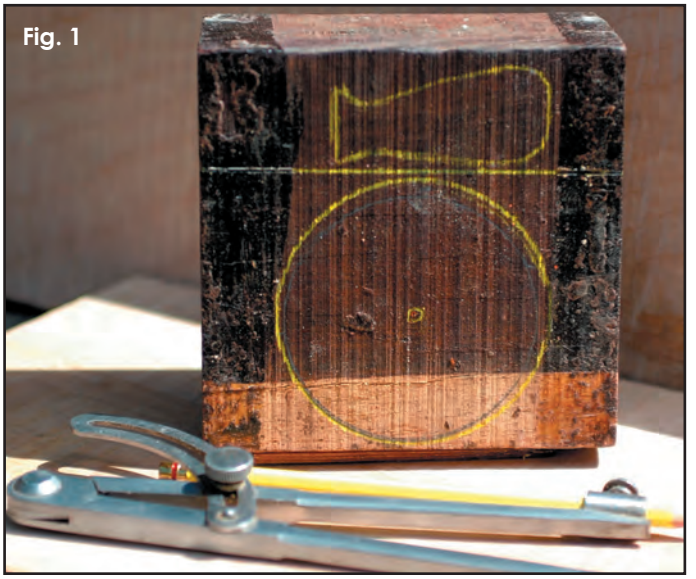
Shaving Mug and Brush Set

by D.E. McIvor

In *Sharp Practice*, author Anders Larsen reports that 90% of men shave at least once a day. That works out to about 20,000 shaves in an average lifetime or five months in front of the mirror. You could choose to sport a beard and find something else to do with those five months, or you could hit the workshop and come out with a project that makes shaving enjoyable. And don't think this project is only for half the world's population—women can covet the sensuous suds this set and a good bar of soap will produce.

The shaving brush and mug set offers three of the four basic challenges in woodturning. The mug is face-turned, the brush handle is spindle-turned, and a good project will require careful design. A successful design is critical to small-scale turning, particularly when you hope to end up with a piece that is functional and comfortable to use—something that may actually make you ***want*** to hit the sink for that 17,574th shave!

Because wood and water don't mix, keep in mind when choosing raw material that you're creating a piece that will spend its life in one of the harshest environments for wood. The mug, in particular, will get a lot of exposure to moisture with little opportunity to dry between uses. Although these pieces are small, you also want them to have some density. For these reasons, I prefer using oily tropical hardwoods for my shaving sets. Cocobolo, in particular, is known for resistance to water and, so, is my choice for this set. Blanks are available from *Craft Supplies* in a size (3" x 5" x 5") that will allow you to get both a 3" x 3-1/4" diameter mug blank and a 3" x 1-1/2" diameter brush handle blank from a single piece of wood, and guarantee a good grain match between the two (see **Fig. 1**).



The 3" x 5" x 5" cocobolo blank is marked for cutting, showing the 3-1/4" diameter mug blank and the approximate rough-sketch brush handle.

Knots for brush heads come in a bewildering array of sizes and grades, and the right choice is a matter of personal preference. The knot will arrive with the bristles embedded in an epoxy plug that will be glued into the handle (see **Fig. 2**). Silver tip badger hair is generally considered the top of the line, but it's a little more expensive and softer than other grades. I have used a 20 mm knot (they're sized by the diameter of the epoxy plug at the base), as shown in this project, for years and have never wanted anything larger. I would, however, recommend a larger knot for a woman's brush.

A FEW WORDS ON DESIGN

Because of the tough duty the mug will face, I like to

SUPPLIES

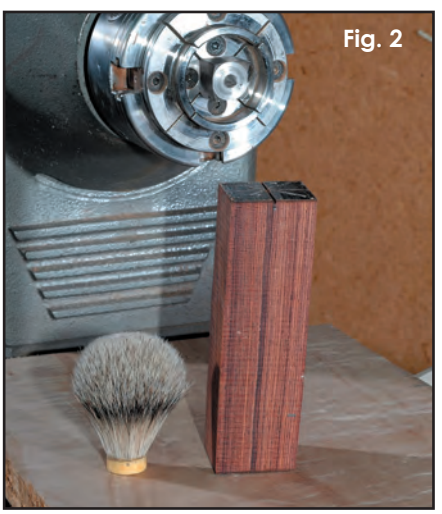
Wood: one piece 3" x 5" x 5" cocobolo* or wood of choice (oily tropical hardwoods are best)
Tools: lathe with assorted turning chisels, including bowl gouge, square end scraper, skew chisel, parting tool, and small spindle gouge; bandsaw (or precut blanks); Jacobs chuck (or drill press); Forstner bit to match brush knot diameter; spigot jaws (*optional*); calipers; ruler
Brush knot**
Brush stand (*optional*)**
Shaving mug soap***
Assorted grits of abrasive paper
Two-part epoxy glue
Finish of choice (for oily hardwood, a catalyzed oil finish is best)

Available from Craft Supplies USA, 1287 E 1120 S, Provo, UT 84606; phone: 800-551-8876; website: www.woodturnerscatalog.com; order: #202-0209, $18.50 plus shipping.

