

# Elegant Two-Piece URN

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Cremation Urn, 2020, Cherry, paint, 11" x 5¾" (28cm x 15cm)

A turned cremation urn is essentially a hollow container with a sealable opening—a straightforward project *if* you have hollow-turning skills. A typical urn, often shaped like a vase, is hollowed through the neck, resulting in a single-piece body. Depending on the urn's size, this may require hand-held tools or a deep hollowing rig. Absent these tools or deep-hollowing experience, many turners are hesitant to turn an urn. Following is an alternative process that doesn't require "through-the-neck" hollowing. It involves rough-shaping the form, cutting it in half, hollowing the two halves separately, and then rejoining the halves. Requiring simple tools, the process can be scaled up or down as desired and can even be used to create a deep hollow vessel.

## Urn considerations

Whether you are making an urn for a human or a pet, plan ahead for the necessary size. Will it be a full-size, companion, or keepsake urn? A simple capacity calculation is helpful: Figure one cubic inch of interior volume for each pound of pre-cremation body weight. The beauty of a keepsake urn is that it is purely a remembrance container whose volume is discretionary. Companion urns, which contain the ashes of more than one individual, should be planned for the increased capacity needed.

Another question: Are there any final-resting-place constraints? The final location of the urn often dictates size and shape, along with the amount and type of ornamentation.

An urn, being only a container, does not need to be airtight, watertight, or weatherproof. The only essential requirement is that it be able to receive the ashes and then be closed. Many turned urns are delivered with a plastic bag and twist-tie closure. The ashes are deposited into the bag, which is closed prior to the urn lid being affixed. The urn lid, with or without a decorative finial, can attach to the body by way of wood threads, friction-fit, or any other method used for turned containers. The closure method is a wide-open design choice, even including a glued-in-place lid if future access is not necessary.

## Blank prep

To make a simple-shaped urn in two pieces, it is helpful to think of two bowls

## Rough-turn, cut apart



1 After roughing the cylinder, the author forms the separation point by "stair-stepping" the cutter paths for safety, using a wide parting tool.



2 Without a V-block large enough to hold the blank safely at the bandsaw, Bessey K clamps, with their flat surfaces, provide a safe alternative. Never cut unsupported round stock at the bandsaw, as it is a safety hazard.

being joined together at their rims, resulting in a hollow form. The shape and size of the form is up to you, and the grain orientation can be either facegrain (like a bowl) or endgrain (like a lidded box). Since both parts will come from a single piece—shaped, split in half for hollowing, and then rejoined—either orientation will work. To illustrate this article, I chose a block of cherry, 6" (15cm) square and 11" (28cm) long. I mounted the wood in spindle orientation, meaning I would be hollowing into endgrain.

I mounted the blank between centers, turned it round, and formed tenons on both ends to fit my chuck. At this stage, I could visualize the overall size and shape enough to identify the maximum-diameter location. This is where the body pieces are separated and, after hollowing, glued back together. I made a wide parting-tool cut at this location, stair-stepping as I progressed to create tool clearance (*Photo 1*).

Rather than making a very deep part and then hand-sawing the blank into two pieces, I completed the cut at the bandsaw (*Photo 2*). The wider parting-tool cut, made to only partial depth, allowed me to locate my bandsaw blade in the middle of the opening, with a small lip of wood on either side. This extra material will be helpful later, as it will indicate my target inner diameter during hollowing so the two interface diameters (gluing surfaces) will mate up.

## Hollow the halves

I mounted each blank into its own chuck, but you can get by easily with only one chuck. Having two chucks saves time and eliminates potential alignment errors when re-mounting. I started with the base half, but you can begin with either end.

As you would when excavating a bowl, hollowing in stages allows the remaining wood to provide support for the outer edges. Work on both the inside and outside alternately, hollowing and shaping as you go (*Photo 3*). As

## Hollow the base section



**3** This hollowing is into endgrain, so the author cuts from center outward to the left. Avoid vibration by hollowing and shaping the outside wall incrementally, rather than hollowing all at once.



**4** A padded platter mounted to a faceplate on the tailstock provides great support at the open end of the hollowed base section. A simple piece of plywood with a craft foam pad would work well, too.

## Hollow the top section



**5** The top part of the urn is hollowed in the same progressive manner as the base. The neck hollowing is deepened beyond the planned opening point.



you hollow deeper and the wall support decreases, you can employ a padded faceplate to support the tailstock end (*Photo 4*). This support allows for continued outside shaping without chatter.

