Turn a Lidded Container

An ebony finial caps this graceful cherry keepsake box

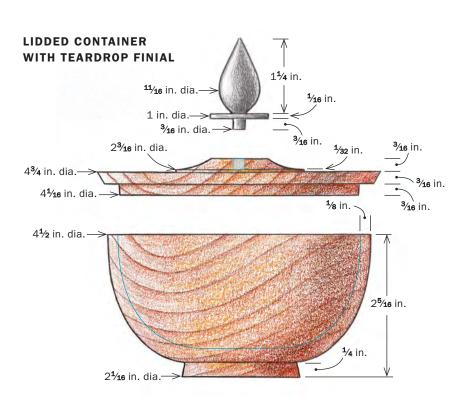




This simple container, perfect for storing keepsakes, is designed to draw the eye and hand with the appeal of form, line, and detail. I made the lid and base with black cherry and turned the finial from ebony. Although exotics can offer highly figured grain and an array of colors, a domestic hardwood such as cherry is ideal for a piece that will see frequent use. With greater fiber elasticity, cherry is less likely to fracture over time than many exotic woods with their hard, brittle fibers. For aesthetic reasons, I prefer to make the lid and base from the same species, similar in grain tone and pattern. But most important is that both pieces be air- or kiln-dried, so that the snug fit of lid to base will remain true over time.

Getting ready

After selecting my base and lid blanks, I cut them round on the bandsaw and





Secured with a screw. After bandsawing the base blank round, Monaco mounts it on a worm screw chuck, then snugs up the tailstock to begin shaping the exterior.

Bringing the basic shape into being. Use a ½-in. deep-fluted gouge to true up the face and exterior of the cylinder. Then, with a ¾-in. deep-fluted gouge, shape the exterior curves with a series of downhill push cuts.



Fine-tuning.
With the shape established,
Monaco uses a %-in. spindle gouge with bevel-rubbing push cuts to refine the surface.



marked the top of the lid and the bottom of the base. On the marked sides I'll turn a tenon that will mate with a four-jaw chuck for much of the turning.

I started with the base, mounting it between centers with a worm screw in the headstock. After truing up the blank's face and perimeter, I began shaping the exterior with downhill push cuts using a 3/6-in. deep-fluted gouge. As I refined the exterior curves, I switched to a 3/6-in. spindle gouge and downhill bevel-rubbing cuts.

If I need to achieve specific dimensions, I use a parting tool and calipers to establish various diameters before shaping the curves of the container. But most of the time, as I did here, I turn by eye—designing as you go is one of the great pleasures of lathe work.

When it was time to turn the tenon on the bottom of the base, I set dividers to the inside span of the four-jaw chuck, and transferred that dimension to the base. I cut the tenon with a ½-in. deep-fluted gouge in sweeping passes; then I cleaned up the tenon with a ¾-in. shallow gouge, being sure to create a 90° shoulder so there would be no gaps between the workpiece and the jaws of the chuck.

Exploring the interior

With the tenon turned, I removed the base from the worm screw chuck and remounted



Then a tenon. At the bottom of the base, Monaco makes a tenon sized to his four-jaw chuck. The tenon will enable him to mount the workpiece to hollow the interior. Afterward, the tenon will be trimmed down and become the vessel's foot.

Excavate the interior



Remount and ream out. After backing off the tailstock, Monaco reverses the blank and mounts the tenon in a four-jaw chuck. With the lathe running slowly, he drills a depth hole, using blue tape around the bit as a depth stop.





Open up the inside. With a ½-in. deep-fluted gouge, make a series of progressively wider and deeper hollowing passes toward the center depth hole.



Work the walls. Using bevel-rubbing push cuts with ¼-in. and ¾-in. deep-fluted gouges, Monaco establishes the vessel's final wall thickness.

it, inserting the tenon in the four-jaw chuck. After truing the face, I drilled a depth hole into the center of the blank. I wound tape onto the bit to ensure the hole stopped 1/4 in. shy of the chuck's jaws.

Next, using a ½-in. deep-fluted gouge, I took hollowing passes toward the middle of the container's interior. As I enlarged the excavation, I made sure to retain a wall thickness of ½ in. or so. I continued refining the interior with ¾-in. and ¼-in. deep-fluted gouges, establishing the final wall thickness with bevel-rubbing push cuts. Then I finished hollowing the interior by making finish cuts with a ½-in. deep-fluted interior gouge, going just slightly beyond the depth of the hole I drilled.

Before removing the base from the lathe,



Finessing the flatter parts. A

1/2-in. deep-fluted interior gouge, with its snub-nosed grind, lets Monaco finish the bottom of the interior. Before removing the base from the lathe, he applies oil and wax.



In order to turn the foot, Monaco makes a jam chuck to fit the top of the vessel. He uses the lid blank as the jam chuck.



Make a jam chuck. To use the lid blank as a jam chuck, Monaco first creates a tenon (left), which he makes with the blank between centers. Then, with the blank's tenon mounted in the four-jaw chuck, he cuts a shoulder (right) sized to the opening in the base.

Finish the foot.
After mounting the base on the jam chuck, Monaco makes final refining cuts to the lower curve of the base and transforms the tenon into a foot. He dishes the bottom of the foot slightly so the vessel will be stable.





Cut it free at the foot. Having oiled and waxed the foot, Monaco uses a flush-cutting saw with the lathe stopped to cut through the waste plug below the foot.



