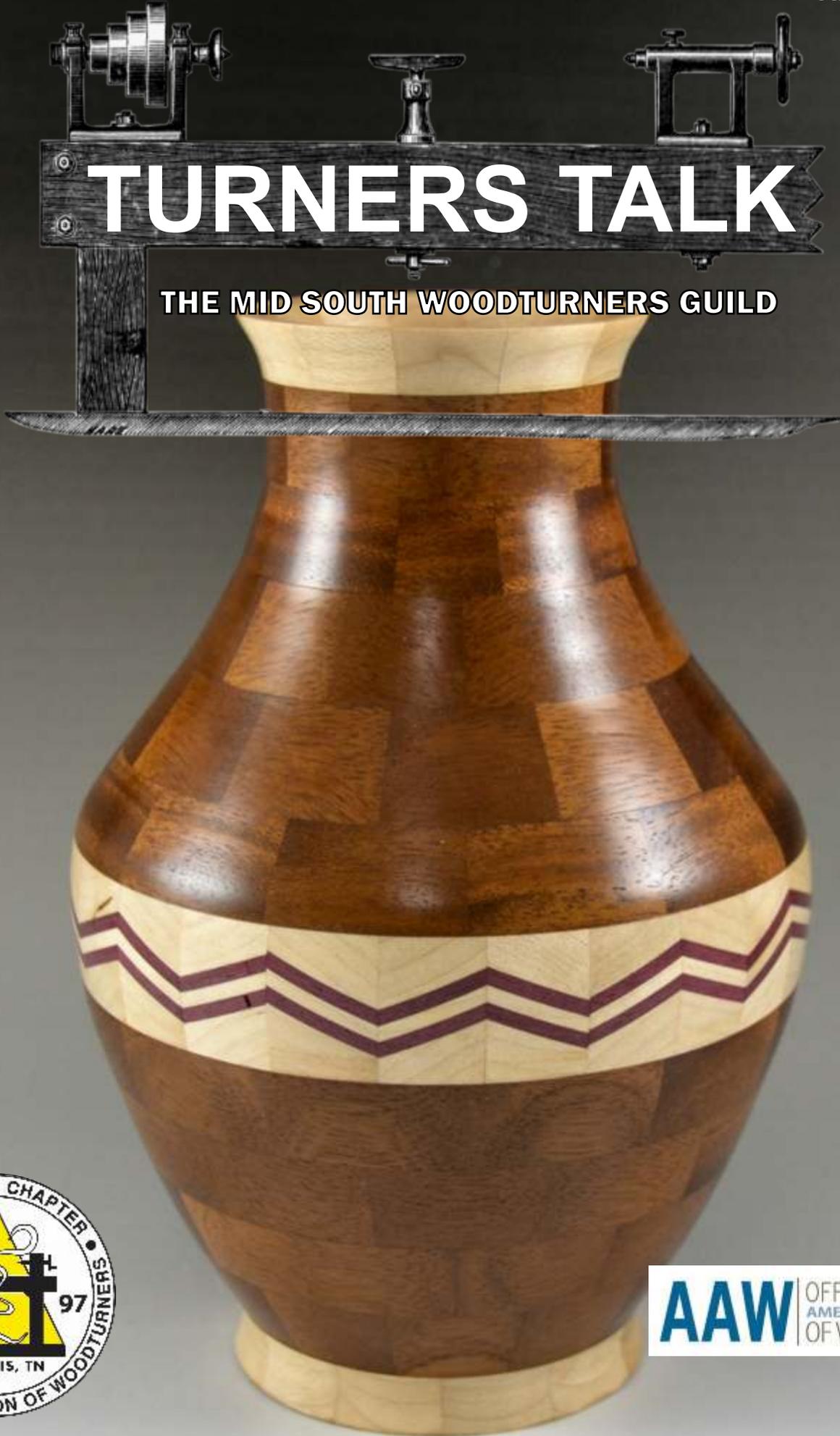


August 2018



TURNERS TALK

THE MID SOUTH WOODTURNERS GUILD



AAW OFFICIAL CHAPTER
AMERICAN ASSOCIATION
OF WOODTURNERS



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Our second live streaming event was a great success. Mike Mahoney did an excellent job using live comments and recorded media to impart a lot of great information. There was plenty of opportunity for interactive exchanges which added to the experience.

President's Corner

By:
Mike Maffitt



If you didn't come out for the Beads of Courage box "Turn-In" event this past Saturday the 11th, you missed a great time with friends and fellow dust makers. We processed enough wood to make around 70 boxes for the children at Le Bonheur Children's Hospital. I am always so proud of the willingness of everyone who shows up at these events to share their time and talents. Thank you again Larry Cutliff for sharing your wonderful shop and tools for the project. After sharing wood with people Saturday, I still had enough wood to make around 50 boxes and Joseph Voda and I processed the wood further yesterday. Our intent is to have kits at the next "Turn-In" event ready to be glued up, turned and finished by whomever wants to share a little of their time. We can't make it any easier than that. The tools needed are minimal, assuming you already have the lathe, and the turning and finishing takes only minutes. We'll go over this again at the next BOC "Turn-In" and talk about what has been working best for the people already working on this project.

The Fall season is creeping up on us and so are our scheduled outdoor events. The Bartlett BBQ Festival will be held on September 28th and 29th. We will be demonstrating for all of the good folks there turning Pens For Troops. Our gracious board member Sam Dawson has taken 100 pen kits and already glued up the barrels and wood making the process much less complicated for everyone involved. Sam is heading up this event

and will need some help Saturday evening tearing the site down and loading up the lathes. Please see him if you can help.

