WESTERN CAPE WOODTURNERS ASSOCIATION

NEWSLETTER : FEBRUARY 2026

The Western Cape Woodturners Association is a group of folk with a common interest in woodturning and wood.

We aim to promote the art of turning wood and to create awareness of this craft in the community and encourage young members to join the fellowship.

Members meet every Wednesday at 6.30pm to do " hands-on " turning and get instruction and help.

The venue is the Pinelands Hobbies Club, Nursery Way, Pinelands, Cape Town.

The Formal Meeting is on the 3rd Wednesday of the month at 7pm.

Visitors are welcome .

FEBRUARY 2026:

The main meeting on 18th February will be the AGM.

Remember the raffle.

The annual Turnfest at the Old Mutual Conference and Exhibition Centre at Kirstenbosch has been booked for 2nd to 6th April 2026. Many thanks Tanya.

It is only 2 months until the Easter weekend and it gives all members an opportunity to display your work and sell work as well.

This is a good venue for tourists and local visitors too.

So time to sharpen ideas and chisels to create amazing items to showcase at this fantastic event.

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CONTENTS :

EDITOR'S NOTE :

This month I have another article on making your own chuck for doing Offset Turnings by David Mueller. This seems much simpler to make than last months elliptical chuck.
Following Mervin's excellent demonstration on his way of making pens, and 10 coats of superglue to finish them, I include an article on using cyanoacrylate to finish work, by Don McIvor.
Cindy Drozda gives a comprehensive discussion on using dyes to enhance the figure in burls.
A short article in using offcuts to make a tray is also novel idea.

A big welcome to newcomers :
Linden Bradfield, Hannes Holm, Neil Maythem, Ronald Munro, and Andre Schreuder.
We hope you learn lots of new skills and have many happy hours in front of a lathe.

There are also another 10 prospective individuals who are thinking of joining the biggest woodturning club in South Africa.

Birthdays in February :

Best Wishes to you all for your birthdays in February :

Gordon Bowers, Izak Cronje, Phillipe Flamande, Peter Nicolle, Joel Philpott, Bruce Shadwell, Ian Sheard, and Derek Westley.

Our grateful thanks to The American Association of Woodturners, American Woodturner & Woodturner magazines and authors :- David Springett, Wolfgang Malcherek and Jim Duxbury for their permission to reprint their articles.

WESTERN CAPE WOODTURNERS ASSOCIATION.

NOTICE OF ANNUAL GENERAL MEETING.

The Annual General Meeting of the Western Cape Woodturners Association will be held on Wednesday 18 February 2026 at the Pinelands Hobbies Club Nursery Way, Pinelands at 19.00 hours.

AGENDA.

1. Welcome.
2. Apologies.
3. Minutes of Annual General Meeting 19 February 2025.
4. Financial Reports 2025.
5. Chairperson's Report.
6. Election of 2026 Committee.

C Briers
Secretary/Treasurer

Apply an initial coat of thin CA using a folded shop towel.

Finishing with Cyanoacrylate

Don McIvor

Widely used as a handy adhesive, cyanoacrylate (CA) also has a place in woodturners' shops as a clear and durable finish. CA is a fast-setting, strong adhesive with industrial, household, and medical applications. It may be best known as Super Glue, the trade name of one of the more widely available products. CA is an acrylic resin that is applied to a surface as a monomer, a relatively small but highly reactive molecule. Exposed to moisture in the air, the monomers quickly combine to form a single complex polymer, binding together themselves and the surfaces with which they are in contact.

Applied to the exterior of a piece of wood, CA builds a surface film that is clear, hard, and waterproof. Multiple applications will develop a finish with great depth that can be manipulated to a uniform, high-gloss surface.

As with all finishes, there are tradeoffs to consider. CA finish works best on a smooth surface. A few voids can be filled prior to finishing, but burl figure with many voids or an object that has been textured will be better served by a different finish. The resulting finish looks like—and is—wood encased in plastic; some folks just do not like the appearance. CA is expensive and its quick-setting behavior also makes it difficult to apply over large surfaces. These two factors limit its usefulness to smaller projects, and it has become particularly popular as a finish among pen makers. As with other film finishes, if the finish becomes worn or damaged, the aesthetic is lost and the finish is difficult to repair. Working with CA presents some unique hazards that warrant special handling (see also *AW*, vol 26, no 4).

Achieving a good finish with CA is a little tricky, but with practice the technique is easily mastered. As with a lot of turning tasks, there is more than one approach and each method has its defenders. The following steps will get you past the finish line with a winning project.

Applying CA finish

1. Turn the project to completion and prepare for the finish by sanding the object. Small turned objects invite close scrutiny, so it is important to take care of the details in turning and sanding. The CA's high-gloss finish will highlight poor tool work and sanding scratches. I like to sand first with the lathe running (500 rpm) and sand with the grain with the lathe stopped before proceeding to the next grit. Because the CA film will build to become the tactile surface, it is not necessary to sand the wood to a glass-smooth finish; working through 400 or 600 grit is sufficient. Remove sanding dust with a clean shop towel.
2. Next, cover the turning with a coat of thin CA glue. I do this with the lathe running (about 500 rpm). I fold a small piece of shop towel until it is about 1" (25mm) wide and about four layers thick and hold one end of this applicator under and contacting the rotating work. I then apply a few drops of thin CA to the top of the piece, quickly moving the applicator along the work to help spread the CA *(Above)*. This needs to be done smoothly and in a matter of a few seconds, removing the applicator before the CA starts to cure and grab the material. I aim for a uniformly "wet" surface and avoid the temptation to overwork the finish *(Photo 1)*. If the CA is not flowing smoothly, it is better to correct the problem with a subsequent application rather than scrambling for perfection as the CA is flash-curing. ▸

Applying an aerosol accelerator is optional at this point; the thin CA cures quickly. An accelerator speeds curing to the point where the process is almost instantaneous, a feature that becomes more useful in the next step.

3. I have used multiple applications of thin CA to finish a turning and it will work. But there are advantages to switching to a thicker, slower-curing CA formulation for subsequent applications. Insta-Bond CA Pen Finish and Stick Fast CA Wood Finish are two examples.

