



# Tools & Shops

## Shop storage solutions

Build a better workbench

Tune your tablesaw

Work at the right height

Keep your shop comfortable in any season

Sawhorses for the shop



## Fine shop in a former garage

THOUGHTFUL RENOVATION AND A SAVVY LAYOUT MAKE THIS SHOP EXCEPTIONAL

BY MIKE KORSAK



**W**hen my wife, Jen, and I moved to Pittsburgh in 2011, the property we purchased had several outbuildings, one of them a somewhat forlorn two-car garage. Despite its aesthetic shortcomings, the building was structurally sound and well situated, and it made sense that it would become my workshop.

Over the next year and a half, I did a gut renovation, stripping the building to its studs, moving and resizing window and door openings, and replacing everything from sheathing to drywall. I was careful in all my choices, because I wanted the shop to be reflective of the work that would be produced inside: functional, understated, subtly embellished, and meticulously crafted



with lovely materials. Drawing on my experience working in other shops, and on some research, I aimed to create a space that would be comfortable through Pittsburgh's muggy summers and frigid winters, have plentiful natural and

artificial light, and make the most of the building's 20-by-24-ft. footprint.

### Working from the outside in

Since the building is fairly small and I was putting a lot of work into the renovation, it seemed justifiable to choose very nice materials. For the siding I used true quartersawn spruce clapboards sawn by Ward Clapboard Mill in Vermont. For the exterior trim I opted for MiraTEC, a pre-primed MDF product designed for exterior applications. I sheathed the soffits with clear, vertical-grain Douglas fir porch flooring, and I built the gable brackets of Douglas fir as well, but with a cabinetmaker's flourish: faceted sapele plugs over the screws. I built the entry door of Douglas fir also, and used sapele for the jambs and sill.

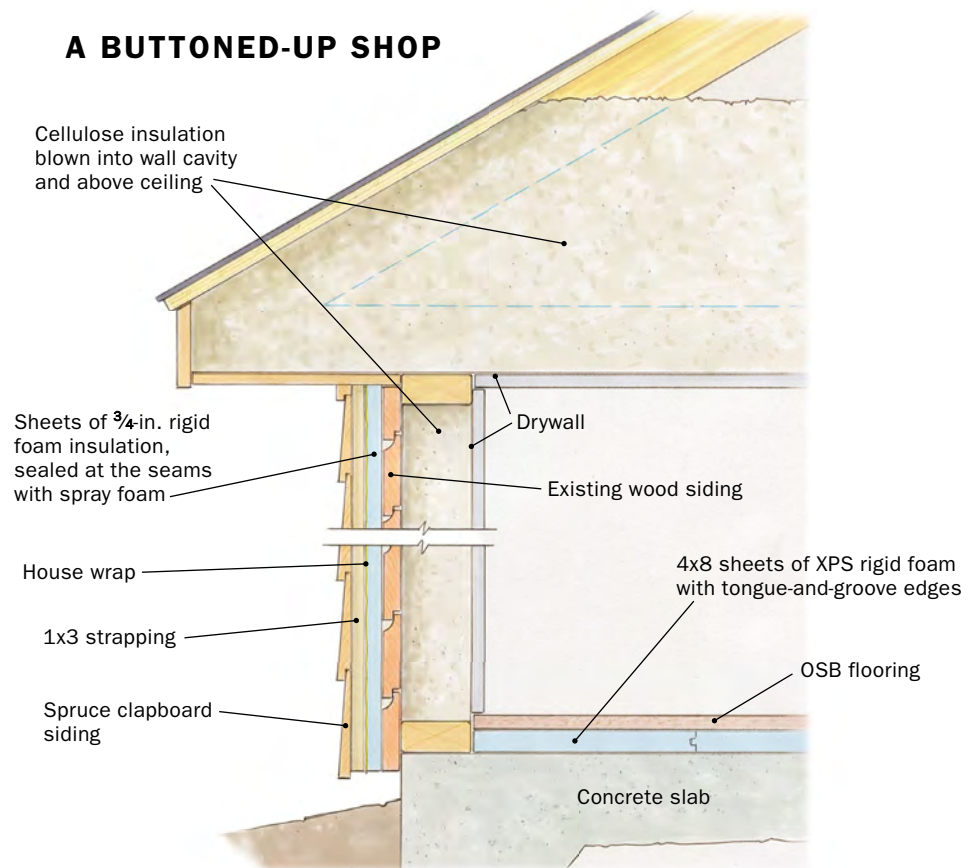


**Comfort comes first.** To contend with Pittsburgh's humid summers and snowy winters, Korsak buttoned the building up tight and heats and cools it with a mini-split heat pump.

## A BUTTONED-UP SHOP

After some deep research, I decided to heat and cool the shop with a Fujitsu ductless mini-split heat pump (see "Heating and Cooling Your Shop," pp. 53–57), which has turned out to be a great decision. With this type of system it really pays to insulate well, and after I hired an electrician to upgrade the electrical service and brought in a drywaller, I had an insulation contractor blow cellulose into the walls and above the ceiling. To provide further insulation, as well as air sealing, I installed sheets of ¾-in.-thick polyisocyanurate rigid foam insulation over the existing siding, foaming all the joints and all around the perimeter. Over that layer went a layer of housewrap, followed by 1x3 vertical strapping as nailers for the spruce clapboard siding.

