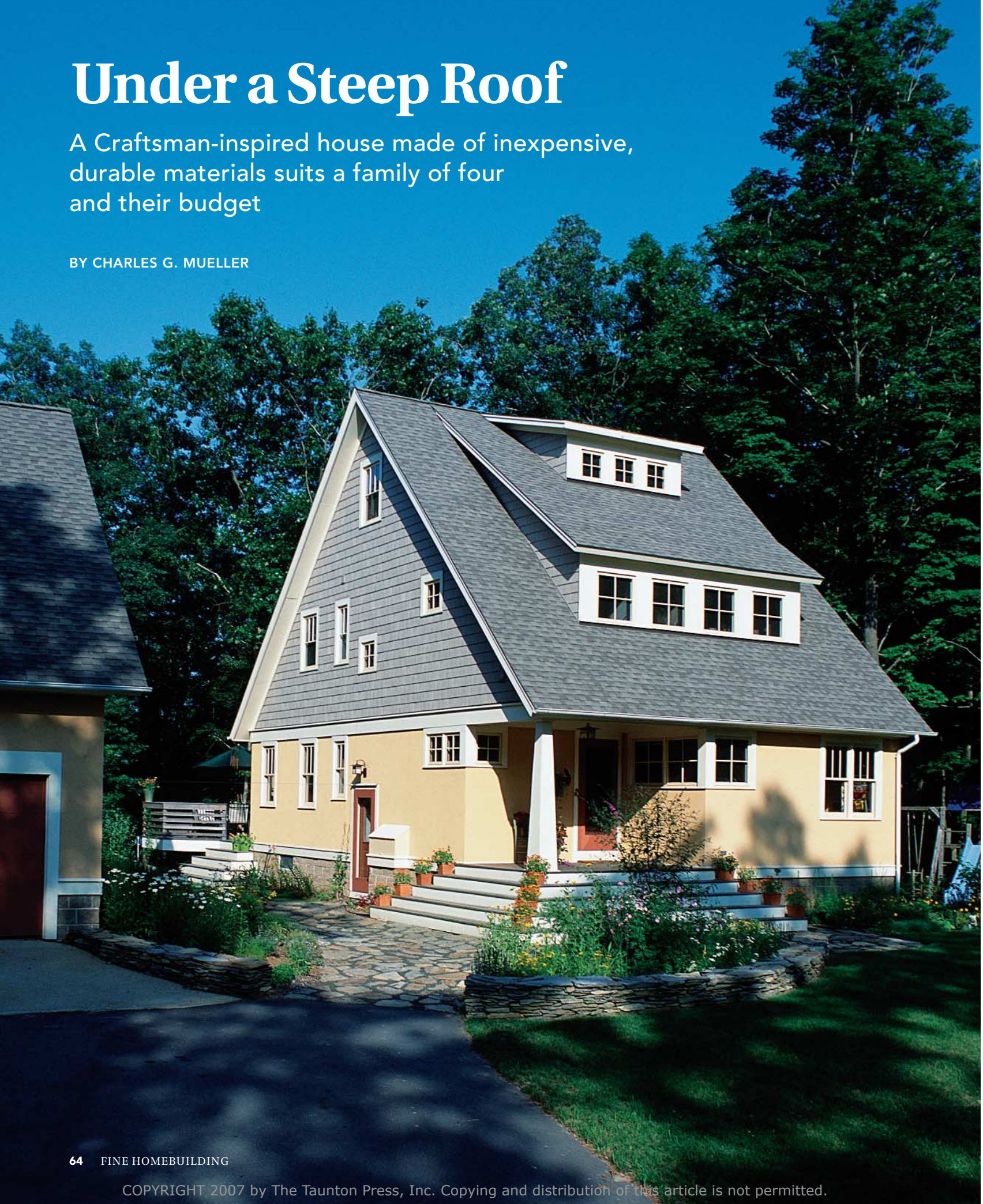


# Under a Steep Roof

A Craftsman-inspired house made of inexpensive, durable materials suits a family of four and their budget

BY CHARLES G. MUELLER





**U**ntil a few years ago, I never had a burning desire to design and build a home of my own. This is a little odd, I suppose, because I've been an architect for 18 years; early in my career, in fact, most of my projects were single-family houses. I gained satisfaction (and valuable experience) by designing homes for others while renovating an old Victorian for myself.

