

Art Liestman

Where I live, companies harvest bigleaf maple trees and cut the highly figured wood into 2"- to 3"- (5 cm- to 7 cm-) thick slabs for use in musical instrument bodies. After the wood is dried, companies select the highest quality pieces to sell to instrument makers. Woodturners often purchase the leftovers. This wood is quite beautiful and well suited for turning, but given that it has already been cut into thin slabs, we turners are limited to what we can make: small shallow bowls, platters, or perhaps peppermills. For hollow vessels, these slabs are not ideal, except for tiny vessels.

We can, however, still make larger hollow vessels out of this material by combining ideas that other turners

utilize to make hollow vessels that are oval in cross-section. Michael Hosaluk's fish originate from a solid piece of wood, something like a 4" x 4" (10 cm) spindle blank 6" (15 cm) long. He turns a hollow vessel, bandsaws out of the middle a 1½"- (3.8 cm-) wide strip of wood, glues the two outer halves together and then decorates the fish, disguising the glue joint. The result is a 6"-long fish shape, nearly 4" tall and only 2½" (6 cm) wide.

Lowell Converse, in an article in *American Woodturner* (vol 13, no 2), describes a technique he called *lost wood*. He begins by turning a staved vessel with, for example, twelve staves. Alternating staves are removed and the other staves are glued back together, creating a vessel

with six curved sides meeting at angles where the staves are joined.

Ideas combined

My approach combines Michael's and Lowell's ideas. Take a 3"- (7.6 cm-) thick slab of figured wood that is 4" wide and 8" (20 cm) long. (The grain runs in the 8" direction.) Resaw the 3"-thick board down the middle to create two equal planks. Select a waste board (poplar works well) and cut a board that is 1" (25 mm) thick and 4" wide by 8" long. (The grain oriented the same direction as the figured wood.) Glue the three pieces together with the poplar board sandwiched in between. Turn the glued-up assemblage into a vessel form, and then hollow it. Separate the blanks along the glue lines and then glue the ▶

BeyondRound

The Lost Wood Process



1 Mark the goblet blank with an angled line for easy reference at glue-up time.



2 Drill alignment holes in the goblet blank before resawing.



3 Drill matching alignment holes in the waste wood.



4 Position the waste wood between the halves of the resawn goblet blank.



5 The entire assemblage, including the paper layers, is ready to be glued.



6 The assemblage is glued and clamped. Let the glue cure overnight.



7 Cut away enough wood from each end to eliminate the alignment holes.

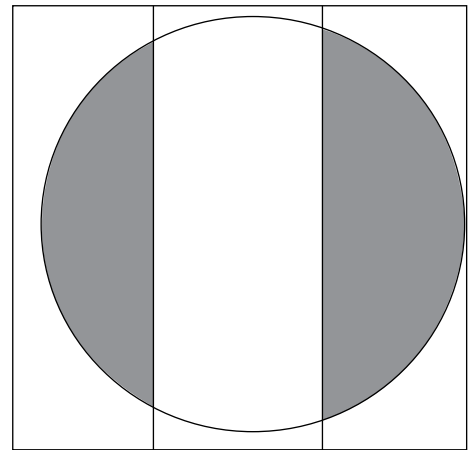


Figure 1.

two outer halves back together. The result is a hollow vessel, football-shaped in cross section: 8" tall and 4" and 3" in diameter. The grain will be matched.

To illustrate this process more clearly, I will describe how to make a goblet. The goblet idea came from Bruce Pratt during a class I taught at Arrowmont. Denise DeRose, my assistant during that class, helped improve the gluing method.

Grain matching

To help ensure that the grain matches in the finished goblet, I recommend the following procedure.

