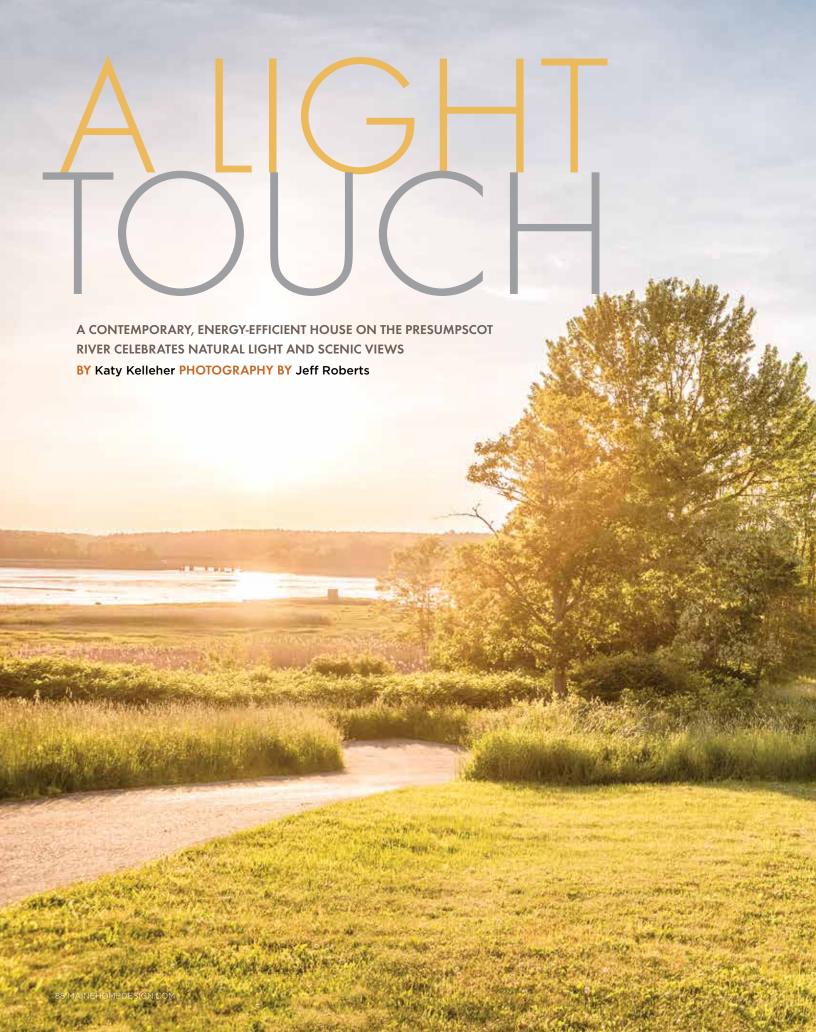




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the top of a narrow staircase, in a sunny room with slanted ceilings overlooking the Presumpscot River, stained glass artist Laura Fuller is examining a piece of blue glass. She picks it up and lets it catch the light for a moment before placing it back down on a piece of white paper, where it joins with cutglass pieces and fragments of shell to form an intricate pattern of blossoms. Someday soon, Fuller will fuse these many angled objects, welding them into a glimmering, prismatic window inspired, as she explains, by the seven chakras. But for now, she places the cobalt glass back in place and slides the pieces out of sight into her custom-built cabinet.

"I sometimes still can't believe this is my studio," she says as she looks out the window at the fields of marshy grasses that unfold to the west. "It's perfect for me."

Before, the space served very different purposes. It was first a barebones office, then a rec room, complete with a Ping-Pong table and unassuming painted plywood floors. It wasn't until 2015 that Fuller and her husband, Stew MacLehose, decided to renovate this space

and turn it into the utilitarian-yet-inspired studio that it is today.

