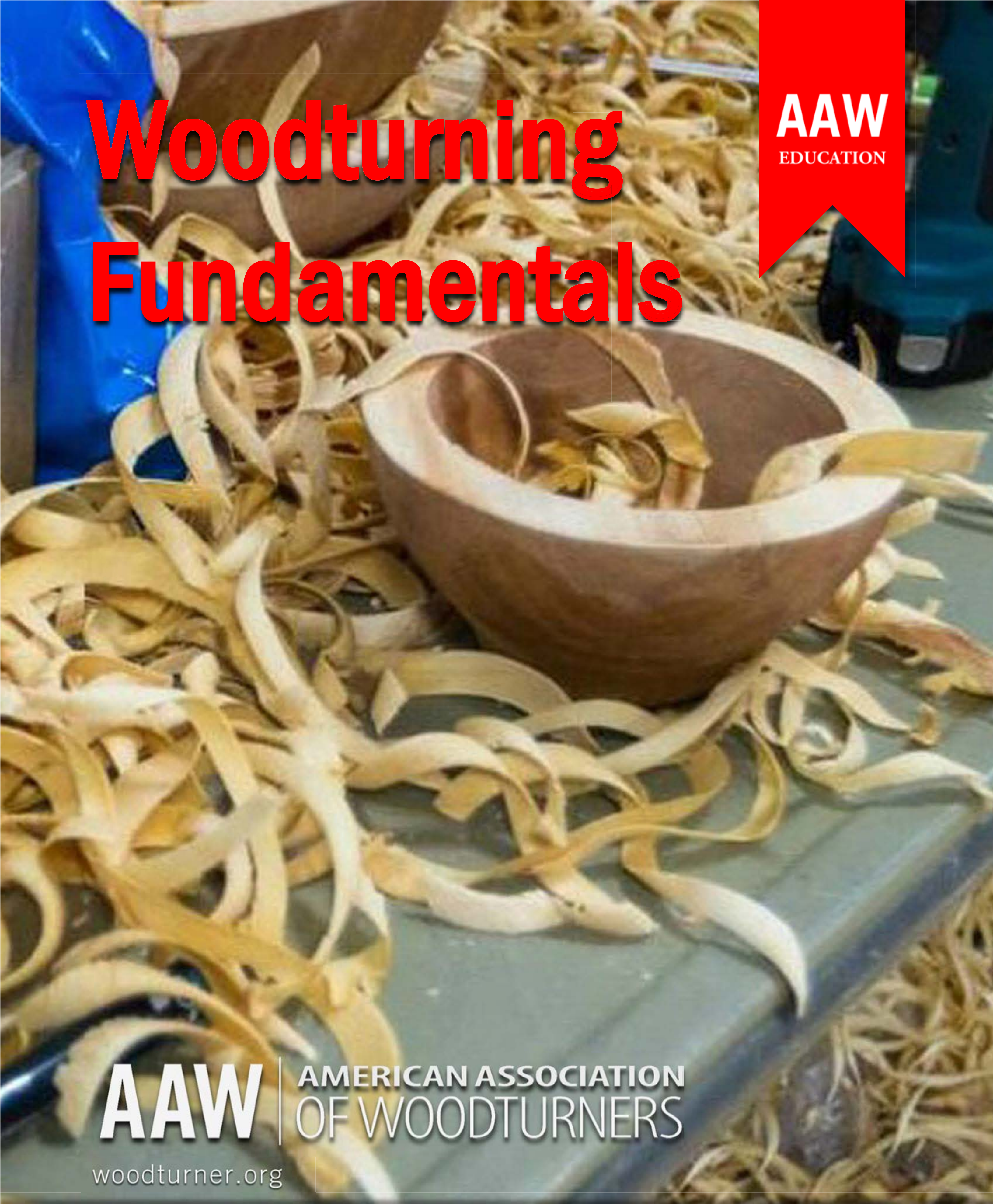
Woodturning Fundamentals

AAW
EDUCATION



AAW | AMERICAN ASSOCIATION OF WOODTURNERS

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Mike Mahoney

Woodturning Fundamentals
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A Note About Safety: An accident at the lathe can happen with blinding suddenness. Respiratory and other problems can build over years. Take precautions when you turn. Safety guidelines are published online at http://www.woodturner.org/?page=Safety Following them will help you continue to enjoy woodturning.

WELCOME

A Note from the Fundamentals Chairperson

Welcome to Fundamentals, a bi-monthly, online newsletter that is published in January, March, May, July, September, and November. This newsletter is written primarily for entry level to intermediate woodturners, but we hope everyone will find something of interest in each edition. Our content is derived from articles previously published in the American Woodturner plus material provided by many generous volunteers. Our readers have access to a wealth of online information, including back issues of Fundamentals which may be found at our homepage: http://woodturner.org/?page=FUNdamentalsRes

If you have an idea for an article, tip, or a short video, we welcome material from woodturners of every level of experience. We also welcome your woodturning questions, which we address in "Questions & Answers" published in every edition. We reserve the right to edit any submitted materials for length, content, safety and topics so the material fits the program for the month. All material should be forwarded to AAW Program Director Linda Ferber at linda@woodturner.org.

