

Designing on the Go: A Coffee Table Takes Shape

*Altering legs,
shelf and top leads
to a handsome table
in the spirit of the Shakers*

by Peter Turner

My sister Wendy offered me a deal I couldn't refuse. She'd give me one of her watercolor paintings if I made a worktable for her studio. She sent me a rough sketch showing a long, low table with a shelf beneath the top.

Then I started thinking. Why not turn Wendy's worktable into a prototype for something I could sell as a stock item in my booth at craft shows? Something everyone needs—a coffee table. This barter proved to be the start of a design-and-build process that produced four versions of this Shaker-style coffee table

and culminated in the table you see in the front photo. It gracefully serves its purpose and is not difficult to build.

Small changes produce big results

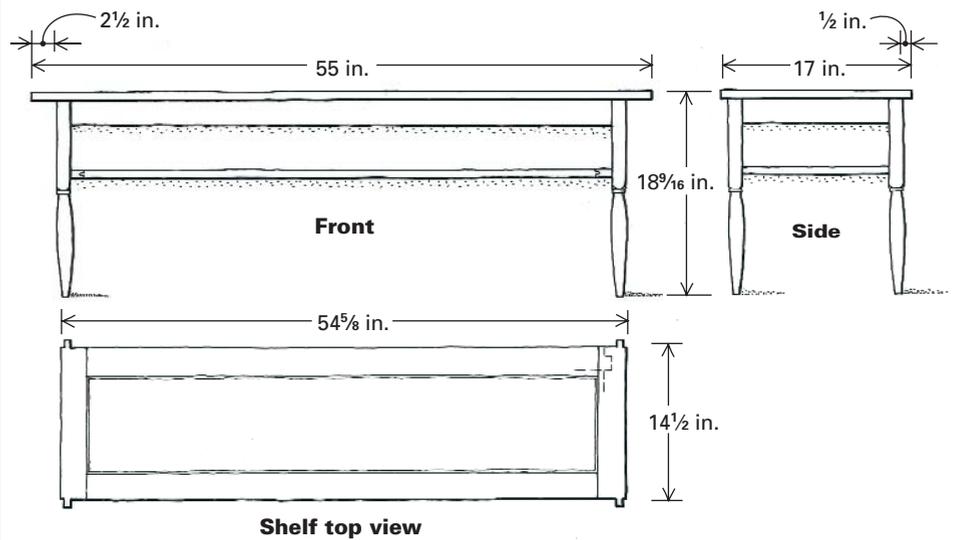
Along the way, I tried three different leg designs, three approaches to the shelf and top construction, and several different dimensions on the top. Wendy's worktable, at 20 in. high, was a little too tall to correspond to most sofas. I lowered the second version to 18 in. and added a 48-in. by 23-in. top. The legs, turned from 1 $\frac{3}{8}$ -in. stock, were slightly tapered and

ended at $\frac{15}{16}$ in. at the floor (see the back table). Both the top and the shelf had breadboard ends. Although very useful, the table's narrow width reminded me of an aircraft carrier, and the legs ended up looking like cigars.

A shortened incarnation, 36 in. by 18 in., with square, tapered legs followed (see the center table). I added a more intricate breadboard design, one with multiple tenons, after I read an article by Garrett

Shaker simplicity in a coffee table

An ample overhang on the top, turned legs and restrained design gives this coffee table a decidedly Shaker look. All joinery is mortise and tenon.



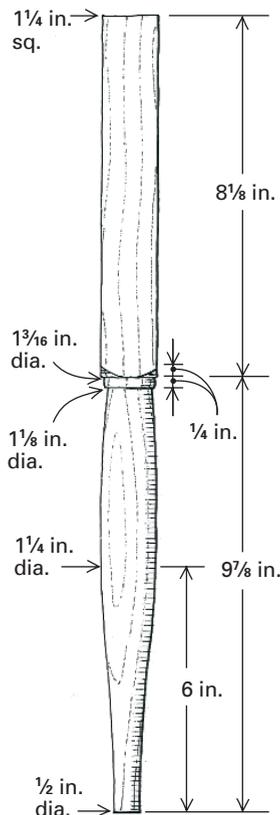
Hack describing his approach (see *FWW* #110, pp. 78-81). That was as much to try a new technique as it was to provide more strength and stability.