Two things happened to change all that. First, as the years rolled by, I became involved primarily with large institutional projects. Although there's immense satisfaction in bringing these big projects to reality, I missed designing homes. Second and more important, my wife and I started having children and didn't want to renovate any more.

### Looking for a lot in unlikely places

We wanted a new house, and we found there wasn't much available in our modest price range. Real-estate agents showed us building lots that were typically too close to busy roads, had problematic wetlands or power lines, or had an overabundance of exposed ledge.

At some point, we reasoned that the agents might not know about all the available properties, so we asked a few local builders about lots that had not been listed for sale. This inquiry led us to a beautiful lot on a hilltop.



**A modern American house with European origins.** A combination of Swiss stacked dormers, deep overhangs and a Craftsman sensibility, this design combines good use of space with inexpensive materials. Photo facing page taken at A on floor plan; photo above taken at B on floor plan.

Although it's in the midst of a forest, the lot's lack of brushy undergrowth allowed long views through the trees that revealed old stone walls, rock outcroppings and a small pond. Home to many interesting creatures, the pond is transformed in winter into the nicest private skating rink that you could possibly imagine.

### Exploring the virtues of a compact design

Part of my family is Swiss, and I've been able to visit Switzerland on a fairly regular basis

since my youth. In part, the inspiration for our house (photos left, facing page) came from homes in the northern part of that country. Their steeply pitched roofs, stacked shed dormers, generous overhangs and brightly painted stucco exteriors struck a sympathetic chord in us.


We wanted a maximum amount of living space in a minimum footprint of about 30 ft. by 40 ft., so the house had to have three stories, which fit the European model nicely. The plan (pp. 66-67) features an open first floor (photos pp. 66, 67). Beams pinwheel from a central bookcase pier (photo left, p. 68) and serve to differentiate the spaces visually.

The simply detailed, winding three-story staircase (photo bottom right, p. 68) ascends on cantilevered intermediate landings. During the holidays, the stairs also serve as a continuous stage that wraps the slender 17-ft. Christmas tree we place at its center. The stairs end at our small third-floor bedroom suite (photo top right, p. 68). I improved the storage situation by building a stair-step arrangement of mahogany drawer fronts into the walls on each side of the room; we can climb these stairs to peek out through the clerestory windows.

Surrounded by woods, the house's site exploits the seasonal characteristics of the

## • Details from an architect's house •

After designing lots of houses, I've found that there are a few things that make sense but are easily overlooked when you're in the throes of building a house. Here are some.

- If possible, orient the deck so that it takes partial advantage of shade, either from the house or from surrounding trees. Too many unshaded decks are uncomfortably hot at almost any time of the day.
- White-oak floors have an appealing blond-gray color with a grain pattern that is much finer than that of the more common red oak, and at no extra cost.
- Light switches in kids' bedrooms can be mounted 6 in. lower than the typical height.
- Lever handles are much easier for kids to operate than regular door handles and also remain operable when your hands are full.
- Code usually dictates a certain size opening for second-floor egress. If you don't want to use the large, overscale double-hungs that meet egress requirements, try casements with custom lite patterns. I bought simulated divided-lite casements made by Vetter  (p. 69) to make the upper-story bedroom windows appear like the first-floor double-hungs. The additional charge was minimal.

—C. G. M.



**The kitchen is the heart of the house.** Ringed by ample counters and cabinet space, the family's kitchen table is the place for hobbies, homework, meals or games. Photo taken at C on floor plan.

sun. We've got some nice shade in the summer and plenty of natural light once the leaves have fallen. Spaces on the northern side such as the dining room get lots of reflected light. The east-side deck location enjoys dappled shade for summer lunches and full shade for dinners.

The ipé decking we used cost only a little more than all-heart redwood or cedar. Also known as pau lope, ipé is a tropical hardwood that has become readily available in the past few years. It lasts virtually forever, which makes it a great value; it also doesn't splinter. Ipe weathers quickly to an attractive soft gray but returns to a beautiful mahogany brown when it becomes wet. Installation of this

wood costs a little more, however, because every screw in the rock-hard material needs a pilot hole. I've seen a few decks fastened with #12 screws that looked as though someone had scattered handfuls of dimes; here, we used stainless-steel trim-head screws that are visually unobtrusive.