I am very pleased to have this opportunity to work with you, our volunteers, and staff on the Fundamentals newsletter. Because Fundamentals exists in the digital realm, I believe this provides a tremendous opportunity for us to exchange ideas and information in any format, media, or relevant links. I look forward to an exciting year for Fundamentals. Please do not hesitate to drop me a note with your questions, suggestions, or concerns.

Sincerely,
Denis Delehanty
denis@woodturner.org

GARDEN DIBBLE

Fundamentals with the Skew

This project offers great practice with the skew. In fact, the whole dibble can be turned using just the skew.

(Click photo above to watch video.)

Preparing and roughing out

1. Select stock, locate the centers, and mark them using a center punch.
2. Secure the spur center to the blank using a wood mallet or dead blow hammer and mount it in the lathe.
3. Position the tailstock, advance the quill, and lock it in place. A cup-shaped live center is the preferred type.
4. Adjust the toolrest to just below the centerline and ¼” from the corners of the blank and lock it in place. Rotate the workpiece by hand to ensure the workpiece doesn’t hit the tool rest.
5. Set the lathe speed ... approximately 1,500 rpm for roughing and approximately 2,500 rpm for finish cuts.
6. Rough the blank to a cylinder and perform a final planing cut.
7. Lay out details on the cylinder based on the drawing in figure with a pencil. Allow ½” waste at each end of blank.

Shaping the handle

8. Using the toe of the skew, make V-cuts to locate the beads and pencil a centerline on each. Place a 1”-wide bead at right end of blank, 4” space for handle, and a second 1”-wide bead.
9. Using the heel of the skew, roll the beads.
10. Shape the handle. Use the heel to roll the handle from the center to each end. This will leave the handle larger in the center and a smaller diameter at each end. Add a small V-cut at each end of the handle to visually separate the handle from the beads.
11. Make a larger V-cut to separate the handle from the “working” end of the dibble.

Shaping the working end

12. Set stop ½” from left end of blank. Leave ½” of waste at each end.
13. The will keep you from hitting the spur drive with the tool.
14. Taper the left end of the dibble to about ½” diameter.
15. Use a vernier scale to mark 1” increments from the left end.
16. Make light V-cuts at the 1” increments.

For a more aesthetically pleasing shape, do not create a constant taper. Instead, keep the diameter consistent near the handle and then slowly increase the taper as you near the pointed end of the dibble.

ROUND DOOR STOP

Unique Designed Door Stop

Whenever we travel, I look for turned items that I have never seen. One such unique item was the round door stops that we saw in homes and shops in New Zealand. This piece takes very little time or material to make. It provides practice with a bowl gouge turning between centers. The stock is turned round, flat, and finished with a shear cut resulting in a smooth finish.

The door stops we saw were approximately 4 ½” to 5” in diameter and 1” tall. Some were plain and others had a rubber mat glued to their base. You never need to bend over to place it, unlike the traditional wood wedge. Just open your door and slide the stop against the door with your foot. The first time a stop is used, it will end up with a dent in its side. No worries, a beat-up stop is a stop that is well liked and often used.

The wood I used was 1¼” thick, rough sawn soft maple. The tools used were a 1/2” bowl gouge with an Irish grind, 5/16” spindle gouge, a flexible flush-cut saw, steel rule, compass, spring punch, and band saw. I started by cutting five-inch hockey pucks on the band saw. They were neither round nor very flat. I used a spring punch to deepen the barely noticeable hole left by the compass. The round was mounted on the lathe between centers. Be sure to tighten the tailstock and use its locking lever to keep the material in place. The piece was turned round and the face of the piece against the tailstock was turned flat. It is better to leave the face towards the tailstock (future bottom of the piece) slightly concave vs. convex. Remember, never use a spindle roughing gouge to turn endgrain and leave sufficient wood where the tailstock meets the wood to keep the wood safely tightened between centers.

Once flat and round, the piece was reversed between centers. A bowl gouge was used to turn the shape much like you would turn the exterior of a bowl.

I wanted to keep the sides relatively straight starting near the outer edge to within a ½” of the top center.

Figure 1: The metal rule was used to check for high spots.

The last finishing cuts were done with the bowl gouge utilizing a shear cut. This resulted in a smooth finish with no tear-out. I lightly sanded with 320-grit sandpaper. The bowl gouge shear cut is accomplished by holding the gouge at a forty-five-degree angle on the tool rest. The gouge flute is held at nine o’clock. The bottom swept-back wing of the flute lightly contacts the work while the top wing is held just off the surface of the work. This cut produces light, feathery shavings.

