚ **ENERGY EFFICIENT** "Nothing beats water for the transfer of energy," says *TOH* plumbing and heating expert Richard Trethewey of hydronic radiant. "Put a Btu of energy into water, and it all sticks. Do the same with air, using electric elements, or gas- or oil-fired coils, and it drops off by about two-thirds." Though pricier to run, electric systems still benefit from radiant's efficient heat transfer.

✚ **FURNITURE-FRIENDLY** With no radiators or registers to consider, radiant heat doesn't affect furniture placement.

✚ **EASY TO MAINTAIN** There are no filters to replace, and no dust gets stirred up. It's a good idea to have boilers inspected annually and hydronic systems pressure tested for leaks. Electric radiant doesn't generally require maintenance.

CONS

x **PRICEY** Whole-house hydronic systems are costly to install, particularly if you already have forced air and need to put in a boiler. Electric radiant is less expensive to install, but is usually confined to discrete spaces such as baths. Depending on the size of the space, you might need an electrician to make room for the load in your service panel.

x **HATES DRAFTS** Hot always goes to cold, as Richard says, so in an old house that's not well insulated, the heat transferred by a radiant floor system is robbed by cold walls and air leaks around doors and windows, making it harder to feel comfortable.

x **SLOW TO RESPOND** Because of the floor's thermal mass, it can take hours (or even days, for a concrete slab) to reach a comfortable temperature after you adjust the thermostat. Fine-tuning that setting—to make it cooler on days with a lot of sun shining through the windows—also takes a lot of time. Sudden temperature swings reduce radiant's ability to deliver a consistent level of indoor comfort.

x **ONLY PROVIDES HEAT** Unlike a forced-air system, which can have a cooling coil to also deliver air-conditioning in the summer, radiant systems almost exclusively deliver heat.

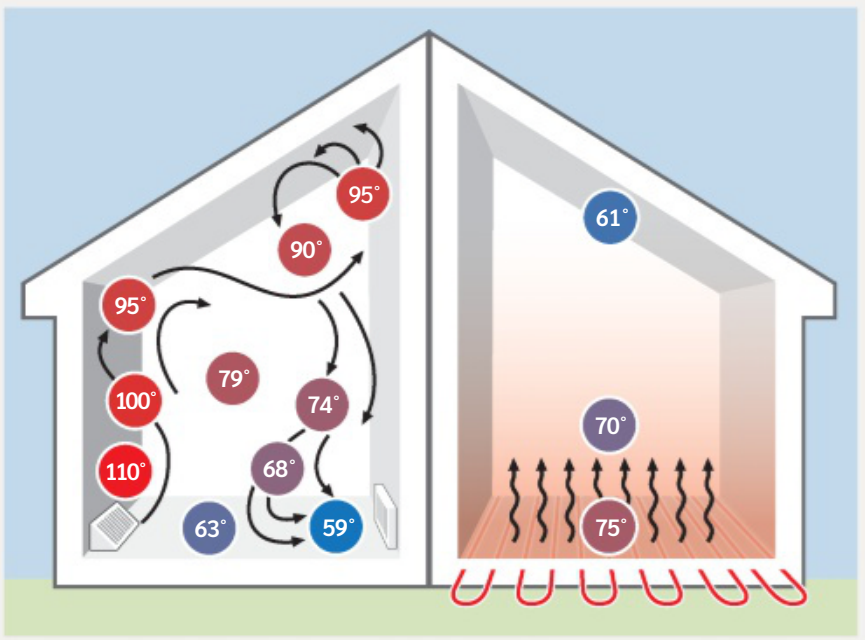


ILLUSTRATION: PETER SUCHESKI

Hot air blowing in through a forced-air system's floor registers can create hot and cold pockets (left). A radiant system (right) transfers infrared heat to the floor, which rises as it heats surfaces—and people.

HOW IT WORKS

Even heat is the secret

There's science behind radiant's consistent warmth

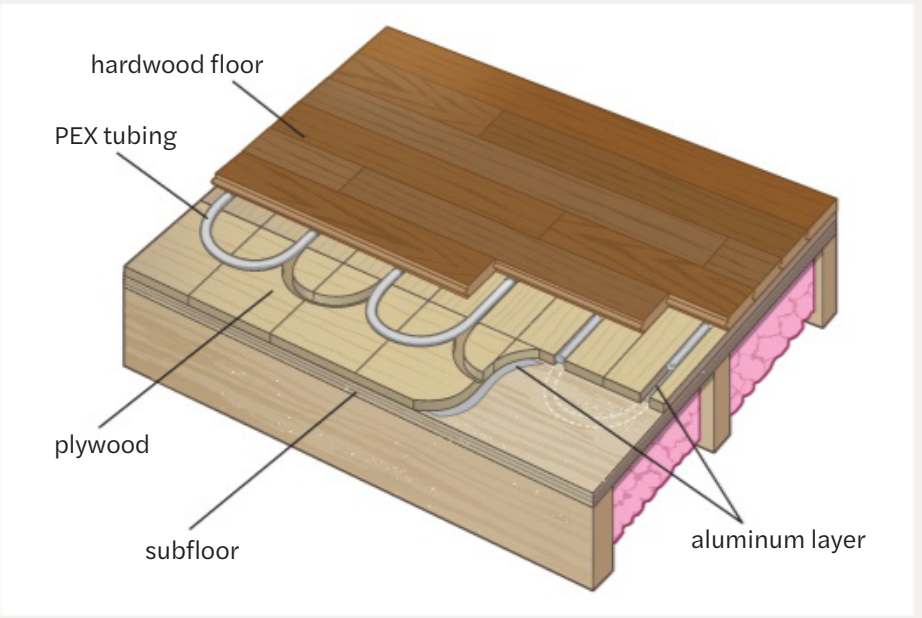
Different heating systems rely on different means of transferring energy. In a forced-air system, a furnace's heat directly warms the air and fans push out the hot air to spread the warmth around. This creates inconsistent temperatures across a room, with the hot air rising to the top and the cool air falling to the floor. Radiant heat transfers its energy to objects, including people, through infrared radiation, like the sun. Surfaces that absorb infrared heat continue to radiate it out. As a result, not only is radiant heat more consistent and more comfortable, but it also produces a more efficient transfer of energy, since it suffers almost no heat loss between the heat source, the floor, and the rest of the room—unlike leak-prone ductwork. As the heat rises, the coolest air stays near the ceiling.

BRING THE HEAT: PRODUCT OPTIONS

When it comes to warming floors, there are two options: water-filled PEX tubing or electric cables. Here are some of the most popular products and where you might use them

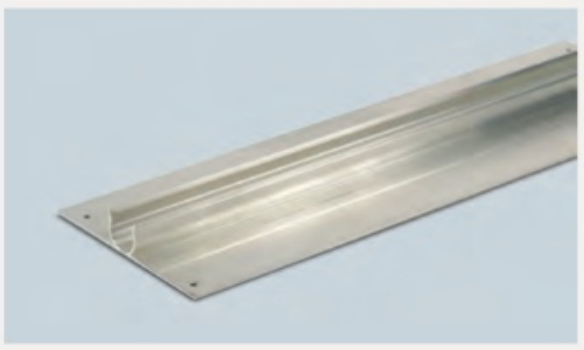
Hydronic systems

Flexible, easy to work with, and available in large spools, the cross-linked polyethylene tubing known as PEX is the backbone of any hydronic radiant floor-heating system. Because it can snake its way under a floor in continuous loops with interruption, it reduces the chance of leaks. Usually spaced about 9 inches apart, PEX tubing can go where electric cables aren't allowed, including in walls and ceilings—and it's usually less expensive to heat its water to warm large surfaces like a family room floor or even a driveway. PEX can be embedded on its own in concrete slabs; to heat other types of floors, it is typically part of a product system—generally plates or panels—that employs a medium, usually aluminum, to help transfer and evenly distribute the water's temperature to the floor.



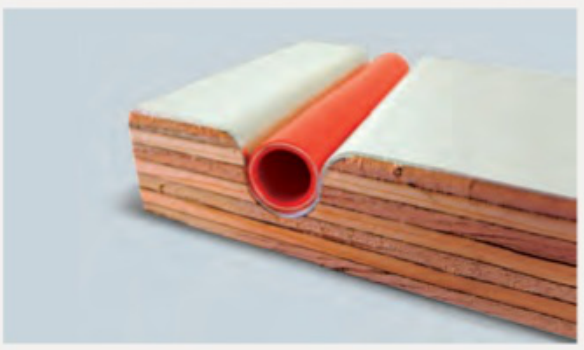
Plywood over aluminum panels

›› These ½-inch-thick, 7-by-48-inch plywood panels have an aluminum layer that runs under the tubing tracks. Designed for additions and new construction, they add a minimal ½ inch to the floor height when fastened over an existing subfloor or slab concrete. Silicone sealant bonds the PEX in place and facilitates heat transfer to the aluminum and the entire floor. *SHOWN: Uponor Quik Trak, about $6 per square foot (without PEX); supplyhouse.com*



Aluminum transfer plates

›› This retrofit system is best suited to installing radiant above an unfinished space. The 48-by-3½-inch, 16-gauge aluminum plate is designed to fasten to the underside of a subfloor—flat side up, tubing channel down—usually in a basement ceiling. The plates accept ⅜- or ½-inch PEX tubing; the hot water running through it gives up its heat to the aluminum, which in turn warms the floor above. *SHOWN: Uponor Joist Trak Heat Transfer Panel, from $9.44 each; supplyhouse.com*



Aluminum over plywood panels

›› These 1⅛-inch-thick, 4×8 tongue-and-groove plywood panels come topped with a .025-inch-thick aluminum layer. Grooves pressed into the metal accept ½-inch-diameter PEX tubing, and the system serves as both a subfloor and radiant-heat delivery system. The massive metal surface evenly distributes heat from wall to wall—ideal for large additions and other new construction. *SHOWN: Warmboard-S panel, about $21 per square foot, installed; warmboard.com*



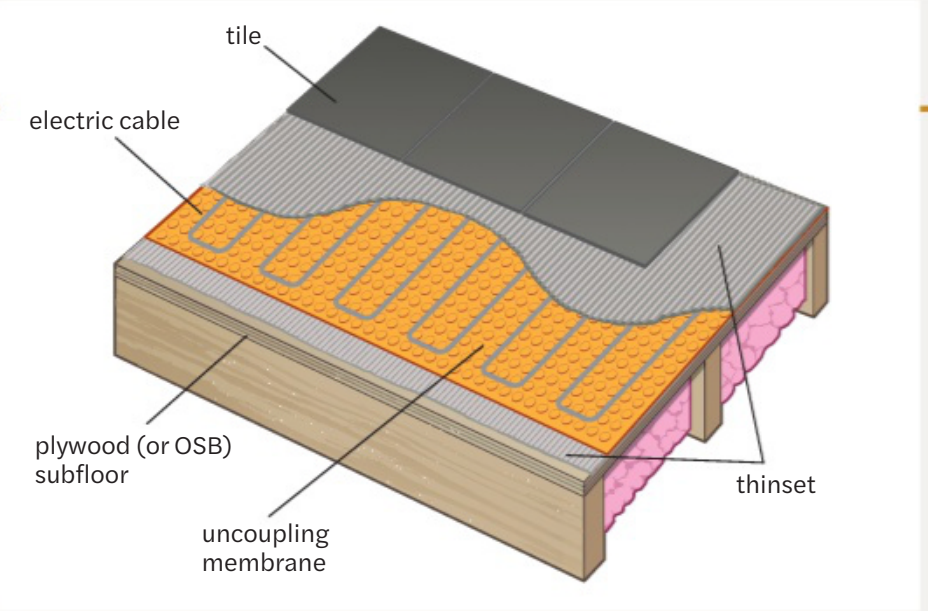
Aluminum over OSB panels

›› A panel product more suited to use in a renovation, this option has a layer of aluminum bonded on top of an oriented-strand-board substrate. The finished product measures just 13⁄16 inch thick, making it easier to screw down over an existing subfloor (or in walls or ceilings). Adding it might mean trimming the bottoms of doors and adding transitions between dissimilar surfaces to bridge finished floors of different heights. *SHOWN: Warmboard-R panel, about $21 per square foot, installed; warmboard.com*

TRANSFER PLATE: COURTESY UPONOR; ALUMINUM OVER PLYWOOD, OSB: COURTESY WARMBOARD (2). ILLUSTRATION: PE

Electric systems

Electric cables are the newer form of radiant floor heating, with more DIY-friendly products. While the systems come in different forms—from a dimpled membrane to a mesh mat to a thin film—the delivery is the same: A home circuit delivers energy to the cables, exciting them and transferring that energy to the floor above it as heat. Some manufacturers will help you design a pattern for your project, or create a custom mat that doesn't need cutting. Under tile or stone, the cable should be nestled in an uncoupling membrane, which allows for movement in dissimilar materials to prevent cracking. While a home may have the panel capacity to power multiple cables or mats, it's usually cost prohibitive to heat large spaces with electricity. Note that cables are prone to nicks during installation.



