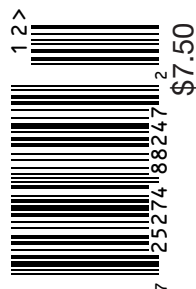
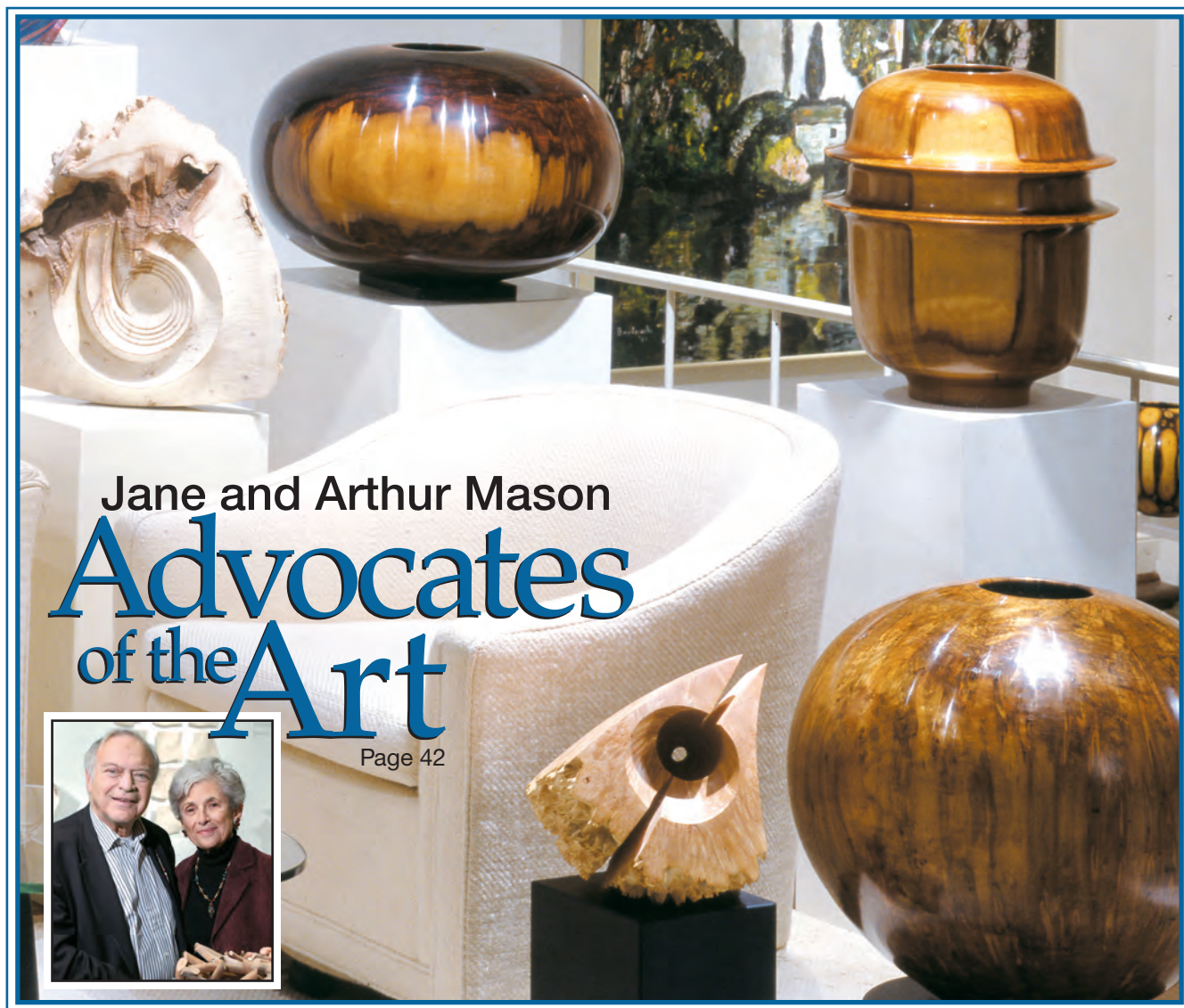


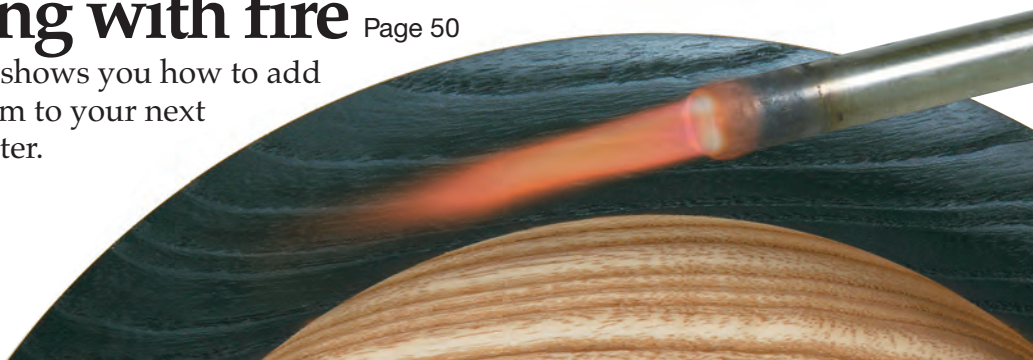
Woodturner[®] American

The Journal of the American Association of Woodturners
Summer 2005 Vol. 20, No. 2 woodturner.org



Playing with fire Page 50

Nick Cook shows you how to add a burned rim to your next turned platter.



Return to the Land of Oz

Childhood memories captured in
members' woodturning

At the AAW symposium in Overland Park, attendees will get their first look at the association's 2005 exhibit, "reTURN to the Land of Oz." Binh Pho and Craig Nutt selected more than 40 juried pieces and 10 pieces from invited turners. Look for more photos in the Fall issue.

After the symposium, the AAW will feature the exhibit Sept. 16–Dec. 16 in our St. Paul gallery.



Above **Over The Rainbow**
by John Noffsinger

Left **Surrender Dorothy**
by Dixie Biggs

Below **The Tin Man**
by John Lucas



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NEW! inquiries@woodturner.org

EDITORIAL SUBMISSIONS

What's going on at your lathe?

Anything interesting in your AAW chapter?

Have you visited any turners, shops, or museums of interest?

Please send article ideas to:
carlvoss@msn.com

For tips on article submission and photography requirements, visit:
woodturner.org/products

ADVERTISERS

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A NOTE ABOUT SAFETY

An accident at the lathe can happen with blinding suddenness; respiratory problems can build over years. Take appropriate precautions when you turn. Safety guidelines are published in the AAW Resource Directory. Following them will help ensure that you can continue to enjoy woodturning.

SUBSCRIBERS

If your issue arrives damaged through the mail, please contact the AAW office.

Volunteers? This call seems to bring chills to some people who attend their AAW chapter meetings just to be entertained. In most volunteer organizations, it's a comparative few who step up and shoulder the workload that is required to keep the organization effective and vibrant. We depend on our volunteers in the AAW national and local chapters, and I'm proud to say we have some of the best. The quality growth of your organization reflects these volunteers' efforts.

With chapter numbers growing (238 at last count), more regional symposiums are in the planning stages. These beneficial educational opportunities will require more volunteers. So the next time you attend a chapter meeting, national or regional symposium, remember John Kennedy's famous words, and ask yourself what you can do for your woodturning organization.

World-class turners, exciting youth turning opportunities, and lively panel discussions are just three outstanding reasons to attend this year's national symposium in Overland Park, Kansas. One of my favorite symposium attractions—the Instant Gallery—will be critiqued this year by Jane and Arthur Mason (this year's

Lifetime Honorary Members) and John Jordan. Hope to see you in Overland Park.

If you're a seasoned studio turner or even an aspiring professional turner, don't forget to register with the AAW's new Professional Outreach Program (POP). You can find the POP page on the AAW website at woodturner.org. There is a lot of great information on the site including the AAW demonstrator connection for chapters planning workshops.

At an AAW board of directors meeting this spring, many of us got our first look at the AAW gallery in historic Landmark Center in downtown St. Paul, Minnesota. There is no doubt that this gallery takes a huge step forward in showcasing woodturning in America.

If your travels take you through the Twin Cities, don't miss the chance to stop by and indulge your senses. For show schedules, check our website.

With this issue, we welcome Kevin Wallace on board as a new contributing editor to *American Woodturner*. Kevin is well known in the woodturning world as a gifted writer with a seasoned perspective.

Phil Phil Brennon
philb@northlink.com

AAW News

Symposium attendees: Save shuttle fees with advance booking

The Overland Park symposium site is nearly an hour's drive from the Kansas City International Airport. To save money, be sure to make advance rental car or shuttle arrangements. See your registration packet or the AAW website for money-saving shuttle options.

15 Chapters celebrate 10-and 15-year anniversaries

Congratulations to these chapters who are celebrating milestone anniversaries in 2005:

15 Years

- Blue Ridge Woodturners, Roanoke, Va.
- Central New England Chapter, Westfield, Mass.
- Mid-Penn Turners, Bloomsburg, Pa.
- Nor-Cal Woodturners, Sacramento

10 Years

- Ark-La-Tex Woodturners, Texarkana, Texas
- Brasstown Woodturners Guild, Murphy, N.C.
- Kansas City Woodturners, Lone Jack, Mo.
- Louisville Area Woodturners, Crestwood, Ky.
- North Florida Woodturners, Tallahassee
- Ohio Valley Woodturners Guild, Cincinnati
- Ozark Woodturners, Lakeview, Ark.
- Redwood Empire Woodturners, Ukiah, Calif.
- Smoky Mountain Woodturners, Seymour, Tenn.
- Southwest Idaho Woodturners, Boise
- Turners Anonymous, Pittsburgh

AAW-sponsored Insurance

For your personal business needs

Most professional turners know that their homeowners insurance policy does not cover private business activities, inventory, teaching, equipment, and property. Over the years, many of them have gone without insurance at great risk while—at great expense and effort—some have purchased individual coverage.

On the other hand, most of the rest of us assume that our homeowners policy insures us, even if we do only occasionally sell a turned piece or teach woodturning. However, insurance regulations vary from state to state. For example, it used to be

that North Carolina activities that were occasional in nature and did not amount to a “substantial” income were covered by a homeowners policy.

A few years ago, North Carolina law was revised to say that *any* activity that was commercial in nature—no matter how few dollars were involved—was not covered. That means that I would not be covered if my shop burned, my tools were stolen, or someone were injured during a private class. I would even have liability exposure if someone were injured while on my property just to purchase a bowl.

The AAW board advises that

members should check with their insurance agents to see if all of their activities are covered by their homeowners insurance policies.

New policy offered

As a member service, the AAW board has selected a policy to cover member commercial woodturning activities. The carrier can insure AAW members in the USA with the exception of California, Hawaii, Louisiana, and Washington, DC. (If you know of an insurer that will cover members in these excluded locations, Canada, or foreign countries, please contact the AAW office at 651-484-9094 or inquiries@woodturner.org.)

The AAW has entered into an agreement with Hilb, Rogal, and Hobbs (hrh.com) to offer the policy. This national firm offers a similar policy to members of the

Niche magazine honors AAW member

Keith Tompkins, an AAW member from Tivoli, New York, won this year's coveted *Niche* award for woodturning. Keith's piece, “Merengue,” *right*, was honored along with works from 33 other professional and student artists this year at the Philadelphia Buyers Market of American Craft.

“This piece is my interpretation of the Latin merengue dance,”

Keith said. “Its two swirling forms seem to blend seamlessly into one.

“The perennial wallflower, I marvel at the beauty and grace of ballroom dancers. They seem to float across the floor; two dancers moving in perfect unison.

“I am honored to have my work recognized.”

Last year, Keith was a demonstrator at the AAW national

symposium in Orlando.

Niche magazine, a trade publication for retailers of American craft, annually honors the outstanding creative achievements of American and Canadian craft artists. The judging criteria include technical excellence and creativity, market viability, and a distinct quality of unique and original thought.

American Crafts Council. No portion of the premium goes to AAW. You must be an AAW member to apply; more than 50 members have already signed up.

The underlying policy is with the Ohio Casualty Group. This policy includes \$1,000,000 general liability, \$1,000,000 products liability, \$10,000 medical expense, and \$300,000 fire legal liability. Members can choose building and personal property coverage from \$2,500 to \$100,000.

Each member's coverage will be the same except for the building and personal property coverage. Premiums will be based on location and how much building and personal property coverage you request. For an application, visit woodturner.org and navigate to the Community tab. The application is under the Professional Outreach Program.

—John Hill



The Quizzical Woodturner

By Ernie Newman

Think you know something about woodturning? Test your woodturning IQ, then check the answers below.

- 1 Is green wood stronger than seasoned wood?
- 2 When a scraper is used to turn the face of a platter, should the handle be higher or lower than the cutting edge?
- 3 Horse hair has been used in the construction of lathes in the past. How was it used?

- 4 If a wooden friction chuck or jam-fit chuck is just a little loose, what can be done to tighten the fit?
- 5 Can you name a life member of the AAW?

Ernie Newman (ernienewman@hotmail.com; ernienewman.cjb.net) lives in the Blue Mountains west of Sydney, Australia. He previously taught a 700-hour course for apprentice woodturners.

ANSWERS:
There is more than one way to turn and there isn't just one right answer to each question in this quiz. Your comments and corrections are welcome.

1 Seasoned wood is usually stronger than green wood.

2 You will achieve greater tool control if the scraper handle is higher than the cutting edge. Lowering the handle increases the chance of a catch.

3 A belt made from a single horse hair drove some of the diminutive 19th-century watchmaker and jeweler's lathes.

4 If a friction chuck is a little loose, some turners wipe a thin film of water around the mating surfaces. The moisture will be absorbed into the wood, causing it to expand temporarily. If the fit is still too loose, then place one or more sheets of paper between the mating surfaces. Tape may also be used to fill the gap.

5 The AAW life members (and year honored) are:
David Ellsworth (1992), Ed "Bud" Jacobson (1992), Dale Nish (1993), Rude Osolinik (1993), Melvin Lindquist (1994), Ed Moulthrop (1994), Bob Stockdale (1995), Palmer Sharpless (1996), Al Stitt (1997), S. Gary Roberts (1998), Alan Lancer (1999), Robyn Horn (2000), Ray Key (2001), Nick Cook (2002), Bonnie Klein (2003), Dick Gerard (2004), and Arthur and Jane Mason (2005).

Mind your *turning* Manners

By Cindy Drozda

In the past 20 years as a woodturner, Cindy Drozda has been both in the audience and a demonstrator. With the help of other demonstrators, she's collected a list of audience and demonstrator guidelines. Cindy also knows of the heartbreak that occurs when a broken Instant Gallery piece is discovered. At the 2004 Utah Symposium, someone snapped the finial off a \$1,600 turned piece.

Audience etiquette

- Turn off your cell phone before entering the demonstration room. Even stumbling over folks to answer a vibrating cell phone is considered rude.
- If you know you'll leave before the end of the demonstration, find a seat on the edge of the room. Demonstrators are especially startled when front-row attendees suddenly stand up and leave. "Was it something I said?"
- Mind your manners. During a recent Utah Symposium, an attendee interrupted Jacques Vessery to say, "That's not the way Richard Raffan would do it!"
- Ask before videotaping.
- "Save me a seat!" doesn't cut it with participants who have waited for months to watch a demonstrator. Be there or find a spot at the edge of the room.
- Keep your interruptions to a minimum and limited to on-topic questions. Excessive interruptions will result in an entire topic not being covered as the presenter makes adjustments for the allotted time. There will be time for appropriate questions at the end of the demonstration.
- Don't interfere with a demonstrator trying to set up for the next session. Rooms are often scheduled to allow only 15 minutes for one person to clean up and the next to set up. This is not the time to shoot the breeze! (Would you interrupt Lance Armstrong while he was getting focused on his next race?)
- Let the demonstrator know if you can't hear or see, or the video camera is not capturing the demonstration.