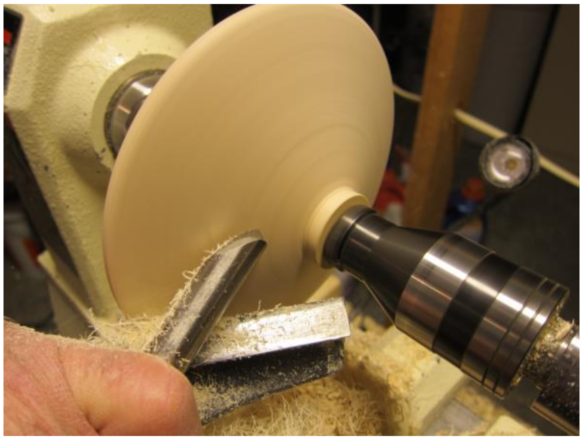


Figure 2: The bowl gouge shear cut.

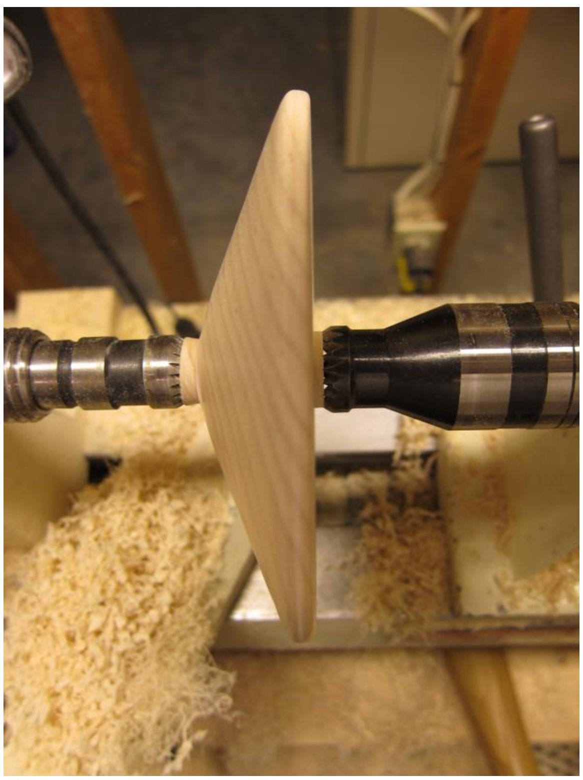


Figure 3: The final shape of the stop.

The revolving, toothed, steb center in the tailstock was removed and replaced with a pointed, cone center. This provided access to turn off much of the remaining waste wood using a 5/16" spindle gouge.

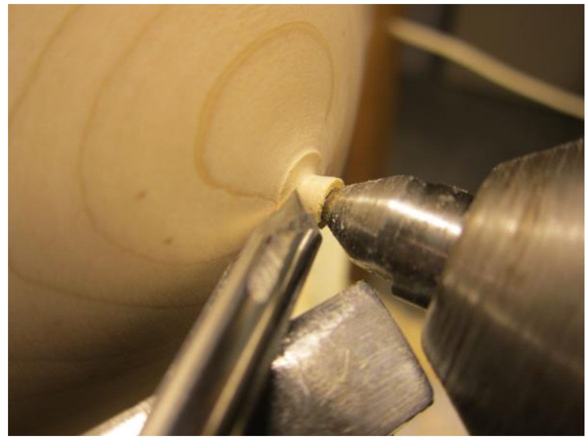


Figure 4: Removing all but a 3/16th nub with a spindle gouge.

Figure 5: The remaining nubs at the top and bottom were cut off with the flush-cut saw.

The top was smoothed using 320 sandpaper. There is no need to sand the bottom.

If you plan to finish the stop, I recommend penetrating oil or water-based turning finish, but not so much that it builds up on the surface of the piece. You would like the piece to stay wedged under the door, not slip off due to a smooth finish. A piece of cushion-grip cabinet shelf liner was cut round and slightly smaller than the bottom of the piece and attached using contact cement.

Figure 6: Rubber sheet installed on the bottom of the stop.

Figure 7: The door stop hard at work.

If your stop does not securely hold the door, try pushing the stop up against the door, then while holding the stop in place with your foot, give the door a tug so that the door rides up the face of the stop and wedges in place.

This is a fun, quick project to make. The turning techniques used on the door stop will carry over to many of your future projects. Best of all, no one has guessed what it is during Show and Tell at my woodturning club meetings.

-Cheers, Denis Delehanty

Woodturning Information & Resources for Members on the AAW Website

Please sign in as an AAW member to view the content.

- AAW Video Archive
- Safety Resources
- AAW Symposium: Phoenix, AZ June 13-15, 2014
- Calendar of Events
- AAW News
- American Woodturner: Current Issue
- American Woodturner: Archives

A TEMPORARY SKEW

A Temporary Replacement

The skew is called many things, depending on whether you have mastered it or have been bitten by it. While the skew is an extremely versatile tool and I highly recommend that you work to master it, there are alternatives to make some of the skew cuts with far less risk.