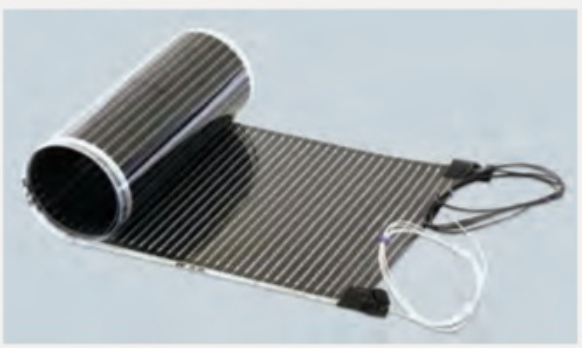
Electric cable with uncoupling membrane

» Electric radiant is popular under tile and stone floors, but because these materials can crack with movement, the heating element is nestled in a spongy waterproof membrane that allows the substrate and the finished floor to move independently. Electricity flows through 120- or 240-volt cables, generally ¼ inch in diameter and spaced about 3½ inches apart. The cables are laid around the polypropylene membrane's nodes in a custom pattern that accounts for obstacles, such as toilets and vanities. *SHOWN: DITRA-HEAT Uncoupling Membrane, from $2.69 per square foot, and DITRA-HEAT-E-HK Cable, from $2.77 per square foot; schluter.com*



Electric mat

» Cables are captured within a mesh and sold as a roll. For layouts with a uniform shape, installation is straightforward, but you can also cut the cable free of the mesh to work around objects, like a sink pedestal. Mats come in a range of sizes that can cover more than 150 square feet, some with a hole to fit around a shower drain. Others stick down with double-sided tape and can be laid over plywood, backer board, or a concrete slab. *SHOWN: SunTouch TapeMat, from $169 for 10 square feet; warmyourfloor.com*



Electric film

» The film encasing the electric cable in this format is designed to float under click-together floors—vinyl, laminate, solid or engineered wood, or floating tile—with an underlayment over the subfloor. Available in 36- and 18-inch widths, it can also be used in exposed joist bays underneath a floor. Some versions are wired on both ends, so you can cut it to fit and use both sections wired to the same thermostat. *SHOWN: QuietWarmth Heating Film for Click-Together Floors, from $57 for 7½ square feet; warmyourfloor.com*



Electric peel-and-stick film

» In this newer form of electric radiant, the cables are woven within a peel-and-stick waterproof, antifracture membrane, saving a step of having to fasten the heat source to the substrate. It is designed for use under tile or stone (though not in a shower) and glue-down floors, including laminate and engineered wood (but not vinyl or linoleum). *SHOWN: QuietWarmth Peel & Stick for Tile and Glue-Down Floors, from $84 for 7½ square feet; warmyourfloor.com*

ELECTRIC MATS: COURTESY WARM YOUR FLOOR (3). ILLUSTRATION: PETER SUCHESKI

TOH PRO TIP



"Because a tiny nick can cause a malfunction, it's good practice to test the resistance of any electric radiant system and floor-temperature sensor with a multimeter before and after installation, and after covering it with flooring. Some manufacturers require a log of these tests for warranty purposes." **CHARLIE SILVA,** *Home Builder*



At the Concord Cape project house, hydronic radiant warmed the tiled shower wall as well as the floor.

Where to use it

Unlike rigid copper pipes and hot air, flexible PEX and electric cables make it easy to add heat to a wide range of surfaces

UNDER WOOD FLOORS: Water circulates under the flooring between 85 and 125 degrees F, while cables typically use 120 volts, or sometimes 240, to gently warm wood to around 75 degrees without drying it out. All wood floors require a plan for expansion and contraction—usually by leaving a gap around the perimeter covered by molding. But it's even more important over radiant flooring, where the boards can move more. In general, the narrower the boards, the better.

UNDER TILE FLOORS: The thermal mass of thinset and tile makes a bathroom ideal for radiant heat, which can take the chill off floors, the tubs sitting on them, built-in benches, and even shower floors and walls, in some cases. While hydronic radiant is an option in the bathroom when used elsewhere in the house, electric cables or mats are frequently used because they deliver the warmth without the need for upgrading the home's heating equipment or adding significant height to the floor. Shower walls are one of the few places other than floors where you'll find electric radiant, because of the walls' thermal mass and the lack of mechanical fasteners needed. Near an exterior wall, "the idea is to warm the tile, so that the insulation behind the wall prevents the cold air from feeling like a draft," says *TOH* general contractor Tom Silva.

UNDER CONCRETE FLOORS: Like a bathroom's tile, the density of a concrete slab in a basement or garage is ideal for radiant heat, where it can ensure cars, workshops, or home gyms are comfortable year-round. While both forms can be used, hydronic is typically installed during initial construction; the electric option can be added easily to existing slabs since it doesn't add much height to the floor.

UNDER KITCHEN COUNTERS: Big slabs of stone are susceptible to absorbing cold temperatures, especially near a window. "Say you have a granite countertop in the kitchen with a big window overlooking the sink," says Tom. "The cold air that comes off the glass hits the cold countertop, and that falls down to your feet and feels like a draft, even with radiant floors," he adds. "But if you temper that countertop, you're adding more surface area that's closer in temperature to your body, and you stop the falling of cold air."

STAIRWELLS: Cold air can pool at a stair landing or along a stairwell with lots of windows. Hydronic heating behind a drywall, plaster, or wainscoted wall can temper the wall surfaces and take the chill out. In most cases, code prohibits running electric radiant heat behind walls, other than in a shower. But there are sleek electric radiant-heated panels that hang on the wall, plug into an outlet, and work the same way.

OUTSIDE: Tom and Charlie are fans of using radiant tubing to melt snow off steps, patios, and walkways. Both electric and hydronic can be used, though the latter is more common since many cold-climate homes have boilers. It's installed underneath the masonry; a switch or a temperature sensor controls the snow melting. Some pros prefer to use a PEX-aluminum-PEX sandwich, often called PEX-AL-PEX, in these applications. PEX tubing can also run under the root zone of a garden bed, extending the growing season in colder climates.

TOH PRO TIP



TOM SILVA
General Contractor

"In-floor radiant can cause wood floors to expand and contract even more than usual. To reduce the chance of the boards cupping, we generally keep them less than 6 inches wide."

BATHROOM: JARED KUZIA

Energy-efficient upgrades for a hydronic system

While a conventional boiler is commonly used to produce a radiant system's heated water, there are better options. Here are two of Richard 's favorites

High-efficiency boiler: Also known as a condensing boiler, a high-efficiency boiler sends less of the energy you pay for up the flue. Where a typical boiler may be 80 to 85 percent efficient, a condensing boiler can be as much as 95 percent efficient. The boiler captures and uses heat from its own exhaust system; pumps push the water it heats through a manifold that distributes it through the PEX in each zone. Though condensing boilers can cost twice as much as standard models, they can significantly reduce energy costs in a cold climate.

Air-to-water heat pump: Powered by electricity, a heat pump can find heat outdoors on the coldest days. In an air-to-water heat pump's closed system, refrigerant expands as it circulates outside, where it gets very cold—sometimes down to minus 20 degrees F. So even on a 0 degree day, it's warmer outside than in the refrigerant lines. Since hot goes to cold, the outdoor air transfers heat to the refrigerant. The refrigerant is pumped into a compressor, which raises its temperature; it then moves through the system as a gas, and a heat exchanger transfers its heat to a hot-water reserve tank. A pump pushes the water toward the radiant system's manifold. While it's a definite investment, this type of heat-pump system can also provide household hot water—and, by reversing the process, produce air-conditioning, too.



This all-climate air-to-water heat pump (spacepak.com) works with a hydronic heating system and miniduct air-conditioning.

COURTESY MESTEK/SPACEPAK

THINGS TO KEEP IN MIND

While radiant heating has many benefits, there are some fine points to consider

Take care with wood floors

WOOD'S NATURAL expansion and contraction can turn to cupping when exposed to radiant heat that is set too hot. Keep the surface temperature of all wood flooring to a maximum of 80 degrees F to prevent warping. Generally, engineered flooring's plywood layer makes it more stable over radiant heat than solid hardwood. But not all engineered flooring is approved for use over radiant heat, so check with the flooring's manufacturer. Some wood species are more stable than others; cherry and Douglas fir handle heat better than beech, white oak, or maple.

Insulate to keep the heat

THE SPACE BELOW a radiant system can sap its effectiveness, costing you money. Plan to insulate with batts or spray foam underneath aluminum transfer plates between joists to ensure the heat moves up, and not down into the space below. Likewise, if you're pouring a new concrete slab for an addition, foam panels designed to hold the PEX tubing can insulate from below, ensuring the heat moves up and through the slab. Electric-radiant manufacturers also offer a thin polystyrene underlayment to install under cables, radiant mats, or radiant film products to prevent heat loss.

Skip thick floor coverings

THE CONVENTIONAL WISDOM used to be that putting a rug or carpet over radiant floor heat was like putting a sweater on a radiator. But with the right planning, you can combine radiant heat with floor coverings. Opt for lower-pile carpet whenever possible, and keep pads to less than ⅜ inch thick. Regardless of the covering, the goal is to keep the total R-value at less than 4—aim for 2.5. Since most carpets and rugs don't come with a listed R-value, here's a quick calculation: Measure the total combined thickness and multiply that by 2.6 to approximate the covering's R-value. Carpet pads' R-values range from .78 for 7/16-inch-thick waffled sponge rubber to 2.09 for ½-inch-thick rebond, or for bonded polyurethane made from scraps. Be aware that, for safety reasons, some electric radiant manufacturers prohibit the use of their product under carpeting.







TOP: At the new mudroom door, *TOH* home builder Charlie Silva reinstalls an original bracket salvaged from the front entry, where a portico is planned.

INSET: Space from the house's existing screened-in side porch (TOP) will be used to enlarge the living room. Homeowners Palen and Melissa Schwab in their cramped, unrenovated kitchen (BOTTOM).

SILVA, SCHWABS: ANTHONY TIEULI; EXTERIOR: MEG REINHARDT. (OPPOSITE PAGE) EXTERIOR, TRETHEWEY: KATHRYN FULTON; HANDRAIL: YELLOW HOUSE CREATIVE

From the TOH Job Site

Here to stay

How one family is adding space and upgrading systems to create their dream home in the town they love

BY GAIL RAVGIALA

Set on a tree-lined street in the historic district of Newburyport, Massachusetts, close to downtown and a bustling waterfront where the Merrimack River meets the Atlantic Ocean, the 1902 house was in a perfect location, but had more than a few less-than-perfect attributes.

When Palen and Melissa Schwab bought the house in 2015 and moved in with their daughter, Alice, now 9, they loved its traditional New England charm—white clapboards and green shutters on the exterior, decorative window trim on the interior—but while the house held three bedrooms, it had just one bath. Tired shag carpeting covered the floors, cold winter air blew through the windows, laundry detail required navigating scary steps to the basement, and the kitchen, dining room, and living room offered no space for family gatherings. Outside, the sloping backyard made it hard to enjoy the outdoors, and the driveway led to a tiny back entrance. "The property had been well maintained, but it needed updating," says Palen, who eyed the attic as a third-floor home office. At just 1,400 square feet, the little house had a space problem.







ABOVE: A two-story addition with a poured-concrete foundation will provide the extra space the family needs. Stone from under the house's back wall was reused in the side yard.

ABOVE RIGHT: *TOH* host Kevin O'Connor and *TOH* general contractor Tom Silva discuss raising the handrail on the second floor to a safer height.

LEFT: Excavation contractor Jesse Warren and *TOH* plumbing and heating expert Richard Trethewey remove corroded pipes while installing new water and sewer lines.

The Schwabs dreamed of a bigger living room, an open-plan kitchen-dining area, a mudroom near the back entry to hide the clutter of daily life, a true primary suite with its own bath to give them—and their daughter—more privacy, a dedicated home office to avoid occupying the dining room table, and a better-insulated house with an all-new HVAC system. With Alice growing up fast and the pandemic having brought the house's space issues into stark relief, the Schwabs decided now was the time to finally address them.

To find the elbow room they needed, Melissa and Palen turned to local architect Ken Savoie, who designed a new layout for the old house, as well as a 13-by-15-foot two-story rear addition to go up on the only buildable part of the narrow lot.

They also enlisted *TOH* home builder Charlie Silva and the rest of the *TOH* team for the project, which is being documented as part of the show's 44th television season (Newburyport episodes begin airing in January). Working with them is a frequent subcontractor on *TOH* projects, Bilo Plumbing and Heating—a family-owned business founded by Melissa's father. Her brother, Brian Bilo, is acting as construction manager.

The new layout for the existing house made strategic use of two inactive chimneys—tied to



> Salvaging the first floor's pine boards gave us flooring for the new primary suite and matching boards for the other bedrooms. It took a little foresight and a lot of measuring."
>
> **—CHARLIE SILVA,**
> *TOH home builder*

ABOVE: Charlie and Kevin cut and fit salvaged-pine flooring in the doorway of a second-floor bedroom. The pine will continue seamlessly into the hallway.

RIGHT: Tom takes a look at the framing around the relocated staircase he and Charlie built to connect the second floor to the attic, which will be finished as an office and a playroom.



obsolete heating systems—which were removed to help create the open-plan kitchen-dining area on the first floor, and to make way for a second-floor laundry area and relocated attic stairs to access a new top-floor office. The addition will come with a new back entry and mudroom, a first-floor powder room, and a primary suite on the second floor. While the new construction areas will feature energy-efficient materials, including plenty of insulation, and state-of-the-art HVAC, the old house had to be taken down to the studs for proper insulation and new windows, plus upgraded electrical, plumbing, heating, and cooling.

For the Schwabs, one of the most important changes is the new open-plan kitchen-dining area, where a wall was removed to turn cramped rooms into one large space. "Before, we couldn't entertain more than one couple at a time," says Palen. "Now we look forward to hosting Thanksgiving."

The living room also got bigger; it gained almost 80 square feet after incorporating a little-used side porch, whose main function had become bicycle storage. Charlie's crew saved the porch roof but demolished the porch itself, pouring a new concrete foundation and crawl space, and installing two steel beams to support the second floor. "Expanding the living room will make both the living and dining rooms better," says Charlie. He extended the opening between the rooms to a full 7 feet wide for a sense of spaciousness and widened the doorway from the dining room to the rear patio to receive French doors.

Upstairs, the biggest impact came from rethinking the attic access. "Relocating the stairs is key to getting the most out of the existing space," says Savoie, whose plan calls for rebuilding the stairway in a central location with needed headroom. With better access—plus finished walls, a ceiling, and new HVAC—the attic will become a usable third floor with an office for Palen and a cozy playroom for Alice.

Throughout the house, the team is preserving and reusing original features where possible. The existing staircase and balustrade remain from the first floor to the second, while *TOH* general contractor Tom Silva took on the task of raising the low stair railing along the upstairs landing by 6 inches to make it safer and more comfortable (for more, see Bonus How-to, page 92). Pine flooring salvaged from the first floor is going in on the second floor of the addition, as well as where patching

CHARLIE SILVA: ANTHONY TIEULI; TOM SILVA: KATHRYN FULTON. (OPPOSITE PAGE) ANTHONY TIEULI (2)



RIGHT: *TOH* landscape contractor Jenn Nawada lays out a planting bed in the front of the house, including a row of boxwoods along the stone wall.



BELOW: Palen and Melissa join Kevin to check out the French doors that connect the dining room to the new patio. A solid slab of granite serves as a transitional step.

is needed upstairs in the old part of the house. With all the floor-plan changes downstairs, new white oak flooring will create a seamless look.

Outside, excavating for the addition presented an opportunity to reshape the driveway and backyard. *TOH* mason Mark McCullough built a cast-concrete-block retaining wall and a set of granite stairs to connect the driveway to the new back entry. In the backyard, *TOH* landscape contractor Jenn Nawada designed raised-bed vegetable and herb gardens and suggested Melissa and Palen put in a low-maintenance microclover lawn.