   I abandon the shop towel in favor of a plastic bag or heavy-duty plastic wrap to cover my finger as an applicator. With the lathe running (500 rpm), I hold the applicator to the bottom of the blank and apply a narrow bead of the thicker CA to the rotating piece (*Photo 2*). I spread the finish over the turning, aiming again for a uniform distribution. The application includes traversing the work piece once or twice to spread an even coat. Again, overworking the surface will encourage streaks in the hardened surface. It is easier to control the quality of the surface by applying several thin coats (of the thicker viscosity CA) than trying to pile on fewer thick applications.

   The finish will cure instantly with a shot of accelerator (*Photo 3*). No need to coat all surfaces of the turning with accelerator, as the process initiated by the aerosol in one area of the turning creates a chemical chain reaction that quickly affects the entire finish surface.

   The temptation to sand out imperfections after each coat is strong, but sanding between coats creates more problems than it solves.

4. I repeat Step 3 until I have applied three to five coats.

5. Once the last coat of CA has cured, I return to sanding. The objective is to *finish the finish*. Sanding too aggressively can cut through to raw wood, which could require removing all of the finish and starting over. I start sanding with 320-grit abrasive, then move through 400 and 600 grit. The goal with this initial sanding sequence is to remove any unevenness in the surface, including spirals and ridges *(Photo 4)*.

   Plastic readily clogs abrasive sheets. Those little plastic nibs ball up in the abrasive surface and create drag, which encourages them to melt and create streaks in the finish. Again, a light touch pays off, along with frequent inspection and possibly cleaning or changing the abrasive. A better solution is Abranet Sanding Screen, which has abrasives incorporated into an open-weave material. It is easy to clean, resists loading, and works beautifully for this application, as well as for sanding green wood.

6. After the 600-grit sanding, I switch to MicroMesh Polishing Sheets. These sheets (more like stamps!) are sold in a set of nine color-coded pads corresponding to grits from 1,500 through 12,000. I like to use a few drops of thinned tung oil as a lubricant to reduce loading and heat build-up *(Photo 5)*, wiping off each sheet and the turning before proceeding to the next grit. Although nine sheets seem daunting, each is applied for only a few seconds; the process proceeds quickly.

7. I inspect the turning carefully after sanding. It should now look like it is encased under glass *(Photo 6)*. If I find any scratches or uneven spots, I will re-sand. This is a rare occurrence, but experience informs judgment on how far back in the sanding chain to go.

8. There are a couple of ways to proceed at this point. I like to move to my buffing wheels, using Tripoli, white diamond, and finally carnauba wax to complete the finish. Another option is a final application on the lathe of a plastic polishing

The objective is to apply the CA quickly in a single traverse. CA adheres poorly to metal, so a little contact with the bushings is not a problem.

Subsequent applications are with CA that is slower-curing, and a thicker consistency than the first coat, using a plastic-bag-covered finger as an applicator.

A blast of aerosol accelerator readies the turning for the next coat of CA. Use plenty of ventilation.

compound. A drop or two of liquid plastic polish is applied to a cloth and then to the spinning blank before a final buffing with another clean cloth.

Variations on a theme

Some turners like to initiate the CA finishing process with a coat of cellulose or acrylic sanding sealer. This is quick and easy, but I have not discerned any great benefit by adding this step. Another practice is adding boiled linseed oil (BLO) to the sequence. Turners who use this approach add a light coat of BLO to the turned piece to enhance grain before proceeding with the CA. Another variation includes applying the CA in combination with BLO, dampening the shop towel with a few drops of BLO, followed by a few drops of CA, and then holding the applicator against the rotating piece. I am leery of this approach as I am not sure if combining oil with the CA compromises the long-term integrity of the finish. I invite you to experiment and reach your own conclusion.

Tropical hardwoods can be finished with CA, but their natural oil content presents challenges. I have had a CA finish fail spectacularly when combined with BLO and applied to teak; the overabundance of oil prevented the CA from adhering to the wood. Now my approach to tropical hardwoods is to wipe the surface of the wood with a solvent such as mineral spirits or limonene to remove excess oil and then follow-up with CA. The wood can look a bit bleached after the solvent, but the thin CA restores its character.

Handling considerations

CA emits noxious fumes as it cures. These fumes are a vaporized form of the CA monomer and irritate eyes, nose, and throat. Minimize exposure by working in a well-ventilated area, wearing eye protection, and possibly an organic vapor respirator if adequate air flow is not available. A small percentage of the population develops sensitivity to exposure, leading to flu-like symptoms or skin irritation. On even rarer occasions, fumes can trigger asthma.

The chemical reaction that allows CA to cure rapidly is exothermic—it gives off heat. When CA contacts natural materials such as cotton or wool, the reaction can generate enough heat to cause a burn and even ignite fabric. Shop towels used to apply CA also get surprisingly hot. Wearing disposable synthetic gloves when handling CA is a sensible precaution. For eye protection, wear goggles or safety glasses.

Among the list of surfaces CA readily bonds is skin. Because CA has lower surface tension than water, it also has a habit of spreading rapidly and undetectably, until suddenly fingers are fused or stuck to the lathe. Acetone can soften cured CA and commercial debonders are available.

With its capacity for rapidly bonding with free moisture, CA has a relatively short shelf life, which can be extended by keeping unopened containers in the refrigerator. Although manufacturers do not recommend the practice, I have found that refrigeration works on opened containers, as long as I make the effort to tightly cap the container. As CA ages, it begins to thicken and cure more slowly. CA can be thinned from another container of the same original viscosity, but be sure to stick with the same brand as manufacturers have different and sometimes incompatible formulations.