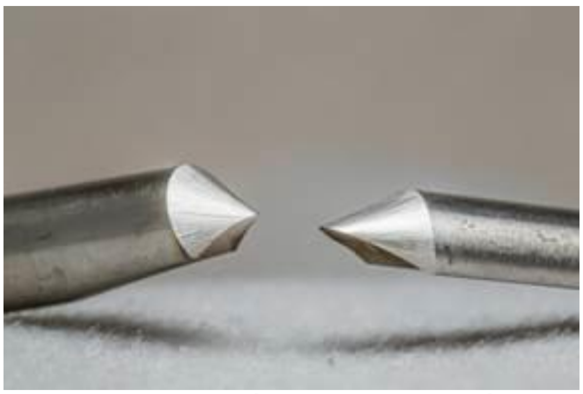


Figure 1: The standard grind on most people's spindle gouge is in the neighborhood of 45 degrees. A shallow-angle spindle gouge on the right is about half of that. It can be ground as needed to fit.

The two cuts that come to mind that are well executed by the skew are the V-cut and rolling and tucking a bead. The skew does them well but they can be done equally as well with a spindle gouge. The problem with the standard grind spindle gouge is that, ground at the usual angle, it is too fat. The easy fix is to grind one of your spindle gouges to a shallower angle so that it will fit into those V-cuts or tucking the bead (see figure 1). The angle you choose is your own and I won't quote numbers, but if you say your standard spindle gouge is somewhere around 45 degrees, what is wrong with having a special-use spindle gouge ground to half of that? That will address the too-fat issue for the most part. If you need skinnier, grind one with yet a shallower angle. It's easy to do with the Wolverine or similar fixture. I am not a fan of measuring angles but you'll see that my shallow-angle spindle gouge is in the same vicinity as my favorite skew chisel (see figure 2).

Figure 2: A comparison of that shallow-angle spindle gouge with the skew.

Your newly found skew replacement will never do well at planing cuts (see figure 3). Don't expect it to.

Figure 3: The skew chisel excels at planing cuts, so there isn't a tool in the kit that can do as nice a job. This is a good reason to ultimately master the skew chisel.

Figure 4: Properly done, a planing cut made with a skew chisel requires no additional work. To sand it would be taking the surface quality backward.

The skew chisel excels at planing cuts. (see figure 4) At this point, you'll need to use the side wing on your spindle roughing gouge for those cuts. Where you need the V-cut, for which you would usually use your skew chisel (see figure 5), you can now use your spindle gouge (see figure 6) for the same nice V-cut with whatever angle you'd like. Of course you'll be limited to some angle, based on the thickness of your spindle gouge, but your spindle gouge is much friendlier to you than your skew at this point.

Figure 5: The long point, or toe, of the skew is used to make V-cuts. The only real limit to the depth and angle is the size of the skew and the thickness of the steel, as well as the grind angle.

For your beads, endgrain cuts, cornering needs, and just plain inside and outside curves, your shallow-angle spindle gouge should be able to give you the same quality cut as the skew chisel but with a much greater likelihood of success. That said, the fact that you reground one of your spindle gouges doesn't mean this is automatic. (see figure 7 – 10) Sure, it will be friendlier than your skew is being right now, but a bit of practice also goes a long way. Use this skew replacement temporarily until you get comfortable with your skew chisel. You'll find that the variety of cuts where the skew excels will make the journey to mastering it worthwhile. In the interim, this workaround may let you get some of those cuts you want, with a higher chance of success.

Figure 6: Your shallow-grind spindle gouge will make V-cuts very nicely. It will have the same depth and angle limitations as the skew. When it can't get any deeper without hitting the top of the grind, that's it.

Figure 7: Inside and outside curves, including beads, are readily done with your shallow-angle spindle gouge. Use it as you would your standard spindle gouge, except it fits into tighter spaces.

Figure 8: Just because you now have a tool that can spare you the agony of the skew temporarily, don't think it is magic when you pick it up. As with any tool, a bit of time at the lathe, practicing, never hurt.

Figure 9: : Your shallow-grind spindle gouge will do all of the same endgrain cuts as nicely as your standard spindle gouge or your skew chisel.

Figure 10: Kept with a keen edge and with sufficient surface feet per minute, the shallow-grind spindle gouge should be able to make cuts that approach the surface finish made by the skew.

~By Kurt Hertzog

TEN QUESTIONS

About Segmented Woodturning

1. **What is segmented woodturning and how do you do it?**
   Segmented woodturning is a process of cutting small pieces of wood and re-assembling them into a bowl or vessel. Usually we construct rings of pieces cut to specific length and specific angles; these rings are then glued together to create the object to be turned.
2. **Is it very time consuming?**
   Planning the vessel, cutting the parts, and building the components does take time and planning; however, the results are not achievable through any other methods. You can use wood from boards, mix colors and species to create complex designs – the options are endless.
3. **Why do you have to have a drawing?**
   Without a specific drawing and a cut plan you cannot determine the segments' thickness, length, or angles needed to build the components and the final assembly.
4. **Is the math complicated?**
   No, the math can be very simple with dimensions even taken directly from the drawings. Inexpensive software is also available to reduce the possibility of calculation error and speed up the drawing and layout phases.
5. **What kind of jigs/fixtures do you need to have?**
   You will need a fixture to allow you to cut the individual pieces accurately. Other general woodworking tools will also be employed to true and flatten components and rings before assembly. The more precision you employ, the better the results.
6. **Can I use my chop saw?**
   Cutting the segments is not limited to the table saw; the chop saw, when properly set up and calibrated, is a very useful tool for cutting segments.
7. **How do you get tight joints?**
   "Perfect" joints are always a goal. Precise, repeatable cutting, and component cleanup before building sub-assemblies are needed. When the ring sub-assemblies are built, careful clamping and gluing is also needed.
8. **What is open segmented work and how is it done?**
   Open segment vessels are constructed by gluing on individual segments and leaving a space or hole between them. In order to get the spacing accurate, a method for indexing and/or spacing the individual pieces is needed. The effect is an open, airy assembly.