Crucial to modernizing the house was addressing dated infrastructure such as the deteriorating iron water line and clay sewer line. "Since Bilo was replumbing the entire house, it made sense to replace the water pipe with copper, which won't rust," says *TOH* plumbing and heating expert Richard Trethewey. They also replaced the old clay wastewater pipes with PVC after tree roots were found obstructing them.

"Having the family involved means a lot," says Palen. "They have the expertise to guide us and help us make decisions that will last a lifetime."

GO ONLINE See more of this TOH project house at **thisoldhouse.com/Newburyport**

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BLUE-GREEN ALGAE AND HOW YOU CAN HELP PROTECT YOUR CUSTOMERS FROM IT

The dark stains you see on roofs all over the U.S. and Canada are often caused by tiny cyanobacteria called *Gloeocapsa magma* — commonly known as blue-green algae.

It's a bacteria that travels on the wind and thrives in moist environments — so if one house in a neighborhood has it, others have probably been exposed as well. The darkening effect can impact the appearance and resale value of a home, as well as the effectiveness of highly reflective cool roofs.

Across the U.S., blue-green algae growth is often just a matter of time. The GAF Time-Release Algae-Fighting Technology used on shingles with a StainGuard Plus™ Algae Protection Limited Warranty[1] is formulated to put time back on your side.

The GAF StainGuard Plus™ Algae Protection Limited Warranty[1] provides 25 years of coverage against blue-green algae discoloration. It now comes with many of the most popular GAF Shingles, as well as hip and ridge cap shingles and visible starter strips.

Algae protection is important to customers. In fact, when GAF asked homeowners about it, 87% said it was very-to-extremely important to protect their roof from blue-green algae stains.[2] 89% said warranty length was very or extremely important when purchasing an algae protection product.[2]

GAF helps answer these customer needs. Shingles and roof accessories with a StainGuard Plus™ Algae Protection Limited Warranty are covered for 25 years against blue-green algae discoloration.[1] They also provide long-lasting algae-fighting power thanks to GAF Time-Release Algae-Fighting Technology.

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At certain concentrations, metals like copper and zinc are toxic to blue-green algae, and can help prevent it from growing. In fact, on much older homes you may still see pitted copper and zinc strips tucked up under the ridge caps.

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[1] 25-year StainGuard Plus™ Algae Protection Limited Warranty against blue-green algae discoloration is available only on products sold in packages bearing the StainGuard Plus™ logo. See *GAF Shingle & Accessory Limited Warranty* for complete coverage, restrictions, and qualifying products.

[2] Based on 2021 survey commissioned by GAF of 500 homeowners in areas with moderate to high amounts of blue-green algae.

[3] 15-year WindProven™ limited wind warranty on Timberline HDZ® Shingles requires the use of GAF starter strips, roof deck protection, ridge cap shingles, and leak barrier or attic ventilation. See *GAF Roofing System Limited Warranty* for complete coverage and restrictions. Visit gaf.com/LRS for qualifying GAF products. For installations not eligible for the WindProven™ limited wind warranty, see *GAF Shingle & Accessory Limited Warranty* for complete coverage and restrictions.

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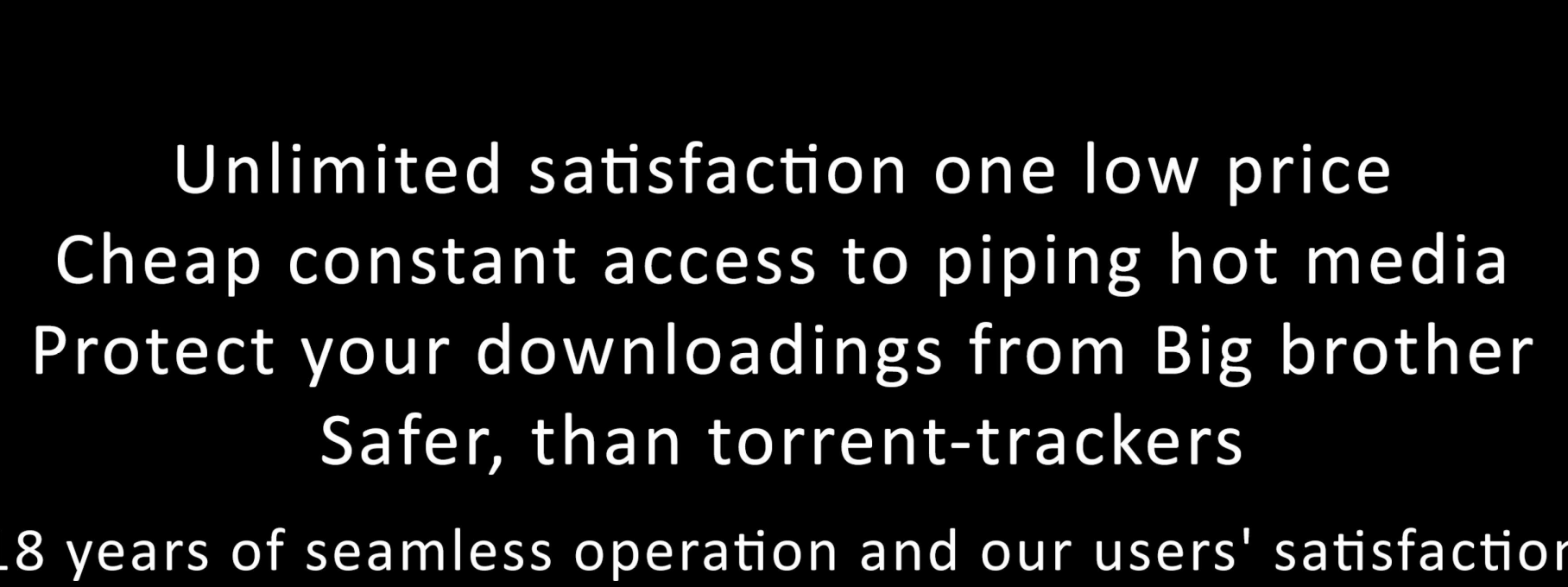
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PORTRAIT: CARL TREMBLAY

TOH Tribute

THE TAO OF NORM

Rock star, GOAT, world-class craftsman. As TOH master carpenter Norm Abram steps away from This Old House after 43 seasons, we look back at his career, and he looks forward

BY BRUCE IRVING / PHOTO ILLUSTRATIONS BY JACK A. MOLLOY



Basil "Joe" Jagger was a physical-education teacher. His son Mick became one of the most athletic showmen in the world, running and strutting 8 to 12 miles during a typical Rolling Stones show. He works out five or six days a week. Louis "Louie" Abram was a builder. His son, Norm, became one of the most skilled carpenters in the world, cutting and joining wood for millions of TV viewers for more than 40 years. He measures twice and cuts once. Mick and Norm are both exquisite craftsmen, dedicated to doing things right, and in their seventh decade. But that's about where the comparisons end between these two rock stars (Norm is, for example, much calmer than Mick). But it sure proves how influential a dad can be.

Working quietly alongside his father in their Milford, Massachusetts, basement workshop in the late 1950s, Norm did not dream of fame. "Working alongside" initially meant simply watching his dad work and cleaning up—leaving him dreaming of handling real tools, a wish that came true when he received a toolbox for Christmas. "These were not tools that you would give a child today or would be allowed to give a child today," Norm says. "These were the real deal. All of it was real." He got his own little workbench as well, and he learned. "I was always by his side. He didn't say much, but my father taught me by showing me what he did."

Still, the family goal was not for son

Norm (center, in 2015) got an early start, learning carpentry lessons alongside his builder dad, Louis Abram (left), and with his own set of kid-size tools, which he received one Christmas (right).



to follow father into the trades—it was education. Norm applied himself, enrolling at the University of Massachusetts Amherst in 1967, in the school's well-regarded engineering program. He loved the practical work ("I remember we built a metal clamp from scratch") but struggled with the theoretical courses and hated the giant lecture classes.

By junior year, surrounded by the tumult and uncertainty of the Vietnam War, he considered dropping out. "I thought, 'What am I going to do if I don't want to be an engineer? Oh! Maybe I'll become a contractor, so let's go to the business side of the campus.'" There he learned how to run a business. "It seemed simple. It seemed easy! And even though I had another year to go, I felt like I had learned as much as I could, and that staying on for the degree would be a waste of my time."

Instead Norm followed up on a help-wanted sign on a campus bulletin board—four guys starting a contracting company. He moved to Vermont and built condos with them until his boss left to go back to college. "I got his job. Being a carpenter and a manager, I was convinced: This is what I'm going to do."

And with most skilled, intelligent people, one could likely say, "And the rest is history."

But just as the Rolling Stones have their origin story of Mick and Keith Richards meeting on the train platform, bonding over R & B records, so too does *This Old House*—a meeting that led to the history Norm didn't see coming.

In 1977, TV producer Russ Morash was working at Boston's public station, WGBH, where he'd birthed a genre that would someday be known as "how-to television." He already had Julia Child's *The French Chef* and James Crockett's *The Victory Garden* under his belt on the Nantucket summer morning his architect friend called him over to meet the carpenter who was single-handedly building his house."You've gotta see this guy," said the friend. "He's got the smallest scrap pile I've ever seen."

"I knew every piece of lumber I wanted to get, and I could get everything out of it, and I think Russ was blown away," says Norm. "If you're not doing your job correctly, you're wasting a lot of material and you're costing the customer money."

Russ hired Norm to rebuild a backyard shop at his home outside Boston. "He didn't really bother me too much," Norm says with a laugh. "I was doing the job solo. Then one day he came out and saw me getting a steel beam ready to put in place between the first and second floors, and he goes, 'What are you doing lifting that thing by yourself?' And I said, 'It's not that difficult,' and he's like, 'Okay, tell me what you're doing.' So I told him—'I lift it up on this side, then the other side, and I go back and forth until I get it where it's supposed to be.'" That was 45 years ago. "I saw Russ the other day, and he made a comment about my skill, which is to be able to look at something, figure it out in my head, and then, you know, do it."

Yeah, Norm, we know.

Russ had been thinking of a show that would unpack the mysteries of home renovation. He found Bob Vila, who had a business renovating old houses, and put him to work as host at the first *This Old House* project in Dorchester, Massachusetts, moving around the job site and saying to tradespeople, "Okay, tell me what you're doing." Russ asked Norm to come help out on the job and give him his opinion of how things were going. "The crew had done some work on the roof, stripping off things and replacing the trim," Norm remembers. "I went up on the scaffolding and looked down the line of the new fascia board. The joints were terrible; it wasn't even a straight line. A sloppy job. I came down and told Russ, 'If this is the quality of work you want me to do, I'm not your guy.'"

It was the life-giving jolt the show needed. A few days later, Norm, who'd been hired to work on the house—"The economy was real slow right then, so I was happy just to make some money and not starve"—found himself getting pinned with a microphone. "When I got the job, I had told my wife, 'I'm going to be on TV! I'm going to walk through, and you'll be able to see me!'" Now Russ was directing him to go up that same scaffolding and join Bob and explain what was going on. "And I said, 'Um, okay.' I was a little nervous about it, but the one thing I think a lot of people do in that situation, that I didn't do—and maybe it's just because I had no idea how you make TV—is that the camera wasn't even a factor for me. I'm just talking to this guy, and I'm telling him what's going on. And that was it."

Indeed. What was going on was the gelling of a style: Naturalism and an insistence on quality combined to form an internal ethos and an external hallmark of *TOH*, embodied by Norm and captured and curated by Russ and his producers. The understanding and celebration of the right way to do things became the show's calling card, true to this day.

> "I was a little nervous...because I had no idea how you make TV," Norm recalls. "The camera wasn't even a factor for me. I'm just talking to this guy, and I'm telling him what's going on. And that was it."







ABRAM SAWING: MICHAEL LUTCH; ABRAM AND SILVA: KOLIN SMITH; ABRAM WITH HARDWARE: KELLER + KELLER; BOAT: SACHA BLACKBURNE

Norm before the beard, in 1982 (top left); moving an I-joist into place with an assist from Tom Silva in 2000 (top right); and appreciating the patina and craftsmanship of salvaged door hardware at the Brimfield Antique Flea Market in 2003 (above). The whole crew salutes the 2004 Bermuda project, dressed like the locals and flanking headset-wearing executive producer Russ Morash (bottom).





The show was a hit, and the cast began to grow. First came plumbing and heating contractor Richard Trethewey, who appeared a few episodes into the Dorchester project, becoming a fixture in Season 2. "Everything was so new. We didn't know what we were doing, and the stimulus was crazy; there was so much going on. I would watch Norm explain to Russ before the scene what was happening from his point of view, and Russ would say, 'Okay, gimme that and gimme that—okay, let's go.' And no matter how many takes he had to do, Norm would deliver in that steady, patient way he does, consistently."

Tom Silva joined later, during the ninth season at the Westwood project, doing a brief scene about the kitchen cabinets, and became the show's go-to general contractor the next year. He was a fan already. "I'd watched the show from the start. I wanted to see how they tackled building challenges, because that's what I do. And seeing the stuff Norm did, I was impressed—everything that I do, he did!" Tom didn't mind overcoming any camera shyness, because he believed in the mission. "You know, they zoom in with the camera, and Norm's pointing to some little thing that you might not think about, and it basically makes you a better person."

> "We—me, the crew, the audience—love him for his determination," says Russ Morash. "He was never above any task. He was *in* the task, and that's what endeared him to us."

Just before Kevin O'Connor came on board as host, he visited the job site to be introduced to the guys, nervous about meeting his heroes. "I grew up watching Norm, so I felt like I'd known him forever. He looked like Norm, and he acted like Norm, but he was a little

CAST: THIS OLD HOUSE; CHISELING DOOR: DAVID CARMACK



Just hanging out: Norm, Tom, Roger Cook, Richard Trethewey, and host Steve Thomas at the Manchester project house in 2001 (far left); Norm teaching readers of *TOH* magazine how to install a lockset in 2002 (middle); and the gang in 2003, when host Kevin O'Connor was the new kid.

KELLER + KELLER. (NEXT PAGE) HAMMERING: KEVIN O'CONNOR; PORTRAIT: BOB O'CONNOR; SAWHORSE: CARL TREMBLAY

bit bigger in person than the Norm I knew. I will never forget: He put his arm around my shoulder and said, 'Say hello to my new best friend.' And I am so grateful for that."