The story of this house on the river begins 12 years ago, when MacLehose and his then-wife Kathy Hayden approached their good friend, architect Phil Kaplan of Kaplan Thompson Architects in Portland, about a potential project. "They had this incredible piece of land in Falmouth, and they wanted to build a home there," Kaplan recalls, remembering the one-acre lot and how it sloped gently down toward the vellow marshes and silver inlets of the coastal estuary. From their casual conversations, MacLehose knew quite a lot about Kaplan's work. He knew about Kaplan's quest to build highly functional, energy-efficient, eco-friendly homes, and MacLehose wanted his new house to perform on that level, too. "Stew and Kathy were also interested in making something that was clean and thoughtful—nothing showy at all," Kaplan explains. "All of us involved wanted this house to stand the test of time, to be strong and modest, and to complement the simplicity and elegance of the land."

Artist Laura Fuller and librarian Stew MacLehose have amassed a wide collection of art over the years. In the kitchen (opposite), they have pieces by local artists including Paul Brahms, Jean Pilk, Johanna Moore, Mary Harrington, Amy Ray, Carolyn Deininger, and Judy Glickman Lauder.

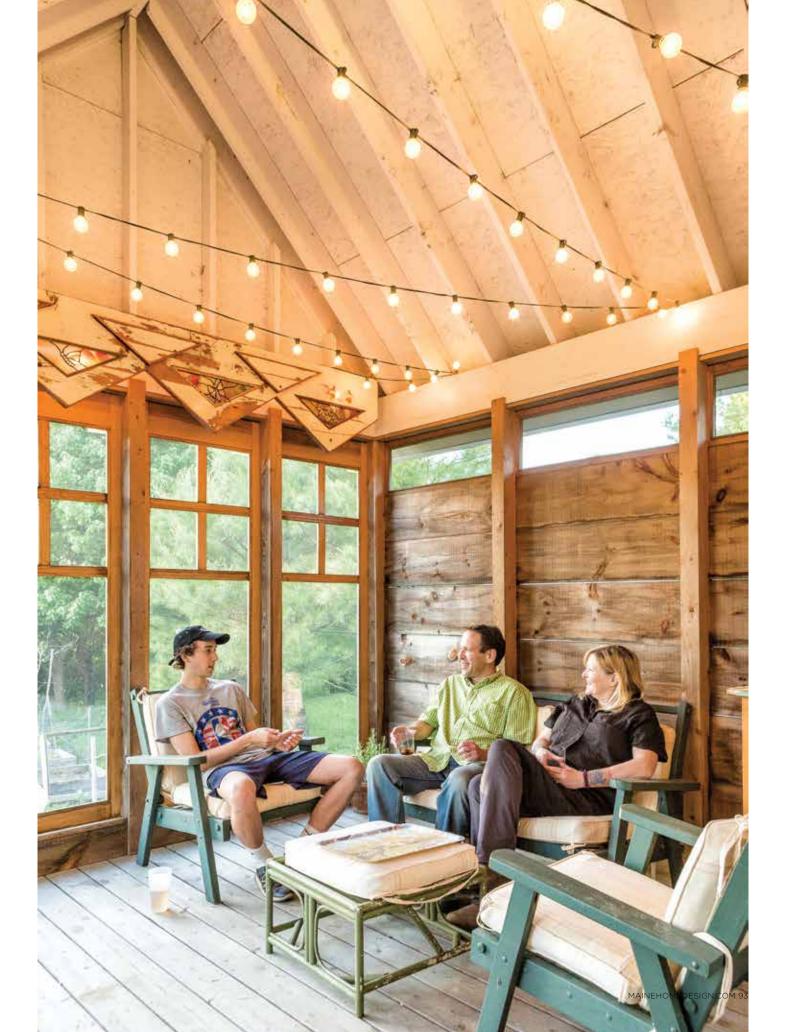


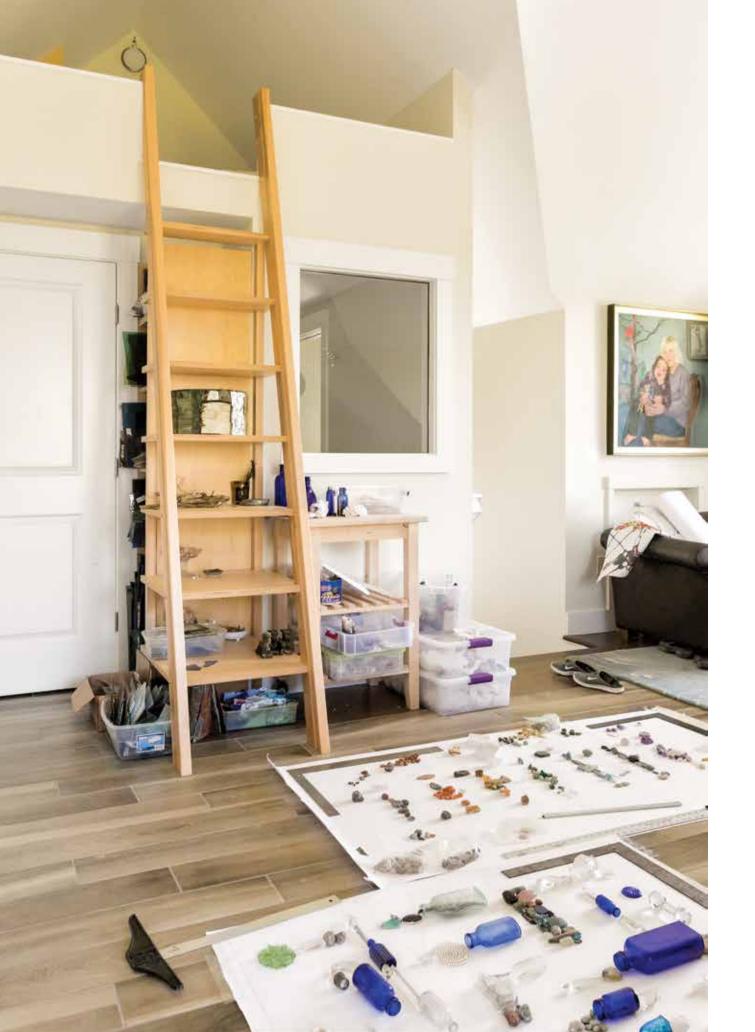
- A Storage spaces B Bathroom
- C Studio
- D Tool Closet
- E Stairs



The couple grow broccoli, cabbage, fennel, kale, chard, garlic, beets, and more in their vegetable garden (above).

Calvin MacLehose, Stew's son, sits on the porch with Fuller and Stew (opposite). Builder Dan Kolbert created this porch from screen door panels, which were fixed in place and turned upsidedown to reflect the square shapes of the house's high muntin.











Clockwise from top left:

Fuller works on one of her stained glass pieces. The blue bottle design is a commission, while the larger piece is a passion project inspired by the chakras.

Fuller works on an ocean-inspired chandelier that will soon be on display at K Colette in Portland.