### Synthetic materials equal less maintenance

Our previous house was a Victorian that required a long, tedious renovation. After that, I didn't ever want to scrape and paint a house's exterior again, so I chose our new exterior materials carefully. On the first-floor level, I used synthetic stucco (S (p. 69)), whose



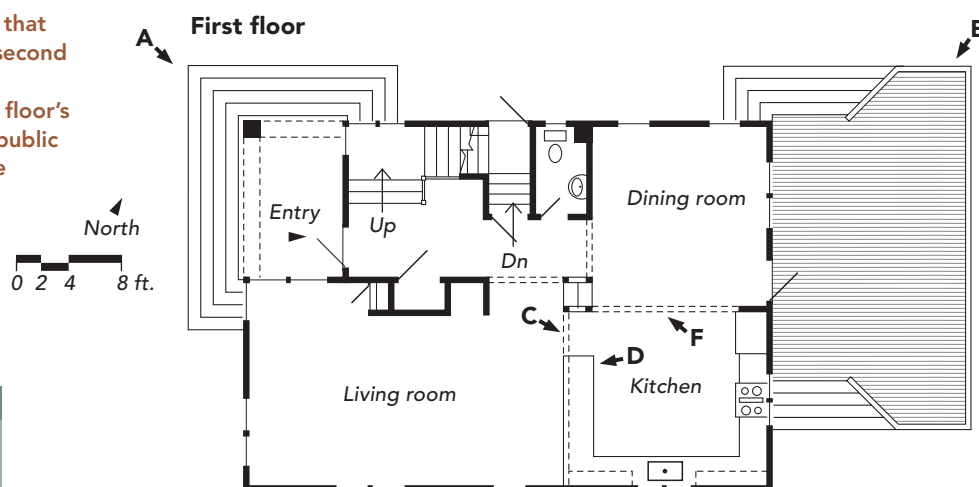
## • GETTING THE MOST SPACE OUT OF A SMALL FOOTPRINT •

Using all three floors for living space meant that storage was at a premium, so the garage's second floor took the place of an attic, leaving the basement to house the woodshop. The first floor's open plan creates an intimate yet spacious public area, while the wide upstairs hall relaxes the interchange of the bedrooms and stairs.

Photos taken at lettered positions.

### ONLINE CONNECTION

Tour this home on our Web site at [www.finehomebuilding.com](http://www.finehomebuilding.com).

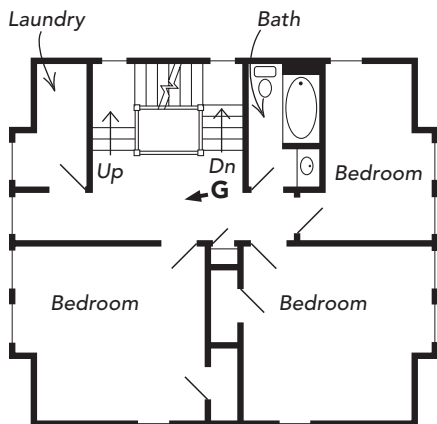




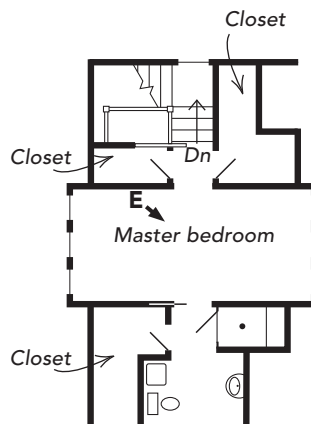


**The first floor uses few partitions.** Opening out from the kitchen, the living-room area extends to the front of the house, where long desks along the wall make a comfortable work area for crafts or computer tasks. Photo taken at D on floor plan.