The Pink Palace Craft Fair is going to be held from Friday the 12th through Sunday the 14th of October. We will be setting the site up probably on Wednesday the 10th. If you aren't familiar with this event, we demonstrate for the public for three days the art of woodturning and everyone who signs up to work the booth or demo has the opportunity to sell their wood fashioned items to the public. This is a money maker for the club because a percentage of the profits go to The Mid South Woodturners Guild. I believe last year we earned almost \$500 for the club during this event and sold approximately \$4700.00 worth of goods. If you like being around the public and talking woodworking, this is the event for you. We always have a great crowd around our booth and the kids always love it. Please sign up at the next club meeting and get working on your items to sell.

September is going to be a busy month for "Turn-In" events. We have bowls to finish up for the Memphis Empty Bowls charity we support and the continuation of BOC work we have going on. I would appreciate any feedback on our charity programs and if the members want to



President's Corner cont.

continue in the direction we are currently going with our programs in the upcoming 2019 season. I like the camaraderie I think the club has shown in these ventures and I would love to know what you think about them.

Joseph Voda is looking for larger venue opportunities for late 2018 - 2019 for the club to demonstrate at. We want to get our faces and craft in front of people and let them know how strong the craft currently is and show them the beautiful work we produce. Please see him if there is an event you see that would be appropriate.

Joel Benson is our scheduled turner to demonstrate this month and as you know, he is an arborist and knows the local trees and foliage like the back of his hand. He will be sharing some of his knowledge about our local trees and their properties for you. I am certain he will do a fantastic job.

As you know, we had our second live streaming demonstration and it featured Mike Mahoney. I

think the event was fantastic and I received nothing but praises for the presentation and content of the demonstration. Because of the positive feedback, we will be pursuing more live streaming demos in the future. Due to the structure of this event we did not have the opportunity to comment on the instant gallery items that were brought. I can't tell you how pleased I am with the progress our members are making in their woodturning journey. I don't know any organization in the AAW that consistently produces more quality work than The Midsouth Woodturners Guild. You should be proud of yourselves.

I will be traveling to the SWAT Symposium with several of our members the weekend of our club meeting so I won't see your smiling faces until the next "Turn-In" event. Look for an email soon detailing the time and location of the next gathering.

Mike Maffitt

Tennessee Craft Master Artist/Apprentice Program

Would you or someone you know like to receive help developing your artistic skills as a woodturner? Check out the next two pages. Our own Dennis Paullus has been chosen to mentor an aspiring craftsman under the auspices of the Tennessee Craft organization. Dennis will be choosing an apprentice candidate soon, so if you are interested click the "Apply Now" button in the article on the next page. An \$1800 stipend is available to the chosen apprentice.

Master Artist / Apprentice Program (MAAP) [Click Here to go to the web page](#)



MAAP Navigation

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Tennessee Craft, in partnership with the Tennessee Arts Commission, offers the Master Artist / Apprentice Program (MAAP) to open the door for emerging artists to learn traditional and contemporary craft skills from master craft artists.

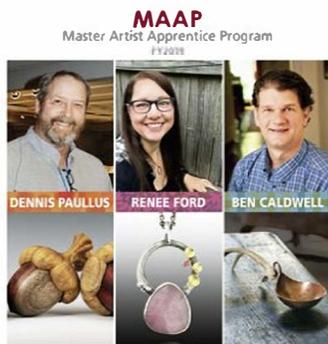
All artists in the program are asked to choose challenging goals that will catapult their skills and knowledge as craft artists. The Master Artist Apprentice Program was created to help artists reach the next level of their professional development from a six-month one-on-one mentorship, not typically available in most learning environments.

Awarded apprentices receive a \$1,800 stipend to work with their chosen master from Dec. 01, 2018 to June 15, 2019. For more information, email [Tennessee Craft](mailto:info@tennesseecraft.com).

Accepting apprentice applications online August 01 through November 01.

[Apply Now](#)

Meet the 2019 Masters | Read their Bios



Dennis Paullus is a master woodturner who lives in the Memphis, Tenn. area. You can read Dennis' full bio [here](#).

Renee Ford is a master jeweler who lives in the Franklin, Tenn. area. You can read Renee's full bio [here](#).

Ben Caldwell is a master metalsmith who lives in the Nashville, Tenn. area. You can read Ben's full bio [here](#).

F.A.Q.s

How do know if I'm ready to be an apprentice? Prospective apprentices should demonstrate investment and skill in the art form they wish to continue learning along with a readiness to take their skills to the next level. In addition, eligible apprentices must be residents of Tennessee, at least 18 years of age and cannot be currently enrolled in an arts-related degree program.

There's a master I'm interested in, but I'm worried I live too far away. Can I still apply? We find that the most successful master/apprentice partnerships are no more than a two- to three-hour one way drive apart. The good news is that given our state's geography, two to three hours encompasses more distance than you might think! We suggest using an online map driving estimate calculator to see if your master's hometown residence qualifies. If not, you can still apply; however, you'll just need to demonstrate on your application how you'll overcome the distance barrier (i.e., Skype meetings in between studio visits, paying for lodging overnight in the master's hometown in order to have concentrated weekend work

sessions, etc.)

I think I'm ready to be an apprentice, as long as my busy work schedule doesn't get in the way. Can I create a flexible work schedule with my master, or is that set by someone else? To a large degree, you're able to set your own schedule. Your master will work with you to try to find suitable meeting times that fit both your schedules. In the past, some partners liked to meet weekly, others meet only once or twice a month. It all depends on how flexible the master is with his/her time, how often you'll be meeting, how long your work sessions will last each time, as well as other factors such as distance apart and communication outside of the studio. Whatever work schedule you set with your master, keep in mind that you must meet together a minimum of 80-120 hours, and within the Dec. 01 to June 15 time period.