9. Where can I learn more about the techniques of segmented turning?

There are several books on segmented woodturning on the market, as well as a number of very good DVDs. Local AAW chapters and our National Segmented Woodturners Chapter (www.segmentedwoodturners.org) are sources where you may go to learn from experts in the field.

10. Where can I get help?

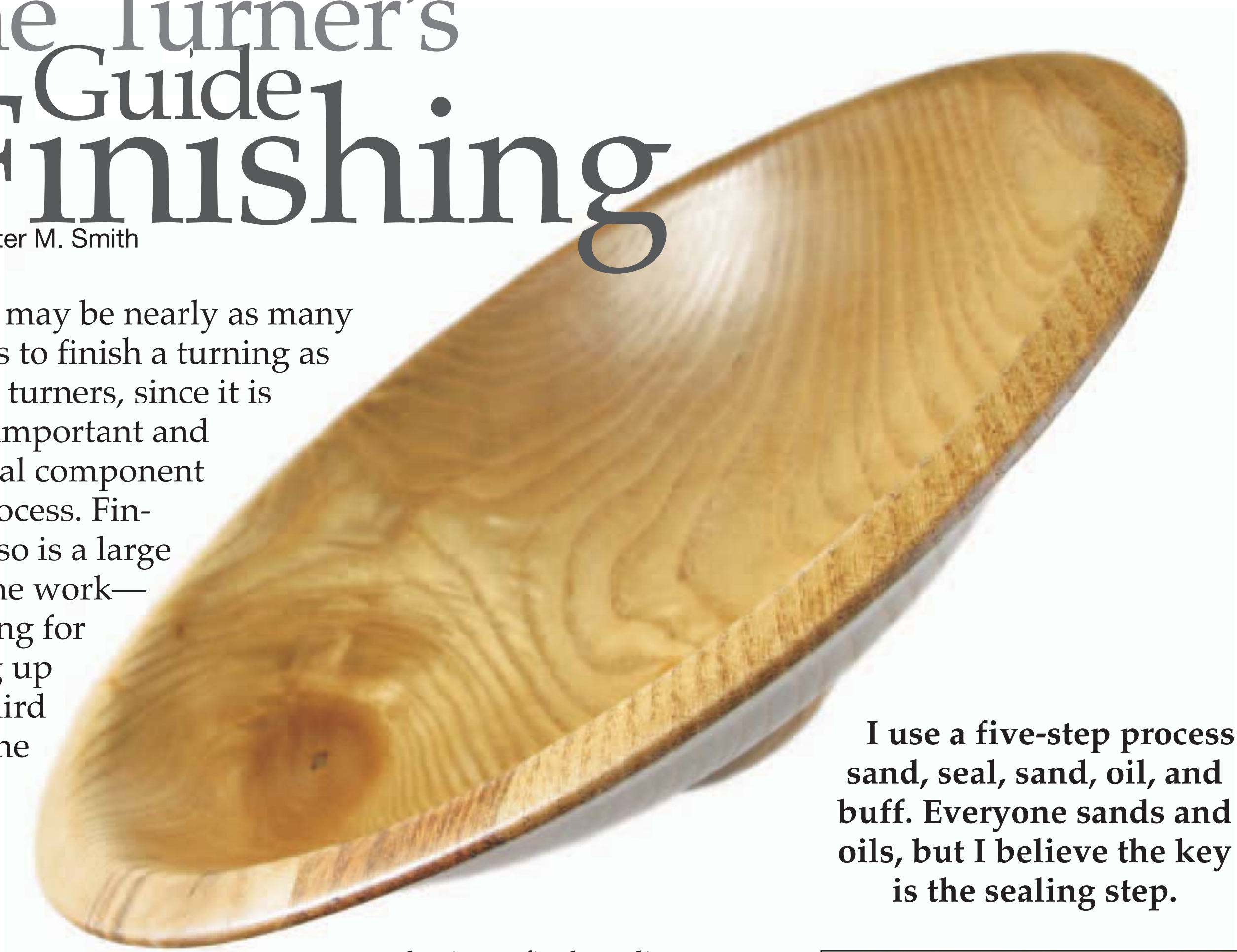
Local experts can always be counted on for more information and help. Our National Chapter exists to allow segmenters to share information, pose questions, and show pictures of their latest creations for comments and critique.