"We—me, the crew, the audience—love him for his determination," says Russ. "He was never above any task. He was *in* the task, and that's what endeared him to us." And one of the tasks was doing the work in concert with the camera rolling—not behind the scenes, but as the scene itself. "He's got good balance, as in, nothing throws him off, and he can do complicated things because he's thought them through beforehand," Russ adds. "He'll be building a piece of furniture, with many glued surfaces that have to be assembled at the same time. The glue is drying, he holds this piece first, inserts that piece next. It's like the juggler with the sticks and the plates in the air. Then he takes his mallet and goes tap, tap, tap, and it all comes together.

"And we had to capture that. Now a craftsman knows where he wants his hands and where his eyeball needs to be. So when a cameraman comes in and looks over his shoulder, it has to be done with coordination and cooperation to work. And Norm would do that willingly, gracefully, all the while patiently explaining what he's doing in terms you can understand," Russ says. "That's a gift."

Off camera, Norm didn't take up a lot of airtime. So when he spoke, people listened. Roger Cook remembers approaching Russ during the Belmont project, saying he thought it would be a good idea to cut down all the foundation plantings,

"He put his arm around my shoulder and said, 'Say hello to my new best friend,'" Kevin recalls about first meeting Norm. "And I am so grateful for that."




10'-0"
3'-8"
4'-0"
FUJI NHG
FUJI NHG
This Old House
ANGLE SQUARE
MADE IN USA
COMMON TOP CUT
HIP-VAL TOP CUT
FIRST FL R PLAN
NAPLES,

"to give the house some breathing room." Russ demurred, but soon after, Roger saw him conferring with Norm. "Russ came over and said, 'Yep, take it all down.'"

"It's an honor to work beside him," says Tom. "We once had a project where we needed to resize some six-panel doors widthwise. We got together on the workbench, and very few words were said. It was like, you know what I'm going to do and I know what you're going to do, I'll have it ready for you and you'll have it ready for me, and the next thing you know, it's back together. It was magical."

For the rest of us, who needed to hear the words, Norm's teaching ability was bewitching. It built confidence. Tom recalls his son, TJ, about 10 at the time, watching *The New Yankee Workshop.* "He goes, 'That's a pretty good project, Dad.' I said, 'Well, let's watch Norm, let's pay attention, and when we're done we'll get some stock and build it.' And together we built two Shaker-style nightstands with little drawers. We still have those tables, and whenever anybody sees them, TJ speaks right up: 'Yeah, I learned that from Norm.'"

The rest of the country was learning, too, and it wasn't long before Norm became a cultural icon. Oprah, David Letterman (four times), *Entertainment Tonight*, *Today*, and *Good Morning America*—everyone wanted him on (and some became delightfully star-struck in his presence). On the early '90s sitcom *Home Improvement,* Tim Allen's mild-mannered neighbor, Al, was an unmistakable homage. Norm rocked the plaid shirt long before the grunge stars of Seattle. And when the guys discovered that *This Old House*'s public relations person had submitted his name to *People*'s Sexiest Man Alive competition, they had a field day ribbing him (he didn't make the list).

> "He taught us all that each step of any build process is just as important as the finished product," says Jenn. "Be thoughtful and methodical about each step, and the outcome will be successful."

Like Kevin, the new generation of *TOH* pros first experienced Norm on their childhood television screens. "He was always the guy after *Sesame Street,* always teaching someone something," recalls landscape contractor Jenn Nawada. "He taught us all that each step of any build process is just as important as the finished product. Be thoughtful and methodical about each step, and the outcome will be successful." And she's learned what anyone who has spent time around him knows: "His work directly reflects who he is."

Norm has written seven books. He received the American Academy of Ophthalmology's first-ever EyeSmart Distinguished Service Award for "his steadfast commitment to safety and the prevention of eye injuries." He has served on the board of trustees at the living museum Old Sturbridge Village, where he received the Ken Burns Lifetime Achievement Award, given to "an individual who has made a significant impact on the arts" that helped preserve history. The show he helped thrive for the last 43 years has earned 20 Emmy Awards. "He set the bar high when he started, and he never lowered it," says Kevin.

Asked what he's proudest of in his work life, Norm cites the skills he learned doing *The New Yankee Workshop.* "When we started I was a carpenter, not a woodworker, so I was not only teaching it, but I was learning it at the same time." He'd build a prototype for every project first, working out the bugs and finessing his technique on the latest power tools, which were also new to him. Norm simply says, "When I have people over to our house, I love it when they point at a piece of furniture and ask, 'You built that?'"

Like Mick Jagger, Norm Abram shows no signs of slowing down. His next adventure: boatbuilding. His "mission," as he puts it: to build a replica of the famous Herreshoff 12½ sailboat, designed in 1914 and still considered one of the finest small boats of all time. "I'm thinking I'll have to go to boatbuilding school for that one," Norm says, "which will be great!"

Rock on, Norm. Rock ON.

Bruce Irving is a home-renovation consultant and real estate agent in Cambridge, MA. He was a producer on This Old House *from 1988 to 2006.*

WATCH > Stream ***The House That Norm Built***, a one-hour television special celebrating Norm's career, on The Roku Channel or on thisoldhouse.com.

Norm at the 2017 Newton project house, in a working portrait captured by Kevin (top left); on the job in 2006 (bottom); and photographed in a Windsor chair of his own making at the New Yankee Workshop during the filming of *The House That Norm Built,* in 2022.



THIS OLD HOUSE MAKERS CHANNEL







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Stream Free on The Roku Channel **#458**

WORKSHOP

WINTER 2022

VOL. 27 | NO. 4

NEW PRODUCTS, PRO ADVICE, AND HOW-TO PROJECTS

[Build It]

Demilune table

TOH general contractor Tom Silva and **TOH host Kevin O'Connor** craft an elegant mahogany hall table with a curved, laminated apron

BY ROB WOTZAK
PHOTOGRAPHY BY ANTHONY TIEULI

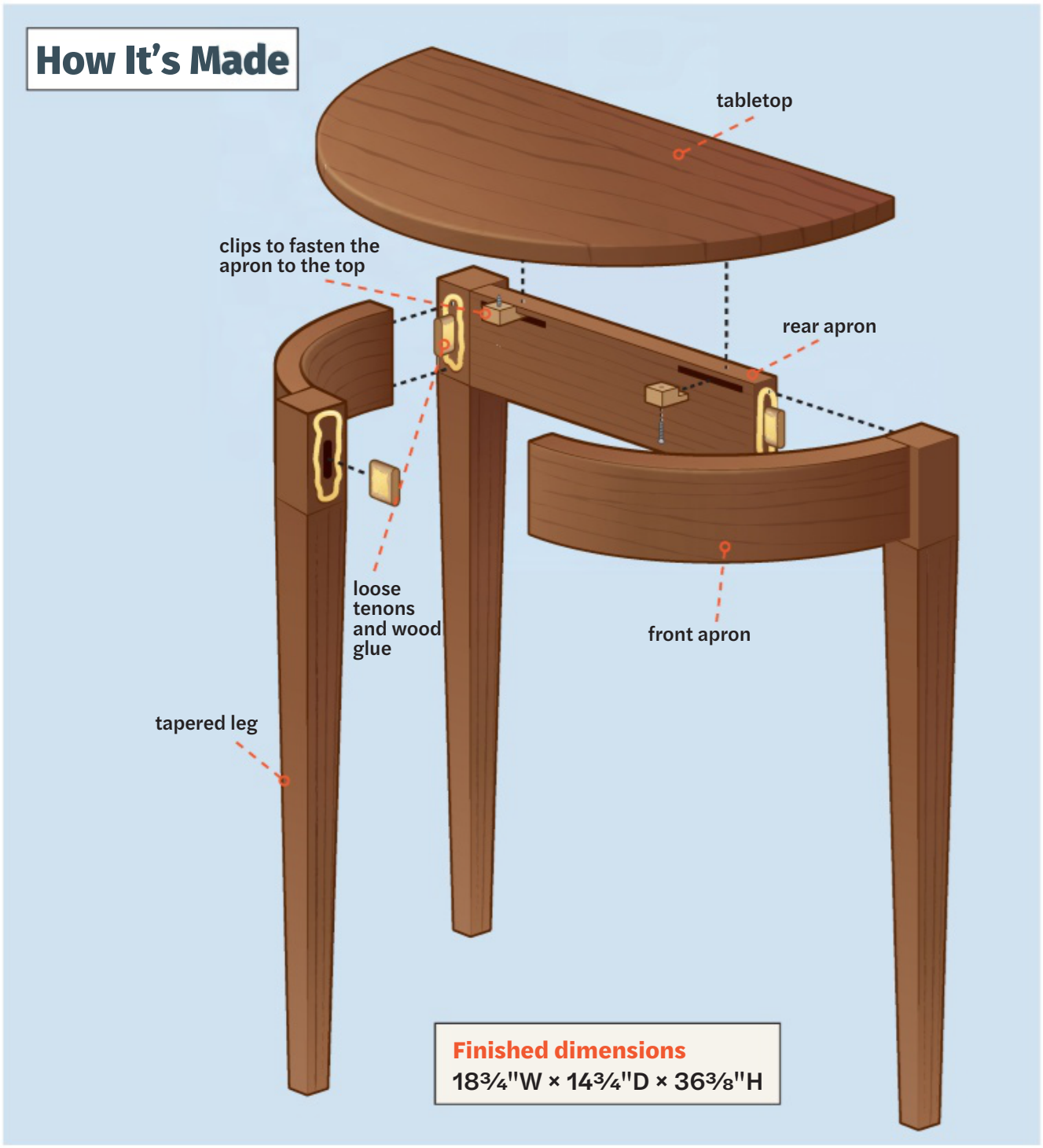


Skill: Hard
Cost: $325
Time: 6–8 hours



INSPIRATION FROM THE PAST
Tom and Kevin admire the slender three-legged mahogany side table that Tom built as a high school student, which served as the model for this project.

Tom has fond memories of learning to build furniture back in high school, and he recently showed up carrying one of his favorite projects: a small mahogany half-round table. Called a demilune—French for "half-moon"—this classic space-saving design can be traced back to the 18th century, when it became popular as an accent piece for narrow halls and entryways. Building one offers a great opportunity to make a project that incorporates three tapered legs and a laminated, curved apron. As with many of his furniture projects, Tom started by drawing a full-scale template on plywood to lay out the exact size and shape of the tabletop, as well as the location of the legs and the apron pieces, which tie everything together. As Tom began to scribe the arcs for the crescent-shaped apron, Kevin asked, "So is it going to come out of one big block?" Though it would involve a bit more work and a custom bending form (see Step 1, opposite), Tom said he would instead rip, glue, and clamp together thin, flexible strips to make the table's laminated, curved apron—making it even stronger than if he'd cut the apron from a single piece of mahogany, as some 18th-century furniture makers might have done. Creating the necessary bending form and waiting for the glued-up laminations to dry adds a bit of complexity and time to this project, but the showpiece result is worth the wait. As Kevin proclaimed, "C'est magnifique!"



MATERIALS

- ❑ 4×8 sheet of ¾-inch MDF
- ❑ 12/4×3 mahogany, 3 feet long, ripped into 10 strips, ⅛ inch thick, 3 inches wide, 36 inches long
- ❑ 8/4×6 stock, 3 feet long
- ❑ 4/4×3 stock, 2 feet long
- ❑ ¾×12 tabletop, 2 feet long (glued up from individual boards)
- ❑ 1¼-inch No. 8 wood screws
- ❑ tabletop clips
- ❑ sandpaper in assorted grits
- ❑ slow-setting wood glue
- ❑ polyurethane
- ❑ paste wax
- ❑ sanding paste

TOOLS

- ❑ large compass/dividers
- ❑ jigsaw or band saw
- ❑ cordless drill/driver with assorted bits
- ❑ rasp
- ❑ 12-inch trigger clamp
- ❑ four 24-inch bar clamps
- ❑ mallet
- ❑ combination square
- ❑ table saw
- ❑ tapering jig
- ❑ circle-cutting router jig
- ❑ handsaw
- ❑ jointer or hand plane
- ❑ planer or hand plane
- ❑ framing square
- ❑ miter saw
- ❑ router (¼-inch slot bit and ½-inch straight cutting bit)
- ❑ orbital sander
- ❑ loose tenon joiner or dowel jig

ILLUSTRATION: PETER SUCHESKI

WATCH See Tom and Kevin build this project at **thisoldhouse.com/demilune-table**

STEP-BY-STEP

1] Build the two-part bending form. Using the plywood template (see Tip, below), scribe the two arcs for the apron on four 14-by-26-inch pieces of MDF. Cut along the lines with a jigsaw or band saw. Apply glue and stack the pieces, fastening each layer with several screws as you go. Once the glue is dry, use a rasp or sandpaper to smooth the curved edges. To keep the apron from sticking, apply polyurethane to the mold's curves, followed by a coat of paste wax.

2] Glue up the apron. Spread slow-setting glue evenly over all but the first of the laminations. One at a time, push the strips into the outer half of the bending form, holding them loosely with a 12-inch trigger clamp, until all of them are in place.

3] Clamp it tight to dry. Place the bar clamps across the form and tighten them, tapping down the strips with a mallet to align them, until the form is pulled together and there are no gaps between any of the strips. Wipe away excess glue, and set the form aside overnight to allow the glue to fully cure.

4] Mark the tapers on the legs. Use a combination square to center and mark a ¾-inch square on the bottom center of each leg. Draw a line around the leg 4 inches from the top; then draw a line from the top line to the marks on the bottom to indicate the taper on each side.

5] Cut the tapers. Use the marks to align the first leg in the tapering jig, so the table saw blade will enter the leg at the top mark and exit at the bottom. Clamp the leg in the jig, and rip the first taper. Flip the leg onto the next side, and use the waste piece from the first cut as a shim to hold it square (as shown); rip the next taper. Repeat until you have ripped all four tapers on each leg.

6] Lay out the tabletop. Align the template with the underside of the tabletop, and transfer the outer radius marks. Use the combination square to draw a 1-inch line perpendicular to the edge at each mark. Transfer the center point from the template to the top, 1 inch from the front edge, to locate the pivot point for the circle-cutting router jig.


1


2


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4


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6

TIP

CREATE A TEMPLATE

A full-size template gives you a reference for the details of the apron and top. Use a large compass to draw their curves and mark the location of the legs. The apron's inner and outer radii represent the halves of the bending form.