In the Instant Gallery

- Bring your work to the Instant Gallery! You are among friends, and we all want to see what everyone else is doing. Don't be intimidated because your work is (in your own eyes) "not good enough." It is absolutely good enough—whether it's your first bowl or a new idea, whether you are a beginner or a pro. It's not about whether or not it's "good" or who thinks it is or isn't. There are no prizes for the "best work." This is the woodturning community's opportunity to share with our fellow members and need not be anything more.
- Obey "Don't Touch" signs.
- Handle a woodturner's piece as though you are prepared to buy it if you break it. If you are not willing to take that risk, don't touch! Be willing to take responsibility for your mistakes. The artist will understand that mistakes happen. If you break a piece, work out the payment details with the artist.
- Be careful and slow in your movements and be aware of your backpack, purse, or briefcase—especially when backing up.
- Be gentle with criticism. You never know if the artist is within earshot and if he or she might be a beginner with a fragile ego. It's not pleasant for anyone to hear loud negative comments.

Cindy Drozda (cindy@cindydrozda.com) lives in Boulder, Colorado, and is a frequent demonstrator.

\$17,462 awarded to EOG winners

In March, the Education Opportunity Grants (EOG) committee awarded \$18,730 to 28 applicants. The winners, chosen from 47 applicants, included 14 chapters, 15 individuals, and one school program.

The 2005 Winter EOG Grants were awarded to:

- Badger Woodturners, Dane, Wisconsin
- Bayou Woodturners, New Orleans, Louisiana
- Bi-City Woodturners, Phenix City, Alabama
- Temple Blackwood, Upper Marlboro, Maryland
- Glenn Burrows, Dacula, Georgia
- Carolina Mountain Woodturners, Asheville, North Carolina
- Central Arkansas Woodturners, Hot Springs Village
- Channel Island Woodturners, Ventura, California
- Charlotte Woodturners, Charlotte, North Carolina
- Wayne Collins, Tiverton, Rhode Island
- Dallas Area Woodturners, Dallas, Texas
- El Camino Woodturners, Torrence, California
- Grey Bruce Woodturners Guild, Kincardine, Ontario
- Kathy Heggerty, Prescott, Arizona
- Dave Hankey, Arrowmont School of Arts & Crafts, Gatlinburg, Tennessee

- Doug Jones, Shelburne, Vermont
- John Jordan, Antioch, Tennessee
- Ed Kelle, Glen Head, New York
- Richard Lemieaux, Narragansett, Rhode Island
- Lighthouse Woodturners, Ocean Springs, Mississippi
- Loess Hills Woodturners, Omaha, Nebraska
- Mid-Columbia Woodturners, Kennewick, Washington
- Minnesota Woodturners Association, Osseo
- Norman Powers, Lynwood, California
- Robin Russell, Charlotte, North Carolina
- Patrick Salter, Fallbrook, California
- Julian Shaw, Sebastapol, California
- Kassandra Stone, Largo, Florida
- Levi Stone, Largo, Florida

The AAW welcomes your EOG applications. The AAW awards grants up to \$1,000 to individuals and chapters for the purpose of sharing and providing woodturning education. Entries must be postmarked no later than July 15. For complete information, follow the links on the AAW website (woodturner.org) or call 651-484-9094 to request an application.

AAW Annual Financial Statement for 2004

Revenues and Expenses

Income

Annual Dues	\$ 476,762
Contributions	54,991
Publications & Products	138,841
Symposium	234,279
Exhibitions	14,493
Interest	7,763
Other Income	1,192
Total Income	\$ 929,121

Expense

Publications & Products	\$ 350,137
Symposium	221,616
Gallery & Exhibitions	41,139
Scholarship Grants	32,038
Other Programs	5,363
Administrative	188,033
Member Development	7,549
Total Expenses	\$ 845,875

Net Income . . \$83,246

Balance Sheet

(as of 12/31/04)

Assets

Checking & Savings	\$ 392,057
CDs	197,559
Interest Receivable	1,944
Inventory	86,695
Prepaid Expenses	9,035
Equip & Furniture-Net	5,539
Osolnik Endowment	43,421
Permanent Collection	5,300
Total Assets	\$ 741,550

Liabilities

Accounts Payable	\$ 15,196
Accrued Expenses	22,557
Deferred Revenue	79,665
Total Liabilities	\$ 117,418

Net Assets

Unrestricted	\$ 406,953
Temporarily Restricted	169,258
Permanently Restricted	47,921
Total Net Assets	\$ 624,132

Total Liabilities & Net Assets

.....\$ 741,550

Call for Demonstrators

If you're interested in demonstrating at the AAW's 20th Annual National Symposium, the application deadline is August 31.

The symposium, to be held June 23-25 in Louisville, Kentucky, is the AAW's largest annual event and attracts 800 to 1,000 woodturners.

For more information and a demonstrator application, contact the AAW offices (651-484-9094 or inquiries@woodturner.org).

AAW Financial Statement Explanation

We have just completed our annual audit. Due to increased membership and a very successful symposium in Orlando, I am pleased to report that the AAW has a net income for 2004 of \$83,246. As we continue to grow and look forward to a great symposium in Kansas, we should remain in a healthy financial position for 2005.

John Hill

AAW Treasurer

Texture Tool

By Bob Rosand

Two of the great benefits of demonstrating at chapters around the country are that demonstrators get to show members how they turn and learn from others—if they keep their eyes and ears open.

About a year ago, I visited the Ohio Valley Woodturner Guild. Before the weekend was over, I spent several hours in John Lannom's shop. John has a great shop and turns some wonderful work, but the thing that caught my eye was a wide-rimmed platter that had some very nice "orange peel" texturing. I commented that the texturing must have been time-consuming. John's response was that it took only four or five minutes to texture the surface.

Using the technique he learned from Trent Bosch, John textured his platter with a needle scaler. This is an impact tool that welders rely on to remove scale from welds. The scaler requires about 90 pounds of air to operate properly.

I'm having fun with my own scaler and since buying it, I've textured lidded boxes, tool handles, oil lamps, paperweights, platters, and bowls. Here are two projects that show off these texturing techniques. Both have been featured in the journal in the past. If you would like more details on turning an oil lamp like the one featured here, review the Winter 1999 issue of *American Woodturner*. The Winter 2004 issue featured Alan Lacer's article on turning tool handles.



Oil lamp

Select a 4×4×2" square of maple burl or other suitable turning stock. After mounting it in a scroll chuck, drill a 3/4"-deep hole with a 1 1/2"-diameter Forstner bit. (Verify the diameter with a tea candle or confetti candle purchased at a grocery store or crafts store.)

As you shape the body with a 3/8" spindle gouge, leave the shoulder square. You will later turn down the shoulder, but leave it in place for now so you can texture the body without affecting the final surface.

Turn off the lathe and begin texturing with the needle scaler. Apply light pressure and keep the tool moving. Note that the tool is positioned about 90 degrees to the work. It doesn't matter if the needles hit the squared neck of the oil lamp because you will turn away that section later.

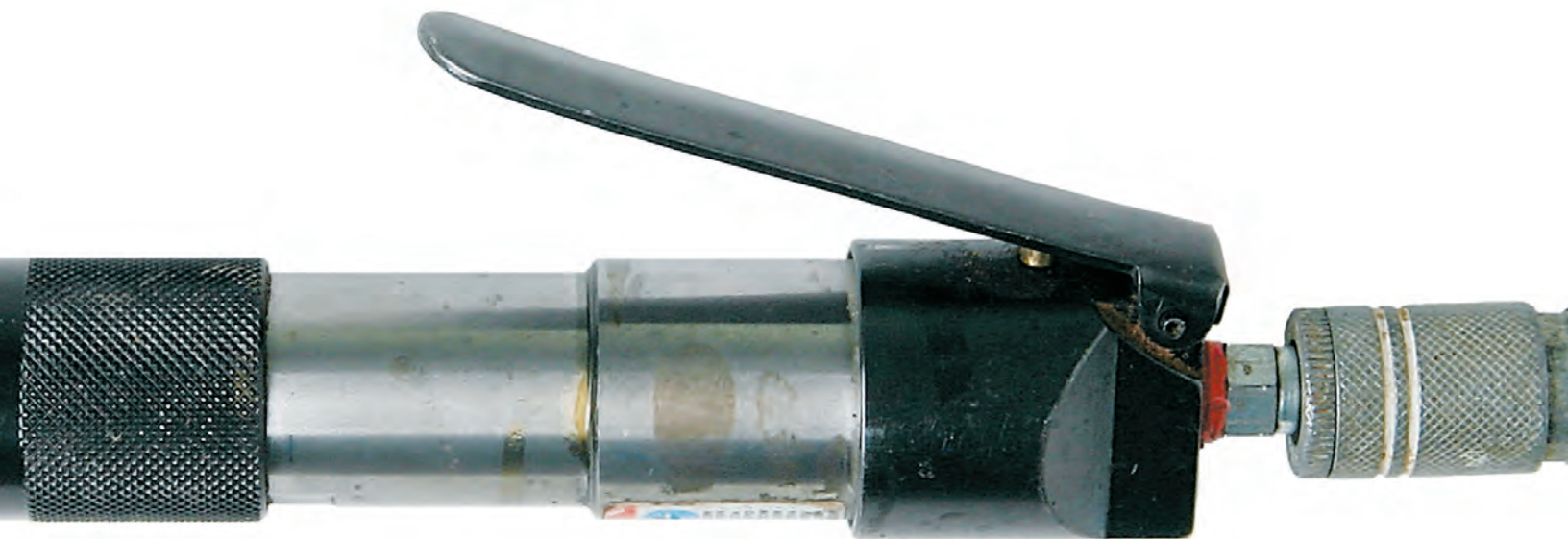
To remove stray tool marks, turn the shoulder with a sharp square-nosed scraper. Create separation between the neck of the lamp and the body by cutting a V-groove with a small spindle gouge sharpened to a razor point.



Because the shoulder will be contoured later, you can texture right up to the neck.



You can steady the bowl with one hand while you texture the oil-lamp surface.



To turn the base, part the oil lamp from the lathe. Remount the piece on a friction-fit waste block. Then turn a slightly concaved base. When you're satisfied with the shape, texture the base as previously described.

To finish your lamp, rub it with 0000 steel wool or synthetic steel wool saturated with walnut oil or a tung-oil product. If you apply a tung-oil, add a coat of paste wax, then buff.



Use a small spindle gouge to separate the neck and body.



After turning the base of your oil lamp, texture the bottom with the needle scaler. Note how the tool is held at 90 degrees to the surface.

Continued

Your next texturing device

The scaler is an impact tool. Air drives a small piston that randomly drives the gun's needles in and out, which marks the work.

From the factory, the needles are blunt. The first thing I did when my scaler arrived was to disassemble the scaler, remove each needle, and round over the tips on my grinder. Then I clamped each needle in a three-jaw chuck and sanded them smooth. After reassembly, I was ready to work.

The needle scaler requires little maintenance. It does require periodic lubrication (a couple of drops of oil before each use), but so far, I have yet to break a needle.

After you use it for a while, you will begin to notice little black specks appearing on your work. These are bits of old lubricant and dirt. When this happens, remove the needles, clean them and the scaler interior, and reassemble.

There are numerous needle scalers on the market, but some of them are cumbersome for this type of detail work. The scaler shown is a Sioux Tools mini-needle scaler model no. 5263. (Contact Sioux at 800-722-7290 to find a dealer near you.) This model has 12 needles and is relatively compact. I paid about \$140 for my scaler, but I've talked to some people who found them for about \$75 on the Internet. I've talked to some

turners who purchased larger, cheaper scalers and they found them heavy and difficult to use.

This is one of the few tools that will *to some extent* hide shoddy workmanship. If you have some very minimal surface flaws they will in all probability disappear, but larger tear-outs and flaws will definitely be noticeable. If your tool control is good, you can probably get away with not sanding the piece before scaling the surface.

The scaler works best on end grain because you are impacting or pushing down the end-grain fibers. It also works well on side grain, but the scaler markings are not quite as distinguishable or precise.

The down side to this tool is that the random needle marks are hard to control and may wander into an area you don't want textured. Advanced planning eliminates this problem like the neck of the oil lamp.

When you use the tool, hold it at about 90 degrees to the surface. If you don't, it will tend to "skid" off the surface. Apply a little downward pressure and keep the tool moving.

The texturing will be more defined if you leave the piece chucked while you texture it or leave it between centers like when texturing a tool handle. The results will be far better than if you try to hold the piece in your hand while texturing.

—Bob Rosand

Tool handle

Turning a handle for a lathe tool is a simple project that illustrates some of the effects you can get with the needle scaler.

With a roughing-out gouge, turn the handle shape from a 1½×1½×10" blank. (Cherry is shown in these how-to photos.)

At one end, turn and fit a ferrule from a piece of ½×½" copper tubing. Then, finish shaping the tool handle with a ½" skew.

Now, texture the surface with the needle scaler. Apply downward pressure and keep the tool moving. You will need to occasionally tighten the tailstock because the vibration of the scaler may loosen the mounting.

Texture the end of the tool, being sure to keep the scaler at about 90 degrees in relation to the area being textured. The lower handle at *right* shows four decorative lines cut into the handle. You may finish the handle at this point with walnut oil or tung oil.

For an aged appearance, apply a coat of black water-based milk paint, which dries fast, is durable, and sands off easily. The milk paint also darkens and ages the cherry. When you sand off the paint, you'll have three color layers: black paint, the darkened cherry, and a lighter layer of freshly exposed cherry.

After sanding with 220, 320, and 400 grits, apply the finish of your choice.



Establish the shape of your lathe-tool handle and fit a copper ferrule to the tenon end.



Hold the needle scaler at 90 degrees to the piece while you texture the entire length of the handle.



Apply a coat of black water-based milk paint to the handle, then allow to dry.



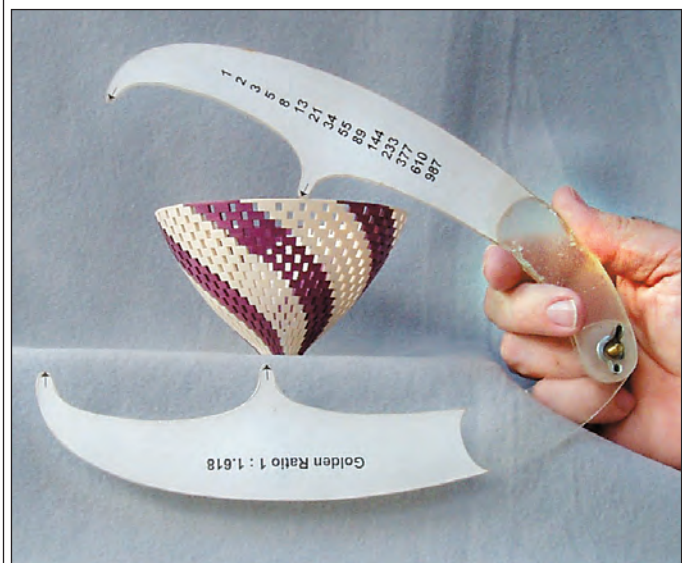
Sand high spots of the handle with 220-, 320- and 400-grit sandpaper. This reveals three color tones.

Bob Rosand (RRosand.com) is an *American Woodturner* contributing editor who lives in Bloomsburg, Pennsylvania. He will demonstrate this technique at the AAW symposium in Overland Park.

Golden Dividers

New tool, ancient roots

By Bill Smith



Put your Golden Dividers to work

As shown in the photos above, this 2³/₄" x 4¹/₂" bowl follows the 1:1.618 Golden Mean formula. The 4¹/₂" width (top photo) matches the Golden Mean for the height (bottom photo).

Mathematicians, philosophers, and scientists studied it. Architects and engineers relied on it from ancient times to present day. Even Mother Nature likes it. And certainly all self-respecting artists—woodturners included—incorporate it in some form in a portion of their work.

I'm talking about the Golden Mean, that seemingly magical ratio of width to height that appeals to the eyes of so many.