There are two indisputable maxims when working with CA. Never glue yourself to anything heavier than you can lift, and always work with a can of debonder within reach! ■

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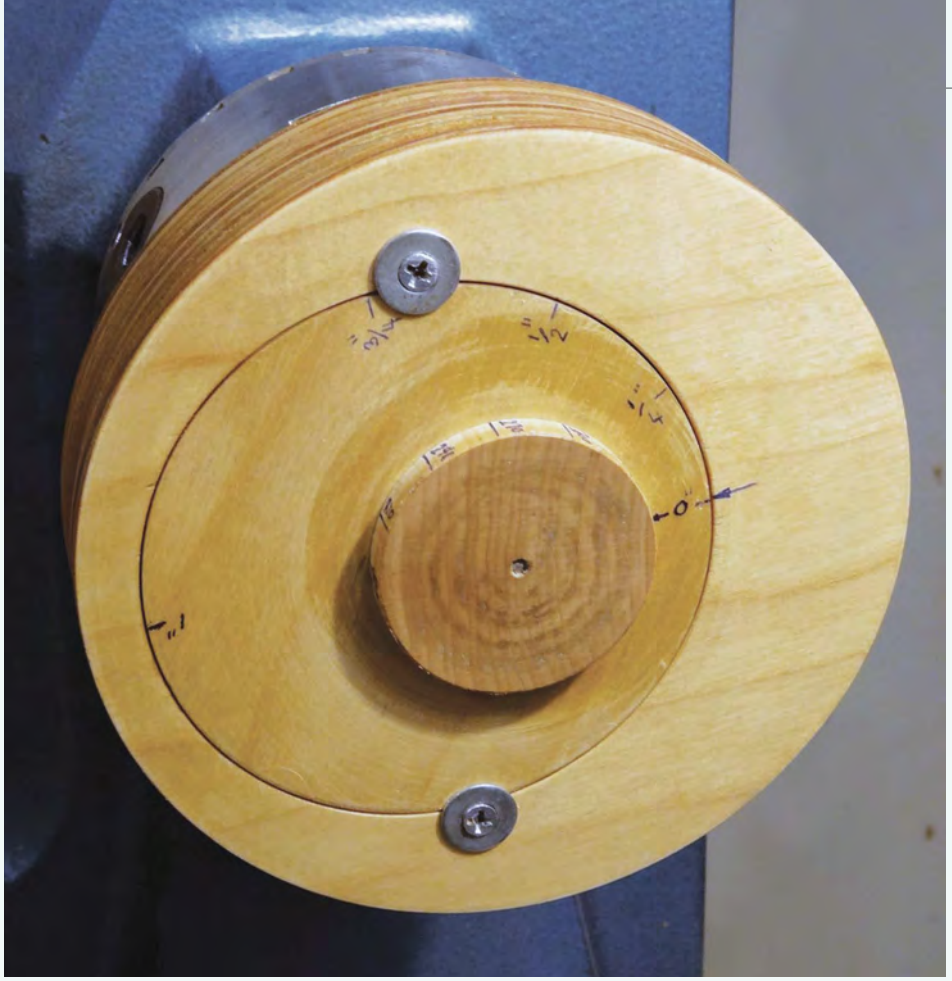
4 Finish the finish with Abranet. The high spots show up as opaque streaks. Aim for a uniformly opaque surface, which is then polished with increasingly finer abrasives.

5 Sand with a MicroMesh Polishing Sheet and a few drops of oil for lubrication.

6 The red eucalyptus burl razor is well suited to a CA finish, as it will easily resist frequent exposure to soap and water.

BUILD A SHOPMADE CHUCK FOR OFFSET TURNINGS

David Mueller



By using an eccentric chuck, you can add interest to turnings such as pendants and box lids. The workpiece is mounted out of alignment with the axis of your lathe (offset), producing interesting effects. However, I have found that commercially available metal off-center chucks have significant off-center mass, causing vibration and reducing maximum lathe speed. They also limit the possible degrees of offset and pendant rotation due to their fixed-hole design. To address these issues, I created my own off-center chuck using plywood. With my shopmade fixture, all the mass except the pendant blank and a lightweight pendant mount is centered and always balanced, enabling turning at higher lathe speeds with no vibration.

My chuck is also safer since the outer body is always on center and will not become a "knuckle buster" when turning or sanding. It also provides a continuously variable offset while keeping the whole chuck balanced. The dimensions offered here are for a chuck that has a maximum one-inch offset. Larger offsets are possible, but it will require a larger diameter body.

The chuck comprises three main components: the body, the inset circle, and the pendant mount. When assembled, the chuck will be mounted on the lathe either by a faceplate or glueblock with a tenon held in a chuck. I will focus on the tenon method in this article. Although this chuck can be used to turn pendants, box lids, and other items, I refer to the mounting component as a pendant mount for ease of description.

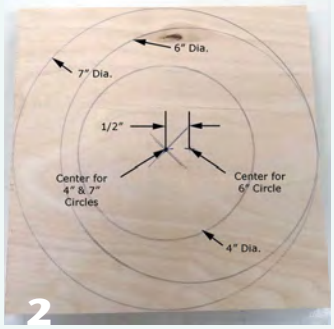
Build the chuck body

There are four pieces required—three cut from ¾" (20mm) plywood and one from ¾" hardwood. You will need a 7" (17.7cm) plywood square, 6" (15.3cm) plywood square (slightly oversized), 4" (10.2cm) plywood square (slightly oversized), and a hardwood glueblock square sized for making a tenon that will fit in your chuck *(Photo 1)*.

1. Draw a 7" diameter circle centered on the 7" plywood square. Draw a 4" circle using the same center as the 7" circle. Drill a small hole through the center to mark the center on both sides, making sure the hole is perpendicular so the piece will not wobble when mounted between centers. Mark a new center ½" (12mm) off the center of the 7" diameter circle and draw a 6" circle using this offset center *(Photo 2)*. ▸

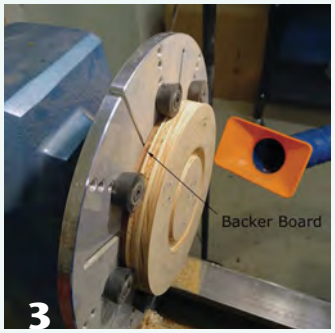
1

You will need three plywood squares for the body of the chuck and a piece of hardwood for the tenon.