The Segmented Woodturners host a biennial international symposium where the community shares techniques and outputs for each other. The next symposium will be held in October, 2014, in San Antonio, Texas; for more information on this special event go to: http://www.segmentedwoodturners.org/symposium/2014_oct_symposium.pdf

By Jim Rodgers

One Turner's Guide to Finishing

By Peter M. Smith



There may be nearly as many ways to finish a turning as there are turners, since it is such an important and individual component to the process. Finishing also is a large part of the work—accounting for anything up to one-third of the time spent on a piece.

I use a five-step process: sand, seal, sand, oil, and buff. Everyone sands and oils, but I believe the key is the sealing step.

Over the years, I have experimented with various methods and would like to discuss the approach I have come to use on just about all of my work. It is relatively straightforward, general, and usually effective. I hasten to add that although this isn't the only way to finish a turning, many turners use variations of this approach. I would be happy if this article stimulates a discussion on finishing and other turners write about their successful techniques.

I use a five-step process: sand, seal, sand, oil, and buff. Everyone sands and oils, but I believe the key is the sealing step. Sealing the wood prior to final sanding provides three major advantages: It exposes rough grain and tool marks; it stiffens the grain so sanding is more effective; and it fills the surface pores—more or less—to produce a smoother surface for the final sanding and finish coats.

Step 1: Initial sanding

Often called "rough sanding," the idea is to finalize the surface shape and get it to a preliminary smoothness. Power-sanding works best for me; I use 3" Powerlock sanding disks in an electric drill (Photos A and B). The spin of the disk against the

A

Power-sand your turnings with 3" disks.

revolving piece on the lathe reduces swirl lines. Grits 80 and/or 100 are hard and aggressive. Some subtle shaping of the curves is possible, but the emphasis is on cleaning up tool marks and preparing the surface for sealing. Many turners use foam-backed pads with 5" or 6" PSA disks rather than the stiff resin paper of Powerlocks. If you are not after subtleness, I believe foam disks are unnecessary.

A couple of observations: The lathe speed should be slow to avoid the sandpaper skating over the surface. In addition, power-sand carefully at the edges so you don't sand them too sharp or blunt the details with too coarse of an action. Some turners progress through finer grits and move to the oil finish, but I recommend the next step of sealing the wood.

Step 2: Sealing

Apply a liberal coat of sealer (Photo C), then wipe off the excess. If you've overlooked tool marks, rough areas, nicks or bumps, they're certain to reveal themselves. I prefer this to wiping with solvent because sealer doesn't disappear immediately.

Of all the sealers on the market, I prefer shellac. I've also had good luck with lacquer-based sealers such as Deft, which dries quickly and penetrates well.

The disadvantage of shellac as a sealer is that it can be gummy when sanding off and seems superficial in its penetration. I have tried water-based sealers and like the advantage of raising the grain of the wood. One disadvantage of a water-based sealer is that it requires extra drying time.

Step 3: Final power-sanding

After about 30 minutes or when the sealer is dry, it's time to remove it by more power sanding. I first use some 100-grit sheets of paper, cut into quarters, to remove most of the sealer by hand sanding (Photo D), which rapidly clogs the sandpaper. I then switch to Powerlock disks (100 or 150 grit), even if they quickly become filled. One trick is to lightly coat the disks with blackboard chalk before sanding the surface; the chalk makes it easier to remove the gunk with an abrasive cleaner.

Concentrate on the tool marks and rough grain, removing most blemishes and feathering in the sanding with the rest of the surface. This is done with the piece fixed in place with the lathe index pin (if available), and moving the piece round notch by index notch,

Even on the interior, 3" disks are nimble.

With shellac, seal the grain.

After the shellac dries, sand again.

Continued

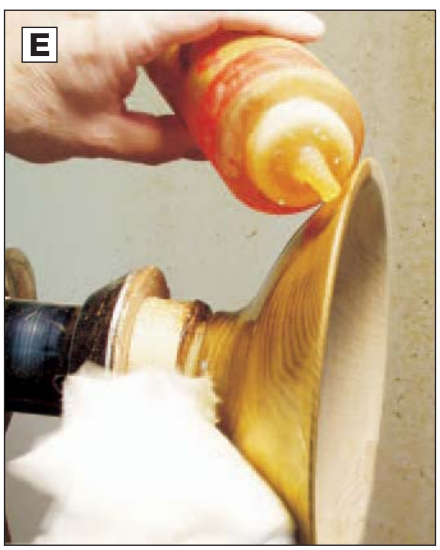
and working each area. If you sense you've reached bare wood, reseal and repeat. Finally, turn on the lathe and sand the piece all over with 150-grit paper. Use chalk and sanding cleaner to keep the disk surface fresh.

Step 4: Oiling

After the 150-grit power disks, the surface should be almost bare wood—but it is sealed bare wood! The difference is at once apparent with the next step when you apply finishing oil (Photo E). The sealed surface comes up smooth and easy, whereas unsealed wood will soak up oil and look patchy.

I am a great fan of Danish oils. I'm sure many of the other oils out there will do. It is easy to mix your own penetrating oil varnish from 1 cup of any brand of polyurethane varnish, 1 cup of naphtha solvent, and 1/3 cup boiled linseed oil. Mix and store in a plastic squeeze bottle (e.g. shampoo).