Assemble the following materials:

- 2" × 3" × 8" blank for the actual goblet (grain running in the 8" direction)
- 1" × 3" × 8" waste wood
- Two ¼" (6 mm) bolts that are 3½" (9 cm) or 4" (10 cm) long, plus a washer and nut for each bolt

- Brown paper bag (Kraft paper)
- Carpenter's wood glue (yellow glue)

Prepare a glued-up assembly for turning

Mark the 2" × 8" face of the goblet blank with angled lines so that the workpieces will be obvious to orient during glue-up (*Photo 1*).

1. Using a drill press, drill two 17/64"- (6.4 mm-) diameter holes through diagonally opposite corners of the 3" × 8" face (*Photo 2*). (The holes are just slightly oversized for the ¼" bolts.)
2. Line up the goblet blank with the waste wood blank and transfer the locations of the holes to the latter.
3. Using the drill press, drill 3/8" (10 mm) holes through the opposite corners as marked. The oversized holes will make the alignment easier (*Photo 3*).
4. Carefully resaw the goblet blank into two pieces that are approximately 1" × 3" × 8" (*Photo 4*).

5. Lightly sand the inner (recently cut) faces of the two blanks on a belt sander to make them flat for gluing. Also, sand the two faces of the waste-wood blank.
6. Cut two rectangles of brown paper slightly larger than the slabs of wood (*Photo 5*).
7. Apply a thin layer of glue to coat the inner face of each of the goblet blanks and to both sides of each piece of paper and both sides of the waste blank.
8. Assemble the layers in order with a paper layer on either side of the waste blank, the goblet blanks on the outside, and with the holes aligned.
9. Insert the bolts through the holes (pushing through the paper) to align the layers.
10. Add the washers and nuts and tighten.
11. Use additional clamps to squeeze out the excess glue and let cure overnight (*Photo 6*).

Kirsten Kone

A Kirsten Kone allows the turner to remount a hollowed-out turned item, such as this goblet, without compressing its rim, lip, or shoulder (which could cause a crack). A bit of sandpaper creates a friction drive on the inside of the cup while a live center holds the foot. The friction drive uses 150-grit abrasive on a sanding pad mounted at the end of a bar, which presses on the bottom inside of the cup or the hollow vessel. The cone does not function as a drive; it merely helps to align the goblet or hollow vessel. Mounted in this fashion, the stem of this goblet or the foot of a hollow form can be safely turned and sanded.

Franck Jannesen wrote an article on how to make a variation of the Kirsten Kone in "Reversing Bar Revisited" (*AW*, vol 23, no 1). Similar devices are available commercially.



12. Unclamp and remove the bolts.
13. Cut approximately ½" (13 mm) off each end of the glue-up to remove the drilled holes (*Photo 7*).

You now have a glued-up assembly that is approximately 3" × 3" × 7", an ideal size for a goblet.

Locate the center point

Before mounting the assembly between centers, it is important to locate the correct center point on each end. Since the waste blank will be removed and the two outer layers will be glued back together, locate the point in the exact center of the thickness of waste blank. (Centering the width is not as crucial, but it should be close.) *Figure 1* shows an end view of the result if the center point is located to the right of center: The two dark areas represent the different thicknesses of wood that remain after removing the lost wood. This difference will result in two forms that will not align properly to form a goblet.

Steps for turning the goblet

The goblet will be turned in two steps. First, shape, sand, and finish the cup of the goblet and shape the foot. Leave the stem overly large. For the second step, break the glue joints to remove the waste wood and then glue the two outer forms together. After the glue cures, remount the blank and turn the stem to its final dimension. The result will be a cup and foot that are football shaped and a round stem. Here are the steps:

First turning procedure

1. Mount the assembly between centers and turn it to a cylinder.
2. Choose which end is to be used for the foot and turn a tenon of appropriate size for your chuck (*Photo 8*).
3. Remount the blank into the chuck and true up the cylinder. Use the tailstock for support.