I think I'm ready to apply, but the goals section has me stumped. What kind of goals should I include? The goals you write on your application form are simply a starting point. Don't get too mired down in specifics. We're looking for goals that demonstrate your eagerness to learn, and give us some sense of what things you're hoping to accomplish. One big goal, or up to three smaller goals, are about all you'll have time for. An example of a large goal if you were applying under furniture might be something like, "I want to learn how to make a Shaker rocking chair." You could then elaborate on this goal to state all the joinery techniques making this chair might involve, or that you'd like to learn how to steam bend wood, etc.

If I'm selected as an apprentice, what can my \$1,800 stipend be used for? Award funding can be used for any number of apprenticeship-related expenses such as: craft supplies, tools, educational books on the subject matter, travel, fuel, etc. Note: Funding is intended to partially offset expenses of time and resources incurred by the apprentice; however, it is understood that participation in the program may involve additional expenses which shall be the responsibility of the apprentice.



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TENNESSEE CRAFT



SOCIAL MEDIA SHARING



Shop Talk

By: Eric Caron

Joseph Voda was influenced in woodworking and woodturning by many people, although his father and grandfathers stand out in his early years. Joseph's maternal grandfather assigned his first woodwork project: whittling a hand-tossed spinning top from white oak, using his new Barlow knife. His father was self-taught beyond high school, working in electronics and mechanics. It was his father's bench-top metal lathe that first piqued his interest in all things turned.

Woodturning

In 2002, his dad picked up a 1960's Rockwell lathe, bringing it to him during his time in the Nashville area.



With only multi-sheave speed control, it served to teach basic tools skills from the accompanying manual. Designed primarily for spindle turning, he did turn his first bowl on it. While job-chasing in different cities (Nashville, Atlanta) he joined local woodturning clubs and immersed himself in fostering his skills. In Nashville he turned and sold many Christmas ornaments – solid ornaments at first, then hollowed ornaments. Joseph has also turned many lidded boxes, to



the specific dimensions and a specific profile he prefers. While the Rockwell needed some TLC, a General International Maxi-Lathe came into the shop with variable speed – what an immense improvement! After years of hard work, the General has seen better days and needs to be dedicated to other duties in the shop.



Soon, it will be joined by a new lathe, a Laguna REVO 18|36, ready for his next projects. While he has primarily focused on spindle turning it is

Shop Talk cont.

likely he will now concentrate on side grain turnings - you know what that means.

Into the Shop

Joseph decided he needed dedicated space for his woodworking and woodturning, so up from the ground sprang forth a 14 x 24 ft garage a few feet from his house (it really was not as simple as parting the Red Sea). The new Laguna REVO 18|36 will take center stage, surrounded by a wheeled tool rack, and a sharpening station on a mobile tool cart. Both can be moved anywhere they are needed. They both provide a lot of storage and ready access to all the important tools.



Dust collection is handled by a large dust collector that will soon find a new home behind the shop. Dedicated D/C lines will drop down

fr



om the ceiling, primarily to the lathe area. Cabinets line the back of the shop for tool and wood stock storage.

There is a work bench at the front of the garage, ready for anything Joseph can throw at it. Next to that is a Porter-Cable bandsaw for all the blank processing needs. A spindle sander, drill press, chop saw and a DeWalt contractor's saw round out the large tools. Beyond that, hand held tools of all types are available to embellish and shape Joseph's wood creations into their final presentation. Multiple storage bins hold wood blanks for future projects.



Shop Improvements

If you place your air compressor in an attic or otherwise difficult to access location above you, place a drain extension so you can regularly drain the water. You say, "I'm too lazy to go up into the attic to do that every day." Exactly! Have it handy and drain it regularly. Go one step further and put a timer switch on your air compressor – hit "30 minutes" because you'll be doing a small project and then be leaving for the month. Does your compressor really need to cycle when you're in Maui?

Air conditioning – need I say more? Many of us are temperature or weather-dependent wood turners. But if you have dedicated or shared space, then by all means, use a window unit. You might even DIY a new mini-split a/c unit that also has heat. Not that it gets that cold in

Shop Talk cont.

Memphis... Joseph will be installing a new window unit into his shop in the very near future, and will reap the cool benefits.

Especially in contained shops, air filtration becomes very important. To that end, Joseph is ready to install a double squirrel cage blower in the attic right above the lathe space and have a 4" filter. You might even consider a 3-stage filter approach. Put that blower motor on a timer and you have a significant improvement in your shop air quality, without having to remember to shut the thing off – nobody ever forgets to do that, am I right?! Or wrong...

Woodturning Aspirations and Inspirations

The new lathe will bring with it the opportunity to turn larger vases, platters, and bowls, oh my! Of course, Joseph will continue turning lidded boxes, ornaments, and bottle stoppers.

Joseph looks to the skilled turning of platters by Glenn Lucas, Stuart Batty, and Alan Lacer, as well as bowls by Mike Mahoney (but he makes it look too easy). John Jordan, and his Properties of Wood, was the first demonstration he saw, as a member of the TAW in Nashville. Of course,

what early turner could not be influenced by the work of Jordan. Nope, can't blame him there!

Attending chapter and AAW symposiums has helped him meet many woodturners of like interests and witness the direction of woodturning. Joseph will focus on more class time with seasoned woodturners to improve his mastery of certain skills and techniques. I completely agree – watching demonstrations at symposiums is great, but hands-on training with those same demonstrators is better. And then untold hours at the lathe to master those teachings.