Using the full-size patterns shown *opposite*, you can easily incorporate the Golden Mean into your woodturning designs and see the correct 1:1.618 ratio at a glance.

Make your own dividers

The attached drawing was designed for turnings up to about 8". To make a larger set of dividers, scale up the drawings with an enlarging copy machine.

First, make a photocopy of the patterns. Using a spray adhesive (3M no. 77 adhesive works well), attach the patterns to a piece of 1/8"-thick acrylic plastic, metal, or another suitable substrate.

Cut out along the pattern lines with a scrollsaw or bandsaw. Be careful at the tips of the four arrows as they delineate the ratio—you want the divider profiles to just touch the arrow tips. (I hand-sand this area.) To protect the paper, apply two or three coats of clear sealer such as Deft or Krylon.

Then drill a 5/32"-diameter hole for a #8x1/2" panhead machine screw and wing nut. To get an accurate set of dividers, you must drill carefully at the point marked with an "X." After assembly, the ultimate test is to close the dividers—the arrow tips should just touch.

Bill Smith (k3lf@aol.com) is a woodturner from Doylestown, Pennsylvania. He will demonstrate segmented turnings at the Overland Park symposium.

1:1.618: Golden for 8 centuries

The ancients probably adopted the 1:1.618 ratio because it made things look good. In the thirteenth century, Italian mathematician Leonardo Fibonacci recognized a series of numbers that is now known as the Fibonacci series. As it turns out, if you divide any Fibonacci number by the previous number you get a close approximation of the Golden Mean. The series may be calculated by adding the previous number to the current number to get the next number ($1 + 2 = 3$, $2 + 3 = 5$, $3 + 5 = 8$ and so forth).

The Golden Mean has several uses in woodturning:

- While turning an object, adjust the height to the diameter.
- Divide a turning so that the lower section is 1.618 times the height of the top section.
- Divide a lidded box from top to bottom by the Golden Mean (the longer dimension is usually on the bottom).

The Golden Mean—while useful—is only a guide to one set of height and diameter ratios. If you rely on it too frequently your work will probably become boring. (At best, the Golden Mean figures into less than 20 percent of my own work.) There are many other shapes and ratios that work well. It is most important to make turnings that look good to your eye and have shapes that feel good to your touch.

Golden Ratio 1:1.618
Divide any Fibonacci number by the previous number

Calipers designed by Bill Smith
For non-commercial use only.

1.618 Units →

← 1.618 Units

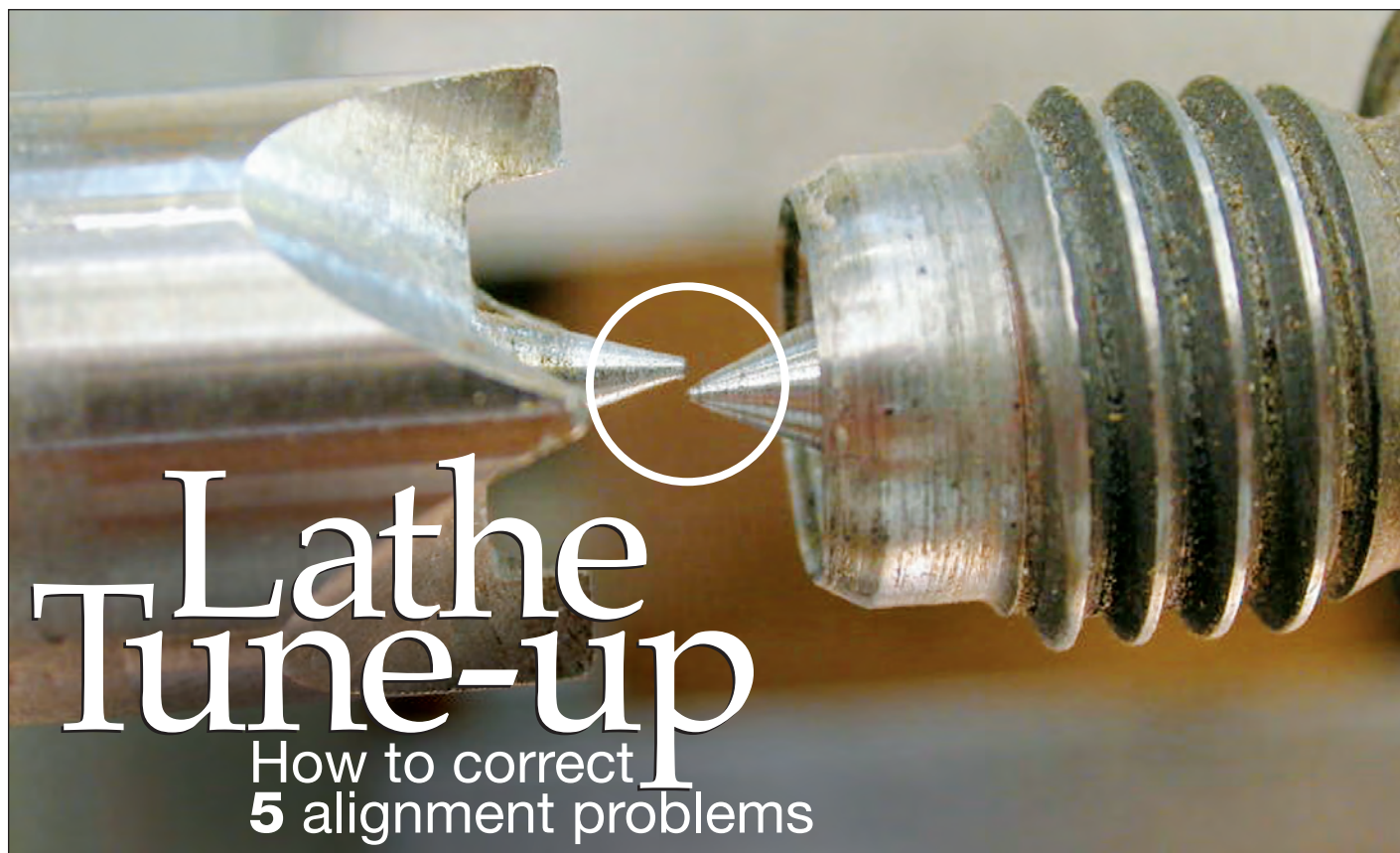
Arrows indicate the optimal point of contact for an exact ratio when making measurements. When closed, the arrow points should just meet. The length from the pivot point to the first arrows, compared to the length from the pivot point to the second arrows forms a ratio of 1:1.618 and any calipers laid out in this ratio will work.

1 Unit →

← 1 Unit

Fibonacci number series under 1,000.
Add any number to the previous number to get the next number.

1
2
3
5
8
13
21
34
55
89
144
233
377
610
987



By Jim Rodgers

Oval pens driving you nuts?

Can't align two halves of a segmented bowl for glue-up?

Join the crowd. If your lathe—or your turning work—suffers from poor alignment, call a time-out and review these five alignment checkpoints.

1 Tailstock does not align with the headstock

To check the alignment of your headstock and tailstock, insert a live center into the tailstock and a spur drive into the headstock.

Make sure that the points are not dulled or bent in either the spur or the live center—this will mislead you in your measurement.

Bring up the tailstock to within 1/4" to 1/2" from the spur center, then tighten down the tailstock and quill. Now, observe the alignment of the two points. If the points are misaligned, you can

compensate by placing a shim under the appropriate corner(s) of the tailstock to adjust the alignment. Often a sheet or two of paper will be adequate to shim the tailstock.

For more exaggerated errors, contact the lathe manufacturer for repair or replacement of the tailstock or tailstock quill. An extreme case may require reboring of the Morse taper on the tailstock quill.

If the lathe headstock is bolted to the frame or ways as with the Jet mini-lathe and Delta Midi, you can realign it with the addition of

a permanent shim under the appropriate corner. On other lathes such as the Oneway, for example, you can align the headstock by adjusting the jack screws provided for that purpose.

If you own a Nova 3000/DVR, you can reposition the lathe ways themselves, as they are screwed to the headstock unit. Be sure to follow the instructions in your owner's manual for all adjustments noted above.

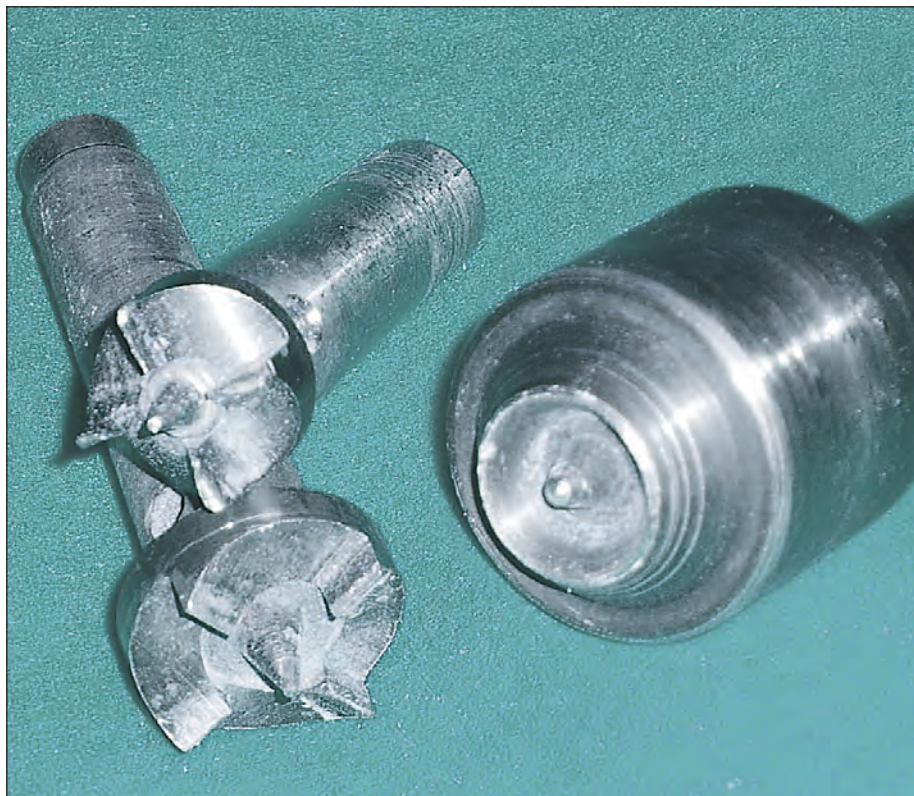
On lathes with a rotating headstock, the click stop positioning may not be accurate enough to return to perfect alignment. A double-ended Morse taper will aid in regularly realigning the headstock each time it is moved.

2 Live center does not run true

Inexpensive live centers, centers with worn out bearings, or poorly designed live centers like the examples at *right* cause problems. If the live center was inexpensive, just discard it and upgrade.

One of the causes of a live center becoming out of true is excessive wear of the bearings due to operating the lathe with a headstock/tailstock misalignment. Angular pressure on the live center will rapidly increase the radial runout to an unacceptable point. (Oneway advertises that the radial runout of its live center system is less than .001 inches.)

If you have a reliable live center that's repairable, consider replacing the bearings. For a minimal fee, you can return many live centers for bearing replacement.



3 Too much pressure applied to the mandrel in penturning

If your pen barrels are oval and you've checked the first two solutions, applying too much pressure to the tailstock when tightening on the mandrel may be the culprit. The amount of pressure applied should be just enough to stabilize the mandrel shaft and minimize vibration from the turning activity. Too much pressure bends the shaft (*middle right*).

A crooked live center point will also cause the mandrel to operate eccentrically and will enlarge and distort the alignment dimple in the tailstock end of the mandrel shaft (*bottom right*). The better designed mandrels allow the user to replace the shaft when it becomes bent or the dimple has excessive wear.



Tips to improve your accuracy

- Always clean the female Morse tapers before inserting any accessory.
- Remove all defects or burrs from the surface of male Morse tapers.
- Store and protect spur drives and live centers from scratches and dings. Find a place near your lathe where these valuable attachments won't get beat about by lathe tools, hammers, and accessories.

4 Poor centering with vacuum chucks

If you align a bowl or vessel in your vacuum chuck and it slips or won't hold the desired alignment, the cause may be related to the material used to seal the vessel to the chuck. Foam rubber and other soft, flexible

seals may vary in density throughout the material, thus not compressing equally everywhere, causing the vessel to be forced out of alignment.

Vacuum chuck design and the shape of the vessel also tend to exaggerate this problem. A round vessel held against a rounded

chuck surface may exhibit this problem more readily.

To improve centering, try each of these solutions: Replace the material, readjust the material, or buy thicker (or thinner) stock.

Silicon rubber works well but is difficult to attach to the chuck because there's no known effective adhesive for this material.

On a finished edge bowl, consider using a flat plate as a vacuum chuck, thus spreading out the hold over a large area and minimizing the problem as shown at *left*.

5 Hole-drilling errors

Improperly mounting a Jacobs chuck on a Morse taper may cause centering problems when drilling holes in the end of a project. To avoid this problem, be sure that you properly seat the Morse taper in your tailstock, then run the quill out far enough that the drill chuck completely seats—no further. Bring the tailstock up into close proximity of the work and lock down the tailstock before drilling.

Other drilling issues may not be related to the alignment but be caused by the drill wandering from hard, winter-growth grain and into softer summer growth. Solve this issue by creating a small pilot hole for the drill point. Brad-point or Forstner bits also reduce this drifting problem. Always be sure that the bit you select is sharp.

Jim Rodgers (www.jlrogers.com) is a member of the Bay Area Woodturners, Silicon Valley Woodturners, and Diablo Woodworkers. He lives in Martinez, California.



Soft Discs for Power- Sanding

A shop-made
system works better
and reduces costs

By Larry Genender



Sanding disc systems are stiff and do not easily conform to the curved surfaces I turn. Because of the inflexibility of the discs and backing foam pads, I sometimes cut a groove in my piece when I tilt the disc on edge to get into a tight spot. In addition, the adhesive holding the sandpaper to the hook and loop tape deteriorates with both age and heat. If that's not enough, the discs are expensive if you use as many as I do—and that tends to make you sand with worn paper. Life's too short for that!

About five years ago, James Johnson of Kerrville, Texas, showed me his shop-made system using soft foam, leather, and lightweight paper to make a disc that eliminates these problems. Since adopting James' system, I've

obtained far better results at a fraction of my previous costs.

Don't be deterred by the effort it may take to shop for materials—the results will be well worth it.

Materials needed

1 Power Lock Disc Holders. Sizes 1", 2", and 3". Available from machine shop suppliers and some woodturning suppliers.

2 Power Lock Sanding Discs. Order sizes corresponding to the disc holders. Note that the sanding discs are NOT used to sand anything, they simply act as the means to connect the foam to the drill. I've found that contact cement adheres best to the 320-grit discs. The 1" disc is used to make 2" pads, the 2" disc to make 3" pads, and the 3" disc to make 5" pads. I recently found some 4"

discs, and I'm using them for some of the 5" pads that I use to sand broad surfaces, like platters. In my shop, the 3" pads work best for about 75 percent of my sanding. I suggest that you make and use these first.

3 Foam. Request 4-pound ester foam—accept no substitutes. James researched many kinds of foam and found only one that is soft enough to conform to shapes yet strong enough to withstand the torque forces of the power drill. I ordered a 60×54" sheet of 3/4" thick foam from Kirkland Sales in Garland, Texas (phone 972-864-1424). A sheet costs about \$75 but will give you a lifetime supply (or you can share an order with members of your chapter).

4 Leather. Use 2- to 3-ounce leather, available from Tandy

Continued

Leather stores and other sources. Make sure the leather is supple, not stiff. I've found that a pigskin-finished leather, which has a slightly bumpy surface, holds the adhesive longer than smooth leather.

5 Contact Cement. Buy the 3M spray contact adhesive no. 77, which is widely available. This is a solvent-based adhesive recommended by the foam supplier.

6 3M Spray Disc Adhesive. 3M product no. 051135-08054, about \$8 per can. The adhesive only needs to be applied after four or five changes of sandpaper. You must order this product (developed for the automotive finishing trade) from a 3M distributor. The adhesive you get from home centers is not suitable.