Don't worry about building up a finish since the sealer has gone some way to make this unnecessary. However, there is more sanding required by hand—first with 150-grit, then 220- and 400- or 600-grit paper (Photo F). The oil acts as a lubricant, thus is applied liberally. The sandpaper sheets quickly clog up with mud, which is wiped off the wood.



Apply the oil finish directly to the piece.

Use oil as a lubricant with sandpaper.

These oils are amber colored in general and give a rich glow to darker woods. On light woods—particularly maple—the oils often give an unsatisfactory grayish tinge to the wood.

I have recently experimented with water-based polyacrylic finishes at this stage. These dry quickly and are crystal clear, and leave the wood pale. Water-based finishes, which do seem to be improving all the time, are a viable alternative for some woods, although the "mud" is missing (water evaporates). This finish also works at the sealing stage.

After the 600-grit paper, the wood surface should be sensually smooth. Stroke it and feel for yourself. Inspect the piece under a bright light and look for the telltale scratch marks. You can usually remove these with lots of oil, 220-grit paper, and a circular action. You can feather out anything really bad with the power sander and 150-grit disks, although the oil and mud will make this only effective in small areas. Follow this with 220 and then 400 grit to match the rest of the surface. Part the bowl and finish the foot with the same look as the rest of it, then polish the whole piece at one time.

Step 5: Polishing & buffing

The oil takes about 1 week to dry. After a day or two, you can rub a second coat of oil into the wood if there are any dry patches (on end grain usually). Now is the time to hand-sand and touch-up if required. When dry, the wood has a nice smooth matte finish, which might be suitable for some pieces. In the Winter 1996 isue of *American Woodturner*, Alan Hollar discusses film finishes and why gloss is not always advisable on large spreading bowls (the reflecting light over-emphasizes the different surface planes).

However, for many bowls, hollow vessels, and small pieces, polishing is the mark of distinction. Polish—so hard to get right, so easily lost—indicates additional preparation whether it is on shoes, nails, or silverplate.

A coat of gloss varnish is rarely satisfactory. First, it is hard to get an even coat on the work piece since the varnish will run and sag on the slopes. Some turners would agree that it's the gloss varnish that looks artificial on a small object. From my observations, a gloss coat seems to obscure the wood grain and texture.

Polyurethane (oil- or water-based) makes a great tough film on tables and floors, but on turnings it looks like plastic (see Hollar's article). Some finishers recommend using a gloss varnish for its clarity, and then "knocking down the gloss" with fine steel wool and a lubricant (such as Murphy's oil soap) to produce a more subtle sheen.

Carnauba wax—widely used in furniture polishing—is a hard natural wax from the South American carnauba palm. Although not very serviceable as a work surface, the shine it produces is much admired.

Experienced turners often suggest that a wax polish be applied to the work while it is turning, using the lathe rotation for buffing. This works fine for spindles, but the problem with applying wax—or any finish—to a bowl while still on the lathe is that the polish can't reach the area of the parting cuts.

The popular Hut Polish, a mixture of wax and fine abrasives, is applied while the work is rotating, and then pressing a cloth against the spinning piece brings up the shine. This makes it superb for pen barrels, but since it does not reach the cut-off areas, not for other turnings. Moreover, any oil finish will not be dry and will disturb the final surface. So rather than apply one fine shine over 90 percent of the piece and complete the remainder a week later, leave the final polishing until later when the oil is dry.

For final polishing, the Beall System attracts many turners, and is my favorite. It includes three separate cloth wheels on a 1,750 rpm motor for three specialized polishes. The first polish is tripoli, a fine grit, which produces a dull shine. Next is white-diamond—a finer polish on a softer wheel. The third buffing—solid carnauba wax on a cotton wheel—is the final act. The heat of the turning melts the wax to a uniform film. The carnauba produces a semi-gloss surface with a deep shine that brings out the best of the wood. To restore the luster, rebuff the wax.

Conclusions

So there we have it—both the practice and the theory. Although by no means the only approach, these five steps produce predictable and satisfying results. I continue to follow this process after many years and several flirtations with alternatives.

Peter Smith (peter@sandsmith.com) is a 14-year AAW member who lives in Princeton, NJ.

The science of sanding and polishing

Shine on a surface comes from reflected light, and light is reflected from a uniform, smooth surface. Non-uniformity breaks up the light and disperses the light rays; light rays lose their coherence and thus the reflection diminishes.

A gloss varnish will cover a smooth surface with an even smoother film that is highly reflective when dry. To make that varnish matte, finely ground sand is added to the gloss base, which is what we stir from the bottom of the can, and the fine particles disperse the light rays. (These particles are much finer than can be sensed by touch.)

Sanding from 100 to 150 to 220 to 400 grit produces increasingly finer surface scratch marks that go beyond tactile sensations and provide increasingly uniform light reflections. This is why sanding down to these levels is so critical: No amounts of gloss varnish will coverup a poorly finished surface. But even 600-grit sandpaper is not enough for an unaided gloss. The Micro-mesh ultra-grits (6,000 and 12,000) add enough uniformity to the surface to provide shine.