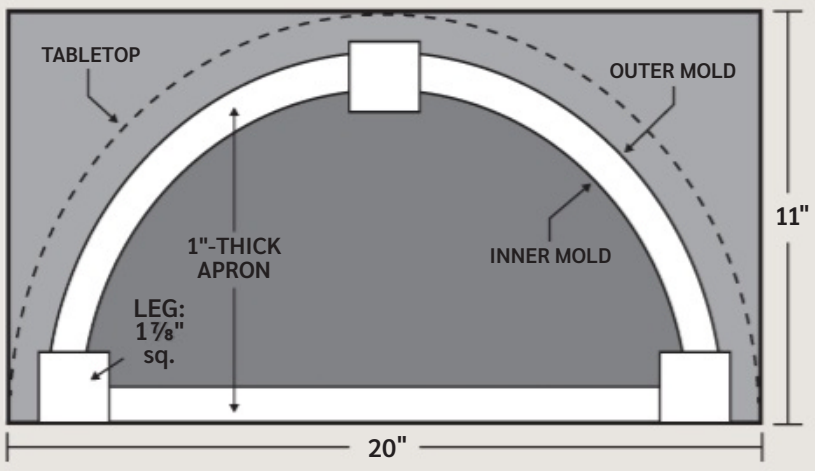


ILLUSTRATION: PETER SUCHESKI


7


8


9


10


11


12



TIP

AN EXTRA-SMOOTH FINISH

Before assembling the parts, Tom and Kevin sanded everything, then used a rag and buffing disc to apply a coat of sanding paste (ackswoodpaste.com), a fine abrasive used by wood turners. The paste smooths the wood, fills the grain, and adds a bit of color. The paste also helps to prevent glue from staining the wood during assembly.

STEP-BY-STEP (CONTINUED)

7] Cut the tabletop. Set the router bit to cut ¼ inch deep, then gently plunge the router into the piece just inside the far-right corner; slowly swing the router jig counterclockwise until you are just shy of the far-left corner. Repeat the cut, setting the router ⅛ inch deeper for each pass until you have cut all the way through the board. Use a handsaw to cut the waste piece free.

8] Clean up the apron. Remove the apron from the mold, and use a jointer (shown) or hand plane to flatten one edge of the apron. Feed it through a planer—or use a hand plane—to mill it down to a width of 2½ inches.

9] Cut the apron parts. Lay the apron on the template and use framing and combination squares to mark the location and angles of the curved pieces. Use a miter saw to cut the pieces to size.

10] Prepare the joinery. Mark the position of the loose tenons or dowels on each apron piece; then make corresponding marks on the table legs with the template and combination square. Cut mortises or drill holes at each mark. Dry-fit the pieces to check for fit; then do a final sanding to remove saw marks.

11] Glue up the table base. Apply glue to the apron pieces and legs, and place a tenon or dowels in each joint. Loosely assemble all parts, and then use bar clamps or a band clamp to pull all the joints tight. Check the joints and adjust the clamps if needed. Use a damp rag to clean off any glue, and allow it to dry.

12] Attach the tabletop. Use a slot-cutting router bit to cut a groove on the inside face of each apron piece. Position the table base in the center of the tabletop with legs flush to the back edge. Insert the clips into the grooves, and screw them into the underside of the top. Tom finished the table with a coat of wax, but lacquer or a water-based finish are also suitable options.

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Propane Education & Research Council

What's New

The latest tools and home-improvement products to help you tackle your to-do list

BY SAL VAGLICA

1. Faster screwdriving

4-Volt MAX* Cordless Screwdriver

This ½-pound, 4-volt power screwdriver's handle hides a rechargeable battery that turns screws up to 300 rpm, four times faster than hand cranking. A rocker switch controls the rotation; LEDs light the way. Comes with 19 bits, but the hex shank will fit any you already own. *$40; craftsman.com*

2. Fiber-cement face-lift

Hardie Architectural Collection Panels

Fiber-cement siding, which holds paint well, resists rot, and has a high fire rating, now comes in textured panels, one of which mimics the look of stucco. In fine sand, grooved fine sand, mounded sand, or brushed seagrass finishes, the 48-inch-wide panels come in lengths from 96 to 144 inches, to be installed horizontally or vertically. *From about $3.50 per square foot; jameshardie.com*

3. Cordless snow cannon

Power+ Auger-Propelled Snow Blower

Leery of battery-powered snow throwers? This one just might convert you. Running off a pair of 56-volt, 7½-amp-hour batteries, it has enough muscle to clear 8 inches of snow from an average-size driveway. The new auger design plows a 21-inch-wide path while pulling the machine forward, making it easier to use, too. *$999; egopowerplus.com*

4. Energized entryway

M-Pwr Smart Door

This sleek entry door comes with an array of LEDs that cast light over the entire entry, once they are wired to your home's electrical supply. A Ring video doorbell and a Yale smart lock complete the package. A backup battery supply means everything will keep working if the power goes out. *From $8,000; masonite.com*



1



2



3

This powerful snow machine can clear an average-size driveway on a single battery charge, sending the white stuff up to 45 feet away.



4



5

For a sleek look, this entry door comes complete with LEDs, a video doorbell, and a smart lock.

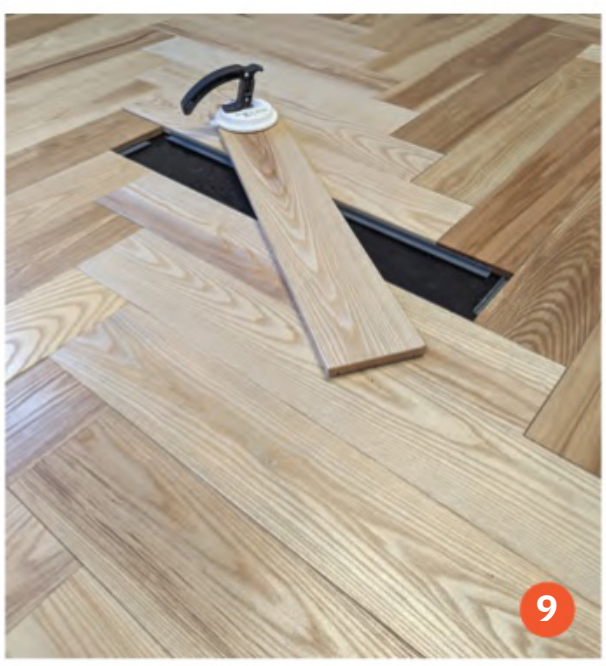


Turn a noisy dust collector on and off by strapping this wireless adapter's remote onto your wrist.



Simply pump the trigger to push out the caulk; move the button on top all the way forward to reset for a fresh tube.







5. Clutter buster

Base Cabinet Pullout with Knife Block and Utensil Bins

Rummaging in a drawer for a loose knife isn't good for you or the knife. This base cabinet pullout holds up to two knife blocks made of hundreds of plastic fingers that conform to any blade. It also comes with four flexible cutting boards and up to two containers for kitchen tools. *From $663; rev-a-shelf.com*

6. Convenient dust collection

Wireless Dust Control Adapter and Remote Kit

This two-part system adds some smarts to your "dumb" shop vac or dust collector. Plug it into the kit's adapter and then into an outlet; use the wireless fob to turn the dust sucker on or off from up to 100 feet away. Comes in handy to power the holiday lights while you lounge on the sofa, too. *$119; milwaukeetool.com*

7. Open sesame

Encode Plus Smart WiFi Deadbolt

Working with Apple HomeKit and the Schlage Home app, this lock lets you open your door with a swipe on your iPhone or Apple Watch. Have friends visiting? They can let themselves in with a numeric code, or you can ask Siri to unlock the door when they arrive. Works with a key as well. *$330; schlage.com*

8. Easier caulking

Pro Rodless Caulk Gun 10 Ounce 7:1 Thrust Ratio

So long, awkward metal rod: This caulk gun uses a steel belt—similar to a tape measure's blade—to push caulks and glues out of the tube. It's easier to use in tight spots, too, especially with a fresh tube. *$40; oxtoolsusa.com*

9. Innovative modular boards

Hardwood Herringbone Flooring

Replacing a single damaged floorboard just got easier. This floating floor system, joined with rigid PVC clips, enables just that. If a board gets scratched or dinged, you can pull it out with a suction-cup device, repair the plank, and put it back—or replace it. Available in several hardwood species, the planks come prefinished on all sides. Install them yourself, or call a pro. *About $14 per square foot; floorsbysteller.com*

10. A saw that saves fingers

Compact Table Saw

Within 5 milliseconds of detecting flesh, this portable saw's sensor stops its blade and retracts it below the table surface, saving your precious digits. But it's also a feature-rich saw with a 10-inch blade, a rack-and-pinion fence, and microbevel adjustment. *From $899; sawstop.com*

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[Tool Lab]

Electrical tools for DIYers

TOH master electrician Heath Eastman puts together a basic homeowner tool kit for household electrical tasks

BY CHRIS ERMIDES

Having the right tools on hand for any do-it-yourself project goes a long way toward a successful job. This might be especially true when it comes to simple electrical projects, like replacing a ceiling light or changing out a receptacle; these jobs aren't difficult, as long as you follow some basic safety precautions and you have a few of these tools. Don't be tempted to save a few extra dollars when it comes to buying tools; stick with known brands. "A good pair of pliers from a reputable company might cost $30 and can last a lifetime, if properly cared for," Heath says. Ahead, the tools he says are best suited to homeowners' needs.

Safety First

Before tackling any electrical work in your house that involves open circuits, make sure you have cut the power where you are working. First, turn off the circuit breaker assigned to that particular area. Keep in mind that breakers are sometimes mislabeled, so don't assume the power is off until you've used a voltage tester (for more details, see next page). Also, when working on an electrical receptacle, check all the contact openings, in case one is powered by a switch.



BOB O'CONNOR

A LOOK INSIDE AN ELECTRICIAN'S TOOLBOX
Heath shows off the assortment of hand tools he carries with him on the job. "Realistically, homeowners don't have a need for all of these," he points out. Turn the page to find his essentials for homeowners.

MUST-HAVES FOR ELECTRICAL PROJECTS

Ready to tackle some simple electrical work around your home? These are the tools you want to have at your fingertips

VOLTAGE TESTERS

There are several kinds of voltage testers on the market, ranging in price from around $10 to $50 and up. More expensive options often have additional features like an integrated flashlight, which you might not need. But you do need each of the two basic types here.



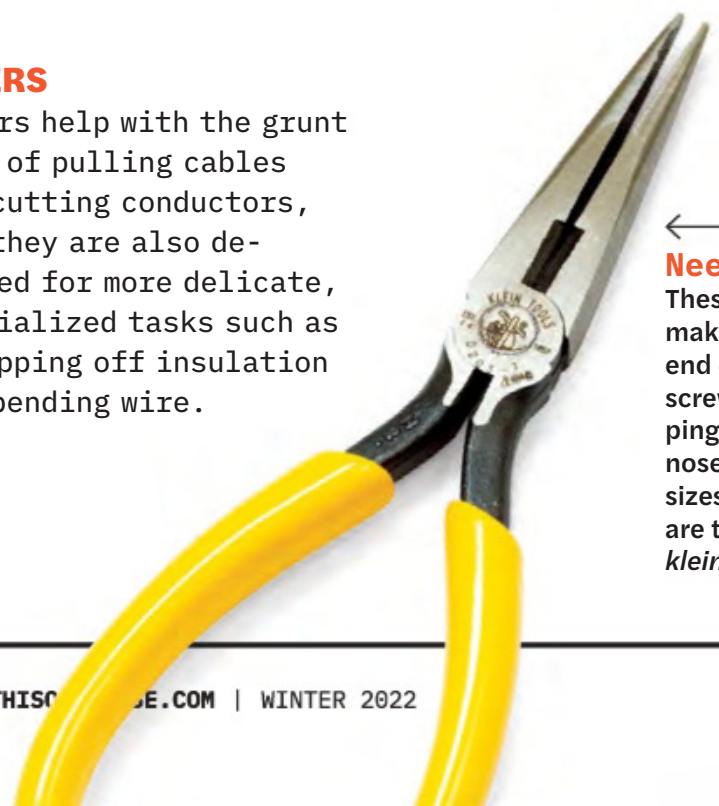
Plug-in
These testers plug into a receptacle's contact openings and will light up if the outlet is live. In addition to confirming that there's power, plug-in testers can indicate whether a receptacle is properly grounded and if it is wired correctly. *$16; kleintools.com*



Noncontact
As the name implies, these testers can detect live power through the wire's insulation or on an exposed terminal. They are handy for confirming that the power is off to a light fixture or switch: You touch the tester's tip to both terminals or both sides of the nonmetallic cable; if power is detected, the tester will light up and beep. Not all testers work the same way, so be sure to read the manufacturer's instructions. *$27; kleintools.com*

PLIERS

Pliers help with the grunt work of pulling cables and cutting conductors, but they are also designed for more delicate, specialized tasks such as stripping off insulation and bending wire.



Needle-nose
These pliers are essential for making a loop to anchor the end of a conductor to a terminal screw, as well as pinching, gripping, and pulling wire. Needle-nose pliers come in a variety of sizes, but 7- and 8-inch models are the most popular. *$29; kleintools.com*



Linesman
Made specifically for cutting and twisting wire, these come in a variety of lengths; an 8-inch or 9-inch model is the most useful. Good linesman pliers are made from high-quality steel that's heat-treated for durability, making their cutters especially long-lasting. *$51; kleintools.com*

SATOSHI KOBAYASHI (3); NEEDLE-NOSE: DANA SCHIFFMAN

TOH PRO TIP



HEATH EASTMAN
Master Electrician

"If you want to keep it simple, a well-made multibit screwdriver is a good place to start for most homeowners. They're a versatile tool, and they've come a long way in terms of their usefulness."



TOOLS: SATOSHI KOBAYASHI (4)

Wire stripper

These are made to work with different wire thicknesses, expressed as American wire gauges (AWG). Here's what's packed into the most useful pair:

(A) A locking, spring-loaded mechanism offers the right tension and protects the cutting blades.

(B) Notches made to cut or strip insulation from AWG 14/16 conduction work on the most common household wiring.

(C) Jaws with a serrated tip are great for pulling wire through an electrical box or for bending loops for terminal screws.

(D) A jacket stripper cuts through the outer plastic layer of nonmetallic cable without penetrating the underlying insulation on individual conductors.