7 Sandpaper. Use the lightest, cheapest paper you can find. I use A weight for all the grits except 80 grit, where D weight works better. The paper costs only about 20 cents per 9×11" sheet, which encourages frequent paper changes and working with sharp abrasive.

Make the pads

Once you've gathered the materials, the rest is easy. See the illustrations at *right* for details.

Apply the contact cement to both the Power Lock Sanding Disc and one side of the foam (you only have to cover the foam in the center where the disc will adhere). The solvent in the cement will degrade the foam if it is in excess, so spray a light coat on the foam side. Let dry as directed on the can; it should be tacky, not moist to the touch. Then press the disc and

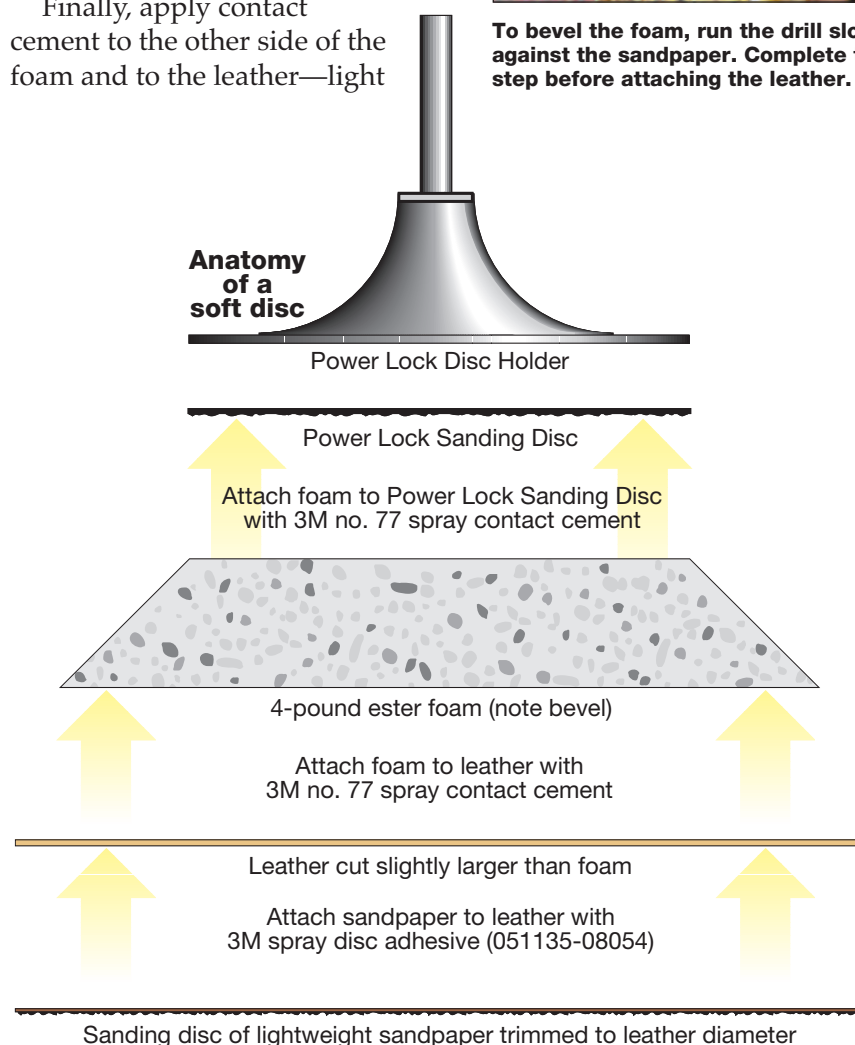
the foam together. Allow the cement to harden—overnight is best.

Now tack a piece of 80-grit sandpaper to the workbench. Attach the foam / power disc piece to the disc holder and mount in the drill. Hold the drill at a 45-degree angle, start the drill and bevel the foam to that 45-degree angle. Be gentle and run the drill slowly to prevent the foam from grabbing onto the sandpaper. You want the foam to be thinner at the edges so it will conform easily to your turning surface.

Finally, apply contact cement to the other side of the foam and to the leather—light



To bevel the foam, run the drill slowly against the sandpaper. Complete this step before attaching the leather.



application on the foam side, heavier on the leather. When dry, carefully center the pad on the leather and press together. Note that the diameter of the leather is cut about 1/4" larger than the foam diameter.

Attach the sandpaper

On a new pad, clean the surface of the leather with naphtha and then spray on a coat of the spray disc adhesive. After the adhesive dries for 30 seconds, stick the pad to the back of the sandpaper and trim the excess sandpaper with a utility knife or scissors. To change paper, simply peel off the old paper and apply the disc to the new paper and trim. You generally can make four or five changes before you need to add spray disc adhesive. Some smooth-finished leathers leave most of the adhesive on the paper, so you have to spray more frequently. I have a mask of plywood with the appropriate holes cut in so that I can spray this very sticky adhesive without making a mess.

Time to sand

I find it easiest to use a right-angle drill (Milwaukee, Sioux, or an inexpensive import), but you can use a regular shop drill. Although it's okay to sand with the lathe running, you do a lot of unnecessary sanding that way. I turn off the lathe and keep the drill moving to avoid swirl marks. You can tilt the drill up to 90 degrees to get into close quarters (up to the edges of a bead, for example). Also, don't run the drill continuously at high speed—the heat



When sanding the inside of a bowl, the disc easily conforms to the interior curvatures.

melts the adhesive and makes heat cracks across the piece.

Once you've smoothed out the surface, and are rid of tool marks and tear-out, then you can run the lathe slowly as you progress through successively finer grits.

Make sure you blow or wash away the sanding dust before moving to the next higher grit. I use denatured alcohol to wet the wood between grits—it raises the grain, wipes away sanding dust, and evaporates quickly.

Turn with an attitude that sanding is part of the turning process. And with this soft pad, tool marks sand out easily. Just don't fall into the trap of starting to sand with too fine of a grit.

What you have to avoid is tear-out. It requires a lot of sanding to remove the entire surface down to the deepest torn-out level.

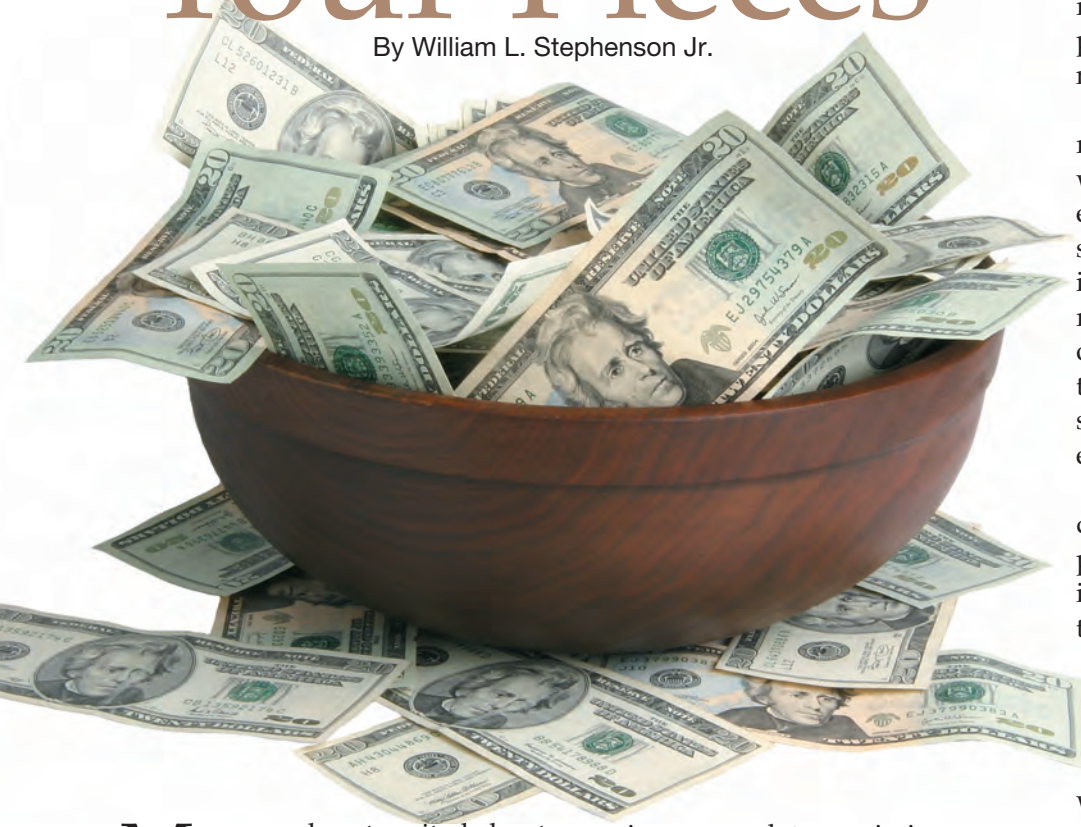
Final notes

My first set of pads lasted a couple of years. After a while you will see some shear tearing of the foam, depending on how vigorously you twist when you sand. Note that after time and heavy use, the foam will start to separate. I used to glue the pieces back together, but I've learned that it's more trouble than it's worth. When a pad falls apart, I now replace it—you can reuse the leather (I don't) and the Power Lock Discs (I do), simply remove the adhesive with a little naphtha or other solvent. I make the pads in batches of 10 or so and always have spares.

Larry Genender (Lgenender@aol.com) is a retired general surgeon who now spends most of his time turning wood in Dallas, Texas. He is a member of three AAW chapters in Texas.

Pricing Your Pieces

By William L. Stephenson Jr.



Many people get excited about woodturning after watching a turning demonstration or reminiscing about the enjoyment of a school shop class.

Few enter the field as a career choice, but many—following a period of acquiring technical skills and experience—embrace woodturning as a second career. And who among us hasn't at least dreamed about recovering some of our woodturning investment through the sale of products?

Regardless of the reasons individuals become woodturners, we all struggle with pricing finished work. Though we seek to

price our work to maximize returns, we must balance the price with a desire to sell objects.

What are the total costs?

Since most woodturnings are one-of-a-kind pieces, one way to determine the price of a new piece is to compare it to similar previous work. This approach requires accurate record-keeping—something that few woodturners enjoy and even fewer actually accomplish. However, the benefits of accurate record-keeping would be difficult to overstate.

Costs. The first records to maintain are costs, which include

the costs of materials, machinery, tools, supplies, and other items required to create turned objects. At the minimum, maintain a file of receipts. The list required for pricing parallels the records needed to prepare tax returns.

Hours. The second type of record to maintain is the hours worked on each turned object. It is even better to break down the time spent into broad categories, including preparing the blank, roughing the blank, turning the outside, turning the inside, turning the top, turning the bottom, sanding the work, adding surface embellishment, and finishing.

With detailed timings, you will determine your total effort and perhaps uncover areas for improved efficiency. These detailed timings will form a basis for estimating the time that will be required to execute a new or different form.

Overhead. The costs associated with shop overhead include rent or costs of facilities, depreciation, heating and cooling, transportation, maintenance, insurance, and any cost you incur just to have a place to work. These cost items go into the calculation of your shop rate. You'll also need this information for income tax preparation.

Rate of Return. For prudent use of resources, artisans should determine their "satisfactory rate of return" or profit margin. The profit margin should be greater than the return expected from an alternate investment—a certificate of deposit, for example.

Hourly Rate. Finally, you'll need

another set of records to calculate an hourly work rate. This group includes wages, Social Security, and health insurance.

Cost-based price

With these records, you can readily calculate the minimum price for your work using a Cost-Based Price approach. The formula for cost pricing is:

Price based upon cost =
(cost of materials)
+ (hours worked x hourly rate)
+ (hours worked x shop rate)
x (1 + percentage profit margin).

The Cost-Based Price approach is essential for commissioned work where the artisan has a firm order or where a proposal is being developed for a piece to be turned to a buyer's specifications.

Market-based price

Most of us, however, produce speculative pieces for galleries, shows, or other non-commissioned outlets. Speculative work requires a different pricing approach. The Market-Based Price approach prices objects on parity with the marketplace.

The most accurate way to measure a market price is through auction—knowledgeable buyers and equally knowledgeable sellers agree upon a price. Although less accurate than an auction price in assessing value, the price may be determined through a negotiation.

The Market-Based Price approach requires considerable research. Turners should make notes at galleries and shows and search websites to determine prices for similar work. In most

markets, woodturnings compete with other art forms—don't overlook pottery, carvings, and painted objects. Magazines and catalogs also provide clues about the marketplace.

Your notes should include the date, location, artist, and other details the pricing reflects. Determine an average market price by dividing the total prices recorded by the number of similar items.

For example, if you record information on 10"-diameter salad bowls turned from domestic woods, you may note prices of \$150, \$235, \$365, \$85, and \$255. The total of these prices divided by the number of items yields an average price of \$218. So, you could round up to a \$225 price.

Compare pricing models

With this information, compare the cost-based price and the average market-based price. If the cost-based price is less than the market price, you could be justified in raising the price for the work. Or, you may choose to maintain the cost-based price to gain a larger market share.

When the cost price is greater than the market price, it is time to find out why. Perhaps your work is not really comparable to the marketplace: For example, you may have inefficiencies that require an adjustment. Perhaps your work requires more sanding than desirable.

"Like many other woodturners, I sell a few pieces and have aspirations of selling more," says Buren Gilpin, an AAW member from New Jersey. "I found that

when I timed my efforts and added in other costs to compute a Cost-Based Price, I was not in line with the marketplace.

"I found it useful to look at my own efficiency. I then focused on improving my turning skills and increasing my speed of execution as well as the execution of other production steps—blank preparation, process steps, and finishing. I feel I have become a better turner."

One way to improve your cost-based price is to ask a friendly experienced woodturner to observe you as you work. Another observer may suggest a different approach for reducing the costs.

There are often good reasons for the price differential, so make a renewed effort to understand the differences. If there's a significant difference between your cost and market prices, consider dropping this item and focus attention on pieces with greater profitability.

I have observed that most turners do not have sufficient records to really understand their cost structures and few take the time to understand the Market-Based approach.

Underpricing hurts the seller in the short term and may adversely affect other turners working hard to earn a living in the same marketplace. It also lowers expectations in the marketplace about the value of woodturnings, which adversely affects all turners.

Bill Stephenson (woodart@srbfl.com), a former AAW board member, turns, teaches, and writes from his studio in Santa Rosa Beach, Florida.

Celebration
of the

Lidded BOX

artform

Unexpected shapes
delight the eye.

"Large Specimen" by Matthew Hill.
Maple; 12x3". "This piece was made for
a fund-raiser sponsored by an
organization offering health and
reproductive services in Oklahoma
City. The technique is one I saw
Michael Hosulak demonstrate at an
AAW symposium."

By their nature, lidded boxes invite
being handled, opened, closed,
then opened and closed again.

The very presence of a lid suggests there may be
some small but cherished item inside. In addition
to the visual aesthetic, lidded containers can tease
other senses as well. The holder can savor the
sound and feel of the lid's fit.

Depending on the design and intended use of
the container, as you remove the lid you may
experience a quick, decisive "pop," a non-descript
"squish," a long, gentle vacuum tug, or the no-
resistance fit of a lid designed to be removed with
only one hand. Indeed, the fit of the lid may be the
primary fascination in many lidded containers—
one that will never show in any photograph.

Lidded boxes offer an unparalleled exacting
challenge and opportunity for woodturners. This
is true not only in the design arena but in
execution and preparation of materials as well.

The lid and the base must have pleasing lines
and proportions independent of each other yet
when mated, form an integral whole.

Lidded containers seem to be
particularly suited to the
combination of a variety of
materials—often for inlays or
accents. However, the
preparation of materials used in
lidded containers is of
particular importance.

Often the materials are
roughed out, dried, re-roughed,
and again dried in order to
provide the dimensional stability
required for a subtle fit. Grain
direction can be crucial, as can be
compatibility of texture, color,
and other subtle characteristics.