**Second floor**



**Third floor**



**SPECS**

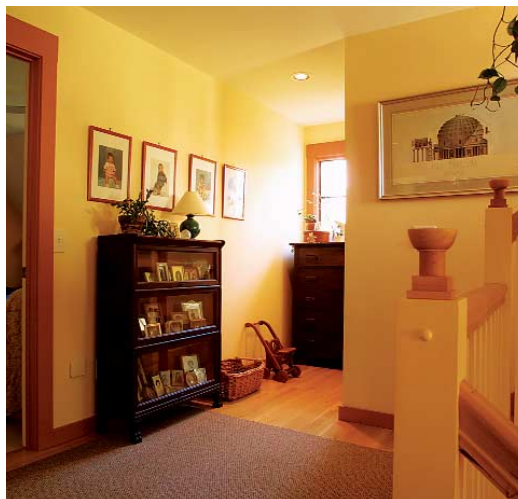
- Bedrooms:** 4
- Bathrooms:** 2½
- Size:** 2350 sq. ft.
- Cost:** \$90 per sq. ft.
- Completed:** 1997
- Location:** Chester, Connecticut
- Architect:** Charles G. Mueller
- Builder:** Peter Atkinson, The Woodland Construction Co.

**Plans available** See pp. 132, 133 for details

**Master bedroom benefits from warm colors and a vaulted ceiling.** At the top of the house, the master-bedroom suite is small but cozy. The mahogany drawers provide extra storage space for smaller items. Photo taken at E on floor plan.



**Dropped beams spiral out from the central bookcase.** Midway between kitchen and dining room, the four-sided bookshelf holds loads of books and forms the hub for the beams that delineate the space on the open first floor. Photo taken at F on floor plan.



**Hallway makes a space of its own.** Rather than a dark, narrow path to the bedrooms, the second-floor hall is flooded with light and becomes a more livable space. Photo taken at G on floor plan.





## FEEDBACK



### What's wrong with MDF trim?


We thought that using 3/4-in. thick preprimed fiberboard interior trim would be a good cost-saving (and "green") alternative to pine or poplar. Were we ever wrong about that. Sure, we probably saved a few hundred dollars, but the fiberboard turned out to be a finishing nightmare.

Paint is endlessly sucked into cut or ripped edges, which always appear rough compared with the factory-finished edges. Worse still, nails (whether air- or hammer-driven) create little "volcanoes" around their counter-sunk heads, which are impossible to sand flush because sanding exposes the porous, fibrous innards of the material. We used a low-luster paint in an attempt to mitigate the pocked, irregular surface appearance, but in certain lighting conditions, it's still obvious. Over time, I plan to replace all the fiberboard trim with sawn lumber.

I have since heard from Ben Tamsky, a cabinetmaker from Mystic, Connecticut, who has lots of experience with MDF. He says that MDF makes good trim, as long as its profile is fairly plain. When the softer core of the material is exposed, it must be sanded and primed. To keep the material from swelling, he sands, applies one or two coats of shellac-based primer, sands again and then primes again with an oil or latex primer. He also says that he always uses a pneumatic nailer to fasten the material.


—C. G. M.

vivid color relieves the other muted colors of the house; the stucco's cement board substrate and #15 builders-felt underlayment provide good insurance against potential failures. I knew that it was more expensive than wood siding, but we liked its look and its low maintenance requirements. Careful sealant application during installation and regular visual inspections seem to be key to avoiding problems with water infiltration.

I used vinyl shingle panels for the siding above the first-floor level for the same reasons. Installed far enough from human touch, the gray vinyl shingles  are quite believable. Another bit of imitation



as flattery, the split-face CMU foundation veneer was much cheaper than real stone and resembles the stone walkways and walls that my wife, Tracie, has built.

Designing our house gave me the opportunity to revisit some of the details that can make a really big difference in the livability of a house (sidebar p. 65). After all, there's nothing quite like the chaos of creating your own home to underscore the true importance of planning. 

Charles G. Mueller is a senior associate at Centerbrook Architects in Centerbrook, CT. Photos by Charles Bickford.

## Sources

- Certainteed (800-233-8990; [www.certainteed.com](http://www.certainteed.com)) vinyl shingles
- Vetter Windows and Doors (715-693-7000; [www.vetterwindows.com](http://www.vetterwindows.com)) casement windows
- Pleko (866-788-3257; [www.plekoeifs.com](http://www.plekoeifs.com)) synthetic stucco