2

Draw all reference lines on the 7" plywood blank.



3

Use a backer board behind the 7" disk when cutting out the 4" circle.


4

The 6" ring has a 4" hole offset by ½".

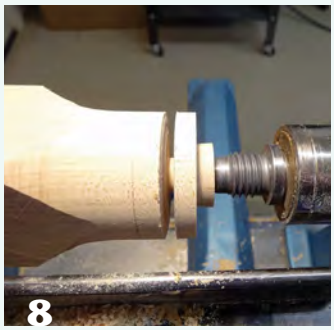

5

The completed chuck body has a centered tenon on the back side and an offset recess on the front side.


6


7

The 4" circle fits into the offset recess on the front side of the chuck.


8

The pendant mount resembles a hat and has a hole drilled through it.

2. Cut out the 7" circle using a bandsaw or jigsaw. Mount the plywood blank between centers using the small hole for centering, and turn to the outer 7" diameter mark.
3. Mount the 7" round into jumbo jaws or a Longworth chuck with a thin plywood backer behind it so you do not cut into the chuck *(Photo 3)*. Cut out the 4" circle with a parting tool, being careful to keep inside the 4" diameter line. Clean up to the 4" line with a scraper or gouge. Make sure the final cut is perpendicular to the face. If you do not have jumbo jaws or a Longworth chuck, mount the 7" round onto a faceplate with a 7" waste block. Three screws inserted through the disk and into the waste block will hold the round while using a parting tool to cut through the plywood at the 4" mark.
4. Remove the 7" round from the chuck (or faceplate) and cut on the 6" circle line using a bandsaw or jigsaw. You should now have a 6" diameter disk with a 4" hole offset by ½" *(Photo 4)*.
5. Cut out a round glueblock and drill a small hole through the center, again making sure it is perpendicular to the face. Select hardwood for the glueblock so it will stand up to multiple mountings in your chuck. Mount the block between centers using the center hole and turn a tenon sized for your chuck.
6. Mount the tenon in the chuck, true the glue face, and mark jaw No. 1 so you can remount it the same way each time. Cut a 6" diameter circle from the second piece of ¾" plywood (the 6" square). With the glueblock mounted in the chuck, glue the 6" plywood circle to the glueblock. Line up the live center in the tailstock to the mark used to draw the circle and apply pressure.
7. After the glue dries and without removing it from the chuck, glue the previously prepared 6" disk (with the 4" offset hole) to the already mounted 6" circle, aligning the outside edges. Use a piece of scrap wood and the tailstock to hold it in place while the glue dries.
8. When the glue is dry, apply thin cyanoacrylate (CA) glue to the outer edges of both 6" circles to minimize tearout and true them up.

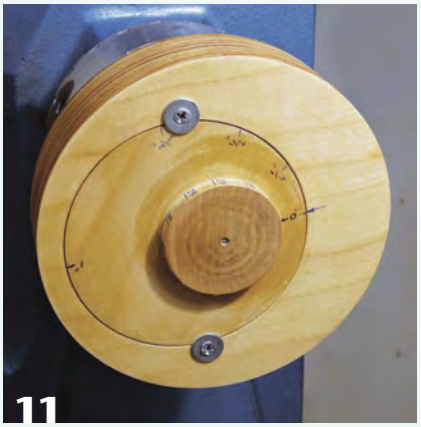
You should now have an assembly that is about 6" in diameter and 1.5" (3.9cm) thick with a tenon on one side and a 4" diameter hole ¾" deep, offset ½" on the other side *(Photos 5, 6)*.

Add the inset circle

Using the third piece of ¾" plywood, cut out a slightly oversized 4" circle and drill a small perpendicular hole

Mark a zero reference line on both the body and the insert. Then use a Forstner bit to drill a 1" diameter hole ¼" deep into the inset circle.

Remove the 4" inset circle and countersink the screw hole on the side opposite the 1" hole.



A fully calibrated chuck includes pencil marks to aid in reproducing patterns.

through the center. Mount the piece between centers using the hole as a guide, and again saturate the edge of the plywood with thin CA glue. Turn the piece to closely fit into the 4" hole in the chuck body so it turns freely but is not a loose fit. You can sand and wax the edges of the 4" circle to make it turn more easily *(Photo 7)*.

Make the pendant mount

For the pendant mount, you will need a 2½"- (6.4cm-) square spindle blank 2"–3" (5cm–7.6cm) long. Chuck the blank and turn it to a 2" diameter cylinder. Drill a small hole slightly more than 1" (25mm) deep into the end of the blank. This hole will accept a 1" flathead screw and should be sized to accept the threads snugly. Turn a tenon on the tailstock end 1" in diameter and ¼" (6mm) long. Part off the pendant mount at ½" so you have a ½"-tall "hat" with a ¼"-thick, 2"-diameter brim and a ¼"-high, 1"-diameter crown with a hole through the center *(Photo 8)*.

After parting off, chuck the pendant mount by the 1" tenon and true the 2" face. If your lathe has an indexing capability, make equally spaced marks around the outer edge of the brim while the pendant mount is still in the chuck. The number of marks is not critical since they will only be used for accurate repositioning later. If your lathe does not have an indexer, a simple alternative is to wrap a strip of paper around the outer rim of the pendant mount and mark where the ends overlap. Cut the strip on the mark and fold in half three times. Unfold the strip, place a mark at each fold line, wrap it around the pendant mount, and mark the eight equally spaced lines on the pendant mount.

Assemble the fixture

Give all parts a coat of wipe-on polyurethane and sand lightly. Drill two small holes on the front face of the chuck body 180° apart about ⅛" (3mm) outside the 4" recess. These are for small flathead screws and washers that will lock the inset circle in place and keep it from moving during use. The screw holes should be close enough to the 4" recess so the washers will extend over the inset disk. Glue abrasive in the bottom of the 4" recess; the added friction will help prevent the inset disk from turning and also raises it slightly above the face of the chuck body so the locking screws and washers will hold it tightly in place. Place the inset circle in the 4" recess and lock in place with the two screws and washers.