—Kip Christensen





"Huon Pine Container" by Brendan Stemp. Huon pine and blackwood; $4\frac{5}{8} \times 4 \times 7\frac{3}{4}$ ". "This was commissioned by Vic Wood. The process involved gluing waste timber on both sides of the 'good' wood and turning the top surface to get the line I needed. The waste timber was then cut away, and a negative form was turned out of another block."



"Standing Box" by Hans Weissflog. Ebony, blackwood, and amboyna; $2\frac{3}{8} \times 1\frac{1}{8}$ ". "Amboyna Burl is a beautiful wood, but without sapwood (light color), it sometimes looks too even. That's why I added African ebony."



"Nut & Bolt Boxes" by Stuart Batty. French boxwood; $6 \times 4\frac{1}{2}$ ". "I wanted to make a box that had more than just a bottom and lid. I decided to make the threads very noticeable and fun to open, hence the six threads per inch and six separate parts to each box. It also has a hidden chamber."

Continued

Artists represented in this gallery:

- **Cindy Drozda**
Boulder, Colorado
- **Kip Christensen**
Springville, Utah
- **Gorst duPlessis**
New Orleans, Louisiana
- **Matthew Hill**
Oklahoma City, Oklahoma
- **Bonnie Klein**
Renton, Washington
- **Alan Lacer**
River Falls, Wisconsin

International turners include:

- **Stuart Batty**
Buxton, Derbyshire (UK)
- **Ray Key**
Near Evesham,
Worcestershire (UK)
- **Guilio Marcolongo**
Wonthaggi, Victoria
- **Richard Raffan**
Wonthaggi, Victoria
- **Brendan Stemp**
Horsham, Victoria
- **Chris Stott**
North Lincolnshire (UK)
- **Hans Weissflog**
Hildesheim, Germany
- **Vic Wood**
Burwood, Victoria

Lidded Box

textures

When boxmakers explore new surfaces, it's an invitation for admiring hands to caress.

"Lidded Vessel" by Cindy Drozda. Tasmanian eucalyptus burl and African blackwood; 8x8 1/4". "This piece is the first that I did in this form with a lid and finial. The form is actually my favorite heart shape turned upside down. I am also influenced by Mark Gardner's lidded vessels, which are upside-down shapes in a different proportion. Since I usually do my typical lidded forms, this piece represents my desire to break away from the 'usual' a little bit."





“Container Series” by Vic Wood. Fiddleback red gum; $3\frac{1}{2} \times 21\frac{1}{2} \times 21\frac{1}{4}$ ".

"I manipulate the wood and reveal an insight in the new form—which is often obscure before the timber has been worked. I communicate formally through geometric-shaped circles, cylinders, squares, rectangles, and spheres as well as through curved and straight edges."

“Urn Series” by Gorst duPlessis. African blackwood and pink ivory; $4\frac{1}{2} \times 21\frac{1}{4}$ ".

"The inspiration came from Grecian urns on pedestals seen in many formal gardens. This piece was turned with two rosettes rubbing at the same time a six and a twenty-four; the taper is 9 degrees. The inside is identical to the outside. The lid is reverse-tapered to fit the box and fluted (24). The top is a shallow-spiral cut. My major problem was chucking the piece."

“Antler Series” by Kip Christensen. Elk antler, ebony, and coral; $3\frac{1}{2} \times 35\frac{5}{8}$ ".

"In turning antler I discovered for myself that nature fashioned this extraordinary material to withstand considerable abuse. It is quite dense yet not excessively brittle. It has good working properties and can be turned using standard tools and techniques."





“Royal Box Again” by Guilio Marcolongo. West Australian she-oak; $4\frac{1}{2} \times 3\frac{1}{2}$ ". "While in England in 1999, I noticed royal-crown emblems everywhere. After a lot of thought, I used my scallop-cutting technique on the base to develop the crown design. The small scallop design surrounding the finial on the lid adds royalty to the piece."

“A Flask Box” by Chris Stott. Osage orange and violet rosewood; $4\frac{1}{4} \times 3\frac{1}{8}$ ".

"This box is inspired by Scandinavian water flasks. It's turned on three centers. This is something of a challenge but very satisfying when completed."



“Square-Topped Oriental Box Series” by Ray Key. African ebony bodies and rippled ash tops.

"I have always had a love of oriental form, and that is what inspired a recent range of boxes. The tops were turned as squares on a vacuum chuck. I shaped the inside concave first. Then I inverted and turned the underside and executed the lid fit. Gouge and shear scraping produced a quality surface."

Lidded box

curves

Graceful curves appeal to the aesthetic eye.



"Low Rider Box" by Alan Lacer. Mesquite; 2x3".

"I have done a series of very shallow boxes that usually are intended to be opened with the palm of the hand. With this style, I have added a small pull and a pie-crust edge for the lid."



"Lidded Box" by Matthew Hill. Mahogany and ebony; 3 1/2 x 8". "All of the carving on this piece is done with a V gouge. Although it is simple, it requires complete focus and lots of tool control. The carvings are accentuated by covering them with an oil-based glaze that is wiped off of the high points."



Lidded Box

detail

For collectors admiring lidded boxes, acquiring the first container is just the first step in a journey devoted to detail.

"Untitled Series" by Richard Raffan. Forest she-oak; about 2" in diameter. "These boxes have suction-fit lids. They are designed to be used, and I think they look best assembled into sculptural groups. They are architecturally inspired—initially by the Brighton Pavilions but closely followed by various magnificent buildings across Eurasia."



"Threaded Spin Top Box" by Bonnie Klein. Holly; 3x2½".
"The pure whiteness of the holly seemed like the perfect canvas to execute the rose-engine work, which I did on my Lawler ornamental lathe."



"Assorted Boxes" by Hans Weissflog. "In some of my boxes you find palm seeds and palm fruits together with all kinds of exotic woods. However, most of my boxes include African blackwood in combination with another hardwood. Nagel, my wood dealer in Hamburg, has 120 different species available, so it is always an adventure to visit him. I like to be there when a new shipment just arrives."





Critical Dimensions

By Alan Lacer

Conquering the challenges of the lidded box



Boxes hold a complexity and a bit of mystery that are uncommon to most woodturnings. A successful box incorporates a complexity of design considerations—including dimensions, type of fit, and planning—to overcome wood's inherent movement.

The mystery comes from the enclosed area sealed away by a lid—which generates a desire to open the box to see what's inside.

Tools and turning stock

Before you begin, you must decide on a number of issues related to the wood. My suggestion: Learn with end-grain boxes about 2½"-to 3"-diameter and under 4" in finished height. Here's why.

When you turn a face-grain box, you must account for normal wood movement and allow for a loose-fitting lid. However, end-

grain stock allows you to design a tighter-fitting lid—or even a suction or threaded lid.

For an enduring and pleasing fit, I recommend keeping the diameter to less than 4". Also, the hollowing challenges increase when you hollow deeper boxes.

But perhaps the greatest challenge in fitting pieces together is dealing with wood movement, which is critically important when you expect tight fits over time. Several factors challenge the boxmaker: wood movement when

transitioning from green to drier, seasonal and humidity cycles, and changes from removing large amounts of material (hollowing the base and lid).

There are several strategies to reduce variables. First, select turning stock with low moisture content. Next, pick a species that is relatively stable such as cherry, mahogany, catalpa, mesquite, or walnut. Many burls—once properly seasoned—are stable for boxes as the movement is often more uniform than regular timber.

You can also minimize wood movement—even if properly seasoned—by roughing out the lid and base and setting both aside to “relax” for a couple of days.

For tools, you will need a roughing gouge, skew chisel, parting tool, 1/2" roundnose scraper, diamond-profiled scraper, and 3/8" detailed gouge. A ring or hook tool is optional. You'll also need a vernier caliper with a depth gauge and a 6" metal ruler.

Prepare for chucking

Because you will turn much of your box while it's supported at one end only, accurate mounting is important. For the end-grain box, mount it in either a wooden jam chuck or a scroll chuck. To prepare the piece for either chuck, mount your turning stock between centers and cut a properly sized tenon at both ends.

For either chucking method, make the shoulder above the tenon slightly concave for good support. Allow at least 1 1/2" of waste material for the chucking process, the box tenon, and the wood lost by separation. Thus, a 4"-tall finished box requires a minimum of 5 1/2" of turning stock.



Allow the roughed-out pieces to rest a few days, which will reduce the amount of wood movement due to hollowing.

Separate the lid from the base

First, determine how much height to assign to the lid. In the example of a 4"-tall finished box, allow about 1 3/4" at this step for the lid. Part off the lid.

If your goal is to have good grain alignment, you need to minimize the wood lost in cutting the lid from the base. Avoid a regular parting tool, which will easily remove at least double its width (steel width, clearance, torn grain).

A thin-kerf parting tool is a better option, but go slowly and take breaks to allow the wood and the tool to cool. I normally use a hacksaw (heavy frame, 18 to 24 tpi, lower speeds on the lathe, tool rest removed) to reduce the wood loss and minimize overheating. (To make your own parting tool, see the Fall 2004 issue of the journal.)

Work inside the lid

It may seem strange, but the inside of the lid holds the key to the entire box: whether the lid will include a tenon or mortise, a pleasing height and diameter, and even the quality of the fit.

Before you begin turning the lid, you must address several

design considerations:

- How deep will you hollow?
- What diameter will the lid be?
- What length of mortise or tenon will be required?

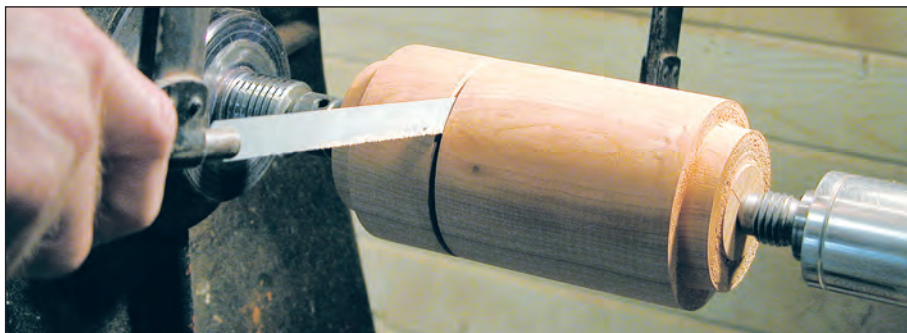
For most boxes, design the tenon in the base unless the lid is a low or flat feature (and therefore requires the tenon in the lid). Designing the tenon in the base often looks more interesting, and it adds to the volume of the box. A 3/8" to 1/2" tenon is about right.

For a box this size, aim for a 1/4"-thick wall. A thinner wall reacts more to humidity changes, and a thicker wall feels heavy when handled.

The process of hollowing end grain presents some challenges. If you apply the same techniques used when turning a face-grain bowl—working from larger to smaller diameter for hollowing—you will soon be cutting against the grain. And if you turn with a regular gouge to work from the center out and up the sides, you will find it results in a scraping action and usually not very clean.

Here are better options: Use a roundnose scraper to work from the center across the bottom and a

Continued



Use a hacksaw (teeth pointing away) in a heavy frame to minimize wood loss in separating the lid from the base. This will improve grain flow between the two parts.

little up the sides—regular scraping at first, then finish with shear-scraping.

I've had best results with a ring or hook tool that cuts (not scrapes) *and* works with the grain direction. In practice, this tool is nothing more than a right-angled gouge

that allows these two aspects to occur. (See the AAW website for details about making your own hook tool.)

After turning the bottom of the lid, sand through 150, 220, and 320 grits for most hardwoods.

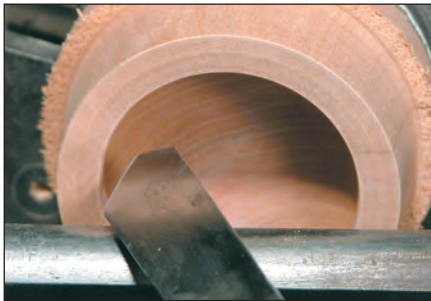
Cutting the side of the mortise is



If you don't have a hook or ring tool, use a 1/2" roundnose scraper in a shear-scraping action to finish the end-grain. Tilt it to the left to about 45 degrees.



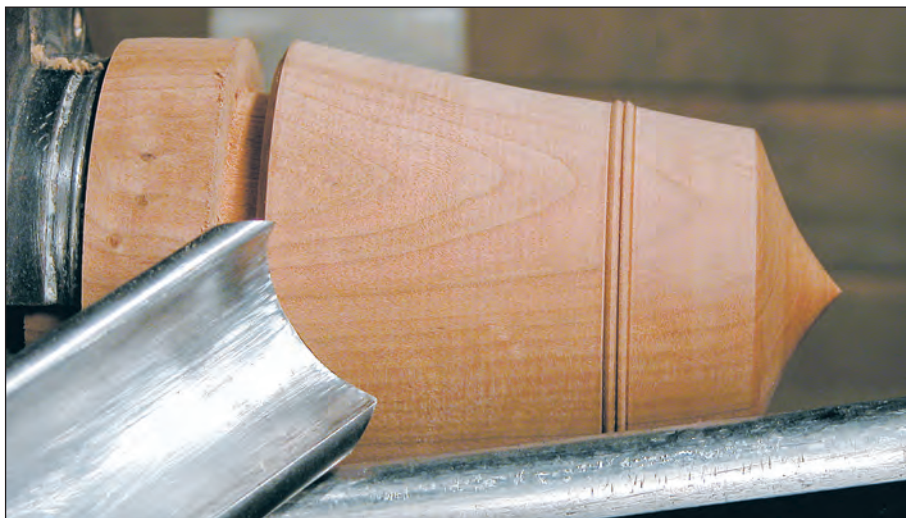
Inside the lid, the hook tool performs two actions: working with the grain and cutting the wood.



Cut the mortise shoulder with an offset diamond scraper and a shear-scraping action. Be sure not to sand this area.



With a 6" ruler, line up the mortise shoulder with the ways. Your goal: a parallel cut or slight outside cant.



Complete the outer side of the box with a roughing gouge. Add fine detailing at the joint or the top of the lid with a skew chisel or detail gouge.

critical to your success. Because you must secure the lid to the base for turning, you must turn this area cleanly and straightly. A flat scraper ground in the fashion shown at *left* is ideal.

Because the side must be left unsanded—sanding changes the circularity of the lid—shear-scrape this step. To check for straightness, use your 6" ruler aligned with the ways of the lathe. When held along the sides of the mortise, the ruler should appear parallel to the wood or the wood cants back slightly to the outside of the lid. Either case will produce a secure fit over the tenon.

Note: This method only works if the centers of your lathe are aligned.

Mount the lid on the base

Fit the base material into your chuck. Slowly reduce the tenon diameter to accept the lid. Remember that every fitting cut removes double what you think—so go slowly. (Apply your high-school geometry: A 1/16"-deep cut removes 1/8" from the diameter.)

Be certain at this point that you have made critical measurements. Use your calipers with depth gauge to determine the depth of hollowing on the lid. Also, note the lid's wall thickness at this time.

I normally get close to the diameter, make a small taper at the end of the tenon, and then creep up to the fit. Aim for a fit that is tight enough to hold the lid on the base while turning the outside of the box but loose enough to remove when the outside is complete.

Shape the outside

With the lid securely on the base, design questions take over. I normally complete the lid first. This determines the length and shape of the base. Wall thicknesses and desired lid shapes will guide your choices.

After you're satisfied with the lid, determine the base height. I've found that about one-third lid and two-thirds base or 40 percent lid and 60 percent base make appealing proportions.

Work the outside of the box with three basic tools. A roughing gouge or skew chisel performs well for the sides. I prefer a detailing gouge for the top of the lid. When you're satisfied with the shape and quality of the surface, sand through 150, 220, and 320 grits for most hardwoods.

Hollow the base

Now that you've determined the diameter and shape of the base, it's time to hollow. First, drill just short of the final depth with a 1/2" to 3/4" bit in a Jacobs-style chuck fit in your tailstock. This step also opens up the center to work the tool in an easier fashion.