I used cloth-backed abrasives to sand both the interior and exterior, alternating the spin direction after each grit. Then I burnished the surfaces with a Scotch-Brite pad before applying a food-safe oil to the spinning container. I followed that with wax, buffing it out with a lint-free rag.

Reverse the base to finish the foot

To complete the base, I made a jam chuck sized to fit inside the rim. I often make jam chucks from scrapwood, but in this case, I used the lid blank to make a jam chuck; when its duty as a jam chuck is over, I shape it further and it becomes the lid.

To make the jam chuck, I mounted the lid blank between centers and trued up

Make the lid

Turn a dovetailed recess. On the underside of the lid. Monaco makes a shallow recess to fit the outside dimension of the four-jaw chuck. He creates the recess with a push cut using a 3/4-in. square-end scraper. Then, with a 3/8-in. spindle gouge, he cuts a fine bead at the perimeter of the recess (right). He oils and waxes the underside, then reverses and remounts it (far right).







To the top of the lid. Monaco gives the top of the lid its shallow ogee curve contour by taking pull cuts with a ³/₆-in. deep-fluted gouge. He removes the lid from the lathe periodically to see how the emerging shape of the lid suits the base.

the edge and the face. I used compass dividers to measure the base's rim diameter and transferred that dimension to the face of the blank. Using a %-in. deep-fluted gouge, I removed material outside the rim mark, creating a flange. I switched to a %-in. shallow gouge to clean up the flange, working carefully with light push cuts until the base fit tightly to the flange.

When the base fit, I used the tailstock to help support it while I finished shaping the curve in the lower portion of the container and transformed the tenon into a foot.

Jam chuck becomes the lid

With the base complete, I removed it from the lathe to work on the lid blank. The



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Tweak the edge.
To create the slight chamfer at the rim of the lid, Monaco uses a downhill cut with a ¼-in. deepfluted gouge.







Glue in the finial blank. After turning an ebony finial blank with a tenon to fit the mortise in the lid, Monaco secures it with CA glue.



Forming the finial. To turn the finial to a teardrop shape, Monaco uses a skew chisel and a ³/₄-in. spindle gouge. He does the delicate work with the tailstock snugged up to support the finial's tip.

flange I cut in it would serve to locate the lid on the base, so I left it. I also needed to make a shallow recess with a dovetailed shoulder on the underside of the lid; the recess lets me use the four-jaw chuck in expansion mode to turn the top of the lid. I laid out the recess with dividers and used a 3/4-in. square-end scraper to make a single push cut to create it. I cut to a depth of 3/16 in. Switching to a 3/8-in. spindle gouge, I cut a fine bead at the perimeter of the

recess. The bead makes the recess look decorative rather than nakedly functional.

Turn the top of the lid

With its underside shaped, oiled, and waxed, I turned the lid around and expanded the chuck jaws into the dovetailed recess so I could turn the top side. Using a %-in. deep-fluted gouge, I began making light pull cuts, sweeping from the outside edge toward the center of the lid. I left the

rim a little over ¼ in. thick, allowing more wood to be removed in final shaping.

Using a ¼-in. deep-fluted gouge, I made a downhill cut to bevel the lid's rim. And to contour the lid and establish the platform at the center where the finial will be attached, I made a series of bevel-rubbing push cuts, gliding the tool through an arc that creates a soft ogee shape. Where the slope of the curve breaks, I created a small step detail to define the finial platform.

This is an ideal time to determine, either with calipers or fingers, that the lid is reaching its proper thickness. It's important that the central portion of the lid remains thick enough to accommodate the finial's tenon.

For my final cleaning cuts, I switched to a curved shear scraper using sweeping pull cuts to further refine the outline of the ogee. And last, before making the finial, I drilled a shallow pilot hole at the center of the lid and then, with a modified squareend scraper, I turned a mortise to receive the finial's tenon.

Finally, the finial

After roughing down a square chunk of ebony between centers, I mounted the now-cylindrical finial blank in the 4-jaw chuck. With a ½-in. skew chisel, I trued across the end grain with a shear cut, then made a pencil line ¾6 in. from the end of the blank in preparation for cutting the tenon. I made a peeling cut with the skew just shy of the pencil line so the tenon would be slightly shorter than mortise depth, ensuring it wouldn't bottom out.

With the tenon fitted, I removed the blank from the chuck and applied a few small drops of thick cyanoacrylate (CA) glue to the mortise and a thin layer to the surface of the tenon. I pressed the tenon into the mortise, quickly wiped away any excess glue, sprayed on some accelerator, and remounted the lid in the chuck.

To turn the finial to its teardrop shape, I used a skew to make a series of downhill cuts, first arcing the tool toward the finial's tip, then toward its base. I also used the skew to form the flat area of the finial at the foot of the teardrop.

My finish of choice for this project was Danish oil, and a food-safe wax for buffing into a soft matte sheen. Danish oil enhances the dark richness of the grain in black cherry, and when those tones are combined with ebony, they speak to the kind of beauty found in many classic forms that inspire my eye for design.

Matt Monaco is a wood turner and owner of Monaco Bowls in Missouri.



Off with the disk.
After the teardrop shape is complete, back off the tailstock and use a handsaw to remove the disk of waste wood at the tip of the finial.



Flatten the finial's base. The final bit of shaping involves skew work to refine the base of the finial.