Make sure the locking screws and washers are tight and mount the fixture in your chuck. Draw a short arrow to be used as a reference line at the circular joint between the inset circle and chuck body pointing toward the center of the 4" disk. Place a mark on the inset circle opposite the point of the arrow and label it zero *(Photo 9)*. This must be done before you move the inset circle because the marks establish an accurate zero offset position. Use a Forstner bit mounted in your tailstock to drill a 1"-diameter hole ¼" deep into the 4" disk. This hole will be located in the center of the chuck body (at the zero offset position in relation to your lathe's spindle) but offset from the center of the 4" inset circle. Without moving the inset circle, replace the Forstner bit with a drill bit sized to accept a 1" flathead screw and drill a clearance hole through the inset circle at the center point left by the Forstner bit.

Remove the 4" inset circle and countersink the 1" screw hole on its back side. Place the 1" tenon of the pendant mount into the 1" hole in the inset circle and hold in place with the flathead screw driven from the back *(Photo 10)*. You ▸

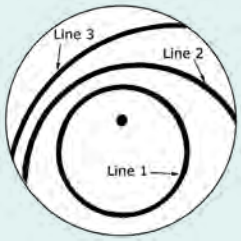
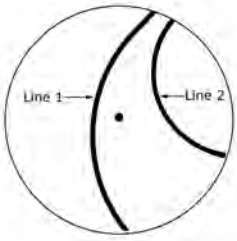
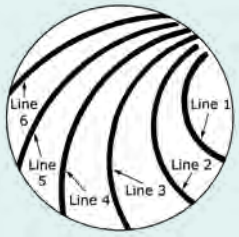
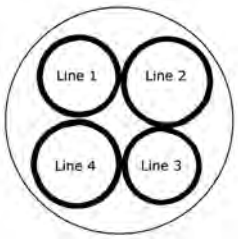
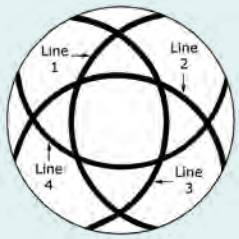
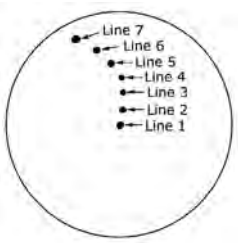
		Offset	Rotation	
Example 1	Line 1	¼" (6mm)	0°	
	Line 2	½" (12mm)	0°	
	Line 3	¾" (20mm)	0°	
Example 2	Line 1	1" (25mm)	0°	
	Line 2	1"	30°	
Example 3	Line 1	1"	0°	
	Line 2	1"	345°	
	Line 3	1"	330°	
	Line 4	1"	315°	
	Line 5	1"	300°	
	Line 6	1"	285°	
Example 4	Line 1	½"	0°	
	Line 2	½"	90°	
	Line 3	½"	180°	
	Line 4	½"	270°	
Example 5	Line 1	½"	0°	
	Line 2	½"	90°	
	Line 3	½"	180°	
	Line 4	½"	270°	
Example 6	Line 1 (Center of pendant)	0"	0°	
	Line 2	⅛" (3mm)	0°	
	Line 3	¼"	0°	
	Line 4	⅜" (10mm)	0°	
	Line 5	½"	0°	
	Line 6	⅝" (16mm)	0°	
	Line 7	¾"	0°	

Table 1. Examples 4 and 5 have identical offset and rotation settings but different tool placement relative to the center of rotation, showing the significant impact of tool placement. Example 6 shows how the center moves with different offsets. Tool placement changed for Examples 1–5, but not for 6.

may have to grind off the tip of the flathead screw so it does not protrude past the front surface of the pendant mount. The chuck assembly is now complete.

Calibrate your offset chuck

To calibrate the chuck, mount the inset circle/pendant mount assembly into the chuck body, set it to the zero mark, and tighten the two screws. Turn the chuck by hand and verify that the pendant mount is concentric with the lathe's spindle. If it is not centered, loosen the screws and adjust the inset circle until the pendant mount runs true. Retighten the screws and, if necessary, re-mark the zero offset on the chuck body.

Cover the face of the pendant mount with masking tape or an adhesive label. Place a dot at the center and draw circles with ¼", ½", ¾", and 1" radiuses on the tape by turning the chuck by hand. These circles should be concentric with the outer diameter of the pendant mount. Bring the tailstock with a live center up close to the face of the pendant mount. Loosen the locking screws and washers and rotate the inset circle until the point of your live center is lined up with the ¼"-diameter circle. Put a mark on the inset circle opposite the reference line on the chuck body and label it ¼". Repeat this process until you get to the 1" offset. In theory, this should be 180° from the zero mark *(Photo 11)*. Note that the offset marks are not evenly spaced. This is normal because the relationship between the rotation of the inset circle and the offset is not a linear function.

The accuracy of the calibration is not critical since the purpose of these marks is to allow you to reset the fixture to reproduce a given pattern.

Examples of offsets and rotations

The three factors affecting the patterns generated are the offset, the rotation of the pendant mount, and where the tool is placed on the toolrest when the cuts are made. Of the three, subtle changes in the tool placement will probably have the most profound effect, so experiment with a lot of different tool positions with the same offset and rotation. Practice with scrap wood until you achieve the desired effect, recording the offset and rotation settings as you go. After that you should be able to accurately reproduce that effect using the same settings.

As a learning aid, test your offset designs with a piece of adhesive label attached to the pendant mount. Adjust the offset and rotation and then turn the chuck by hand, using a pencil to lightly mark the center and tool path for various tool placements to see what effects the three settings have. You can get good tool placement reproducibility by measuring from the mark at the center of rotation. If you don't like the result, just erase the lines and start over. After you find an attractive offset pattern, the label is easily peeled off and pasted in a notebook with the settings used. When you are ready to turn a pendant, you can also use the pencil mark technique on the pendant blank to make it easier to see where to place the tool.

Table 1 shows examples of various offsets, rotations, and tool placements. They were created on labels stuck to the pendant mount while turning the chuck by hand. They were not chosen because they are especially attractive, but to provide an understanding of how each can change the appearance of the pattern.