With the lower half hollowed and roughly shaped, ensure the base hollowing will accept the gluing interface of the top properly. It is also possible to hollow both halves before checking/adjusting the glue interface.

Then mount, hollow, and shape the upper portion in the same manner as the lower half—in stages (*Photo 5*). Note that the inside, upper section must be hollowed farther to allow for the neck opening (*Photo 6*). A bowl depth gauge works well to measure and mark the

inside depth of both the upper and lower blanks. Any markings on the outside of the turnings will disappear with further cutting or sanding, so it is OK to mark it with pencil. I find that making measurement cards is helpful as the outside shape refinement continues (*Photos 7, 8*). Something as simple as a couple of 3×5 cards marked with key inside dimensions will do; it takes only a few moments and can help you avoid turning too far—allowing the inside to meet the outside.

## Join and refine shape

The two halves could be dry-fitted together and, with tailstock support, turned to refine the outside shape. But since I don't have any need to work on ▶

## Gauge progress, note key interior features



Even with the wide parting cut, the grain match will be reasonable, unimportant in this case since this vessel is to be painted a dark color. Assess the glue joint and make adjustments as needed.



Prior to gluing and final shaping, the author makes a set of “guides” from 3x5 cards. These are taped to the work and indicate key inside features, such as the bottom, shoulder, and neck hollowing limit. Knowing the exact location of these features will help prevent surprises.

## Glue body sections together



The glue-up can be done at any point after the two sections are hollowed. The lathe makes for a good clamp; use the tailstock handwheel to apply gluing pressure.

## Sand the urn



After outside shaping is completed, a bit of power sanding smooths out tool marks and preps the surface for paint.

the inside again, I opted to glue the two halves together at this point (*Photo 9*). Because the gluing surfaces are facegrain to facegrain—essentially the outside surface of a tenon and the inner wall of the lower section—and are longer than ¼" (6mm), standard wood glue will provide a very strong, permanent bond.

Since my plan was to paint this urn, I knew the glue line would eventually be obscured. If you plan to leave the wood grain showing, you can take more care to match up the grain, add a feature ring, or accent the join in an artistic manner. With the glue applied and grain aligned, I clamped the parts together on the lathe.

After the glue has dried, finalize the urn's shape. To make any heavier stock removal safe, I periodically pencil mark the critical inside locations on the outside of the form, using the 3x5 card documentation. I also sometimes remove the turning from the lathe and stand it upright to assess its shape.

When you are content with the final shape, sand the work (*Photo 10*) to the grit necessary for the application of your finish of choice. Since the chuck mount on the upper part of the turning wasn't needed any longer, I removed that chuck at this time. I left the base chuck in place so I could mount and remove the work from the lathe with great repeatability.

Prior to forming the final neck opening and removing the extra base material, I took the turning from the shop and placed it upright to view it for a while. “A while” can be defined as a few moments or a few days, depending on your reaction to the shape you have made. I like to let it sit for a day, so I can glance at it several times as I pass by it during the day. If you decide the shape needs further refinement, additional sanding, or any other work under power on the lathe, the base is still in the chuck mounting. The turning can be easily remounted on the lathe.

## Open the neck

Next, part off the top of the turning to “open up” the neck. Because the shape

of the upper section was formed in conjunction with the depth of the hollowing, I knew that by removing the waste wood at the top, I would be cutting into the already hollowed portion of the neck (*Photo 11*). If you haven't hollowed deep enough into the top, the end can be opened up as needed, but I'd rather break into an open area and avoid having to turn in from the top. Now, with the tailstock out of the way, shape and clean up the opening of the urn.

I decided to top this urn with a threaded lid and a finial. I cut a small recess to define the location of the lid and clean up the area to be threaded. I own threading jigs but find it is much easier and faster just to hand-chase the threads. I chase the internal threads using a coarse pitch: 16 tpi (threads per inch) works nicely for this application, as it is a good balance between coarse enough to be fast-acting and fine enough to provide some rotary resolution.

It is beyond the scope of this article to cover hand-chasing threads, but one practice that helps is to cut the internal threads first (*Photo 12*). If you mess up, just turn those away and open the diameter a small amount. Once the internal threads are completed satisfactorily, I then cut the mating external threads at the appropriate diameter. Getting things perfect in the first pass is beyond my skills, so I typically begin with the diameter for the external threads a bit oversized. This allows me to take minor trim cuts and zero in on the right fit.