(E) No. 6 and No. 8 screw cutters are handy when a replacement screw is too long. They shear the screw without damaging threads. *$31; kleintools.com*

SCREWDRIVERS

Out of the multitude of screwdrivers out there, the three below are commonly used for basic electrical tasks.



Slotted

Installing or removing a receptacle or switch plate requires a basic flathead, or slotted, screwdriver. A smaller cabinet-tip screwdriver fits nicely into their No. 6 to No. 32 screws. *$15; kleintools.com*



Phillips

Use a drill/driver to remove or install receptacle outlets and switches from an electrical box, and you run the risk of stripping their small screwheads. A No. 2 Phillips-head screwdriver fits their intersecting slots perfectly and offers better control. *$13; kleintools.com*



Torque

Investing in one of these specialty drivers ensures that a terminal screw won't get over- or undertightened, and the wires won't break or come loose. Set the desired torque (printed on the device you're installing), and the driver will audibly click when the screw has been tightened to the right specification. *$146; gearwrench.com*



SNAP A PICTURE, FIND WHAT YOU NEED

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[Easy DIY]

Modern tripod lamp

TOH DIY expert Jenn Largesse shares how to build a sleek three-legged lamp from stock parts and basic tools

I love the streamlined look of a classic tripod lamp, but lighting can get pricey fast. Vintage models often have the kind of industrial wood tripod that supported optical equipment, such as a surveyor's transit. Their tapered, adjustable-height legs terminate in a small platform, and usually have brass fittings that lend a certain mechanical elegance.

This lamp has a simplified design that's straightforward and inexpensive to build, but will look equally great illuminating your living space. I kept the tapered legs and added an oversize drum shade to modernize the look. To create a center post to connect the legs to, I bought and cut down a table leg with beveled sides at the top and added a threaded rod in the middle to run the lamp cord through. A standard lighting kit from a home center will supply almost all the parts you need to turn the base into a working light. The hardest part might just be deciding where to place your new custom floor lamp.



THREE-LEGGED BRACE A section of an off-the-shelf table leg serves as a central post to secure the tripod's legs; it also holds a hollow threaded rod Jenn uses to conceal the lamp cord.

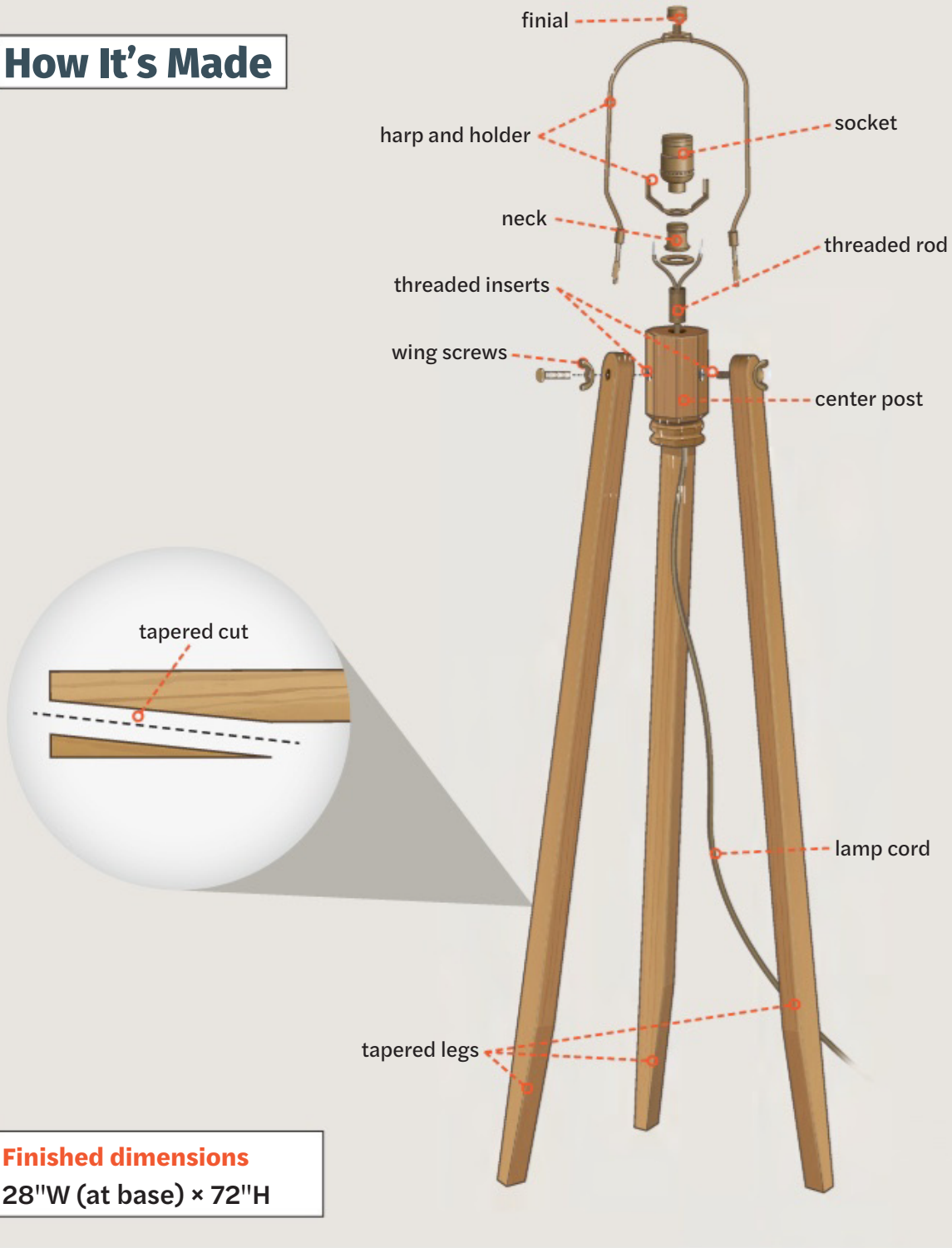


Photography by Mock Tuna

GETTING STARTED

At about $15, a lamp kit is a cost-effective way to purchase the parts you need to assemble a lamp. The kit typically includes the corded plug, a socket, several threaded connectors, and a harp with a base and finial to hold the shade in place. For this project, the only additional piece you'll need is a hollow threaded rod to insert into the middle of the center post of the tripod lamp. Once you've run the lamp cord through the threaded rod, you can simply follow the instructions that come with the kit to connect it to the socket.

How It's Made



Finished dimensions
28"W (at base) × 72"H

MATERIALS

- ❑ turned table leg that has a top with beveled sides and is at least 8" tall, from which to cut the center post
- ❑ three 1×2×6' boards
- ❑ three ¼"×20 threads per inch×20mm threaded inserts
- ❑ three ¼×20×2" wing screws
- ❑ 3" threaded rod
- ❑ ⅜" staples
- ❑ lamp kit
- ❑ sanding sponge
- ❑ wood glue
- ❑ prestain wood conditioner
- ❑ wood stain
- ❑ polyurethane
- ❑ spray paint (to coat wing screws)

TOOLS

- ❑ measuring tape
- ❑ miter saw
- ❑ clamps
- ❑ circular saw
- ❑ drill/driver
- ❑ drill bit sized to wing screws
- ❑ random orbit sander
- ❑ ⅜" drill bit for threaded inserts
- ❑ hex wrench sized to threaded inserts
- ❑ drill bit sized to threaded rod
- ❑ rubber mallet
- ❑ staple gun

WATCH See Jenn build this project at **thisoldhouse.com/house-one/tripod-lamp**

Illustration by Peter Sucheski

STEP-BY-STEP

1] Prep the parts. Remove any hardware that may be installed on the turned table leg. Following the cut list at thisoldhouse.com, use a miter saw to cut an 8-inch-long center post from the beveled top of the leg, as shown, and to cut the tripod legs to length.

2] Taper the legs. With each tripod leg laid flat, mark a diagonal line that starts 1 inch from a bottom corner to a point 8 inches higher on the outer edge. Clamp the leg to the work surface so that the line overhangs its edge, and cut the taper with a circular saw.

3] Trim, drill, and sand the legs. Clip the top corners of each leg at 45° with a miter saw to remove ¾ inch from each edge. Next, using a drill/driver fitted with a bit that matches the diameter of the wing screws that will hold the legs in place, drill a hole through each leg, centered on its width and 1 inch from its top edge. Sand the edges of the clipped corners, the legs, and the center post of the lamp.

4] Install threaded inserts for the wing screws. With a drill bit sized to the threaded inserts, drill three holes spaced as equally as possible around the sides of the center post, centered on its height. Using a hex wrench, screw a threaded insert into each hole until it's flush.

5] Prep the center post for the cord. Clamp the post to the work surface. With a bit sized to the threaded rod, drill a hole all the way through the center of the post. Drive the threaded rod into the hole with a rubber mallet, leaving about ¾ inch exposed at the top of the post.

6] Apply the finish. Coat the legs and center post with a prestain wood conditioner. Then use a brush or rag to apply the stain, coating all surfaces. Wipe away the excess and let dry. Follow with a protective coat of polyurethane. If desired, coat the wing screws with spray paint—Jenn chose gold—for a finished look.

7] Attach the legs to the post. Position the first leg so that the tapered side of the leg is facing to your right. Guide a wing screw through the hole in the leg and into a threaded insert in the center post. Tighten the screw until the leg presses against the post. Repeat the process with the remaining legs.

8] Wire the lamp, and position the legs. Guide the lamp cord up through the threaded rod. Follow the kit instructions to connect the wires to the socket; then screw the socket onto the threaded rod. Staple the cord along the inside of one leg, taking care not to pierce the wire. Stand the assembly upright, add a dab of wood glue between each leg and the center post, and then adjust the legs equidistantly until the center post rests plumb. Fully tighten the wing screws. Add the lamp harp, mount the shade, and secure the finial.

















Upkeep

Maintenance tasks to pay attention to this season **BY CHARLES BICKFORD**

PINPOINT AND PLUG AIR LEAKS



Now that temperatures are dipping, search for spots where your home is losing its heat.

› **Check for drafts.** Wet one hand and run it around windows, doors, and heating-duct joints—the moisture will make it more sensitive to cold air. You can also light a stick of incense and see if the smoke changes direction as you move it along the same pathways. To close gaps around windows and doors, use adhesive-backed EPDM rubber or foam weatherstripping (shown: M-D Window Seal Foam, from $4.18 for a 10-foot roll; lowes.com). Add an insulating sweep on any drafty door bottoms. Patch leaky seams in ductwork with HVAC foil tape.

› **Evaluate attic insulation.** Old insulation may be compressed or have fallen out of framing bays, leaving bare spots. Thin R-19 batts should be upgraded to at least R-38 batts, or R-49 if you live in northern regions. Use canned urethane spray foam to insulate around pipes and cables where they enter the attic.

› **Schedule an energy audit.** Find out if your local utility offers audits for free or at a low cost, or partners with a local company to do them. Prices range from about $100 for a walk-through and bill assessment to an average of about $400 for a more thorough investigation. Some utilities also offer free or discounted air-sealing materials and rebates for energy-saving upgrades such as insulation, air sealing, and energy-efficient appliances. For more information on energy audits, go to: energy.gov/energysaver/home-energy-assessments.

AVOID A BURST PIPE

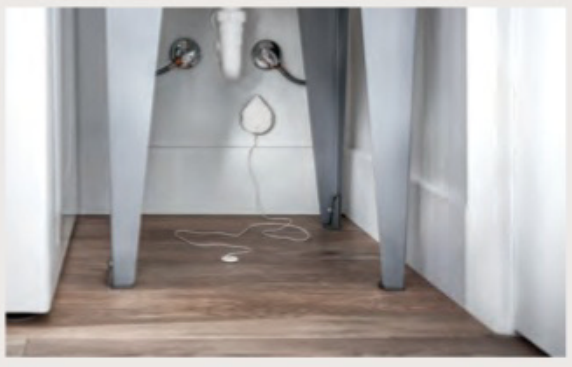
If the temperature falls below freezing for a few days and plumbing runs up a poorly insulated exterior wall, pipes can freeze, blocking the flow of water—you turn on the faucet, and nothing comes out. Worse yet, over time, a frozen pipe can burst. Here's how to thaw one out to prevent that: With the faucet handles open, feel along the exposed pipe to locate the frozen section; the pipe will be extremely cold and may have condensation or even ice on its surface. If it's below the sink, open cabinet doors to let room-temperature air warm the interior. If that doesn't do the trick, or the pipe is in an unfinished basement, place a space heater nearby or direct a hair dryer or heat gun onto the frozen area; never use an open flame, which can set fire to nearby trim or wood framing.

TOH PRO TIP



KEVIN O'CONNOR
Host

"One easy way to ease your heating bill: Reverse the direction of your ceiling fan, so it runs clockwise, which will push down and recirculate the warm air that collects at the ceiling."



Flood alert!

Gutters overflow...pipes fail... water heaters can spring a leak. Many things can increase the risk of a basement flood. Installing water alarms on the floor near potential sources can warn you of a deluge before it gets too deep. These automatic sensors are relatively inexpensive (some cost less than $20), are easy to set up, and will detect as little as 1/32 inch of water. More expensive versions come in multiples and send notifications to your smartphone via Wi-Fi (shown: Flo by Moen Smart Leak Detector, $130 for three; homedepot.com).

WEATHERSTRIPPING: DANA SCHIFFMAN; WATER ALARM: COURTESY MOEN



A FRESH START FOR YOUR OVEN

Holiday meals give your oven a workout, so clean it now before the stuffing hits the pan. Commercial cleaners can be caustic, and if there's a lot of buildup in the oven, the self-cleaning option can get smoky—and even trip the safety on the appliance's thermostat. Try this safer, effective fix instead:

STEP 1 | Mix up a cup of baking soda and enough white vinegar to create a paste, and allow the foam to subside.

STEP 2 | Apply the paste with a chip brush to the inside of the oven.

STEP 3 | Let the mixture work its magic overnight, then go back and wipe it out with a damp sponge or nylon scrubby.

Act now to prevent potholes

When water seeps into crevices in an asphalt driveway and freezes, it expands, enlarging the cracks and sometimes birthing potholes in the process. Uneven surfaces pose a trip hazard and can catch the blade of a snowplow, causing even more damage. To bridge driveway cracks, use a rope-like asphalt crack filler (available at home centers): After cleaning out any loose debris and pushing the rope into the crack, bond it to the asphalt with a propane torch or a heat gun. For divots deeper than 1 inch, try a ready-mix blacktop repair compound: Overfill the area by about 1 inch, then tamp it level with the surrounding surface.