****Available from The Golden Nib, 7202 E Cave Creek Rd #1D, Carefree, AZ 85377; phone: 480-575-0729; website: www.thegoldennib.com; order: Brush Knot: 20 mm Silver Tip Badger Hair, $15.95 plus shipping, Brush Stand: $6.95 plus shipping.***

*****Available from Pirate's Cove Soapworks; website: www.piratescovesoapworks.com; order: Shaving Mug Soap, $3 to $4 plus shipping.***

Please refer to all manufacturers' labels for proper product usage



The handle blank is cut to 1-3/4" square x 5", and the brush knot is shown as it arrives in its epoxy plug.

The mug blank is mounted on a screw chuck, turned to round, and the bottom evened out.

I like to decorate the bottom of the bowl, usually including beads. Make sure to leave enough wood at this point to support expanding dovetail jaws.

The appropriate outer diameter of the mug is determined using calipers. Accounting for a 2-3/4" internal opening, this ensures a final wall thickness that will taper out from 1/4".

Final shaping of the outside of the mug includes cutting a bead at the transition point of the external curve.

Measure to predrill a depth hole for hollowing. I like the bottom to have more mass than a typical turning of this dimension, both for stability on the counter and water resistance, so I aim for about 3/8".

maintain slightly thicker walls than on my usual bowls and boxes of this scale. I go for a minimum thickness of about 1/4", and actually taper the outside of the bowl so that the lower walls and bottom are thicker still—around 3/8". Shaving soaps come in a few sizes, but a 2-3/4" opening in the mug will accommodate all the commonly available varieties. This means the outside diameter of the mug needs to be no smaller than 3-1/4". As for the brush, a handle of 1-1/4" to 1-1/2" in diameter and 3" long feels comfortable in my hand. Remember, the handle is the connection between the job and the operator, and should feel comfortable and be functional. But there's room for interpretation. Chuck some 2" x 2" pine and play with designs until you find the expression of your unique vision.

TURNING THE MUG

If you're starting with a single block of wood, extract the bowl and handle blanks with the aid of a bandsaw. Starting with the bowl blank, locate the center of the top and drill a hole to mount the blank on a screw chuck.

Using a bowl gouge, rough-turn the outside of the blank to round, smooth the bottom, and then turn the base of the mug to slightly concave (see **Fig. 3**). This will help the mug sit level on the counter on the outside edge of its base. Use calipers to mark the bottom of the blank, and cut a slightly dovetailed recess to receive expanding chuck jaws. Leaving room to support the expanding jaws, I like to turn beads in the bottom, with one bead wrapping from the base to the side of the mug (see **Fig. 4**). You can follow a similar route, or skip the decorative elements altogether. At this point, I'll also mark the center of the bottom, knowing the piece will be rechucked to remove the dovetail recess after I've hollowed out the bowl. Sand the bottom to finish. With shaving components, I like to sand through 1500 grit.

Turn the blank around, chuck it using expanding jaws, and turn the outside of the mug to final shape. I like to taper the outside of the bowl to make it easier to grip while lathering up. Keep an eye on the final outside diameter using calipers (see **Fig. 5**). I use either a bowl gouge with an Irish grind or a 1/2" spindle gouge. Both will work in this situation and both will still leave a good surface when cutting in the "wrong" direction toward the bottom of the curve. To make sure the mug is completely "over the top," I decide to add a bead at the transition in the outside curve (see **Fig. 6**).

Accounting for a final bottom thickness of 3/8", drill a guide hole in the center of the blank (see **Fig. 7**). I use a Forstner bit, and if I had a 2-3/4" diameter bit, I could do the whole thing in one go. But what fun would that be? Mark the final internal diameter (2-3/4"), using calipers or a ruler and pencil (see **Fig. 8**). With a bowl gouge, hollow out the center of the mug. Once you approach the final diameter, switch to a square end scraper, carefully cutting parallel walls and a flat bottom. If the walls aren't parallel, the shaving soap may get stuck before it reaches the bottom. I like to use a skew chisel on its side to make the final pass on the side of the mug (see **Fig. 9**).

Sand the inside and outside of the mug to finish. At this point, you have the option of turning the mug around and rechucking it to remove evidence of the dovetail (see **Fig. 10**). Here I've made a jam chuck from a scrap of cedar from my firewood stash.