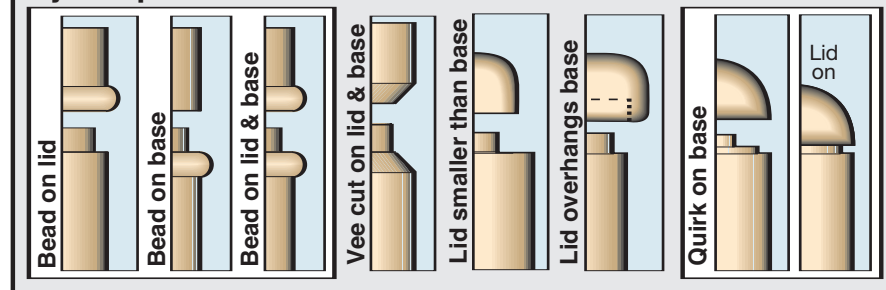
Hollow with a scraper and either finish by shear scraping or with a ring or hook tool. Then, sand the inside as described earlier.

Almost complete

Two operations remain before you reverse-chuck to finish off the bottom of the box: Detail the joint where the lid meets the base and determine the final fit.

Detailing the joint is critical, as the two pieces will not look as nice in the days and weeks ahead as they do right now—the perfect

7 joint options for lid and base



circularity you now have may disappear because of wood movement. If you decorate the joint, this problem goes away—and you improve the appearance.

There are many options to accent the joint. Shown *above* are some of the options to accent the joint. (A quirk is a small square detail.)

If you haven't already incorporated joint details, it's not too late to do so now. For example, the V-cut with a skew and the small quirk on the base are design steps left to this stage.

The final fit is one of personal preference. If you intend for the box to be picked up to remove the lid, a soft suction or a fairly tight fit may be in order. To remove the lid without picking up the entire box, aim for a slightly loose fit.

For this final fitting, use a skew chisel for a light scrape with a peeling action. Cut the surface of the tenon cleanly to eliminate sanding. Again, sanding affects circularity.

Complete the bottom

Part off the box, allowing some extra wood for cleaning up the bottom. If there is sufficient waste material in the chuck, use this to make a tenon for jam-chucking the base. If too little material remains, turn a jam chuck from the same or a softer wood species.

Fit slowly until the inside of the

box slips over the tenon of the waste material. I like to use the hook or ring tool to cut a concave base, leaving a narrow rim near the outside of the box. Sand and detail the bottom until it equals the rest of your box in quality.

Finish notes

I avoid quick finishes on boxes, as most are shellac-based and won't hold up to excessive handling.

For a film finish, try melamine (precatalyzed lacquer), a high-quality spray lacquer, or a varnish-based finish (gel or wiping forms work well). For dark woods and a flatter appearance, apply pure tung oil or a wipe-on finish like Defoil or Watco.

For an oil finish with more luster, try the Maloof mix of equal thirds of pure tung oil, boiled linseed oil, and solvent-based varnish. After applying, immediately wipe off the excess. Allow to dry for several days, lightly abrade with fine synthetic steel wool, and apply a second coat. After repeating these steps for three or four coats, your finish will develop a shine.

If you've chosen a dense exotic wood (cocobolo, blackwood, or ebony), a coat of buffed wax is adequate.

Alan Lacer (alanlacer.com) is an *American Woodturner* contributing editor. He lives near River Falls, Wisconsin.

Jane and Arthur Mason Advocates of the Art

By Jacques Vesery



Photo: David R. Barnes

Our woodturning world draws people from all walks of life. Some practice the art as a vocation, others use woodturning to relieve stress. For most, it's an addiction, a passion of pure enjoyment.

Whatever the reason for being drawn to wood and the art, the common ground is passion. It is no different for woodturning collectors.

This year, the AAW recognizes Jane and Arthur Mason for their woodturning passion. As the organization's newest lifetime honorary members, they join a group of past honorees who have tirelessly supported the AAW's growth.

Collectors help sustain woodturning in many ways. Their appreciation for the artists' work is evident. Indeed, Jane and Arthur have gone beyond the realm of mere collectors—they have become advocates of the art of woodturning.

In the beginning

As luck would have it, the Masons started collecting wood art the same year the AAW was chartered. In 1986, Jane and Arthur saw the Jacobson Collection exhibited at a Renwick Gallery near their home in Washington, D.C. Pieces by David Ellsworth and Ed and Philip Moulthrop captivated the Masons.

Continued



The Mason living room includes turned pieces by Po Shun Leong, Mark Lindquist, David Ellsworth, Harvey Littleton, Stoney Lamar (2), Ed Moulthrop (2), Philip Moulthrop, and Mark Lindquist. On the original Isamu Noguchi table (1952) is a glass bowl by Joel Philip Meyer and turned pieces by Bob Stocksdale and William Hunter.

Photo: Bruce Miller



Shortly after, they visited David. As Arthur puts it, "Having more nerve than manners, we found his phone number, called him up, and invited ourselves to spend the weekend with him and his wife, Wendy, to learn more about woodturning."

David graciously explained key aspects to look for in collecting turned wood. But most importantly, the trip kindled a friendship.

Just one year later the Mason collection was 100 pieces strong. Jane and Arthur had visited, met, and befriended many more artists represented in their collection.

Why wood

Their newfound interest in wood art was more of a rebirth of relation. When asked, "Why wood?" Jane and Arthur delve deep, far surpassing the collection itself.

Collecting art had already been an important part of life for the Masons. With pieces by George Segal and Louise Nevelson, their collection was a blend of two- and three-dimensional art.

Arthur's interest and reverence for wood goes beyond the material and includes a sense of stewardship taught to him in his youth. His father was in Yale University's first graduating class of the forestry school. While spending summers at their camp in the Berkshires, his father taught him the importance of nurturing a healthy forest.

When Arthur saw the Jacobson Collection, it rekindled his interest in wood. As Jane recalls, "In the beginning, if Arthur had his way, he would have purchased almost every piece he saw. If it was a pretty piece of wood, he wanted it."

The quest for understanding has drawn Arthur in as a student. He

has taken lessons from David Ellsworth and Bonnie Klein and with bounding curiosity—like a kid in a candy store.

What Arthur gains is a view of the methods and means, and a window of deeper understanding. Arthur has made it his goal to pass on this turning knowledge of the art to all who will listen, including other collectors new and old.

Jane approached collecting turned wood from a different perspective. With a degree in English and art, Jane has always dreamt of sleeping in the Art Institute of Chicago, one of the leading art museums in the world.

With her fondness and respect for art, she saw turning as an opportunity. Although it was Arthur who wanted to start collecting wood, Jane liked the fact that the scope of wood as art was a narrower field. "Choosing and documenting the collection has been an intellectual exercise," Jane says.

There are many criterion which Jane seeks out that help continue the relationship of the entire collection. Form is at the top of her list, which also includes presence, artistic merit, and an artist's respect for the material.

Jane's aesthetic sense and Arthur's love of the material has melded into a great partnership that makes the collection what it is today. Both also appreciate criticisms addressed by curators, listen to what they recommend, and look at each piece as an individual work of art.

Involvement

Jane and Arthur have both served on the boards of many art associations. Being involved with such far-reaching organizations as the Renwick Alliance, the Mint

Museum Founder's Circle, and the American Craft Council has given them a voice in promoting their passion. Jane has served as president of the Collectors of Wood Art, and both have played steady roles in its conception and growth. They also support the International Turning Exchange at the Wood Turning Center in Philadelphia.

Many turners express joy in seeing Jane and Arthur's elated faces in demonstration audiences at the AAW symposiums. Jane and Arthur remain enthusiastic supporters of the Educational Opportunity Grant (EOG) program and benefit auction.

A sense for giving

As a whole, the collection has had from 800 to 900 pieces in it, with approximately 200 of those gifted to museums. The Mint Museum of Craft + Design in Charlotte, North Carolina, is the largest beneficiary. When seeing the collection at the Mint, Arthur said, "I can't believe we had all this in our house."

Favorites

When asked the predictable question, "Which are your favorites?" Jane and Arthur's quick response avows that they don't have favorites. "We admire all the pieces, and even though some stand out among many at any given time, it changes with the days," Jane says. "It's like the way you look at your children."

The Masons have fostered a true sense of ownership through educating others with the same passion for collecting and boundless friendship throughout the woodturning community.

Jacques Vesery (jvesery@tidewater.net) who lives in Damariscotta, Maine, is an *American Woodturner* contributing editor.



A grouping of turned pieces by David Ellsworth, Stoney Lamar, Michael Peterson, Todd Hoyer, and Mark Lindquist greets visitors to the Mason home. The painting is by Joan Miro.

Photo: Bruce Miller



Turn a Burl Bowl

with David Lancaster

Text and photos by Ken Keoughan

Photo: David Higgins

**"David Lancaster turns
a thousand bowls a year
and sells them all."**

—from *American Woodturner*
(December 1995)

Almost 10 years has passed since that statement appeared on these pages. David still turns a thousand bowls a year—sometimes up to 1,200—but now there is a significant difference in his work.

Today, David uses less brute strength and less willful force. Smaller gouges with shorter

handles have replaced heavy, long-handled gouges. Consistently well-made bowls have yielded to more refined forms made with gentler cuts. Sharp details and a mature elegance have evolved over the years.

Read on to learn how you can turn a 16"-diameter bowl using David's techniques.

Tools

For this project, you'll need:

- 1/2" and 3/8" Irish-grind bowl gouges
- 1/2"x1/8" diamond-shaped shear scraper
- 1/2" shallow-flute spindle gouge ground on a bias

- 4" face plate
- vacuum chuck
- bowl-coring system
- four-jaw chuck
- 10" drum chuck

For his bowls, David likes the leverage and mobility in tight areas that curved tool rests and short-handle Hosaluk-style gouges give him.

Prepare the blank

First, select a burl

For this project, David chose from three or four burls. The most promising of these was an 18" rock maple burl with little distortion from bark inclusions and manageable spalting.

Since David's bowls usually are functional, they can't have bark inclusions that destroy their integrity as vessels. And they must be burred deeply enough to prevent an interior that is mostly tree trunk.

Mark the shape

Scribe an 18"-diameter circle to define the outside diameter of the bowl.

Rough cuts

Carefully chainsaw the circumference into a reasonably balanced bowl blank.

David uses a 16" electric chainsaw for this step, which avoids having fumes from gas-powered saws inside his shop.

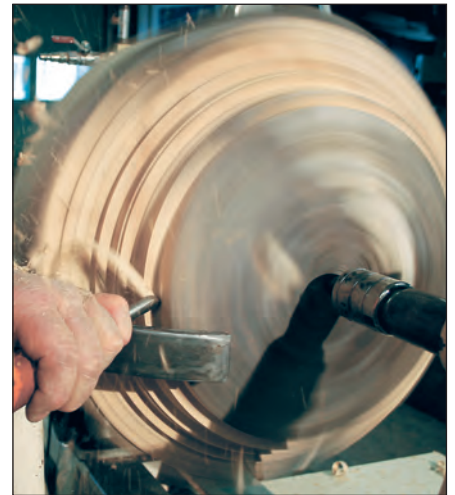
Next, attach a 4" face plate to the face of the burl using an impact driver and four #10 x11/4" McFeely square drive screws. Since this burl is valuable, he uses the small face plate to maximize the area where he will core two additional bowls.



Rough-turn the outside

Rough-turn the outside with a 1/2" Irish-grind gouge. The curved tool rest shown *below* enables him to be close to the workpiece and eliminates the need for the leverage that long tool handles provide.

Establish the rough shape by creating "steps" made with bevel-rubbing plunge cuts with the flute orientation at about 10 o'clock.



The tailstock is in place throughout the outside turning process, thus the small face plate acts as a strong spur drive.

As the roughing process proceeds, a bark inclusion becomes evident as shown *below*.



Continued

A careful assessment reveals that moving the face plate 1/2" away from the bark inclusion will allow David to remove it with little effect on the final diameter.



As the piece turns, the high side hammers on the gouge. David recommends holding the gouge parallel to the floor, thus transferring the hammer force straight into the tool rest.



Working around the bark inclusion altered the centerpoint of the bowl's base. Be sure to re-mark the tailstock center on the face of the burl before beginning the coring process.

To refine the shape, David uses a variety of pulling and pushing cuts, but always with the bevel rubbing. David follows this straightforward design plan:

- Establish the rim.
- When satisfied with the rim, establish the foot.
- When satisfied with the foot, connect the foot and the rim with a full, smooth, harmonious curve.

Shape the rim

To create a rounded rim, cut away the material underneath the rim. This is a nice nuance that frames the beads you will turn between the rim and the body of the bowl. Refine the rim and the beads with a small diamond-shaped shear scraper. In skilled hands, this tool will roll a bead faster than you can say Richard Raffan. These beads provide an elegant detail on a large bowl.



Next, sand the beads and rim. David uses 3M Radial Bristle Discs in grits from 120 to 240. Sanding with these discs requires reversing the lathe direction to capitalize on the curve engineered into the discs.



Core the bowl

The foot has been established in the form of a 4" tenon made to enable you to transfer the bowl to a four-jaw chuck. This eliminates using a faceplate and the accompanying danger of screw holes popping through the bottom or into the foot.

Before you begin coring, be prepared to lubricate the burl with water. This will simplify the coring process—especially with a dry, wild grain burl. The watering process does not require anything more sophisticated than a water bottle to squirt water into the coring cut. This lubricates and cools the burl while washing the chips out of the cut (*below*).



After coring the blank, remount the bowl onto a 10" drum chuck using vacuum power. If you shifted the bowl to remove a bark inclusion (as David did in photo *opposite top left*), remember to align the bowl on the drum chuck with the new tailstock mark.

Now, cut away the tenon and make the final cuts to create the foot of the bowl.



Drill for depth

After finishing the foot and before turning the inside of the bowl, take the cored blank to your drill press, which is set to drill to the depth that allows you to maintain an appropriate wall thickness at the bottom of the bowl—in this case $\frac{3}{8}$ ". This hole does not need to be perfectly centered—it's simply a depth stop.



Turn the inside

Turning the inside requires a 10" drum chuck and a vacuum system. With partial vacuum pressure to support the bowl, align the blank with a dead-blow mallet. Check the distance between the rim and the tool rest while rotating the workpiece by hand.



Turn the inside of the bowl with a $\frac{3}{8}$ " Irish-grind gouge and a curved tool rest. Make your final cuts with a $\frac{1}{2}$ " shallow-flute spindle gouge, ground on a bias. David recommends gentle cuts, gentle curves, and cutting with the grain from the outside to the center.

Remove stock to the depth of the hole drilled in the blank.



The secret to the beauty of David's burl bowls is the exquisitely fine finishing cuts that he makes both outside and inside the bowl.

Tear-out is non-existent; a light burnish is often present. And when you reach the point at which you turn a thousand bowls a year—and sell them all—you will make these kinds of cuts, too.

Sand and finish

Sand the outside of the bowl with a $\frac{3}{4}$ " soft foam backing pad chucked in a pneumatic random orbit sander. David begins with 3M 220-grit purple paper and progresses to 320 grit. Then he switches to 3M Microfinishing Film for the final sanding.

The inside of the bowl requires a different technique to eliminate the tiny ripples that almost always appear. With the bowl held static on the lathe, use a 5" disc mounted on a $\frac{3}{4}$ " soft pad and chucked in an electric drill. If necessary, use 120-grit and 240-grit purple paper. Repeat final sanding with Microfinishing Film as described *above*.

Apply a food-grade finish. David applies tung oil to all his bowls.

After completing the 16" bowl, he turned 13"- and 10"-diameter bowls from the cored pieces. The set of three had exceptional grain throughout—perhaps the best he's ever seen turned from maple burl.

David Lancaster (heirloombowls.com) of Weeks Mills, Maine, will be a featured demonstrator at the AAW symposium in Overland Park. Fellow Maine woodturner Ken Keoughan (kkeoughan@yahoo.com) is a frequent contributor to *American Woodturner*.