TOH PRO TIP



MARK McCULLOUGH
Mason

"To prevent slipping on icy asphalt driveways or granite walkways, spread them with a 50-50 mix of rock salt and sand. The salt will help melt the ice, while the sand will put traction underfoot. Just keep the salt away from concrete, mortared masonry joints, and vegetation–it will damage them."



UPGRADE A PLUG-IN GENERATOR

Portable gas-powered generators are great to have when a storm takes out your electricity, but running extension cords into the house from outside can be a nuisance. Using a cord that's undersized or in poor condition is a fire hazard. Before the deep freeze takes hold, have an electrician connect a manual transfer switch panel to your main breaker panel; this allows you to power any of the most important circuits—furnace, water pump, and refrigerator, say—with the generator by just flipping a switch (shown: HomeLink 50A Manual Transfer Switch Kit with Aluminum PIB and Cord, from $800; generac.com). And remember: Always run a fuel-burning generator outdoors, never inside the house or garage, to avoid the risk of carbon-monoxide poisoning.

OVEN: ISTOCK; TRANSFER SWITCH: COURTESY GENERAC POWER SYSTEMS

ask This Old House



Repairing furniture scratches

We've just inherited some of my mother-in-law's oak dining room furniture. Some of the chairs are pretty scratched up. What's the best way to fix them?

—LISA BECKLY, TUCSON, AZ

TOH carpenter Nathan Gilbert:

Wood is subject to wear, whether from accidental abrasions, impact from a heavy object, or simply the repetition of regular use. Fortunately, there are a few key products—all readily available at home centers and online—that you can use to make a variety of basic repairs to the finish.

Let's start with the very light abrasions that can dull a stained finish when furniture gets moved around. If the wood below the surface finish isn't affected, you can fix this with a liquid scratch remover such as Scratch-Off (mohawk-finishing.com). Pick one in a shade that's as close to the piece's color as possible. To start, clean the repair area with a rag dampened in mineral spirits, then pour some of the product onto a clean rag and buff it onto the dulled area. The initial shine you see after buffing will diminish as the liquid dries, making the repair disappear.

Sometimes we're faced with a stained finish that has actually worn away, exposing the natural color of the wood. This often happens on older furniture, in areas that get rubbed or brushed against on a daily basis. The solution here begins with a light sanding of the repair area with 150-grit sandpaper. This quick once-over will remove any accumulated dirt in the old finish, while also opening up the wood grain. Wipe the repair area with mineral spirits to remove any sanding dust, then apply a wood stain that's a close match to the color on the rest of the piece; I used Howard's Restor-A-Finish (howardproducts.com) here. It's best to err on the lighter side, rather than use a stain that might be too dark. You can always apply more coats to deepen the color. If the rest of the piece has a clear coat over the stained finish, you'll need to use spray lacquer or a wipe-on polyurethane after the stain has dried to help the repair blend in.

What about more severe damage, like a gouge in the finish that leaves a void in the bare wood? There are a couple of products that address this, depending on the extent of the damage. Get started by wiping down the repair area with some #0000 steel wool. This will soften any sharp edges in the wood, while also removing any grime that may have accumulated in the finish. Next, rub the area clean with mineral spirits, and select a furniture-

TIP



Do a test run

Repairing a finish can be tricky, especially if its makeup is unknown. Try out the repair first on a hidden surface of the piece, such as the underside of a chair seat, or on a small sample of the same wood, to ensure you'll be satisfied with the result.

REPAIRING SCRATCHES: MEG REINHARDT; TIP: COLLEEN MCQUAID



BRINGING BACK A STAINED FINISH After cleaning and lightly sanding scratches on a rolling chair base, Nathan shows *TOH* host Kevin O'Connor how he applies thin coats of stain so that it blends in with the original color.

repair pen whose color matches the finish. These pens, which resemble felt-tip markers, are typically sold as sets that include a range of colors, such as Mohawk Pro-Mark Markers. Again, it's smart to err on the lighter side, and go darker if needed, to match the color of the damaged areas.

To fully fill a deep gouge, find a color match among furniture-repair crayons, such as Mohawk Fil-Stik Putty Sticks. Use a wand-style lighter to melt some of the crayon wax into the gouged area. Let the wax harden, then scrape away any excess with a plastic razor, which you'll also find sold among furniture-repair products. Finish by rubbing lightly with some #0000 steel wool. If the surface shows grain lines that are broken by the repaired area, you can bridge the gaps by drawing them in carefully with a furniture-repair pen. As a final step, you can protect the repair area with spray lacquer or a light coat of wipe-on polyurethane.

BOTTLE TRAP: ALEX GAGNE (2); BOTTLE TRAP WITH CLEANOUT: COURTESY ALFI



SPACE SAVER This compact lav trap has an internal partition (inset) that keeps a small amount of water in the trap to block sewer gas from entering.

Traps for small sinks

Our plumber says there's not enough clearance for a p-trap beneath the small powder-room sink we want to install. What are our options?

—JOE BENSTEIN, OAKWOOD HILLS, IL



TOH plumbing and heating expert Richard Trethewey:

You should be able to stick with your small sink; just check with your plumbing inspector to see if you need a variance to install a bottle trap—they don't pass code in most places. In Europe, these compact traps have long been used where a p-trap would be difficult or impossible to install. A bottle trap offers another advantage in your situation: A chrome version is attractive enough to be left exposed beneath the sink, which is why a bottle trap is sometimes referred to as a "decorative lavatory trap."

The larger body of this type of trap conceals a smaller drainpipe that extends below the drain line. This configuration keeps a small reservoir of water in the trap, maintaining an air seal that prevents sewer gases from coming up through the drain. You get the same benefit that a p-trap provides, but without the bulk. There's only one significant disadvantage with this trap: It's more prone to clogging. But since this sink will probably be used only for handwashing, the likelihood of debris going down the drain is fairly low.

TIP



A better bottle trap

To clear most bottle traps you have to disassemble them. You can avoid that hassle by looking for a model like this Modern Decorative Bottle P-Trap (alfibrand.com), which has a cleanout at the bottom that unscrews for easy access.

WATCH See Nathan's techniques for restoring a finish at **thisoldhouse.com/repairing-a-finish**

DIY Smarts



DON'T WAIT A tank-style water heater typically lasts about 10 years. Richard advises replacing one before then in case it starts to fail—and causes potentially costly problems.

Replacing a tank-type gas water heater

Our old water heater is on its way out, so we're thinking of putting in a new one ourselves. What's involved in the installation?

—BECKY STEIN, IVORYTON, CT

TOH plumbing and heating expert Richard Trethewey:
Replacing a tank-type water heater is a job that an experienced DIYer can tackle with a few basic tools—but visit your building department before you begin; most municipalities require you to obtain a permit. First, since we're talking about a gas-fired water heater, start by shutting off the gas and the water lines connected to the tank. Next, drain the water by opening the drain valve near the base of the tank. If you can't connect a garden hose and direct the water to a floor drain, enlist a helper or two to form a bucket brigade to empty the tank.

Use a pipe wrench to disconnect the gas line; then use a pipe cutter to cut the water lines leading to and from the tank. Be prepared for some water to drain from the lines when you cut them.

At this point, the flue pipe is the final connection to remove. It may be possible to simply pull the flue pipe free of the chimney opening, then slide the old tank out of the way. Or you may need to cut the pipe with a reciprocating saw. Remove the pipe carefully from the chimney opening to avoid damaging the surrounding masonry.

Now you and your helper can remove the old heater, and bring the new unit in for installation.

Sweep the floor of debris, then move the new heater into place. Connect a new flue pipe to the chimney, and make sure you have a good seal between the pipe and the chimney opening. You can use silicone sealant for gaps up to about ¼ inch; use mortar to fill anything larger.

To reconnect the cold-water supply line to the tank and the hot-water supply to the house, you can use push-connect fittings that match the diameter of your plumbing lines. These two supply lines should be labeled on the top of the tank. Spread pipe dope on the fittings, and reconnect the gas supply line with a pipe wrench. Then turn on the gas supply and check for leaks by spritzing the connection with some soapy water. If bubbles form, you've got a leak and you'll need to tighten or redo the connection.

BROUGHT TO YOU BY THE HOME DEPOT



SILENCE THE SQUEAKS A special alignment tool positions a breakaway screw so it can be driven through a creaky floor and into the joist; the head snaps off, leaving a tiny hole to be filled.

A fix for noisy floors

We love our 1941 home's beautiful hardwood floors—but they're very creaky. How can we reduce the noise while keeping the original floors in place?

—IRIS HOXHA, WAYLAND, MA



TOH general contractor Tom Silva:
Welcome to the club: Creaky floors are very common in old houses. The creaks and squeaks you're hearing usually come from loose nails in the floorboards or the subfloor, or from boards that have worked themselves loose over time and are rubbing together when walked on.

Your first choice for a fix is to work from below, if the framing is open and the subfloor is accessible. If that's the case, you can pick up a Squeak-Relief Floor Repair Kit (squeakyfloor.com) to make the fix. Have a helper walk on the floor above you, so you can mark the locations of the squeaks on the underside of the floor. Then follow the manufacturer's instructions on how to install the provided brackets and screws on the joist nearest each creaky section of flooring. The bracket is secured to the floor joist with a special nail; then a pair of screws is driven into the flooring from below through angled holes in the bracket.

If you can't access the framing and subfloor, you can repair the finished flooring using a Squeak-No-More Pro Floor Repair Kit (squeakyfloor.com). The special breakaway screws that come in this kit are designed to fasten loose flooring down against the subfloor, then break off just below the wood's surface, leaving a very small hole that you can conceal easily with a color-matched wood filler. Now your floors won't "talk back" when you walk around the house.

WATER HEATER: ALEESE GOODEN

WATCH See Richard install a new water heater at **thisoldhouse.com/water-heater**

Porcelain patch

We just bought a late-Victorian house, and the cast-iron claw-foot tub has a 1-inch chip in its rim. Can we repair its porcelain-enamel finish?

—DAVID GRIBE, MARION, IOWA



TOH painter Mauro Henrique:
To repair large chips in porcelain finishes, you'll need an epoxy porcelain repair compound like Super Glue Porcelain Chip Fix (supergluecorp.com). You'll also want to have painter's tape, super-fine sandpaper, clean rags, and lacquer thinner on hand.

First, clean the repair area with a rag dampened in lacquer thinner, then isolate the repair area with painter's tape. Go over the area with superfine 320- or 400-grit sandpaper. The goal here is to slightly roughen or scuff the shiny glazed surface, so that the epoxy repair compound will adhere well.

Apply a light coat of compound with a putty knife. Let it dry, then apply several more coats until the area is filled. Blend the repair into the surrounding surface by sanding lightly with 600-grit sandpaper, then buffing with a soft cloth.

Small chips, scratches, and cracks in porcelain can be repaired in the same manner. For those, buy a porcelain repair kit such as Porc-A-Fix Porcelain Touch-Up Glaze (fixture-fix.com). This thinner compound is applied with a small brush that's included in the kit.



LITTLE BY LITTLE The trick to fixing a chip on a porcelain bath fixture: isolating the chip with painter's tape, then applying multiple thin layers of compound (inset) to build up the patch so that it can be blended into the surface.

TIP



Surprise source for superfine grit

Finish work requires materials that may be hard to find at the local home center. Instead, head to your local auto-supply store to find auto-body supplies such as extra-fine Wetordry sandpaper (3m.com) and polishing compounds.



FUEL UP AT HOME Heath and Kevin discuss electric-vehicle chargers available for home installation that can recharge an EV in a few hours.

Electric-car charging

We see ourselves as being a two-EV family in the near future, maybe even three once my son gets his license. As we have only a one-car garage, we will need one charger indoors and one outdoors. What should we get?

—MICHAEL MCGEE, WOBURN, MA

TOH master electrician Heath Eastman:
When you buy an electric vehicle (EV), it'll likely come with a level 1 charger as standard equipment. Designed to plug into a regular 120-volt household receptacle, this basic charger works very slowly, providing under 10 miles of range per hour. As a result, many EV owners choose to keep their level 1 charger in the car, for emergency use or when fast charging isn't necessary.

You'll want a level 2 charger—this is what most homeowners use to charge an EV's battery on a daily basis. It can restore full power to a completely drained battery in about 10 hours. A level 2 charger requires a 240-volt circuit, and can be hardwired indoors or outdoors with a weatherproof cover. You can also buy an indoor model that can plug into a 50-amp receptacle—the same type that's used for an electric oven. Installed prices generally range from $1,000 to $2,500. The wide price range has a lot to do with special features that are available on more expensive chargers. For example, some models have Wi-Fi circuitry that enables you to control and monitor charging with a smartphone app.

Level 3 chargers have the fastest recharging capability, but their high-voltage requirements exceed the capacity of residential electrical systems. These are the chargers used in commercial applications, and at charging stations available for public use.

WATCH See Mauro demonstrate tile and tub finish repair at **thisoldhouse.com/porcelain-repair**

TUB: ANTHONY TIEULI; PATCH: ALEX GAGNE; SANDPAPER: COURTESY 3M; EV CHARGER: ALEX GAGNE



GIVE IT A LIFT Richard inserts a furniture glide under one of a noisy radiator's feet in order to keep water from collecting in the bottom.

Stop radiator knocks

We recently installed a new steam boiler, and now the pipes are making loud knocking sounds. How can we quiet the noise?

—JOHN PERRONE, WATERTOWN, MA



TOH plumbing and heating expert Richard Trethewey: It's not unusual for steam radiators to knock, so I doubt that your new boiler is at fault. Knocking is almost always caused by water that collects at the bottom of a radiator after the steam cools and condenses, then explodes when it encounters hot steam coming in when the heat is turned on. If the condensate drains into the supply pipe, or riser, before the steam comes in, there's no knocking.

To stop the noise, raise the end opposite the riser pipe by inserting furniture glides under the radiator feet. Lift the radiator slowly and carefully; you don't want to loosen its connection to the pipe. When a level placed at the top of the radiator shows that it is pitched slightly toward the riser, the knocking should go away.

Ask This Old House GO TO: **thisoldhouse.com/askTOH** OR WRITE TO: **Ask This Old House, This Old House magazine, 262 Harbor Drive, Stamford, CT 06902**

Include a complete address and daytime phone number. Published questions will be edited for clarity and length, and may be used in other media. We regret that, because of the volume of mail received, we're unable to reply to unpublished questions.

