Freestanding dream shop

BEAUTIFULLY TAILORED FOR WORKING WOOD, IT CAN EASILY CONVERT TO A TWO-CAR GARAGE DOWN THE ROAD

BY ELIA BIZZARRI

My first shop was under the hickory tree in my parents' yard. My bench was a picnic table. I made a woodpecker door-knocker and a rabbit trap, but I caught no rabbits. My parents bought me my second shop when I was 16. A 10-ft. by 20-ft. prefab structure, it was mostly plywood and 2x4s, with a small window at one end and double doors at the other. It was plenty big enough for a chairmaker, and it served me well for 10 years or so. When I bought my own home four years ago outside Durham, N.C., I knew I'd be building a freestanding shop. In the meantime, the 10-ft. by 12-ft. spare bedroom became my workshop. I worked full time in that room for two years and, except for wood chips in the bed, it worked fine. But it wasn't my dream shop.

Two pieces of advice started me on my way to designing that dream shop. One came from my realtor and friend, Louise Barnum, who said, "I know you think you'll never sell your place, but if you do, a garage would make it easier to sell than a shop." The other came from Louise's husband, Peter Ross, who was the head blacksmith at Colonial Williamsburg for more than 25 years, and is the most observant, consummate craftsman I know. He told me, "If your shop isn't the nicest building on the property, you'll never want to go there."

Converts easily to a garage

Louise is right—I have no intention of selling. But, at 31, I'm not married, and I suppose a woman might conceivably convince me to move. With that possibility in mind, I decided

Photos: Jonathan Binzen

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to build the shop so it could become a two-car garage. That decision determined the footprint of the building. At 20 ft. by 28 ft., it is larger than I really need as a chairmaker, but the extra space is useful when I have a handful of students at the same time (and when I have my swing-dancing friends over). The potential conversion also led me to frame the front wall as if it would get two garage doors. I put double doors in one opening, but in the other I installed a triple-sash window. The window and the framing around it as well as the section of the foundation below it could all be removed without too much fuss to create an opening for a second garage door.

A floor fit for cars and kind to calves

For the shop to convert to a garage, I needed a floor that was strong enough to drive a car on, yet made of wood for my comfort. My architect wanted to pour a concrete slab, put 2x4 sleepers on the slab, and put decking on the sleepers. This conformed with normal building practice, but seemed overkill to me. I considered a floor like the one in Peter Ross's blacksmith shop, which has 4x4 blocks of locust, 4 in. long, laid end grain up like bricks in a bed of sand. Many 19th-century industrial buildings had floors like this. The railroad museum near Atlanta has acres of old 4x6 pine blocks on the repair shed floors around its turntable. It is a gorgeous sight.

But I calculated I would need 2,500 board feet of lumber cut into 6,000 pieces to cover my downstairs floor with blocks. Even if I got offcuts from a pallet mill, this was going to be a lot of work. Peter Ross suggested an alternative: a base of packed gravel, then a vapor barrier, then 4x4 pressure-treated sleepers followed by decking. The building inspections department had never heard of such a thing, but gave the go-ahead since the floor floated inside the masonry walls and was not considered structural. I could make it as I chose, regardless of how crazy they considered it to be.

A local mill sawed 1,600 board feet of oak 2x6s for 50 cents per board foot. In hindsight, I should have gotten 2x8s. Wider boards mean fewer joints, and less wood and work lost in making them. I got a mix of red and white oak, though I would have preferred just the rot-resistant white. After attempting to air-dry the oak over the wettest summer in human history, I sent it to a kiln to speed things up. Then two helpers and I spent a couple of days with a big planer and two shapers to mill the oak into tongue-and-groove flooring. Though the floor was never sanded, it milled so perfectly that when we unloaded my 600-lb. lathe and slid it across the floor, it didn't catch on a single board.

What for walls?

Aesthetically, my favorite building style is the timber frame. But after coming across a tempting disassembled 1820s timber-frame barn, I considered the amount of work involved in building with it and decided I'd rather put that energy into furniture. I chose instead to go with stick framing, which is very efficient with materials and fast to build.