## Paint

With the outside shape refined and sanded, the neck opening shaped and sanded, and the neck internally threaded, it was time for paint. I left the urn still attached to the waste wood mounted in the chuck and moved it to a safe painting area, in this case outside.

For this application, I used gloss black spray paint in a rattle can (*Photos 13, 14*). I sprayed directly onto the bare wood with no primer. One handy item is a

plastic trigger handle, available in the paint section of home stores, which turns a rattle can into a trigger-actuated spray gun—very maneuverable and well worth the minor expense.

## Lid and finial

Since I planned to also paint the lid and finial, I chose to use scraps of cherry for these parts. I turned the lid, creating the diameter to be threaded, as shown in *Photo 14*. I usually make the threaded length longer than needed, so excess can be cut off to obtain the desired amount of thread engagement.

In this case, I completed and painted the lid prior to turning a finial. I wanted to have it painted and installed in the urn so I could gauge the look of various

finial options as I turned them (*Photo 15*). I prefer to make a lid-and-finial assembly, rather than combining the two elements in one piece. This allows me to turn several finials and “try them on” until I'm content with one of them. Any unused finials can be saved for other projects. It also allows for errors; if I make a mistake on the finial, the lid remains unaffected. The finial can also be left as friction-fitted, so with any subsequent breakage, it can be replaced easily.

## Final steps

The last step is to separate the urn from the base and tenon wood. Using a pressure pad in the tailstock secures the urn, so you can turn away the excess material left at the base (*Photo 16*). Rather than ▶

### Open and refine neck



**11** With the urn remounted on the lathe, the top end is parted off within the pre-hollowed depth.



**12** After cleaning up the top of the urn and filling any exposed cracks, the inner diameter of the neck is formed, a recess cut, and threads chased.

### Apply paint



**13** The author uses a rattle can spray paint on the urn body.



**14** The lid is turned, threaded, and painted. Notice the  $\frac{3}{8}$ " (10mm) hole to accept the finial later. Part of the length of threads will be cut away to provide a reasonable thread engagement.

parting the urn off and risking dropping or marring it, I used plastic wrap to stretch-wrap it to the faceplate mounted in the tailstock (*Photo 17*). I even put some padding on the bed of the lathe, just in case. Far too much work has been completed to ding the finish now. The

urn is cut away and is safely held to the padded faceplate by the plastic wrap.

To reverse-mount the piece and complete the bottom of the foot, simply move the plastic-wrapped faceplate to the headstock (*Photo 18*). Complete the base turning at a slow speed.

The reason I chose a black paint finish was so I could “over-paint” with some accent colors using an airbrush. This could have been done prior to separating the urn from the base, but I found it useful to separate the urn and take some photos of it in black, which helped me think about additional color enhancements before committing to them.

### Options

The goal of this project was to create a cremation urn with tools and equipment common to most turning shops. The second chuck is optional and the padded faceplate isn’t critical. You can even turn this project with no chucks: The halves could be mounted on a faceplate with sufficient scrap to accommodate the screws. Threading isn’t necessary, as the lid can be made with a plain friction fit. Painting a base color and accents could be replaced with wipe-on polyurethane or a penetrating finish. A faceplate, standard lathe centers, and turning tools (including a tool you favor for hollowing) are all that is required.

Depending on the shape and aspect ratio you desire, two bowls can be hollowed with a traditional bowl gouge and fastened together. Nothing expensive or exotic required. Also, note that this “two-piece” approach will work well for hollow vessels of nearly any shape or size. If you get really ambitious, you can create more than one join (and more than two sections) to create a deeper vessel.

I hope this method inspires you and opens up new possibilities for making hollow vessels. ■

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### Turn a finial



Since the urn and threaded lid are painted cherry, the author turns a simple finial in cherry, too. With a 3/8" tenon, any number of finials can be turned and visually checked for aesthetics prior to committing to glue.

### Part body from tenon



The urn is remounted on the lathe and separated from the waste wood at the base. The author uses a padded faceplate at the tailstock end for added stability. Before making the final parting cuts, plastic stretch wrap is used to hold the work to the padded faceplate. This is far safer than working one-handed and trying to catch the urn upon separation.

### Reverse-mount, complete foot



The tailstock faceplate with stretch-wrapped urn is now mounted to the headstock, allowing access to the bottom of the foot. This mounting is secure enough for only light cutting and sanding.