Conclusion

Thank you, Joseph, for a great visit of your dedicated woodworking and woodturning workspace. There are so many great excellent turned pieces and projects completed and so many more to develop and complete in that space. I dare say, with an air conditioned and dust-filtered environment, you might just want to hang a hammock and stay the night, or at least "rest" in the afternoons of long turning days. Either that, or keep turning, because only good things happen in the shop!



For Sale

General Mfg. Model 160 lathe. 12" swing x 38" bed. 1 horse power motor.

Asking \$500.00 with stand and two tool rests. It also has a variety of turning blanks if anyone is interested. Call to arrange a meeting time or to discuss the wood.

Contact Al at 901-351-0555





A CLOSER LOOK AT SHEAR-SCRAPING

Shear-scraping with the wing of a bowl gouge is an effective way to remove tool marks and tearout. This gentle, refining scrape is done *without* bevel contact on the wood and with the cutting edge presented at a steep angle.

Mike Mahoney

Conventional woodturning wisdom tells us the preferred way to cut wood on the lathe is with a bevel-rubbing cut. With that tool presentation, the bevel supports the edge of the tool, keeps it sharper longer, and provides a guide to achieve your desired line or curve. In my business as a professional bowl turner, I have found that another valuable technique is shear-scraping, which I do to further refine and remove slight imperfections such as tearout from some (but not all) turned surfaces. When done correctly, shear-scraping can dramatically reduce the amount of sanding required. It allows you to “rub

out” high spots, blemishes, and tool marks easily.

When to shear-scrape

Shear-scraping is typically applied to the exterior of sidegrain turnings (with the grain running perpendicular to the lathe bed, also known as faceplate work). It works exceptionally well on bowl exteriors prior to hollowing and on platters. It is also handy for anyone making hollow forms with burl or sidegrain wood. Often, hollow form shapes have sloping curves, and when your workpiece is still mounted between centers, the lathe’s headstock and tailstock can get in the way of making bevel-rubbing cuts. Shear-scraping is

sometimes the only way to connect the upper and lower curves on this type of form.

Another benefit of shear-scraping is that it can be applied in any cutting direction, left or right, regardless of grain direction.

I don’t recommend shear-scraping endgrain, as doing so tears the wood fibers badly. Bevel-rubbing cuts work better for spindle work (with the grain running parallel to the lathe bed). I also do not recommend shear-scraping the inside of a bowl, though, based on what I have seen on YouTube, many people do. The reason it is safe to shear-scrape the outside of a bowl is that you would

do it prior to hollowing the bowl, so the interior wood adds stability. After you have hollowed a bowl, it is risky to shear-scrape its interior walls. Inside a bowl, I recommend flat-scraping the bottom third only with a round-nose scraper (*Photo 1*), not shear-scraping with a spear-pointed tool.

Shear-scraping two ways

When you shear-scrape a turned surface, you hold a sharp edge to the wood *without* bevel contact at an angle steeper than horizontal. Shear-scraping should only be used for light wood removal, as it is a finesse cut ideally used for refinement prior to (and sometimes instead of) final sanding.

I use one of two tools for this cut: a gouge with a very sharp cutting edge or a scraper with a burr edge. Using a gouge tends to leave a better surface, but you might find the scraper offers better results in denser burl-structured wood. The gouge also requires a bit more skill. The edge of a shear-scraping tool, whether a gouge or scraper, dulls quickly, so expect to sharpen often.

Gouge

Shear-scraping with one wing of a gouge makes use of a very sharp tool edge. I have developed a grind for my ½", or 13mm, bowl gouge for shear-scraping that gives me the ability to get a steeper approach. This grind is essentially a modified fingernail gouge with a long, convex, cutting edge (*Photo 2*).

The wood shavings that result from shear-scraping with a gouge are fine and ribbon-like.

Scraper

Unlike the gouge approach, shear-scraping with a scraper makes use of a burr edge. I like teaching this method because it provides results similar to those of a gouge, but with the benefit of more control, which is important for beginners.

I use a heavy spear-point scraper that was formerly a round-nose scraper. I ground a new shape on it according to my preference (*Photo 3*). Round-nose scrapers will work for shear-scraping, too, as long as they are made from metal stock at least ¼" (6mm) thick. This thickness will help reduce vibration, which is important for a clean shear-scrape. One extra benefit of a spear-point scraper is that its sharp point can also be used as a detail tool.

I use this tool with a burr developed right from the grinder since it is only used sparingly. If I were focused on using the tool for an extended time, I would create a burr on it using a

burnisher (just as a furniture maker does with a cabinet scraper). When used in shear-scraping mode, the burr on a scraper has an effect similar to that of an abrasive: the wood shavings removed are finer in structure.

How it's done

Let's look at how I use shear-scraping in my bowl-making process.

Using a ½" bowl gouge, I turn the exterior of a bowl with a series of bevel-rubbing cuts, both with and against the grain. Once I have established the shape I want, I begin to shear-scrape the exterior surface. There are two factors that are key to success in this process: use ►

Traditional scraper presentation



Shear-scraping is riskier inside a bowl than out, as a catch is more likely on the unsupported upper walls. Here, the author opts for a traditional scrape on the bottom section of a bowl's interior, with the tool flat on the toolrest and the cutting edge horizontal.

Tool choices for shear-scraping



The author's preferred grind on a bowl gouge used for shear-scraping: long, slightly convex cutting edges, or wings.



A heavy scraper, either spear-point or round-nose, can be used for shear-scraping.

a freshly sharpened tool and present the cutting edge of the tool at a steep angle to the wood. To get this steep angle, imagine putting the tool handle in your right pocket (if you are right-handed); this will create the desired tool presentation (*Photo 4*).