Playing with Fire

By Nick Cook
Photos: Cathy Wike-Cook

My fascination with fire started in 1993 at the AAW symposium in Purchase, New York. I watched Australian Vic Wood burn the rim of a platter, and I was immediately hooked.

At first, I thought it would be a great way to avoid having to sand. Boy, was I wrong. You really need to carefully sand the surface before you start the burn. Otherwise, it will end up looking like you didn't spend enough time sanding the platter.

Since watching Vic, I have turned and burned literally hundreds of plates and platters. I have used ash, cherry, maple, myrtle, and oak. All hardwoods work well but my favorite is ash. The grain and figure of ash works superbly with the burning process, and it is usually available in larger widths and more affordable prices for platter work.

I think you will like the effects of the black burned rim against the creamy natural color of the interior of the piece. I also like the contrast between the undulations of the rim and the smooth surface of the interior.

Tools and turning stock

I primarily turn this project with a $\frac{3}{8}$ " deep-fluted bowl gouge with a side grind and a $\frac{3}{8}$ " bedan tool.

You'll need a screw chuck and a 4-jaw chuck. I prefer the Jerry Glaser screw chucks because the threads are cut deeper and are considerably sharper than any other I have used. For this size platter, I like the security that a $\frac{1}{2}$ " chuck provides better than a $\frac{1}{4}$ ".

I always start with kiln-dried lumber. Green wood and even air-dried blocks are less stable. They are more likely to check and crack and will certainly distort more than dry wood. Thicker stock is also better; the heat will radically distort thin material.

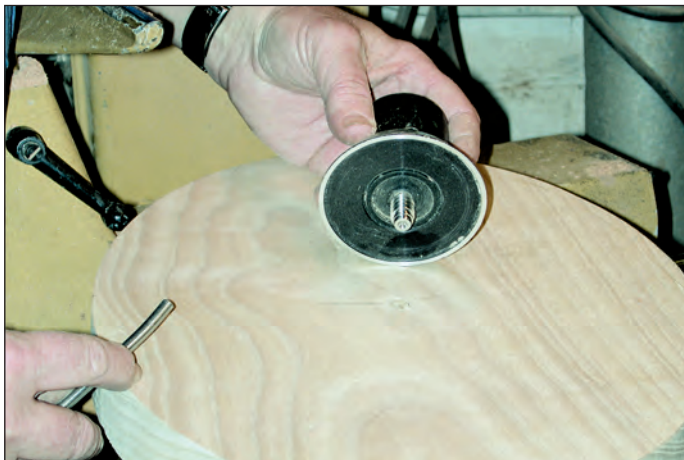
For this article, select $\frac{8}{4}$ ash, 12" wide. With a compass, lay out the 12"-diameter circle. Then cut a round disc on the bandsaw. Determine which side will be the face or top of the finished piece and drill a $\frac{3}{8}$ " hole in the center for a screw chuck.

Turn the outside

First, attach the blank to the screw chuck and make sure the face of the chuck fits snugly against the blank. If not, the blank will not run true. Mount the screw chuck onto your lathe.

Next, position the tool rest at

Techniques for creating a burned-rim bowl



After cutting the round blank, mount a 1/2" screw chuck in the center. Check that the chuck fits snugly against the blank.



After turning the surface flat with a 3/8" deep-fluted bowl gouge, check for flatness with a 12" combination square.



With a 3/8" bedan tool, cut the scroll-chuck recess. Many turners believe a slightly convex bottom has strong eye appeal.



To mark off the foot of the plate, scribe a 5 1/2"- to 6"-diameter circle. The foot should be about one half the platter diameter.

90 degrees to the axis of the lathe, just below the center and about 1/4" from the face of the blank. Rotate the piece by hand to ensure clearance. Start the lathe at 750 to 1000 rpm for roughing the blank with a 3/8" deep-fluted bowl gouge.

Hold the bowl gouge tool handle down with the flute almost upright and place the bevel parallel to the surface you plan to leave. Start your first cut at the rim and finish at the center

of the blank. One to three very light cuts should flatten the surface and produce a flat starting point. This cut is especially important if you're turning rough-sawn material.

Once the surface is flat, locate and mark the center. I use a vernier scale or compass to scribe a 2"-diameter circle for the recess to accommodate my scroll chuck. Then cut the recess with a 3/8" bedan tool. Rather than making

the recess flat, I usually make the bottom slightly convex, leaving it just a little higher in the center than the perimeter. In my eyes, this looks better than a flat surface.

After cutting the recess, scribe a 5 1/2"- to 6"-diameter circle for the foot of the 12" piece. On a plate or platter, I try to make the foot approximately one half the overall diameter of the piece. (Less than half will make the finished piece a little top heavy and less stable.)

Continued

Shape the bottom

It is important at this point to create a curve from the beginning. If you start making straight cuts, you will leave little room to form a continuous curve from the foot to the rim. I use the same $\frac{3}{8}$ " bowl gouge to shape the bottom.

Set the tool rest at 45 degrees and at the edge of the work piece. Hold the handle downward, with the flute at about 45 degrees and start the cut about $\frac{1}{2}$ " in from the edge of the platter.

Each cut is made with your body—not with your hands. I keep the handle perpendicular to the surface being cut and against my body. Start each cut a little closer to the foot and make each cut toward the rim. Continue making successive cuts until you have one curve from the foot to within $\frac{1}{8}$ " of the rim. Use the tip of the tool to define the foot.

For variety, try straight, chamfered, and curved feet. I lean toward the chamfered foot for most of my platters.

After shaping the bottom of the piece, make finishing cuts to get rid of tear-out, ridges, and uneven surfaces. I use the longest part of the bevel on the same $\frac{3}{8}$ " bowl gouge to make this type of finishing cut. Here's how.

Hold the tool in an almost vertical position with the handle against your thigh for support. Then lay the heel of the bevel against the wood. With absolutely no pressure at all, pull the tool from the foot to the rim. This cut will produce what I refer to as angel-hair shavings that will flow down the flute of the tool. This



With a $\frac{3}{8}$ " bowl gouge, keep the handle perpendicular to the surface. The tool rest is positioned at 45 degrees.



Use the tip of your bowl gouge to define the perimeter of the platter's foot. This photo shows detailing a chamfered foot.



With your thigh as support, hold the bowl gouge nearly vertical to make finishing cuts. When you rest the heel of the bevel against the wood, you should see fine angel-hair shavings peeling off the platter.

shearing action will leave about as fine a surface as you can produce with a tool. It also reduces the amount of sanding required. To make ridges more visible, place a light directly over the blank.

Sand the bottom

Once you're satisfied with the surface, start sanding. I prefer a power-sanding technique with a fairly stiff pad. (I have learned that using softer pads on ash and other open-grain woods produces an undulated surface.) I turn the

lathe speed down to about 500 rpm for sanding.

If you executed a good finishing cut, you should be able to start with 150-grit sandpaper; coarser grits will cause deep sanding marks that are hard to remove. Work your way through 180 grit and finish up with 220 grit on the power sanding.

I also sand the surface by hand with the grain, without the lathe running to get rid of any cross-grain sanding marks. Remove the blank from the screw chuck.



With the lathe running at about 500 rpm, begin power-sanding the platter bottom with a stiff 3"-diameter pad.



To produce a clean rim, hold the bowl gouge nearly vertical. The gouge flute should face right.



Lightly tighten the scroll-chuck jaws in the recess. To check for proper seating, rotate the chuck before fully tightening.



On the lathe, lay out a 1 1/2"-wide rim. This platter will have a crown centered about 3/4" from the platter's edge.

Turn the rim

Place the blank facedown on the bed of your lathe. Fully close the jaws of the chuck and insert it into the recess. Lightly tighten the chuck, then rotate it within the recess to make sure it is properly seated. Once seated, fully tighten the chuck. Screw the chuck onto your lathe.

Place the tool rest parallel to the axis of the lathe, just below center and 1/4" from the edge of the blank. Rotate the blank by hand to ensure clearance. Make

several light cuts from the back to the face of the piece with the bowl gouge handle almost vertical and the flute facing to the right. This should produce a clean surface.

Avoid lifting the handle, as it can catch the end grain and cause the edge to split off. Always cut from left to right to avoid tear-out on the underside of the piece, which you've already finish-sanded. Also avoid checking the piece with your finger when the lathe is running—you're liable to get cut. Stop the machine and

inspect the surface visually. Make sure you remove all saw marks.

Rotate the tool rest across the face of the piece, just below center and 1/4" from the surface. Make the same cut from rim to center that you used for the platter bottom. Several light cuts should flatten the surface.

Now, determine the width and shape of your rim. On this 12" piece, a 1 1/2"-wide rim looks nice. My favorite shape is a slight crown. To plan this, measure in 1 1/2" from the edge, then make a pencil line and another just 3/4" from the edge, which will be the crown of the rim.

Creating the crown is just like rolling a bead. You can do this with any one of several tools. I continue turning with the same 3/8" bowl gouge.

Roll your gouge to the right from the centerline and then roll the tool to the left from the centerline—just remember to leave the centerline. Place the bevel against the surface at the centerline and gently lift the handle. Roll the tool first to the right and then to the left. Use extreme care to avoid making the edge of the rim too thin. If it starts getting thin, flatten it again.

Here is where your technique will vary from turning a traditional platter. Rather than going ahead and opening the interior of the piece, continue to work with the rim. Power-sand the crowned rim with 150-, 180-, and finally 220-grit sandpaper. Then handsand the surface with the grain to eliminate cross-sanding marks.

Continued

Burn the rim

With that done, you must thoroughly clear all the shavings and dust from the lathe and blow the dust from the blank.

I use a propane torch for my burning. I've tried mapp gas but found it burns too hot for this detailing work.

You'll also need a container of clean water and a medium-grit 3M Scotchbrite pad. To keep water off your lathe, cover the ways with plastic bags. Be sure to have a fire extinguisher close at hand.

Do not attempt to burn the piece with the lathe running! Ignite the torch and start by lightly waving the flame over the surface. Always direct the flame toward the perimeter of the piece to avoid having it burn the outer surface of the rim.

The first thing you will see is the summer growth or softer grain

turning dark. This is a nice effect if you can do it evenly. The surface will start to look similar to zebra wood. I prefer to continue to burn the surface deeper.

As the surface gets hotter and darkens, it may catch fire. Do not panic! Grab the Scotchbrite pad, dip it in the water, and wet the surface. This will extinguish the flame. The more you burn, the more you will learn how close to the surface and how long to leave the flame in one spot.

Use the handwheel to rotate the piece as you continue to burn. Once you have uniformly blackened the rim, cut back the surface with the Scotchbrite pad. This will abrade into the softer grain and leave the harder areas standing higher.

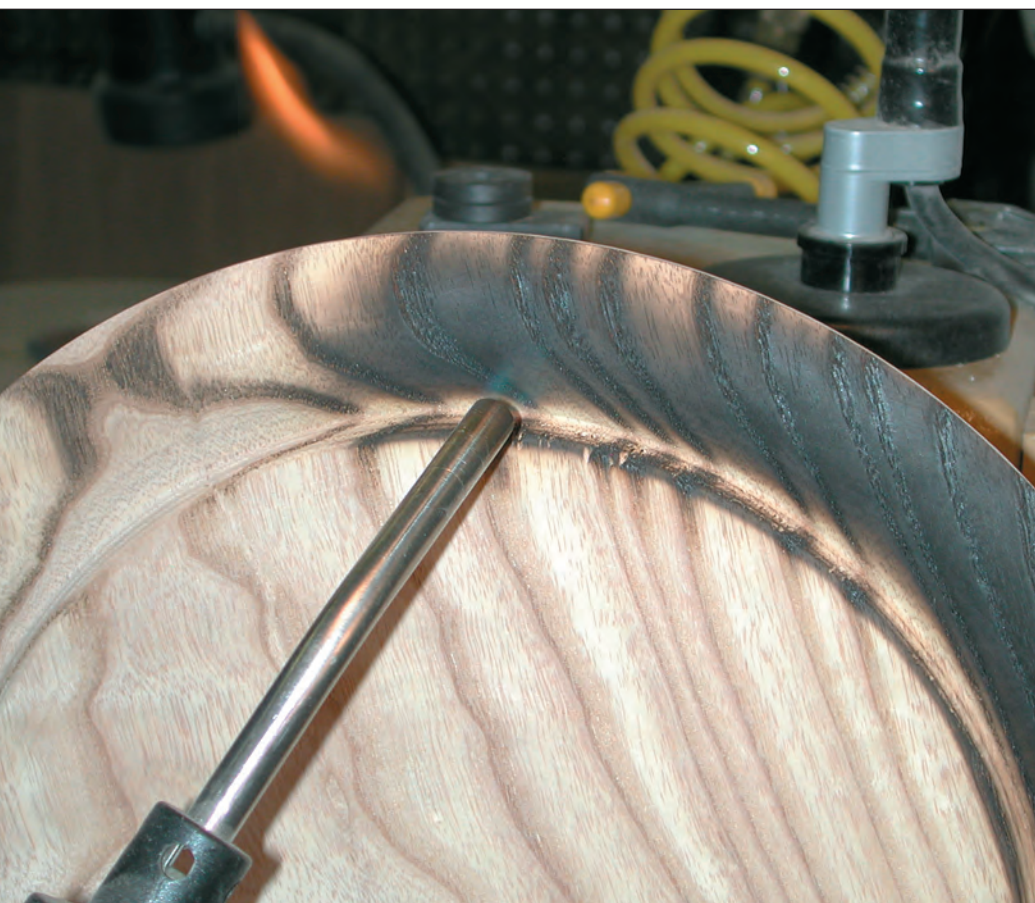
I repeat the process until the surface pleases my eyes. The final rim should appear to have

uniform undulations over the surface. At this point, you may wish to make V cuts through the burned rim to reveal the wood's original, unburned color.

Turn the interior

Position the tool rest across the face of the piece, just below the center and about 1/4" from the face. From here on, the technique is just like it is for any other plate or platter.

Place the tip of your bowl gouge on the surface just to the left of the center hole. The flute should be facing in, with the handle level and at approximately 45 degrees across the face of the piece. As you break through the surface with the tool tip, roll the flute upright and pull the handle around toward you in an arch while maintaining its level position. This will keep the bevel



After burning the entire rim, cut back the scorched ash with a medium-grit 3M Scotchbrite pad dipped in water. Soft grain will abrade first.

With a propane torch, begin scorching the platter rim. The tip of the flame gently kisses the freshly turned rim.



As you approach the rim, take lighter cuts with the bowl gouge. This will ensure a crisp line at the rim.



Power-sand the interior with a 3"-diameter pad. It's a good idea to sand domestic hardwoods to 220 grit.



Two lines about 1/4" apart in the recess will provide you with an excellent place to sign your platter.

supporting the cut as you make one continuous curve through the platter interior.

Continue with consecutive light cuts as you work out toward the rim. Avoid taking heavy cuts that may cause tear-out in the end-grain areas. As you near the rim, take lighter cuts to ensure a clean line between the rim and the interior. You can also under-cut the rim slightly to give the appearance of more depth.

Power-sand as described *above* to 220 grit. I've found that sanding beyond 220 grit on most domestic woods is usually a waste of time prior to the application of the first coat of finish or sealer. (You may continue through 400 grit or even higher after the wood is sealed.)

Remove the chuck marks

After thoroughly sanding the piece, remove it from the chuck. You can use a variety of methods to remove all indications of the expanding chuck on the bottom.

One of the easiest techniques is

to use the oversize or jumbo jaws that are available for most scroll chucks. You can also use a jam chuck or a vacuum chuck.

There are also several details that will enhance the bottom of the piece. I like to keep it simple and just remove the straight recess by chamfering it slightly inward toward the center.

Scribe two lines within the recess about 1/4" apart. This gives you a place to sign and date your work. I prefer a signature tip on a burning tool to sign my pieces as shown *above right*.

Apply finish

My favorite finish on burned pieces is a clear flat or matte lacquer. This will intensify the depth of the charred wood by eliminating any sheen.