But some of these design features made the table too expensive. So to make the table easier and faster to build (and as a result less expensive), I reduced its complexity while retaining its usefulness and grace. Breadboard ends were eliminated on the top and replaced on the shelf with a frame-and-panel design, which I think is easier to make. And along the way, I refined the turned leg from its initial cigar shape to a more delicate



Keep trying. Peter Turner's work on this coffee table began with a request from his sister and a sketch (far left). After several tries, he settled on a graceful design that he could build quickly.

Thinner is more graceful
An early version of this turned leg was $1\frac{5}{16}$ in. dia. at the floor, but to the author, it looked too much like a cigar. He then developed this pattern, with a $\frac{1}{2}$ -in.-dia. foot.



The tough part is the transition. The point where the leg turns from square to round is easy to ruin. An initial cut with a skew (above) can prevent chipping. A parting tool (right) helps form the collar.

form. The first of these simpler versions was 18 in. high with a 48-in. by 18-in. top. I finally settled on a slightly longer version, with a 60-in. by 18-in. top that is $\frac{5}{16}$ in. thick. The shelf is $\frac{5}{8}$ in. thick.

Simple construction complements the design

There aren't many pieces to this table, and it doesn't require much material—in all, about 25 bd. ft. of 4/4 lumber and 4 bd. ft. of 8/4 wood for the legs. I use mortises and tenons to join both the apron pieces and the frame-and-panel shelf to the legs.

I start by turning the legs from $1\frac{1}{4}$ -in.-sq. stock. I'm by no means a master turner, so I use only a few turning tools on the legs:

a roughing-out gouge, a skew, a scraper and a parting tool. The gouge does most of the work, and the only tricky part is turning the pommel at the transition where the leg goes from square to round. The danger is chipping out corners of the leg where it remains square. So I use the tip of the skew to make a shallow cut at the transition point (see the top photo), then a scraper to round over the corners very gently. The detail I especially like is the $\frac{1}{4}$ -in.-wide collar at the transition from round to square (see the inset photo).

Once the legs are turned, I cut apron mortises in the legs and cut stile mortises in the shelf frame rails using a Multi-Router, which is a router-based joinery

tool. But it doesn't matter how you cut the mortises. They could be done with a router, a mortiser, a drill press and chisel, or entirely by hand. I make grooves for the shelf in the frame parts on a tablesaw to match the mortises.

When I cut apron and shelf frame tenons, I make sure the length between shoulders on both apron ends and shelf rails is identical so the legs stay square. This means I make the long aprons first and then the shelf, which has a $\frac{5}{8}$ -in. by $\frac{5}{8}$ -in. tenon at each corner. I clamp a long apron between two legs and mark shelf mortises in the legs directly from the shelf tenons. Once the shoulder-to-shoulder distance on the shelf is established, I cut

Making it Shaker when the Shakers didn't make it

Can't imagine a living room without a coffee table? The Shakers could. They didn't build coffee tables. To give my design a feeling that is reminiscent of Shaker work, I turned to my reference library (the four books I find most useful are listed on the facing page).

If you want to know more about the religious and social basis of Shaker craft, you can start with something called "Orders and Rules of the Church at Mount Lebanon: Millennial Laws of

Gospel Statutes & Ordinances." This summary of Shaker habits—described in some of the books I used—was published for church elders in several versions between 1821 and 1887. Laws covered general approaches to furniture, and they could be very specific: The 1845 laws required beds to be painted green and limited bedroom mirrors to 18 in. by 12 in.