Keep a firm grip on the tool and hard pressure on the toolrest to minimize tool vibration and to keep the tool from bouncing away from the wood. If you find the tool is bouncing, apply more pressure on the toolrest and lighter strokes on the wood. It is not necessary to shear-scrape with the grain direction, since you are gently

scraping “over” the grain and not cutting into it. You can go up or down on the shape, depending on what feels best for you. I like to get at least a 45-degree presentation angle of the cutting edge on the wood and sometimes even steeper.

When shear-scraping with a gouge, present the tool with the flute closed (almost facing the wood), but be sure to use only the lower cutting wing of the gouge (*Photo 5*). Touching the opposite wing, or both wings, could cause a catch.

When shear-scraping with a scraper, the tool presentation is similar to

shear-scraping with a gouge: drop the tool handle low and present the burr edge at a steep angle to the wood (*Photo 6*). To achieve this steep angle, it is necessary to turn the tool up on edge (*Photo 7*), rather than resting its width on the toolrest, as you would in the traditional scraping mode shown in *Photo 1*.

Final thoughts

Still having trouble getting a smooth cut after using these techniques? Sometimes tearout can be a bear to eliminate. Try using a lubricant for that last cut. I recommend using your intended finish as a lubricant. For instance, if you are going to finish your bowl with mineral oil, try mineral oil as the lubricant. And remember to keep the edge of the tool at a steep angle to the grain. Drop the handle and close the flute of the gouge into the wood—but not so far as to touch the opposite wing, as that would cause a catch. ■

Mike Mahoney is a production woodturner specializing in salad bowls, utility items, and burial urns. He lives in rural Northern California on a farm with his wife, Jenni. For more, visit bowlmakerinc.com.

Gouge presentation



4 Imagine putting the tool handle in your pocket to achieve the steep angle needed for a shear-scrape.



5 Note the steep angle of the cutting edge to the wood. Close the flute of the gouge, but be careful to apply only one wing, not both.

Scraper presentation



6 Similar to the gouge presentation, lower the handle of a scraper when used in shear-scraping mode.



7 Turn the scraper up on edge (so it is not flat on the toolrest) to achieve the steep cutting angle needed for a clean shear-scrape.

You read the article—now see the video!

This article has an accompanying online video in which Mike Mahoney demonstrates the proper way to add shear-scraping to your repertoire of techniques. To view the video, visit tiny.cc/shearscrape or scan the QR code with your mobile device.





Wood:

Kiln-Dried, Green, or Air-Dried? Joshua Friend

There is one truth that all woodturners come to understand: When freshly cut, trees are full of water and the moisture-laden lumber is unstable as it dries. This fact determines much about the working properties of our raw material and dictates some processes woodturners employ.

To explain in simple terms, in freshly cut (green) wood, water occurs in two forms: *free* and *bound*. The free water resides in the cell cavities and is first to evaporate—or be slung about your shop while you are turning green

wood. The loss of free water does not cause wood to change shape or crack.

Bound water exists within the cell walls and evaporates after the free water is gone. When the bound water begins to evaporate, the wood does most of its shrinking (as the cells collapse), causing the wood to change shape and possibly crack. Thus, high moisture content necessitates some form of drying process to stabilize wood, either before or after turning on the lathe.

Although wood is not alive after being cut, it may seem so because

wood is hygroscopic—it continues to absorb and lose moisture as the relative humidity changes. Understanding the nature of wood will help you understand the options available for acquiring this material we enjoy turning.

(Above) The inside of a vacuum kiln (top has been removed) shows slab material that has been dried. This kiln at Berkshire Products in Sheffield, Massachusetts, can dry up to about 2,000 board feet of lumber in only a few days. Boards are layered in the kiln and separated by heated aluminum plates.

Kiln-dried lumber

When you buy lumber from a lumberyard or hardwood dealer, most often it has been dried in a kiln. This is the fastest way to dry wood after it has been rough sawn. In as short as a week, depending on the type of wood and the kiln being used, dimensional lumber will be ready to turn. Kiln-dried lumber is dried to about 6 to 9 percent moisture content, which makes the wood stable. Even so, the wood might need to be acclimated to the humidity of your shop before working it.

Wood kilns operate much like a convection oven, making use of some type of heat source and a fan to move the air. There are a number of different types of kilns—vacuum, dehumidification, and solar—but the purpose is the same for all of them: to speed up the process of evaporation of bound water from the wood, thereby stabilizing it. For woodturners, the stability of dried wood—whether kiln-dried or air-dried—makes it suitable for all kinds of glue-ups prior to turning, such as in segmented work. Kiln-dried wood is also used for spindle work and for small projects, such as pens.

Some kiln operators also infuse water into the process, commonly when drying walnut. Doing so moves some of the dark color of the heartwood into the sapwood, thereby making the overall color of the board more uniform, which many furniture companies prefer. This process also increases the amount of wood that can be used. On the downside, the process tends to homogenize the wood, making it less interesting. Also, applying heat and steam changes the quality of the wood, making it harder and more brittle. This is why turning kiln-dried wood dulls tools faster and produces a “dusty” cut.

One key limitation of kiln-dried stock for woodturners is the thickness of the wood that can be dried: It is difficult to sufficiently dry timber much thicker than 4" (10cm). Kiln-dried lumber is well suited for woodworkers who use boards (planks or slabs) to make projects that do not require thicker material.



1 Carl Ford, untitled (natural-edge bowl), 2003, Ash, 6½" x 12" (17 cm x 30 cm)



2 Carl Ford, untitled (beaded-rim big-mouth vase), 2009, Ash, 7" x 6" (18 cm x 15 cm)

But for turners, using kiln-dried lumber limits faceplate work to shallow bowls and platters (unless you glue up stock to make thicker turning blanks).