To insulate the concrete floor slab, I laid down 4x8 sheets of 1-in. extruded polystyrene (XPS) rigid foam with tongue-and-groove edges, and over them



## A SMART LAYOUT

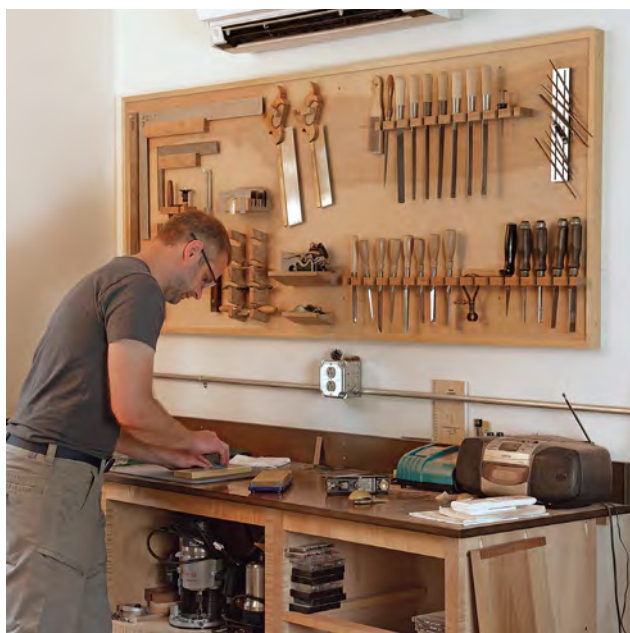
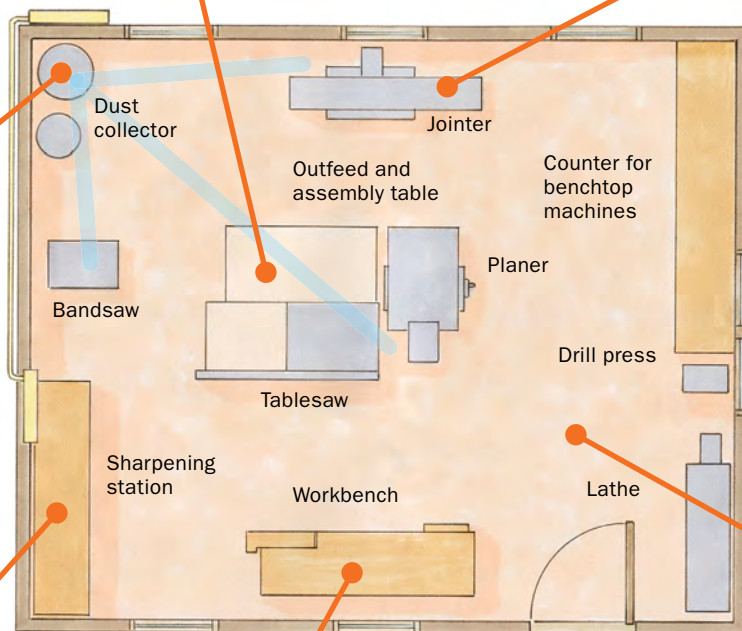
Korsak's shop layout provides efficient dust collection, best use of daylight, and an open space for assembly.



**Collection in the corner.** With the big machines clustered near the dust collector, only a small amount of ducting was required to serve the tablesaw, planer, jointer, and bandsaw.



**Ambidextrous outfeed table.** Korsak situated his tablesaw and planer so they share a single outfeed table, which also serves as an assembly table. A shopmade mobile base elevates the planer to make the shared outfeed possible.



**A neat array of tools.** Many of Korsak's hand tools are fitted in custom holders on the rack above his sharpening station.



**Best spot for the bench.** Korsak located his workbench along the south wall, where the natural light is best. He made a wall-mounted till to keep his handplanes within easy reach.



**New paint on old iron.** Korsak has been replacing his machines one by one with vintage American behemoths. He disassembled and completely restored this 1943 Oliver 12-in. jointer.

### Online Extra

For more details on how Korsak laid out his shop, watch the video at [FineWoodworking.com/265](http://FineWoodworking.com/265).

I laid a floor of  $\frac{3}{4}$ -in. tongue-and-groove oriented-strand board (OSB). I screwed the OSB to the slab with Tapcon screws, just a few screws per sheet.

### Consider the layout

With the renovation nearly complete, I began to think about the layout of the space. I knew I wanted my bench to be on the south wall, which would receive the best natural light and provide a view toward the house. I located the jointer on the opposite wall, roughly centered so the direction of feed is parallel to the long axis of the shop. On the other two walls I built long counters, one for benchtop machines, the other for a sharpening station. I put my cyclone dust collector in the far corner of the shop and I placed the lathe, which I use infrequently, behind the swing of the entry door.

That left the center of the space, where I clustered my tablesaw, planer, and outfeed/assembly table. This arrangement made for less dust-collection ducting and less electrical work, and it enabled me to use one outfeed surface for both machines. It also allowed me to keep a substantial area open on one end of the shop where pieces that are in progress can stand clear of traffic and kickback.

### Hanging the hand tools

I love machines—and I've been gradually upgrading mine to heavy-duty vintage American models—but hand tools are just as pivotal in my work, and storage for them was a key consideration as I fitted out the shop. I built a wall-hung till to hold my handplanes, with extra room in case (!) I purchase more in the future, and mounted it to the wall adjacent to my bench. Most of the rest of my hand tools are organized on a piece of solid-edged plywood mounted with French cleats to the wall above my sharpening station. I made a variety of holders for the different tools, and attached them with screws driven through the back of the plywood so no fasteners are visible. □



**Upright assembly is out of the way.** When projects are coming together, Korsak often sets them in the open end of the shop, which means they're out of primary traffic lanes and safe from kickback.

*Mike Korsak builds custom furniture in Pittsburgh, Pa.*