For the design of this table, I looked at photos of Shaker work. The greater the variety and number of photographic examples I

the short apron pieces to match.

When fitting the shelf panel, I take the shrinking characteristics of the wood and the time of year into account. Various books provide formulas for figuring out how much each species of wood moves with changes in seasonal humidity.

I fitted the panel in this table in early October, when the weather was still warm, so I guessed the wood was close to its maximum width. The reveals around the edge of the panel are sized accordingly. The panel is flush on both

sides of the shelf.

A tenon on each corner of the shelf fits into a corresponding mortise in the leg. I rough out these mortises on the drill press and clean them up with a chisel.

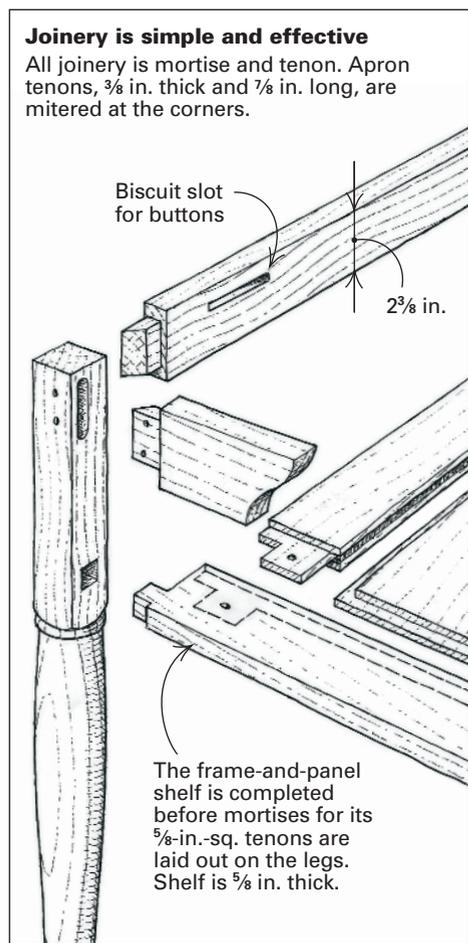
After assembly, finish up with citrus oil

Final assembly begins with a dry-fit (see the photo below). Then I glue together the long aprons and legs. The short end aprons and the fully sanded shelf are then glued into place and pinned (I use 1/8-in.-

dia. dowel for pins), two pins for each apron joint and one for each shelf joint. To attach the top, I use wooden buttons with tongues that fit biscuit slots cut on the inside edges of the aprons.

After bringing everything along to 320-grit sandpaper, I finish it with three coats of Livos oil, which has a pleasant smell and produces a nice satin sheen. □

Peter Turner makes furniture for a living in a South Portland, Maine, shop he shares with three other woodworkers.



Don't skip the dry-fit. Gluing up all the table parts shouldn't be a nightmare. A dry run pinpoints problems while they can still be corrected.

absorbed, the stronger my vocabulary became in the elements of form, scale, proportion and balance. This accumulated understanding allowed me to use specific design characteristics in this coffee table. Thin tops, 1/2 in. or 5/8 in., and ample overhangs, 2 in. to 3 in., on table ends are common on Shaker tables, so I adopted those elements here. The leg transition from square to collar to round came from a Shaker side table made in Enfield, N.H. Along with sound joinery and little decorative elaboration, the prudent selection of design elements evokes a harmony and balance present in the majority of Shaker work.

My list of most useful books includes:

- *The Complete Book of Shaker Furniture* by Timothy Rieman and Jean Burks (Harry N. Abrams, 1993)
- *Shop Drawings of Shaker Furniture and Woodenware*, Vols. 1, 2 and 3 (The Berkshire Traveller Press, 1973-1977)
- *The Book of Shaker Furniture* by John Kassay (The University of Massachusetts Press, 1980)
- *Illustrated Guide to Shaker Furniture* by Robert Meader (Dover Publications, 1972)

—P.T.