Green wood

If you have not yet experienced the joys of turning green wood (freshly cut timber saturated with moisture), you are

missing out on a fantastic experience. Many woodturning projects become fun by using green wood instead of dimensional lumber. For example, if you want to turn a large, deep bowl without laminating layers of boards together to create sizable turning blanks, using green wood is the answer. A natural-edge bowl with the bark remaining on ▶



3 I used the crotch grain in this black walnut log as a feature in a turned platter.



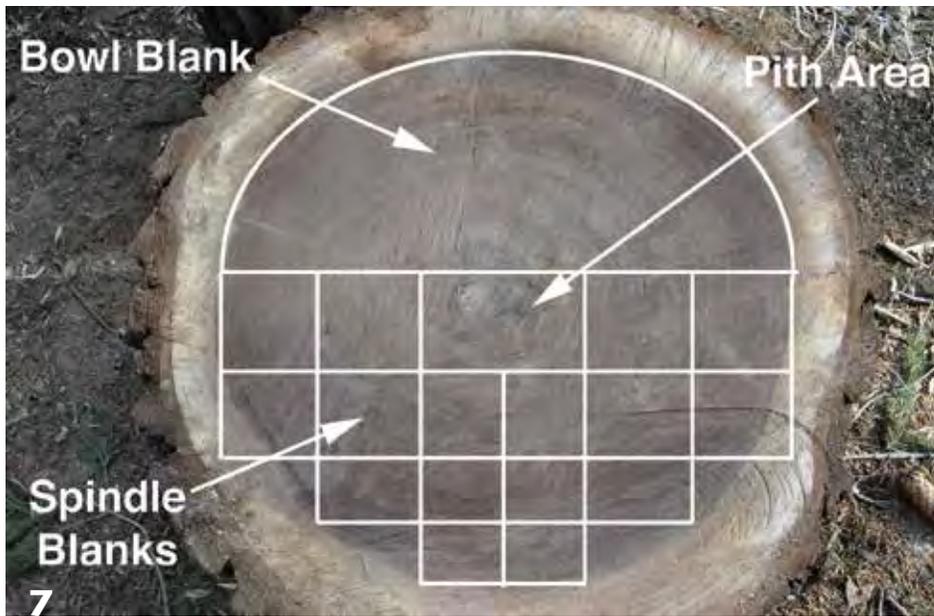
4 The finished platter, 2011, walnut, 1½" x 15"



5 A freshly sawn log shows natural wonders with great potential for a bowl!



6 The dark streaks in this maple resulted from the unique mineral content of the soil.



Endgrain of a log illustrates a typical approach to harvesting bowl and spindle-turning stock. To maximize the size of a bowl in this orientation, the log should be cut at least as long as its diameter. The pith and its surrounding area should be cut away since it is unstable during drying and often results in cracks.

the rim is best made from green wood. Turn it green, let it warp, and bask in the glory of your family's compliments. They will truly wonder at your creative use of nature's bounty (*Photo 1*).

The size and scope of hollow vessels would be severely limited if only kiln-dried wood were used. Woodturners can take a whole section of a green log, mount it directly to the lathe, shape the outside and remove the wood inside to create a hollow vessel (*Photo 2*). With this process, the wood can usually move without cracking while drying. The small area of pith on the bottom

can be treated with CA glue or drilled and plugged.

The process of turning green wood is easier on tools because the water in the wood lubricates the cut—shavings easily peel away, many in long ribbons. Cutting tools stay sharper longer and tools leave a smoother surface.

Working with green wood requires some investment of time, effort, and money up front. For example, you will need some means of cutting logs into usable pieces for turning, which means acquiring a chainsaw and a bandsaw. Portable bandsaw-type sawmills can be

expensive. Also, woodturners require room to process and store wood properly. If you live in an apartment or your neighborhood association has strict codes, chainsawing lumber on your driveway is probably not conducive to being neighborly. Ideally, processed spindle blanks and roughed-out bowls should be stored in a warm dry place for air-drying. Do you have the room to do so?

If you have the knowledge, space, and equipment, harvesting green wood can have significant benefits. Top on the list is the cost of wood. Kiln-dried lumber is relatively expensive. By the time you buy it, the wood has been handled many times: the tree felled, log rough sawn in a mill, and boards dried in a kiln, perhaps even planed to a uniform thickness. During this process, the wood likely has been transported several times, and that cost is built into the final price. Conversely, you can acquire freshly cut logs free, either from a local tree surgeon or from trees that have come down around your neighborhood. Even in urban settings, there will be tree pruning and removal periodically, so friendly communication with public works or botanical gardens personnel could prove beneficial.

When you learn to process your own turning stock from logs, you can choose which parts of a tree to harvest, such as crotch grain or a section that appears to have figure in it. Often, I am happily surprised with the interesting characteristics I find within the logs



The half logs of black walnut reveal a richly colored treasure. A small amount of pith can be seen in the upper part of the logs, but that will be cut away later.



A bowl blank can be rough-shaped with a chainsaw. The chalk mark represents the top of the bowl blank.



To rough shape a log using a bandsaw, start safely by initially cutting the log in half with the grain running vertically. Each half can then yield a bowl blank with the grain running horizontally, as in *Photo 9*.



11 Rough turning the outside of a maple bowl from green wood reveals mineral streaks and ambrosia markings.



12 After air-drying this walnut bowl blank for several months, it can be finish-turned.

I harvest (Photos 3, 4, 5, 6). A maple log from a neighbor's tree may have beautiful ambrosia markings, mineral streaks from the soil, or spalting—qualities that generally are too unusual or cost-prohibitive for hardwood dealers to handle.