For efficiency, tools need to hang on the wall near where they are most frequently used. But when I worked in my spare bedroom, the drywall foiled all but my most determined tool-hanging attempts. Plywood works fine for shop walls, but it's ugly. Painted plywood beadboard would look pretty good, and, if thick enough, would support hanging tools. But at a nearby mill I found shiplapped white pine paneling for around 60 cents a square foot. This turned out to be ideal: it went up extremely quickly, looks beautiful unfinished, and you don't need a college education to hang a tool on the wall.

Double doors with a fiery finish

I loved building the big double doors, and they have proved unexpectedly attractive and useful. I can drive right into the shop to unload heavy things, roll a cart out into natural light for applying finish, and here in North Carolina, I can leave the doors open most of the year to increase airflow and light.

Based on doors at Mount Vernon, they are made of two layers of ¾-in. shiplapped boards, the inside layer running vertically and the outside layer running at a 45° angle. I screwed them together using nearly 5 lb. of screws. I cut through the outside layer with a circular saw to create a rabbet for a frame of 4/4 boards around the periphery. I also inserted 4/4 boards for the strap hinges. The 4/4 boards probably aren't necessary, but they sure make a nice-looking door, and they should help protect the end grain of the diagonal shiplapped boards.

The best part of building the doors was installing the pintle hinges. They're composed of two parts: the long strap, which attaches to the door, and the pintle, which attaches to the building. The pintle is basically a huge tapered nail, with a pivot for the strap on one end and a slot on the other end that accepts a wedge that keeps the pintle from pulling out of the wall. During framing I put extra 2x6s around the doorway, since the pintles need to go through solid wood. When it came time to hang the doors, I bored a pilot hole through the wall, then heated the pintle in a fire and used it to burn the hole to shape. Locking pliers help to steer the pintle, and a sledgehammer motivates it. If the pintle is hot enough, flames shoot out of the hole. Very exciting!

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Let there be light, and lots of it

In my opinion, the single most important feature of a shop is the most overlooked: light. The light in your shop should be as good as any light your work will be seen by once it leaves the shop. You need general lighting, but light coming directly from above tells you nothing about the surface of your work. Raking light, by contrast, shows every dent, tool mark, and scratch. Sometimes raking light is all you need, sometimes you want both. But you always need some raking light.

Natural light is best. I put 8-ft. windows on the north and east walls, and I placed my bench beneath them. In wintertime, from 8 a.m. to 4 p.m., sunlight is all I need. Leaves pose a problem come summer, so I occasionally resort to incandescent lighting. I'm trying to clear more trees, but sometimes it seems the entire forest needs to go—not an appealing prospect.

Fluorescent tube lights work well for general lighting, but I've never liked the color of light they produce. So for general lighting, following the example of my mentor, Curtis Buchanan, I put track lights on the ceiling. With ten 65-watt bulbs and a mix of spots and floods shining on my bench, I get passable lighting. But my ceilings are 10 ft. high, so I don't get good raking light from the tracks, and I could use more general light at night. It may be time to reconsider fluorescents.

I recently mounted a common swing-arm desk lamp on the wall behind my bench. I can instantly adjust the light source where I need it, and then it folds away. It cost a whopping $20.

When it comes to finishing, I rarely use my bench, since a workpiece placed there is back-lit by the windows, a blinding situation. Instead, I use a finishing cart, which I can move around inside or out to get the best light.

Well-placed windows. *Large windows over the workbenches provide excellent natural light for handwork.*

A few good machines. *Much of Bizzarri's work is done with hand tools, but that hasn't kept him from acquiring some heavy-duty old machines, including a bandsaw, lathe, and planer.*

Chair shop. *Bizzarri specializes in building traditional Windsor designs, like this one developed by his mentor, Curtis Buchanan. Bizzarri also makes hand tools and sells chairmaking supplies.*

A place to build ... community

Working in a clean, uncluttered space increases my efficiency and enjoyment, but it also creates a welcoming environment. My shop has turned into a gathering spot, a place to have parties, concerts, and dances.

The place is intensely personal—built with my hands, it is a space in which I work, sweat, cuss, and laugh. In our modern society, work is most often separated from play. The act of making a living is isolated from the joys of family, friends, and neighbors. Where thousands of Facebook friends can become meaningless in their ubiquity, people seem to yearn for personal connection. Maybe my shop is a window to a world where that connection was part of daily life. □

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