Using the fixture

The amount of offset is controlled from the front face by loosening the two flathead screws and rotating the inset circle using the pendant mount as a handle. The rotation of the pendant mount is done by removing the inset circle and loosening the 1" flathead screw from the back.

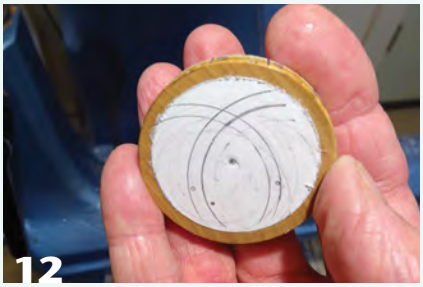
I typically make a pendant with a diameter slightly larger than the diameter of the pendant mount. With the edge of the pendant proud of the pendant mount, you can turn and finish the edges and front face without removing it from the mount. If you prefer smaller pendants, make a smaller diameter pendant mount.

Pendant blanks are attached to the pendant mount with double-sided tape. I normally turn pendants from a 2"-square sidegrain blank approximately ¼" thick and finish with CA glue.

Make multiple pendant mounts so you can remove the mount and pendant from the offset chuck to apply creative enhancements like epoxy fill or other inlays, or to let a finish dry while turning other pendants. If the off-center work is complete, you can do the final sanding and finishing by holding the pendant mount and its attached pendant in a scroll chuck, eliminating the need to remove and remount the pendant itself.

The chuck settings to produce the pattern in *Photo 12* are ½" offset, rotation at 0° and 120°, and tool placements of ¾" and ⅞" (22mm) from the center of rotation for each rotation setting. To make this pattern, follow these steps:

1. Flatten one side of a pendant blank with abrasives and mount that side to the pendant mount with double-sided tape. Turn the exposed side flat, sand, and finish. This will be the back side of the pendant and should be flat so the tape will hold it firmly.
2. Remove the blank, turn it around, and mount the back to the pendant mount. Turn the front face to a gentle curve at the edges, sand, and finish. The curve adds interest and is necessary to keep the cut lines from going all the way to the edge.
3. Adjust the offset to ½" and the rotation to 0° and lightly draw a dot at the center of rotation. Measure the ¾" distance from that center for the first line and draw a pencil line on the blank by turning the chuck by hand. Repeat for the second line as shown in *Photo 13*. ▸


12

Use a pencil to confirm where the cut lines will be on a test blank.


13

With the pendant blank mounted onto the fixture, again use a pencil to confirm location of the cut lines.

14

When satisfied with the pattern, make the actual cuts.

15

After final cuts are made and finish has been applied, add jewelry findings and a neck cord.

4. Cut the grooves as shown in *Photo 14* using a pointed scraping tool or the long point of a skew.
5. Remove the screws and the inset circle, adjust the rotation of the pendant chuck to 120° for the second set of cuts, and re-install the inset circle at ½" offset. Draw a new set of lines as in Step 3 and cut the grooves.
6. After making the desired cuts, you can spray the pendant with flat black paint to enhance the cuts. However, the pendant must be pre-finished before spraying or the black paint will penetrate the grain and become very difficult to remove. Immediately after spraying, wipe off most of the black paint and let it dry. Once dry, gently sand with fine grit abrasive to remove the remaining paint, being careful not to sand through the finish, and buff.
7. Finally, install the jewelry findings and neck cord *(Photo 15)*.

The use of various woods and other materials can create stunning results. Consider using colored epoxy or other fillers in the cut marks *(Photos 16, 17)*. This shopmade chuck provides a safe, vibration-free way to turn offset patterns and is easy and inexpensive to make. ■

Dave Mueller, a retired radiopharmaceutical executive, began traditional woodworking in 1962 but started turning just five years ago. He is an active member of the Brazos Valley Turners and the Gulf Coast Woodturners Association. He enjoys both turning and enhancement and makes many of his own tools and fixtures. Dave's formal training as a scientist has influenced his focus on wood spalting, epoxy enhancement, gilding, and patination of turned pieces. For more, visit aggieturner.com.

16

Exotic woods can create stunning results.

17

Colored epoxy adds interest to a Corian® pendant.

You read the article—now see the video!

This article has an accompanying online video in which Dave Mueller demonstrates the use of his shopmade offset pendant chuck. To view the video, visit tiny.cc/offsetchuck (case sensitive) or scan the QR code with your mobile device.

Enhance Burl Figure **with Dye**

Cindy Drozda

Red Wing Blackbird, 2013, Boxelder burl, dye, African blackwood, 6" × 12" (15cm × 30cm)

The Ununium Conundrum, 2007, Boxelder burl, dye, African blackwood, 11½" × 11" (29cm × 28cm)

Lilacs in the Sunshine, 2007, Black ash burl, dye, African blackwood, 4" × 3¾" (10cm × 10cm)

Burls are already naturally beautiful—why do I choose to color them? I was originally motivated to dye pieces I had turned from burl because light-colored burls didn't sell well. Maple and boxelder burls were relatively inexpensive, easy to work with, and had awesome figure, but they just didn't sell like other burls with natural color, such as amboyna and Australian red mallee. And I love bright colors!

Transparent dyes enhance the figure in burl without obscuring it like paint or pigment would. This coloring technique creates a dramatic three-dimensional quality in burl figure.

The wood

This technique works best on burls. It can also work on curly or quilted wood—but only if the shape is flat, like a table top, or very shallow, like a turned platter. To enhance the wood grain with this dye technique, there needs to be some mix of sidegrain and endgrain in the wood, like you will find with curly, quilted, or especially burl figure. A curly figured deep sidegrain bowl, or a hollow vessel, will have a lot of endgrain area and will not allow for this technique to work, even if the wood has curly figure. The endgrain areas will absorb the dye, but scraping it off will not show the curly figure like it does on sidegrain. If, on the other hand,

the surface is plain sidegrain wood with no curly figure, all of the color will be scraped off.