Harvesting and air-drying bowl stock

When you harvest wood from a log, it is best to do so as quickly as possible after cutting the log to length, before endgrain checking has had a chance to occur. First, locate the pith (Photo 7). This is the original strand within the stem or trunk around which the annual growth rings form. The pith is not necessarily located at the center of the tree—growth rings can form quite out of round. The wood closest to the pith tends to be unstable when the wood dries, and if not removed, that area can cause unnecessary cracking throughout the entire turning blank. Unless you intend to incorporate the pith into a project for dramatic effect, it should be cut away, either during blank preparation or at the lathe.

Cut the log in half, at or near the pith, essentially splitting the log lengthwise (Photo 8). This can be accomplished with a typical chainsaw setup, but make sure you use a sharp chain. Special chains

made for ripping along the grain can make this process easier. Another way to cut a log along the grain is with a portable bandsaw-type sawmill. (See AAW's recent book, *Safety for Woodturners* for hints on how to safely rip wood with a chainsaw woodturner.org/products.)

To harvest bowl-blank material, mark a circle on a half log using chalk, and then rough-shape the bowl blank with a chainsaw (Photo 9). Alternatively, you can cut the log in half and form the bowl blank using a bandsaw if you have one with enough capacity (Photo 10).

Drying wood much thicker than 4" (10cm) thick is not feasible, so it is best to turn bowls right away from green blanks. To rough-turn a bowl, shape and hollow it, but leave the walls extra thick for safe, slow drying and to ensure there is enough wood left to re-turn the bowl round after the wood warps (Photos 11, 12). The rule of thumb for wall thickness of a rough-turned bowl is 1" (2.5cm) per 10" (25cm) of rim diameter, so a 15"- (38cm-) diameter bowl, for example, would have walls that are 1½" (4cm) thick.

It is important to make the wall thickness as uniform as possible from rim to bottom so drying can occur evenly, which further reduces the chances of cracking.

Immediately after rough turning, coat the bowl with a wax emulsion sealer, which will slow the drying process and even out moisture loss from endgrain and side grain wood—moisture loss is greater from endgrain than from side grain.

Set aside the bowl for several months to a year to air-dry, preferably in an environment that is not too hot and dry. As the wood loses moisture, the bowl will change shape and go out of round—wood shrinks more across the grain than along the grain. After the bowl blank is dry, remount it onto the lathe for final turning, sanding, and finishing. This is what is commonly called a twice-turned bowl.

It is also possible to turn a bowl from green wood directly to its final thickness. This is a lot of fun, but you need to work quickly so the wood does not dry and distort as you turn. It helps to keep wetting the wood as you go. The walls can be turned quite thin, so the wood will dry faster than for a rough-turned bowl. The bowl will also warp and change shape, often leaving a wavy rim.

Spindle-turning stock

To harvest spindle-turning stock, make additional rip cuts in the freshly ►



Spindle stock can be cut using a chainsaw, but an easier option would be to rip the blanks using a bandsaw after cutting the log to a manageable dimension.

cut half-log to create blanks of various dimensions (see Photo 7). These rip cuts can be made with a chainsaw (Photo 13), but are more easily accomplished on a bandsaw (Photos 14, 15). Spindle blanks do not need to be cut exactly square—eventually they will be turned round when mounted between centers, so it is sufficient to make these rip cuts freehand. Seal the ends of spindle blanks with a wax emulsion to minimize endgrain checking, and set them aside for air-drying, stacking them so air circulates around each piece.

The rule of thumb for air-drying wood is one year for each inch of thickness, and this applies to both flat lumber (spindle stock) and roughed-out bowls. Drying times vary greatly, however, depending on the type of wood and the humidity level in which the wood is being dried. Ultimately, the goal is for the wood's moisture content to reach a point of equilibrium with the surrounding humidity. Then it will be relatively stable in that environment. If in doubt, a moisture meter can be used to verify moisture content.

Air-dried lumber is often of a much nicer quality, with a gentler cutting response, than kiln-dried stock. It has been dried slower and by a more natural process. For woodturners, kiln-dried lumber certainly has its uses, but if you have only turned kiln-dried wood, you may be missing out on some of the unique joys of harvesting and turning green wood. ■

Joshua Friend, a woodturner and writer, is a member of the Nutmeg Woodturners League, an AAW chapter that meets at the Brookfield Craft Center in Brookfield, Connecticut. See jfriendwoodworks.com for examples of his work and contact information.

Kiln for Drying Wood

Larry Zubke



To speed up the drying process and improve the odds of successfully preserving wood blanks, I built a drying kiln. A kiln provides a stable environment by maintaining a consistent temperature and humidity. For research, I spoke to woodturners in my local club and also found articles on the Internet. I discovered that there are no hard-and-fast rules for

building a kiln, so I took several ideas and combined them into something that would work for me.

A small chest freezer that had quit working began the project. The metal walls with insulation between them help retain heat, making this kiln economical to run, even in wintertime. For safety, I installed a hasp and padlock on the door.

I removed the compressor and mounted casters on one side to stand the freezer up so it can move around easily. The vertical positioning of the door allows easy access. An upright freezer or refrigerator might work better, but this unit takes up less space.

The kiln is loaded with wood.

I installed open-wire shelves to support the green wood and to allow air to move freely within the kiln. A watertight light fixture with two 60-watt incandescent light-bulbs mounted on the base of the freezer provides the heat source. A thin sheet metal plate sits over the bulbs to protect them from dripping water. The metal also retains heat from the bulbs, slowly releasing it after the power is off.