The owners' bedroom features artwork by William Eric Brown (left), Amy Ray (center), and Carter Scattergood (above the bed).

Fuller's third-floor studio (opposite) features tile from Capozza Tile and Floor Covering Center designed to look like wood boards. "I tested every kind of surface I could think of, from cork to wood, and the only one that didn't catch glass shards was tile," explains Fuller. "I needed a surface I could clean easily, and this wood-like tile fit perfectly."





The home's form was inspired by the shape of a cube (above), which helps make it efficient to heat.

The living room is separated from the dining room by two-way shelving (opposite) that provides some privacy while offering ample space to display Fuller's art. The painting on the wall is a MacLehose family heirloom. The rug in the hallway is by Angela Adams.

Fortunately, as far as floor plans and volume go, a home designed as a cube is extremely energy efficient to heat—and the shape also happened to suit MacLehose and Hayden's aesthetic sense to a T. The house packs in a living room, dining room, and kitchen on the first floor; three bedrooms on the second floor; and an artist's studio on the third floor, plus a rustic porch is attached to the dining room by a screened outdoor hallway. All these rooms (plus three and a half baths) come in at 2,200 square feet, thanks to the space- and energysaving design. "The ideal form for a high-performing home is a cube, and that's essentially what we built—a cube with a pitched roof," Kaplan explains. (Not only does the pitched roof help this contemporary-style house fit in better with its colonial-style neighbors, but it also allows snowfall to slide off during intense winters.) "With this design, we were looking at optimization on all counts, including affordability, buildability, energy efficiency, and—in the back of my mind—replicability. If we could pull it off here, it could be a precedent for moving forward," Kaplan says.