TURNING THE BRUSH

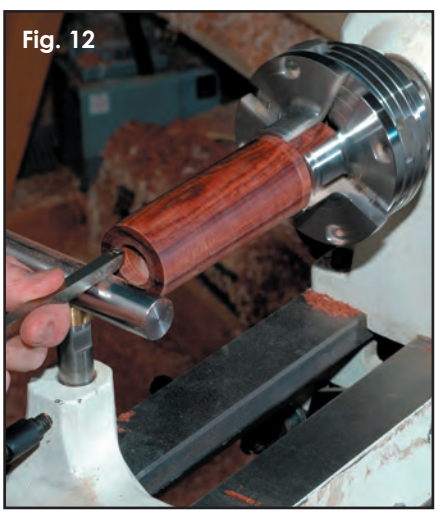
The opening for the brush knot will be on the tailstock side of the lathe. Examine the blank and determine which orientation will optimize grain figure, placing the best figure in the headstock side. Chuck the blank between centers

Mark the final internal dimension (2-3/4") with calipers.

A final pass down the inside wall with a skew chisel flat on its side, used as a scraper, leaves a clean surface that needs minimal sanding.

The mug has been rechucked on a jam chuck to do a final cleanup on the bottom, hiding evidence of chucking.

Square and clean up the knot end of the shaving brush handle with a skew chisel.



Use a homemade bedan tool for final shaping of the recess for the brush knot.

Use a parting tool to cut depth marks and to identify key landmarks on the brush handle.

and turn to round. I use spigot jaws to finish the rest of the project; therefore, I turn the headstock side of the blank to fit my jaws and rechuck the blank. With the tailstock brought up for support, make sure the blank is still turning true and square up the end using a skew chisel (see **Fig. 11**).

With a Jacobs chuck and Forstner bit, drill a recess to receive the brush knot. The knot's epoxy plug should sit just below the rim of the handle, so cut the depth accordingly. The knots are a nominal size, and using a slightly undersized Forstner bit is preferable to producing an oversized hole. Carefully widen the opening with abrasive paper, a small skew on its side, or a bedan for a snug fit (see **Fig. 12**). Test the knot until you get the fit correct, then set it aside.

Bring the tailstock up for support and lay out your design lines on the handle blank. I like to tie the handle and mug together with some common design elements—in this case, a similar curve and transitional bead. It helps to use a parting tool to establish important landmarks (see **Fig. 13**).

Shape the tailstock end of the handle first while you still

Shape the brush handle. With a clear outline of the final shape in mind, use a skew chisel peeling cut or parting tool to quickly remove waste wood.

Do the final shaping of the outside of the brush handle, including rolling a bead at the transition of the handle's curve.

Clean up the tenon after parting off the handle.

have the mass of the handle to support detailing (see **Fig. 14**). Use caution shaping behind the recess drilled for the knot, because it is easy to intersect the back side of the recess and end up with a beautiful, but useless, wood ring.

Shape the body of the handle, the shoulder at the top of the handle, and any beads or details you want to include (see **Fig. 15**). A small skew chisel is handy for cutting up to a small supporting tenon on the top of the handle. But I've also had some ruinous catches at this point, so a small spindle gouge is probably a safer bet. Sand the handle down to 1500 grit. Don't settle for anything less than perfection, stopping the lathe between grits to carefully hand sand with the grain, parallel to the lathe bed. Part off the handle and hand sand away any evidence of the tenon (see **Fig. 16**).

FINISHING

Finishing oily hardwoods is a challenge under the best of circumstances. If you opt instead to turn your set from maple or walnut burl or other domestic hardwoods, a two-part epoxy resin would make a good choice for the interior of the mug (see Ask Dale, *Woodturning Design* #22) and an oil finish for the exterior of the mug and brush. But I've found the natural oils in cocobolo and other tropical hardwoods prevent the epoxy from adhering and inhibit curing in straight oil finishes. I apply one to two coats of a catalyzed oil finish (e.g., *Watco* Teak Oil) to the mug and bowl, carefully removing excess finish according to the manufacturer's recommendation. An oil finish can be easily renewed as needed. After the last coat of oil has dried, I buff the set with Tripoli, white diamond, and then carnauba wax using a set of three buffs.

Wipe out the recess for the knot in the handle with a Q-tip wetted with a solvent, such as mineral spirits, to de-oil the wood; then glue the knot into the handle using a slow-cure, two-part epoxy glue. After the glue has cured, the shaving set is ready for use.

D.E. McIvor

Don McIvor shaves with a skew chisel and turns wood in Washington's Methow Valley. He grew up in the company of woodworkers, with two grandfathers and his father creating generations of sawdust. During his university days in Virginia, Don worked on a number of log and post-and-beam house restoration jobs, deepening his appreciation for the beauty and endurance of wood, and admiration for this country's early builders.

The lathe and its ability to reveal the internal beauty in an otherwise unpromising scrap of wood has long been a fascination, although it wasn't until 2003 that Don acquired his first lathe. Since then he has been obsessed with all things turning.

You can see more of his work at www.mcivorwoodworks.com and a video blog of this project at www.TheWoodSpinner.net. Don welcomes comments and questions, and can be reached at don@mcivorwoodworks.com.