The best results are obtained on a relatively soft, light-colored burl that can absorb the dye (*Photos 1, 2*). Soft maple burls, like bigleaf maple or boxelder, are perfect. I've had some luck with black ash burl, but it was not nearly as dramatic. Phil Irons uses horse chestnut (buckeye) burl to good effect.

If the wood is too dense, the dye won't penetrate, and the technique described here won't work.

The dye

I use TransTint® Dyes, made by Homestead Finishing Products. The product I use is described as "metal-acid" or "metalized" dye. This technology produces the most light-fast and color-fast dye made today. Since wood's natural colors are not very colorfast at all and will change over time, a dyed piece is more likely to retain its color through the years. Even the most colorfast dye can fade over time, especially if exposed to sunlight. Some colors will fade more than others, and some dye products will fade more than others. Black dye, of almost all brands, is very colorfast, even if the other colors in that brand's range are not.

TransTint® is concentrated and can be thinned with either alcohol or water. I thin it with denatured alcohol, sold in the hardware store paint department or as camping fuel. Isopropyl pharmaceutical rubbing alcohol and Everclear grain alcohol also work. Water works, too, but tends to raise the grain and doesn't penetrate as deeply. Homestead Finishing recommends thinning TransTint® at a ratio of 32 parts thinner to 1 part dye. That can be varied, resulting in richer or lighter colors. I like to thin at a ratio of 16:1 for a darker and brighter color. To get a deep, rich color on a finial, I use TransTint® dye at full strength.

Burl ready for dye

The author has prepared this light-colored burl for dye using a negative-rake scraper.

Other types of dye work with this technique also. Look for a transparent dye, carried in either alcohol or water, that will penetrate into the wood and not obscure the grain.

The Process

Step 1: Apply the first color

This multistep process makes use of the fact that dye penetrates deeper into areas of endgrain than sidegrain. In a burl, the endgrain and sidegrain are all mixed up together. When the dye is scraped or sanded off the surface of the wood, color will be removed from the sidegrain areas and will remain in the areas of endgrain.

I apply the first coat of dye after smoothing the surface of the wood with a negative-rake scraper. Applying the dye to a surface that has been cut with a gouge or sanded with paper coarser than 400 grit will show the minute ripples from the gouge or the scratches from the sandpaper. I find that a double-bevel, or negative-rake, scraper gives the smoothest surface. I use a scraper with a 50-degree included angle (*Photos 3, 4*). Apply a dark color for the first coat of dye (*Photo 5*).

Step 2: Scrape most of it off

Using a double-bevel scraper, I then scrape a layer of wood off the surface. This leaves color in the areas of ▸

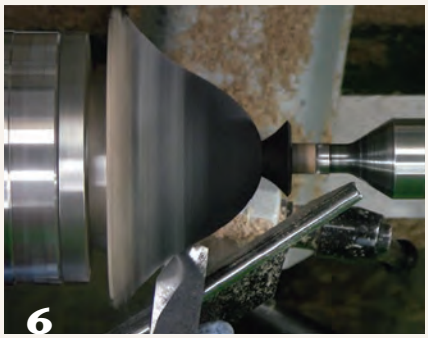
Negative-rake scraper

A negative-rake scraper has a bevel on the top and bottom. It is the author's tool of choice for preparing the burl surface for dye and for scraping off most of the dye from the first application.

Base color of dye

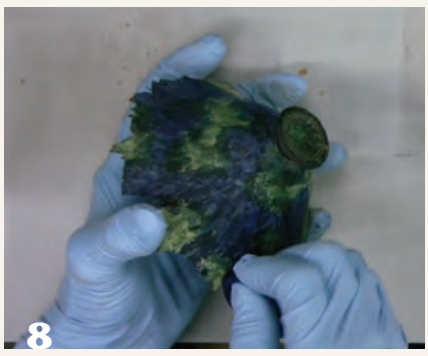
A dark shade of dye is used as the first application.

Scrape off dye



The author scrapes away most of the first application of dye. Dye remains in the endgrain areas of the burl figure, where it penetrated the wood more deeply.

Apply 2nd dye color, blend



A second color of dye is applied and then blended to the author's satisfaction. A combination of blotting and sanding may be necessary to achieve the desired results.

deepest penetration, the endgrain areas. The areas of less penetration, the sidegrain, are once again the natural wood color (*Photos 6, 7*). If the surface was not smooth, all of the cutting irregularities or sandpaper scratches will have dye in them.

Different effects can be attained by scraping more, or less, of the dye off in this step. Keep in mind that the next step, sanding, will remove even more dye.

Step 3: Sand

I like to sand the wood to at least 1000 grit. This will eliminate sanding scratches. On a dyed wood surface, sanding scratches can be more noticeable than on plain wood.

Step 4: Add more color, blend

Add more dye colors. I usually do this off the lathe (*Photo 8*). Applying a lighter color over the dark color that was scraped off will give a colored surface with the grain accentuated by the first color.

Colors blend on the wood. Applying yellow over blue, or blue over yellow, will give you shades of green. Red and blue combine to make purple, and red and yellow make orange. If all three primary colors—red, yellow, and blue—are mixed, you will get brown. Yellow over purple, red over green, or blue over orange will give you mud brown.

The dye colors can be mixed before applying to the wood, also.

To blend the colors, I spray the surface with denatured alcohol. If the color is too dark, I will wet the surface with alcohol, and blot with a paper towel to lift out some of the color. If it's still too dark, the surface can be sanded until you get the look you want (*Photo 9*).

Step 5: Finish with a topcoat

My preference for a topcoat is usually a penetrating-oil type of finish. I like the look and feel of an oil finish.

Some of the oil finishes I like are Sutherland Welles Polymerized Tung Oil, Waterlox, and Minwax® Wipe-On Poly used as an oil. The process is to flood the surface with oil, let it soak in, wipe it off before it gets tacky, and let it dry. I typically apply four to six coats of oil, one per day, depending on the wood. Some oil finishes are darker than others. A light-colored oil will keep the dye colors brighter.