A greenhouse thermostat with a remote sensor monitors and regulates the temperature inside the kiln by automatically turning the bulbs on or off so that a consistent temperature is maintained. I drilled four ½" (13mm) holes in the bottom of the freezer below the lightbulbs and four matching holes in the upper rear wall. Heat convection from the bulbs draws outside air into the freezer through the bottom holes. Warm humid air exits the freezer through the top holes.

After my first batch of wood was dry, I decided to install a 5" (13cm) fan, salvaged from computer equipment. This fan runs all the time and helps circulate the air, which speeds up the drying process. Without the fan, the first batch of wood took approximately seven weeks to dry. The second batch took only five weeks.

I generally start by setting the temperature at 80°F (27°C) for the first week. At week two, I increase the temperature to 85°F (29°C). The third week, I raise the temperature to 90°F (32°C) and leave it there until the wood is dry. During the first few weeks, the humidity is 70 to 80 percent, so the air exiting the kiln often condenses on the outside of the holes. As the drying process progresses, the humidity continues to drop. The time it takes for the blanks to finish drying depends upon: the time of year the tree was cut, wood



Mounted on the left-hand side of the kiln are the controls, power switch, and outlet, as well as the greenhouse controller. Note the padlock for safety.



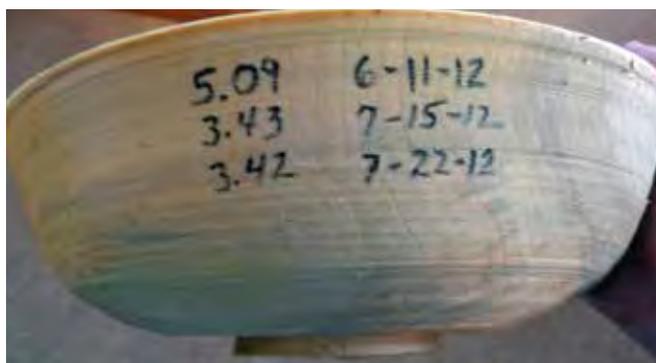
A fan is mounted underneath the wire shelf.



The lightbulbs are mounted on the back of the kiln near the bottom, a sheet of metal covers the bulbs, and the holes are drilled through the bottom of the freezer.



The sensor for the greenhouse controller is mounted to the ceiling inside the kiln. The four holes drilled through the upper back wall of the freezer can be seen.



A 13" (33cm) cottonwood bowl, rough turned from green wood, weighed 5.09 lb (2.3kg) June 11 when it was placed in the kiln. It weighed 3.43 lb (1.6kg) July 15, and 3.42 lb (1.6kg) July 22. This bowl stopped losing weight, is dry, and ready to be finish turned.

species, diameter, rough-turned wall thickness, storage-environment temperature, and humidity.

To measure the wood's dryness, I weigh the largest and thickest blanks with a digital fishing scale and write the weight and date on each blank. At first, I check the blanks monthly,

and then weekly as the weight loss begins to slow. When the blanks stop losing weight (moisture), they can be finish turned. ■

Larry Zubke has been an avid woodworker all of his life, learning from his father and other family members. Since joining the Dakota Woodturners, his focus shifted to woodturning.

Instant Gallery

Bob Smith



Don Farage



Cherry and Bradford Pear

Instant Gallery cont.

Larry Sefton



Instant Gallery cont.

Mark Maxwell



Maple

Instant Gallery cont.

Bob Wolfe



Upcoming Events 2018

- | | |
|------------------------|---|
| August 25 | Joel Benson - Local woods and their properties |
| September 22 | Mike Maffitt - 4 Sided Triplet Weed Pots
President's Challenge - Goblet |
| September 28,29 | Bartlett Festival |
| October 20 | Oktoberfest |
| October 12-14 | Pink Palace Craft Fair |
| November 24 | TBD
President's Challenge - Christmas Ornament |
| December 15 | Christmas Party |

Mentor Program

All members of MSWG are invited to contact the following mentors to learn a new technique, improve their turning skills or turn something different. Mentors are volunteers and do not charge.

Contact information is on our website under Members Only and the Roster. Sessions should last no longer than 3 hours and be scheduled at the convenience of the mentor.

Benson, Joel	Wood Selection, Turning Green Wood, McNaughton Coring, Chain Saw Sharpening/Maintenance, Chain Saw Use/Safety
Cannon, Rick	Segmented Bowls
Maffitt, Mike	Bowls, Platters and Native American Flutes
Sefton, Larry	Milk Paint, Make Your Own Pyrography Unit, Hollow Forms
Stone, Rick	Finials, Bowls (incl. Natural Rim), Boxes, Spindles, Carving, Finishes, Pyrography, Making Tools, Turning Tool Basics (incl. Sharpening)
Tusant, Jim	Bowls, Hollow Forms, Pyrography, Carving, Dyeing, Tool Use
Voda, Joseph	Spindle Turning (e.g. Ornaments)
Wilbur, Skip	Bowls, Hollow Forms, Goblets, Finials

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Bartlett, TN 38133

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Fax: (901) 755-2907

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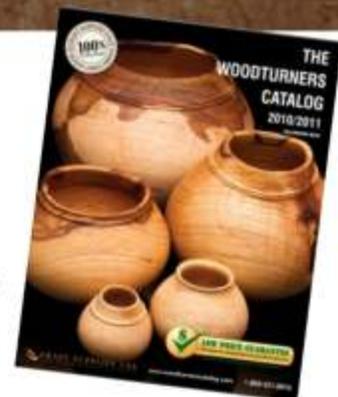
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