Builder Dan Kolbert of Kolbert Building in Portland was brought on early in the process to help navigate the tricky process of creating a high-performing, low-cost home in a particularly humid part of Maine. "We found that the basic idea of the double walls with the dense-packed cellulose insulation, as well as the way we did the insulated pitched roof,

turned out to be the best way to go about making a high-performance house," Kolbert says. The roof was particularly tricky, since often homes lose heat through the rafters, which serve as conduits carrying warmth from the inside of the house to the outside world. "The technical term for that is 'thermal bridge'—something that is bridging your insulation and thus short-circuiting it," Kolbert explains. To get around this issue, Kolbert and Kaplan came up with a system that imposes a thermal break by creating a gap between the timbers that frame the house and the timbers that frame the roof. One of the benefits of this particular building technique is that it created a highly usable upstairs space. Since they decided to build the house on a concrete slab in order to provide radiant floor heating, the home lacks a basement, so fortunately the space they lost below ground could be gained back above.

For a few years, this third-floor space went unused, save for the few occasions when the couple's nephews came to visit and the teenagers would crash on the floor. But as the family shifted shape, the house changed, too. In 2015 MacLehose and Fuller decided to renovate the house, focusing mainly on the third floor. "We saw the opportunity to turn the space into a place where Laura could work," says Kaplan. "Phil was really amazing at planning out views and making sure I got as much light as I need," says Fuller. As an artist, Fuller is highly sensitive to the colors around her. "You won't see much red



Above Fuller's studio is a small loft space (left) with two daybeds and a collection of stones, shells, and glass bottles.

The stair rails (opposite) built by Kolbert feature Baltic birch as trim detail.

in the house for that reason," she says. "Once a color permeates my brain, I become hyper-focused on it, and it comes out in my work. Having big windows is really perfect for me, because nature is my favorite palette." In order to make the third floor into a work space, Kolbert extended the plumbing system, installed both a half bathroom and a work sink, and created a shelving system for Fuller's many glass pieces. While the bathroom sink is a piece of art in itself—it's a delicately painted ceramic oyster shell, created by Yarmouth-based artist Alison Evans of Ae Ceramics—the soapstone farmhouse work sink is sturdy enough to handle the many fragments of glass, metal, and stone that Fuller incorporates in her unique stained glass pieces. "I don't use any lead in my pieces, but I needed a space to wash them off when they're completed," she explains. "You wouldn't want the materials I use floating around in your bathtub."

Fuller's art is visible throughout the house, making a particular impact downstairs. A large stained glass window hangs in the kitchen, and other pieces sit on the shelves that separate the living space from the dining area. The many spacious triple-glazed and double-paned windows create natural frames for her art. "Phil chose the orientation of the house," says MacLehose. "His primary concern was getting optimal solar gain, but he also did a fantastic job placing the windows so that we have views of the water and views of the garden." In

the dining area, Kaplan decided to extend the window all the way up to the ceiling. He notes that there is no head casing—the wide strip of trim that often appears on the top of a window under the crown moulding—which contributes to the streamlined feel. "The goal was to make that space feel as open as possible and larger than it actually is," he says. All the windows in the house, as well as the countertops, are trimmed with layers of Baltic birch plywood, subtle stripes of lightly colored wood that provide a visual echo in each room, tying the overall aesthetic together.

Fuller and MacLehose's LEED Platinum-certified home has inspired many similar projects, all with that distinctive cubic shape, steep pitched roof, shadecreating overhangs, and open floor plans. While some homeowners may balk at having their space replicated across the country, MacLehose doesn't mind at all. "This project was totally ego-free," says Kaplan. "MacLehose wanted to build something elemental and universal—something that would appeal to many people. Although I hesitate to use the word *timeless*—I don't know if there is such a thing—I do think the closer you get to simplicity, the closer you get to timelessness."

For more information, see Resources on page 140.