Polishing goes beyond sandpaper by using finely ground minerals—rouge (iron oxide), diatomaceous earth (microscopic sea shells), ground pumice stone, and rottenstone (fine dust). These abrasives are by definition harder than the surface they abrade. They progressively produce a smoother and smoother surface to reflect light. The finest of these powders can gloss up a matte surface by reducing all non-uniformity and leaving scratch marks so fine they do not interfere with light rays. Often these powders are managed in a liquid medium to provide lubrication and ease of use. Cream polishes, for example, suspend the abrasive in a wax/water emulsion.

SHOP TIPS

Adjustable Lighting to Aid Smooth Cuts

We all know that good lighting is important to good turning, but what does "good lighting" mean?

Certainly lighting intensity is important, and color can have some interesting psychological effects. One of the most important factors, however, is angle. Think about it. If you look at a photo of the not-full moon, you will immediately notice that you can see mountains and craters along the terminator, while such features are much less evident in flatter light. To see texture, it's the shadows that are important. For maximum feature visibility, the light should be nearly perpendicular to the topography of interest.

Overhead shop lights can provide good overall ambient brightness, but they do not do a very good job of showing us what we really want to see – the ridges we are leaving behind in our "smooth" cuts. For that, you want to add an adjustable light – one whose location can be moved around to different locations to highlight the cuts we are working on and the regions of difficulty or interest. For spindle work and for the areas near bowl rims, we want light right down the axis of the lathe. For the center of a bowl, we want light coming horizontally from the opposite side, to the greatest extent possible, given the shading from the wall of the bowl.

There are many types of modern lights that can be clamped onto a lathe, or stuck on by a magnet. They may have an adjustable, spring-loaded arm or just be completely flexible. Halogens pack a lot of punch from a small source. My intention here is not to recommend brands or suppliers -- that's what the Web is for. The point is that if all you have is overhead lighting, you should consider adding an additional, adjustable, augmenting light source that you can move around to suit your needs. There are good ones out there for the purpose – just take a look.

With proper lighting, you'll be surprised how your tool technique will improve, and your sanding needs will decrease.

~Gary Gunther
Montgomery Country Woodturners
Of Montgomery County, Maryland

Sanding Curves on Spindles

To help create a fair curve when sanding coves, I used to use a selection of different-sized dowels. For a curve on a small finial, I would wrap abrasive around the sharpened taper on a pencil.

To allow for the varying diameters on a complex finial, I turned a 1 ½"- (38 mm-) diameter cone about 4" (10 cm) long, and it has proven to be a versatile sanding aid. I wrap the cone with a piece of sandpaper and match the diameter with the turning. Where the curve is tighter, I simply move the cone to match the new diameter. To expose fresh abrasive, rotate the cone.

~Joe Larese, New York

MEMBER QUESTIONS

Question:

My name is Jason, I am the Industrial Arts Teacher. Just recently I had a student get angry with me because I would not allow him to turn the inside of a bowl with a skew. I told him it was too dangerous and the chances of catching were too great. I would also classify him as a beginner when it comes to woodturning. Was I correct in not allowing him to use a skew?

Answer:

Hello Jason!

Thanks for your message and for contacting us with this question.

You are absolutely correct that a skew should NEVER be used on faceplate/bowl work - EVER!

The skew is a spindle tool (specifically) and should never be used on the outside of cross-grain bowls of any kind, and DEFINITELY never on the INSIDE of any enclosed/concave surfaces. Similarly, a "roughing gouge" should also NOT be used for roughing cross-grain bowls - this is also a spindle-only tool.

Your instincts are correct in that the skew has the potential for generating horrendous (and dangerous) catches when used on any cross grain, faceplate-type work, and you were absolutely correct in stopping the student from using it for a hollowing operation. The use of bowl gouges should be stressed as the primary hollowing method to teach; the recently available carbide-tipped scraping tools are being touted as "gouge substitutes", however I advise that new turners use these scrapers sparingly (or not at all) until the use of the gouge is learned (my preference as an instructor of new woodturners).

The only exception for using a skew on a "bowl" MIGHT be if an *end grain* bowl was being turned (i.e. with grain running parallel to the lathe bed) was being turned - it could POSSIBLY be used on the outer, convex surfaces of the piece, and only in a scraping mode, but again NEVER on the inside (concave) surfaces of the piece. (The geometry of the skew is simply "wrong" for turning against concave surfaces.) In actual process, the tool of choice would be a bowl gouge for this application, although a scraper might also be able to be used for hollowing in some cases.

If you have additional questions, please feel free to contact us!!

Rob Wallace, Chair
AAW Safety Committee

Visit the AAW website for safety guidelines
http://woodturner.org/default.asp?page=Safety

MEMBER GALLERY

Spalted hackberry ~Randy New

Lidded bowls for Beads of Courage
~Greg Just

Submissions

Photo submissions for Woodturning Fundamentals Member Gallery should be sent to linda@woodturner.org.