BONUS HOW-TO



SAFETY CHECK Tom puts his tape to the upstairs railing at the Newburyport project house, which measured 30 inches high. He took on the task of giving it a lift while preserving its look as much as possible.

Raising a low stair railing

My wife and I are moving into an 1880s house with a stair railing that is about 7 inches below current code. I'm concerned about its safety, given that we have an active toddler and a baby on the way. How can we raise its height without sacrificing the railing's original style? —EZRA BARNEHAMA, NEWTON, MA

SKILL: Hard
COST: $325
TIME: 8 hours

TOH general contractor Tom Silva: Many old houses, and more than a few new ones, have stair railings that don't comply with current building code, which mandates a height of 34 to 38 inches. In fact, we encountered a similar situation in the current Newburyport project house (page 56), where the original 1902 stair railing in the second-floor hallway was uncomfortably low.

It was important to the homeowners to maintain the late-Victorian design of the stair railing that was there. So after Kevin and I removed the upstairs railing section, I spent some time on my lathe and turned matching 6-inch-long extension pieces for the balusters and newel post, then attached them with dowels. After reinstalling the newel post, Kevin and I positioned the handrail at the new height, reinstalled the balusters, and secured the handrail. I also cut and shaped a "gooseneck" extension to tie the now-taller newel into the existing handrail that leads down to the first floor, which remained in place (you can see it in Step 5 on the opposite page). The homeowners now have a safer, 36-inch-high rail—and no one else is the wiser.

If you're not a woodturner, you can source premade stair parts that match the style and scale of your balusters and newel post (see Tip), cut off the amount needed for extensions, and join them to the originals—the process is the same. Or simply replace the old parts with new stock that is a close match.

SILVA: YELLOW HOUSE CREATIVE; (OPPOSITE PAGE) YELLOW HOUSE CREATIVE (6)

STEP-BY-STEP

1] Remove the old balusters. To preserve the upper part of the balusters, use a circular saw to make a square cut at the base of each one, an inch or so above floor level. Then use a small pry bar to lever the baluster dowels out from their holes in the floor.

2] Remove the handrail and newel post. Detach the handrail by carefully cutting the fasteners at the wall with an oscillating multitool. Then use a flat bar to pry the rail from the newel. Use a handsaw to remove the newel post, making the cut at the top of the square section near the floor, which stays in place.

3] Extend the newel post. Calculate the measurement necessary to increase the height of the newel so it will join the taller handrail in about the same place as before. Tom turned an extension piece of the needed height and drilled holes to glue in 1-inch dowels at both ends; do the same if using a premade newel section.

4] Install the taller newel post. Add the newel extension by drilling a hole in the bottom of the existing newel section (shown) as well as in the remaining base using a paddle bit; glue the extension dowels into their respective holes.

5] Prepare the railing section. With baluster extensions of the needed height at the ready, drill holes for ¾-inch-diameter dowels at both ends. Glue the top of the dowel extensions into the bottom of the balusters. Temporarily attach the handrail to the newel with a large bar clamp, and place two of the extended balusters along the handrail's length to support it at the proper height.

6] Install the balusters and railing. Glue each baluster's bottom dowel into its hole in the floor, then use a rubber mallet to seat its top in the underside of the handrail. Drive trim-head screws through the tops of the balusters into the railing to secure them. Finally, screw through the underside of the handrail to secure it to the newel and wall.


1


2


3


4


5


6

TIP

A WIDE WORLD OF STAIR PARTS

Whether you are repairing an old stairway or building a new one, you will find a much wider selection of stair parts from online specialty suppliers than at a home center or even a high-end lumberyard. Sources such as ljsmith.com, stairwarehouse.com, and stair-parts.com offer balusters, newel posts, and handrails in styles ranging from Colonial to postmodern, as well as a variety of stair treads, installation hardware, and detailed design and installation instructions.

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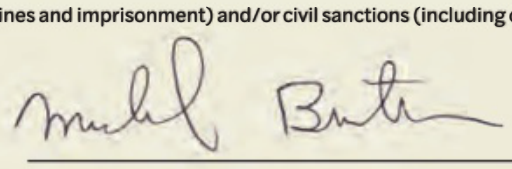
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10/15/2022

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DIRECTORY Winter 2022

FROM THE TOH JOB SITE Fit for Generations to Come *(pp. 11–19)*
Architect: Matt Hurff; fharch.com. **General contractor:** Matt Whitbeck, whitbeckconstruction.com. **Electrical:** Stephen Ristau; aec-ny.com. **Plumbing/HVAC:** Gateway Mechanical; 518-210-4161. **Water/sewer line:** Del's Plumbing and Heating; 518-605-2031. **Landscaping:** The Lawn Care Co.; 518-744-6989. **Wood flooring:** Thompson Flooring; 518-695-6183. **Tile installation:** Collar City Tile Works; 518-378-5089. **Interior design:** sbshaferinteriors.com. **Staging:** stagednest.com. **Wallpaper hanging:** Donald Rhoades Professional Paperhanger; 518-482-2234. **Roof shingles, underlayment:** gaf.com. **ICF:** logixicf.com. **Attic trusses:** srsloan.com. **Heat pumps:** metahvac.com. **Electrical panel:** se.com. **Sod:** saratogasod.com. THROUGHOUT > **Windows:** andersen windows.com. **Cabinets:** fabuwood.com. **Cabinet supplier:** ccabinet.com. **Countertops**: graniteandmarbleworks.com. **Plumbing fixtures, fittings:** us.kohler.com. **Tile:** besttile.com. **Door hardware:** baldwinhardware.com. **Window treatments:** theshadestore.com. **Wall paint:** Perspective (first floor), Sea Salt (primary suite); benjaminmoore.com. POWDER ROOM > **Wall covering:** thibautdesign.com. EXTERIOR > **Paint:** Shark Fin (body), White, Black (trim); behr.com.

BEFORE + AFTER: KITCHEN Designed for Flexibility *(pp. 20–23)* **Design:** airykitchens.com. **Custom cabinets:** airykitchens.com. **Contractor:** jordanandsonsconst.com. **Paint:** Arsenic (kitchen cabinets), Inchyra Blue (pantry); farrow-ball.com. **Sink:** us.kohler.com. **Faucet:** newportbrass.com. **Pendant light, cabinet hardware:** rejuvenation.com. **Ceiling light:** shadesoflight.com. **Subway tile:** gstile.com.

BEFORE & AFTER: BATH Relaxing Retreat *(pp. 24–26)* **Design:** jvdesignstyle.com. **Paint:** Dimity (upper walls), Archive (wainscoting and trim); farrow-ball.com. **Floor tile:** homedepot.com. **Shower-wall tile:** www.tileshop.com. **Shower fittings, lav faucet, and medicine cabinet:** us.kohler.com. **Light fixtures:** circalighting.com. **Robe hooks, towel bars, and vanity:** rh.com.

HOUSE TOUR Refresher Course *(pp. 28–35)* **Interior design:** plasterandpatina.com. **Architectural design (kitchen):** lukehamiltondesign.com. **Contractor (kitchen):** build2design.com. **Contractor (second floor):** manchestercandd.com. LIVING ROOM > **Chairs:** rh.com. **Grass cloth (inside built-ins):** fschumacher.com. **Sectional:** maidenhome.com. **Pillows:** coteriebrooklyn.com. **Coffee table:** arhaus.com. **Floor lamps:** cb2.com. KITCHEN > **Island:** Alpine Custom Cabinetry; 909-987-6200. **Sink:** houseofrohl.com/shaws. **Faucet:** waterstoneco.com. **Range:** lacornueusa.com. **Cement tile (floor):** villalagoontile.com. BREAKFAST ROOM > **Table:** roveconcepts.com. **Chairs:** noirfurniturela.com. **Paint (mudroom walls and breakfast room trim):** Wrought Iron; benjaminmoore.com. DINING ROOM > **Table:** fourhands.com. **Chairs:** amazon.com. **Chandelier:** apparatusstudio.com. **Wallpaper:** fschumacher.com. PRIMARY BEDROOM > **Paint:** Roman Clay (walls), portolapaints.com; Mouse's Back (ceiling), farrow-ball.com. **Lighting:** arhaus.com. **Bed:** rh.com. PRIMARY BATH > **Wallpaper:** magnolia.com. **Console sink:** catchpoleandrye.com. **Faucets:** phylrich.com. **Tub:** Victoria + Albert; houseofrohl.com. **Shower riser:** houseofrohl.com. **Sconces and mirrors:** rejuvenation.com.

PICKING PAINTS Colorful Character *(pp. 36–41)* **Interior design:** zoefeldmandesign.com; dyerstudioinc.com; donnadufresnedesign.com; karaadaminteriors.com; alisonkandler.com.

FROM THE TOH JOB SITE Here to Stay *(pp. 56–59)* **Architect:** savoienolan.com. **Construction manager:** Brian Bilo. **Plumbing:** biloplumbingandheating.com. **Water-sewer excavation:** twexcavating corp.com. **Retaining wall:** unilock.com.

SAVE THIS OLD HOUSE *(p. 96) Thanks to* Daniel Stazzone and Shavel Edwards; syracuselandbank.org. David Haas; instagram.com/syracusehistory. Maria Lore; cnyhistory.org. Dan Smith; onlib.org.

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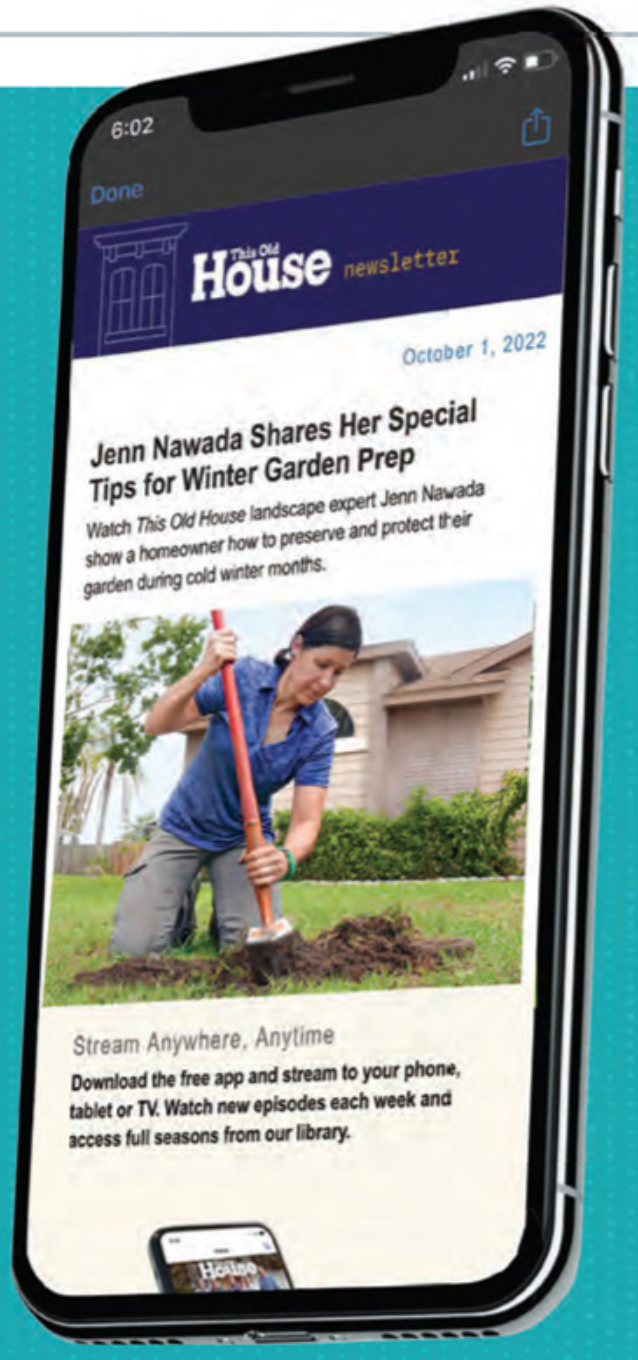
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Fine Colonial Revival with a notable past

THE HISTORY This once gracious house was built circa 1902 for prominent businessman and Democratic party leader William H. Kelley and his wife, Nellie Dwyer Kelley. The couple raised their two children there while William grew the family's grocery and coal businesses, represented central New York on the state Democratic committee, and began his 17-year term as president of Merchant's Bank and Trust Company. The Kelleys lived in the house until 1925; around 1942 it was converted into a three-unit dwelling. It changed hands multiple times after that, sitting vacant for a decade before the Greater Syracuse Land Bank acquired it in 2017, avoiding demolition.

PRICE $5,000
LOCATION
Syracuse, NY
CONTACT
Daniel Stazzone, Greater Syracuse Land Bank; dstazzone@syracuselandbank.org

WHY SAVE IT? The 3,128-square-foot house retains many original elements, including parquet floors, ornamental plasterwork, paneled doors, and decorative casings inside, as well as fluted porch columns, clapboard siding, window trim, brackets, and dentil molding outside. It is the stateliest turn-of-the-century home among others on the block. Syracuse is experiencing a resurgence, with significant investment in its downtown and neighboring areas, including Southside, where the house is located.

WHAT IT NEEDS While structurally sound, the house needs a top-to-bottom renovation and all new systems. Zoning regulations require it be converted into a single-family or two-unit house. The city offers a 10-year tax exemption for the rehab of vacant residences, and the land bank operates an architectural salvage program from which elements can be purchased at reasonable cost. Given the scope of work, the house lends itself to a resourceful buyer with DIY skills and the will to revive a grand old home whose best years may be yet to come. —SUZANNE ZENKEL





1. Among the two-story home's Colonial Revival elements are its hipped roof and symmetrical facade, with a full-width porch and an elaborate cornice with dentils. A 1976 photo (inset) shows the intact facade, with all its windows and its porch and balcony railings in place. The house sits on a 6,593-square-foot parcel adjacent to a vacant lot of the same size, which may be for sale by the neighboring church.



2. Original ornamental plaster details largely remain in one of two first-floor parlors.



3. One of several interior archways opens to an upstairs sitting area with French doors still topped with an arched transom and once sheltered by an awning on the balcony. Most of the second floor's trim is still in place.



4. The dining room retains its parquet floors, moldings, and window seat. Much of the first floor was stripped of its trim when the house was slated for demolition.

DANIEL STAZZONE/GREATER SYRACUSE LAND BANK (4); HISTORICAL IMAGE: COURTESY ONONDAGA HISTORICAL ASSOCIATION

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