4. Mark the locations of the bottom of the goblet's cup and the top of its foot by turning shallow grooves into the cylinder.
5. Shape the outside of the goblet cup (*Photo 9*), being careful to leave a thick stem below it. Because the waste wood will be removed, the diameter of the stem at this point must be at least 1", plus the thickness of the intended final stem. To be safe, I leave it a little thicker.
6. Prepare to hollow the inside of the goblet cup. Since you will eventually be removing the waste wood, you can drill holes into this wood to help determine the wall thickness of the cup as it is hollowed. I drill holes every ½" or ¾" along the length of the cup in alternating sides (*Photo 10*). This step is optional.
7. Hollow the inside of the goblet cup (*Photo 11*). I left the walls about ¼" (6 mm) thick, but thinner walls look more elegant.
8. Sand and finish the inside and top of the cup. Do not worry about leaving a dimple or nub at the bottom of the cup; the waste wood will be removed.
9. Shape the outside of the foot and decrease the diameter of the stem to about 1½" (4 cm) diameter (*Photo 12*). I created a gentle curve on the top of the foot, with straight sides below. Experiment with different shapes to see what you like.
10. Sand the outside of the foot and cup.
11. Remove the assembly from the chuck.

Split the blank and re-glue

1. Securely hold the tenon of the blank in a bench vise (or place the chuck on the bench and use it for a vise).
2. Here are two methods to split the assembly:
 - a. Carefully place the cutting edge of a bench chisel exactly on a glue line at the lip end of the cup. ▶



8 Turn the assembly to a cylinder and turn a tenon on one end.



9 Mark where the foot and goblet will be, then shape the goblet cup.



10 Drill holes into waste wood for checking thickness (if desired).



11 Hollow the inside of the goblet cup.



12 Shape the stem and foot.



13
Separate the blank from the waste wood.



14
Align and glue the goblet halves together and clamp to dry overnight.



15
Turn the stem. Take care not to mar the cup and foot with the tool or abrasive paper.

3. You should now have three pieces: the waste wood and two outer layers (*Photo 13*). The brown paper will have split in half, leaving paper on the surface of the glue joints.
4. Lightly sand the inner faces of the outer layers on a belt sander to remove the paper and make them flat for gluing.
5. Apply a thin layer of glue to coat the inner face of each of the outer layers.
6. Carefully align the blanks and clamp to squeeze out the excess glue (*Photo 14*). Remove any glue that gets into the inside of the cup. I use a moist paper towel to wipe off excess glue, followed by a dry paper towel to get rid of any glue smeared by the moist towel. Alternatively, let the glue dry enough so that it can be carefully removed with a fingernail or sharp knife.
7. Allow the glue to cure overnight.

Second turning procedure, the stem

To turn the stem, remount the goblet between centers. There are several ways to do this, the key being not

to damage the inside of the finished cup. I use a Kirsten Kone, which is explained in the sidebar. When you turn and sand the stem, take care not to mar the surfaces of the foot and bowl (*Photo 15*).

Cleanup

After turning the stem, it will be necessary to do some handwork with rasps and/or sanders to blend the forms created from the two turning sessions. Once you are satisfied with that, simply sand and finish.

The result is a goblet with a football-shaped cross-section in the cup and foot and a round stem.

Other forms

I chose a goblet to illustrate the process, but the lost wood method can be used to produce many other interesting shapes, either by simply gluing the two outer parts together or by continuing with additional shaping between centers. By using different thicknesses of waste wood, you can get various football shapes. *Figures 2 and 3* show the cross-sections of 4" diameter turnings with 1"- and 1½"-thick waste wood strips removed, respectively.

To dazzle your friends, try making a goblet with a captured ring using this method. (That's a joke.)

One interesting option is to turn a hollow form, being careful to make the entry hole entirely contained within the waste wood. When this layer is removed and the two outer layers glued together, you have a hollow form with no obvious entry hole. By carefully matching the grain and/or the use of surface enhancements (color, pyrography, carving) you can disguise the glue line. The photo gallery accompanying this article shows pieces turned using the lost wood process.

Give it a try. Your turnings don't have to be round! ■

Art Liestman coaxes wood into peculiar shapes in Coquitlam, British Columbia. Please visit his website at www.artliestman.com.