On larger pieces, I like to use a glossy film finish, which makes the pieces look like glass. I love the mystery of having my wood pieces look like they might be something other than wood. The viewer often thinks the piece is glass, stone, or ceramic.

Oil finishes tend to add depth to the figure of the wood that you don't get from lacquer or polyurethane (*Photo 10*). Oil finishes also can impart an amber tone to the wood, dulling the bright dye colors somewhat. A good compromise for the cleanest color is to apply just one coat of oil to the bare wood, wait three days, then apply a film finish. If you use Minwax® Wipe-On Poly as that one coat of "oil," you won't need to wait longer than its drying time.

I sometimes create a built-up film finish, using General Finishes Wood Turner's Finish to build and fill the grain. This product is a water-based poly that builds well, dries fast, and sands easily. When I have the surface smoothed to my satisfaction, I will put the piece on the lathe and apply one last coat of Minwax® Wipe-On Poly with the lathe turning slowly. The spindle speed should be just fast enough to keep the finish from running. Too fast and the finish will migrate to the largest diameters from centrifugal force.

This last coat needs to be perfect and doesn't need to be rubbed out. It gives a clear wet-looking finish. If that coat isn't perfect, sand it smooth and try again. Thinned gloss polyurethane can work well here, too. This technique was shown to me by Steve Sinner, who achieves a wonderfully glossy film finish on his vessels.

Apply topcoat

10

The author prefers to use a penetrating-oil finish over the applications of dye.

Final thoughts

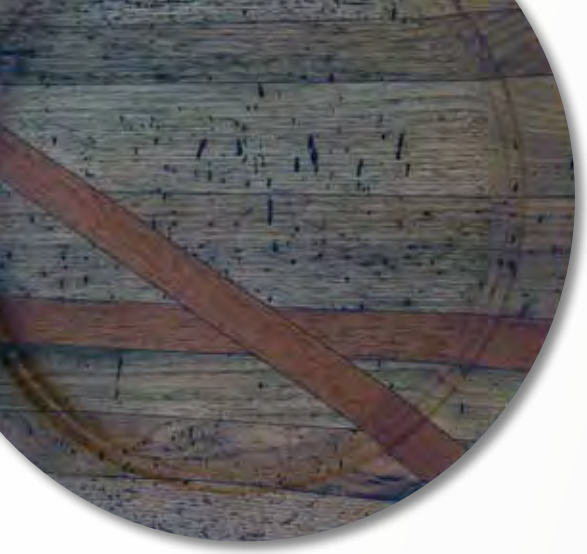
What I have described here is just the basic process I use, and I sometimes vary the steps. For example, I might apply colors after Step 2 and after sanding to at least 400 grit. That process might go like this: Sand to 400 grit, dab on a color in some places or on the whole piece, sand with 600 grit, apply more color, etc. But remember, a surface sanded to coarser than 400 is likely to show scratches in the dye.

This technique can also be done using dyes in natural wood colors. For instance, maple burl can be dyed brown-over-black to look like walnut burl. To enhance the figure without changing the natural color of the burl, use an amber dye for the base color that gets scraped off, then sand and apply a clear finish.

The natural color of the wood will mix with the dye color. If the wood has a brown natural color, the dyed wood will have an earth tone. If the wood is too dark, the colors won't have much of an effect.

This is a wonderfully creative process with many possibilities. Experiment with different colors over other colors, try it on different shapes and on different burls, and let us see what you make! ■

Cindy Drozda has been turning wood since 1984. She is a full-time demonstrator and teacher, a manufacturer of woodturning tools, and a woodturning artist. Her website is cindydrozda.com.



Glued-Up TRAY

Robin Dustin

Gary Kaplan's December 2013 *AW* article, "As the Wood Turns," inspired me to share information about one of my early turning projects: a glued-up tray. This was very early in my turning career, and I didn't have any nice, large pieces of wood to use for a tray. At one point, I was about to put a chunk of hole-riddled butternut into my shop stove, but stopped and thought, "I can't burn this! Butternut is a vulnerable species." So I decided to glue up the wood to create a turning blank.

The glue-up

To prepare the wood for gluing, I ran several (stove-length) pieces through my bandsaw, thickness planer, and jointer. I came up with enough pieces, about 1½" (38mm) thick, to make a 16" (41cm) square, with one piece of Spanish cedar tossed in to add interest. I used black-dyed poplar veneer to accent the glue joints (*Photo 1*).

After running this square through a friend's thickness sander, I made a bandsaw cut diagonally across the square, jointed it, and added a second piece of Spanish cedar, with the black veneer on each side (*Photo 2*).

I was happy with the resulting tray, shown in the *opening image*.

Design variation

To take the design further, I made another tray with two diagonal strips in it. The gluing process was the same as before, except that I made a second diagonal cut, adding a third piece of Spanish cedar. I had no idea how the lines were going to come together but knew the original glued pieces had to stay parallel and in line with each other.

Because I didn't have enough thickness in the blank to turn a tenon, I glued a round wasteblock on the top of the tray and formed a tenon in that (*Photo 3*). With the tray held in a chuck, I was able to turn and finish the bottom with a recessed foot. I remounted the piece on the jaws in expansion mode, turned off the wasteblock, and shaped and finished the top of the tray. I'm happy with how this one came out, too (*Photo 4*).

I'm glad I didn't burn those pieces of butternut! My glued-up trays are still in use today and are always a crowd-pleaser. ■

Robin Dustin earned an MFA in weaving with a minor in metalsmithing. She built her home in New Hampshire while working as a carpenter and eventually "lucked into" woodturning club meetings. She purchased a lathe in 2006 and hasn't stopped spinning wood since. She can be reached at robindust@gmail.com.

The gluing process

1

2

After the initial, parallel glue-up, the blank is cut at an angle and an additional piece glued in.

An alternate design

3

4

This design required two angled cuts after the initial parallel glue-up. A glueblock was used for turning a tenon, so the piece could be held in a scroll chuck.

Thanks to the American Association of Woodturners, American Woodturner Magazine, and the Authors for their kind permission to enable reprinting of the articles in this newsletter.