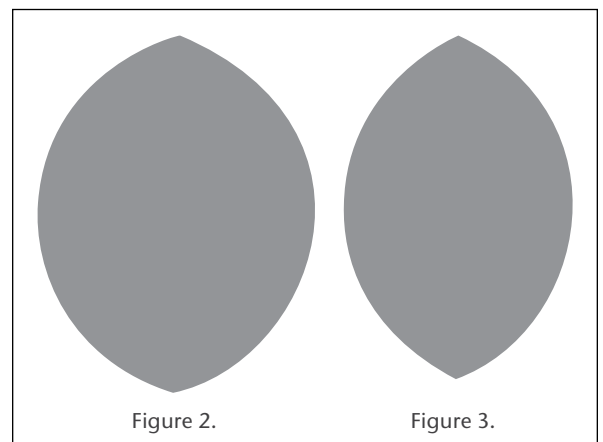


Figure 2.

Figure 3.

LostWoodGallery

Art Liestman
Photos: Kenji Nagai

Art Liestman and Bruce Campbell, *Lost Wood Box*, 2012, Bigleaf maple burl, 3⁷/₈" x 2⁵/₈" x 2¹/₆" (10 cm x 7 cm x 5 cm)



Alpha, 2007, Bigleaf maple burl, acrylics, 4³/₄" x 3⁵/₈" x 2³/₄" (12 cm x 10 cm x 7 cm)



Restart, 2010, Bigleaf maple burl, acrylics, 8¹/₆" x 4" x 2³/₄" (21 cm x 10 cm x 7 cm)

Teapod: An Evolutionary Ancestor of the Teapot, 2011, Bigleaf maple burl, walnut, acrylics, 3¹/₂" x 8¹/₂" x 4" (9 cm x 22 cm x 10 cm)



Splay, 2009, Bigleaf maple burl, acrylics, 11¹/₈" x 4⁵/₈" x 3³/₈" (28 cm x 12 cm x 9 cm)

Remembrance, 2011, Bigleaf maple burl, 3⁷/₈" x 3¹/₄" x 4⁵/₈" (10 cm x 8 cm x 12 cm)



LostWoodGallery



Lowell Converse, untitled, six-sided vase, 2004, Walnut, maple, 10" x 4" x 5" x 6" (25 cm x 10 cm x 13 cm x 15 cm)

Photo: Nick Falzerano

Collection of Dave and Karen Long

Denise DeRose, *Made Yew Look* clutch purse, 2009, Claro walnut burl, Japanese yew, 5" x 4" x 11" (13 cm x 10 cm x 28 cm)



Michael Hosaluk, *Saskatchewan Fish*, 2007, Birch, toothpicks, rice paper, acrylic paint and gel, 5" x 4" x 7" (13 cm x 10 cm x 18 cm)

Photo: Trent Watts



Podash, 2012, Ash, 3½" x 5" x 5" (9 cm x 13 cm x 13 cm)

Club, 2012, Mahogany, 3¾" x 4¾" x 5 ¾" (10 cm x 12 cm x 15 cm)



Joe Landon

I became interested in the lost wood process by studying the work of Art Liestman after I saw his work a couple of years ago. The idea of turning a hollow form into a pod using this technique incubated in my mind for a while. My work is a progression and my ideas are often light years ahead of my skill set—I have only been turning for four years.

These pods represent an accumulation of concepts and inspiration from many AAW masters, with my own unique spin. I learned to turn hollow forms from Trent Bosch three and a half years ago. John Jordan taught me basic carving skills about a year and a half ago. Both Trent and John were demonstrators at my local chapter, Central Illinois Woodturners.

I place objects, usually small pebbles, inside the cavity of the pod. This introduces the element of sound when a pod is picked up and explored. In stark contrast to my typical delicate, colored, high-gloss hollow forms, pods are meant for kids to explore and to appreciate. In reality, they appeal to the curious and playful side in all of us.