Your most important task is to get rid of all the sanding dust. Thoroughly blow out any dust on or in the surface of the rim; a small speck of dust on the burned rim will show up like a sore thumb.



Nick Cook (nickcook@earthlink.net) is an *American Woodturner* contributing editor. He will demonstrate this project at the AAW symposium in Overland Park.



seedlac shellac

Shellac

The Shell of the Lac Beetle

By Alan Lacer

Shellac defined

In its raw state, “lac,” as it is known, is a secretion of the female lac beetle that protects her eggs, and later the larvae (that also produce this substance) from predators and the elements. Found on trees in India and across to Thailand, the lac beetle is a parasitic scale insect that congregates in large colonies on particular species of trees. The word “lac” is derived from a Sanskrit word for 100,000—an allusion to the enormous clusters of these insects as they naturally occur.

Are you looking for a film finish that offers the quick-drying qualities of lacquer but the low odor of water-based finishes? Or a finish that offers more color choices but with better clarity than many other finishes? This finish is subjected to poor labeling and applied by many who don’t even know it. In addition, it may be the most under-used and the least understood of finishes.

You may have guessed by now that it’s one of the world’s oldest finishes, too: shellac.

As evidence of misunderstandings, shellac is the primary solid material in products sold as woodturner’s finish, padding lacquer, friction polish, French

polish, and padlac.

Even the experts are fooled at times. In a recent article in a prestigious woodworking magazine, the author criticized shellac as a finish for wood-turnings in high-wear applications and then recommended lacquer as the best alternative. The problem was, the author’s recommended lacquer was padding lacquer—which is essentially shellac.

It is a sad commentary on the finishing world that many companies fail to list the ingredients of their products. Knowing those ingredients DOES make a difference when you are choosing a finish for particular applications and for concerns over shelf life.



Shellac for turned objects

After weighing the pros and cons (see sidebar at *right*), there are numerous applications—and some projects—to avoid. I don't recommend shellac for a salad bowl that will be washed or in contact for prolonged periods with anything wet, strongly acidic, or alkaline. Nor would I use it for a goblet that would contain alcohol, or for an oil lamp or candleholder because heat is a problem for shellac finishes. Avoid shellac in high-touch projects, including ink pens, tool handles, pepper mills, and lidded boxes. (Hands are both acidic and abrasive, which will dull and wear shellac.)

But when you require the appearance and protection of a film finish, there are excellent candidates for shellac: decorative bowls and vessels, funeral urns, weed pots or vases (not used with water), boxes that will not be handled excessively, furniture legs, bed posts, chair parts, balusters, Christmas ornaments, jewelry, spinning top bodies, and

Continued

Strengths and weaknesses of shellac

First, the bad news. Shellac is a poor choice if you are finishing a turning that will be outdoors or subject to strong chemicals or detergents, heat, or alcohol. Shellac is a poor choice if in contact with water for an extended period of time (hours rather than minutes when applied fresh and dewaxed). Shellac has a limited shelf life—even if unopened. Old shellac will not dry quickly (or not at all), will dry soft, and is more prone to water damage.

Now, the good news. Shellac does have some amazing qualities. It:

- Sticks to most everything (even glass).
- Dries rapidly (often you can recoat in as little as 15 minutes).
- Works well as a sanding sealer and undercoat for other film finishes; is very compatible with oils.
- Is easy to repair and can be reversed (easily stripped).
- Reduces moisture-vapor exchange (the force that most often leads to wood movement and instability) better than lacquer and far better than water-based finishes.
- Adapts to a wide array of effects by using the natural dye in the finish. Among choices are darker grades for darker woods or for an antique look and highly refined grades that do not noticeably change the color of the wood—especially good on light-colored wood.
- Is light-fast, non-yellowing, and relatively hard (when fresh, made without wax) but also flexible. This is why shellac was used for bowling alley floors.
- Can be applied easily on the lathe or sprayed.
- Is not as temperature and humidity sensitive as water-based finishes. Even darker grades have a clarity that is hard to achieve with added color to accomplish a similar effect.

Most attempts to create a single synthetic substitute with shellac's multiple uses have fallen short.

Shellac is much friendlier to the environment and the person applying the finish than the solvents and thinners used with most other finishes. It's nontoxic when dry.



ultra blond
shellac flakes

picture/mirror frames. Shellac also gets high marks for retarding moisture-vapor exchange—a valued quality for laminated turnings.

And where shellac has limitations, it can go under most other film finishes or serve as a sanding sealer for such finishes as lacquer.

Grades and refinement

Most of us recognize shellac as a liquid from a can—and in that form it has been offered most commonly in either orange or white (today these are often labeled “amber” or “clear”).

If you consider shellac as dry flakes, there are many more options. In its unrefined form, shellac is sold as stick lac (raw lac with twigs and bug parts included). As raw material, it is loaded with the natural dye and considerable natural wax, so it appears to be a dark reddish-brown color. Each refinement

grade acquires another name: seedlac, button lac, garnet, ruddy amber, beige, orange, super blond, lemon, platinum blond, blond, ultra blond—and with many of these offered as waxed or dewaxed.

It is probably best to investigate the descriptions and samples from a shellac dealer to know what you are buying (see sources *opposite*).

All of this may be somewhat confusing, but make an educated choice based on the effect you are after: Use the lighter end of the spectrum for keeping the color of your wood or use degrees of refinement to add color or warmth to a wood. For instance, I find that the clearer shellacs appear cold on walnut or cherry, but the dark shellacs add warmth to the wood while maintaining clarity.

Today shellac is still offered in a number of forms: liquid (often as orange/amber, clear/white), aerosol cans, paste, and dry flakes.

Waxed and dewaxed shellac

In addition to dye, wax is another naturally occurring component of shellac. Some manufacturers add wax as a dulling agent or—it is believed—to improve flow. However, wax in the shellac is often a source of problems. Wax makes the shellac more prone to water spotting and softening, plus reduces hardness, clarity, and ability to stick to other finishes (a problem if you are using shellac under or over another finish).

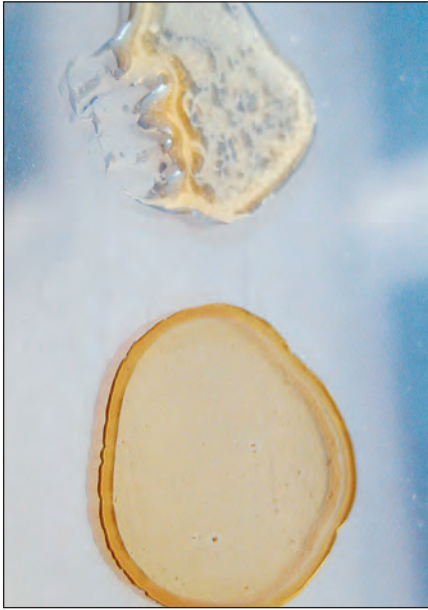
For these reasons, I recommend dewaxed shellac flakes. If you need a little more protection, more luster, or scratch resistance, apply wax after the shellac has dried.

Shelf life and product labeling

Applying old shellac is a source of negative experiences. My first exposure to padding lacquer on



All the products shown here contain shellac as the primary ingredient.



Even after two hours, the outdated shellac (top drip) is still mushy. The fresh shellac (bottom drip) dried uniformly.

the lathe was a disaster. I had a soft, nasty finish that came from using an outdated product.

Contrary to some claims, shellac does have a shelf life—six months or less in some cases. Even unopened containers go bad—it is not air that does this but the reaction of shellac to alcohol over time. You may not end up with the mess I experienced, but it does dry slower, is softer, and is more prone to water damage.

Some responsible manufacturers tell you two things: that it is a shellac product and either a manufacturing date or a date to use by. My rule of thumb: If I don't know the age of the material or it has a date six months or older from the manufacturing date, then test it—always. Here's how:

Put a drip about the size of a dime on a nonporous material (plastic, glass, or the container's lid) and see what happens. How soon does it dry? It should be dry—but not hard—in 10 minutes.

Continued

Make your own shellac

Shellac is mixed and sold in liquid form as “pound cuts.” This means the amount of solid particles (shellac) in a gallon of liquid.

Shellac is mixed most commonly with alcohol. There is some debate about what type of alcohol is best. Some alcohols have too much water, are too toxic (methanol), or dry too slowly. You can purchase proprietary mixes of shellac solvent (usually different types of alcohols), 190- or 200-proof ethanol alcohol, 200-proof denatured alcohol (ethanol with a little poison added so folks won't drink it), or denatured alcohol (often sold as solvent alcohol) from the hardware store.

I have tried most of the above forms of solvent, and they all dissolve the shellac flakes. Because I haven't detected a noticeable difference in the finished product when I've blended the shellac flakes with the pricey 200-proof varieties, I stick with the affordable hardware store variety.

If you mix 1 gallon of alcohol with 1 pound of dry shellac you will create a “1-pound cut” of finished shellac.

If you mix 1 gallon of alcohol with 4 pounds of dry shellac, you will create a “4-pound cut” of finished shellac.

Keep two important points in mind when mixing your own shellac: First, the proportions and measurements are only approximations.



After 24 hours, strain the alcohol and dissolved flakes mixture through a paint strainer.

Second, it's always easier to thin rather than thicken—especially when working from flakes.

For reference, remember there are 128 fluid ounces in a gallon and 16 ounces (by weight) in a pound.

To guarantee freshness, mix small batches. Use glass or specially coated metal containers. For my finishing, I most often mix 1½- to 2-pound cuts to fill 4-ounce baby-food jars. Here are some useful proportions for mixing smaller quantities of shellac:

A 1½-pound cut of shellac

½ cup (4 fl. ounces) of alcohol
+ ¾ ounce of dry shellac

A 2-pound cut of shellac

½ cup (4 fl. ounces) of alcohol
+ 1 ounce of dry shellac

A 4-pound cut of shellac

½ cup (4 fl. ounces) of alcohol
+ 2 ounces of dry shellac

For larger quantities simply multiply the amounts above. Mixing shellac and alcohol is not rocket science—it does not have to be calculated to the gram and milliliter to make it workable.

After mixing the flakes and alcohol, shake the mix periodically for 24 hours. Then, strain the blend through a painter's strainer (looks like a funnel with some cheese cloth), an old T-shirt, cheesecloth, or even a coffee filter.

If you buy shellac in liquid form, you can reduce the cut by adding alcohol. For instance, if you purchase a 3-pound cut, halving any quantity with alcohol will yield a 1½-pound cut—a good starting point for spraying or padding shellac on the lathe.

Two sources for shellac flakes:

- Wood Finishing Supplies
866-548-1677
woodfinishingsupplies.com
- Wood Finish Supply
707-962-9480
finishsupply.com

Within a day does it feel hard to the fingernail?

If the shellac can pass these basic tests, it is probably safe to put on the wood. To avoid any risk of using an outdated finish, mix your own from flakes. It's more cost effective if you make little batches as needed—you won't have reason to throw out partially emptied cans, and you will know it is fresh.

Fail-safe French polishing

Unlike the early Indian turners, we do not usually hold dry shellac against the wood—we normally work with liquid shellac. Brushing is an acceptable method for the furnituremaker, but most woodturners prefer to spray shellac or pad it on the lathe.

French polish was first an application method and not a product. French polishing means applying liquid shellac with a pad and a little oil as lubricant to avoid sticking. French polishing has the reputation of being difficult and requiring a lot of magic—but that is for folks working on flat stock.

With the ability to apply shellac on the lathe, application takes a

turn for the easy. Start with the shellac of your choice in an approximate 1½- to 2-pound cut. To this, add a small amount of olive oil or mineral oil; if using 4 ounces (½ cup) of shellac, begin with 1 tablespoon of oil. Next, form a pad from lint-free soft fabric (avoid T-shirt material). I first apply alcohol to soften the rag and keep the shellac in solution longer.

Shake the shellac and oil mix to blend the two together, then apply a generous amount to the rag. With the lathe at a medium speed (800 to 1200 is plenty) flow on the shellac and oil mix. If you feel a bit of drag from the rag, add a little more oil.

When everything is right, the shellac flows out with no ridges and begins to dry in minutes. Don't be in a huge hurry to apply a second coat—you may simply remove what you just put on. I wait at least 30 minutes to apply a second coat—even longer is better.

Build a film by applying several thin coats. After 24 hours, remove any traces of the oil by going over the piece with a rag dampened with mineral spirits, naphtha, or toluene.

Spraying shellac

There are two ways to go about the process of spraying shellac: spray cans containing pre-mixed shellac or a spray gun. Generally, premixed spray cans have a lighter grade of shellac, so are somewhat of a

limitation if you wish to make use of the natural dye in other grades of shellac for effect. But this method is still at the height of convenience and requires no special equipment.

Super blond shellac flakes



Shellac spray hits a 6" tall turned piece. By leaving the tenon intact, this piece will be returned to the lathe to be rubbed out.

For more versatility in types of shellac and always to assure a fresh batch, mix your own for spraying from a gun. An automotive detail gun (about \$60) with a small plastic cup is ideal for most turning projects—and cleans up quickly. Limit the amount of time you leave the shellac in a metal cup, as it may discolor in contact with the metal.

A good starting place is the same 1½- to 2-pound cut described on page 59. If using shellac as a sanding sealer or washcoat, thin it down to about a 1-pound cut. If thinned with denatured alcohol, be sure to wear a mask rated for organic vapors. Apply light coats, allowing at least 15 minutes between coats. When possible, sand lightly between coats with 400-grit stearated paper or fine synthetic steel wool.



Finishing the finish

No matter how careful you are in spraying or padding on the lathe, your film finish will still need a little work. This is where the ability to put the piece back on the lathe is a major advantage for light sanding between coats or for the final rubbing out.

After allowing the finish to start curing (give it *at least* a day), go over the final coat with synthetic steel wool or 400-grit or finer stearted paper. For a satin finish, rub on an automotive polishing compound (I've used Turtle Wax Polishing Compound) or a finish paste such as Behlen's Finish Rub. A higher gloss requires finer grits of finishing compound and wax.

This final step enhances the beauty of the finish and allows you to adjust the luster level. If desired, apply wax to increase the luster or improve scratch resistance.

Despite being one of our oldest and most reliable finishes, shellac still holds enormous possibilities for a woodturner. I suggest you experiment with shellac in its different forms and colors. You might just discover a great new look for your turnings.

You really have nothing to lose, as shellac strips well simply using solvent alcohol.

Other places you'll find shellac

- As a coating for time-released pills
- As a binder for chemicals in sparklers
- Adding gloss to fruits and vegetables
- Adding shine (sold as confectioner's glaze) to candy, including jelly beans, gum balls, and some chocolates
- Gluing the glass bulb to its metal base on light bulbs
- In hair spray
- As a coating for fresh wounds on newly trimmed trees

Long history

Mention of lac material goes back several thousand years. Early on, the material was valued for medicinal purposes but even more so for the lac's natural dye.

As a wood coating, shellac is first mentioned in 16th-century Western literature by a British visitor to India, who was in awe of this beautiful finish. Curiously, the reference was to a woodturner applying shellac.

"They take a peece of Lac of what colour they will, and as they turne it when it commeth to his fashion they spread the Lac upon the whole peece of woode wich presently, with the heat of the turning (melteth the waxe) so that it entreth into the crestes and cleaveth unto it, about the thicnesse of a man's naile: then they burnish it (over) with a broad straw or dry Rushes so (cunningly) that all the woode is covered withal, and it shineth like glasse, most pleasant to behold, and continueth as long as the wood being well looked unto: in this sort they cover all kinde of household stuffe in India."

*From Shellac; Its Production, Manufacture, Chemistry Analysis, Commerce and Uses
—Ernest Parry, London,
Sir I. Pitman and Sons, Ltd., 1935.*

This dry application—using friction on the lathe—is possible as lac starts to soften at only 150°F. By the 19th century, the methods of refining and combining with alcohol reached a high level—as did the esteem placed on this glossy film finish. Up to that time, wood was most often finished with oils, waxes, or both—often flat in appearance or short-lived with luster. French polishing was popularized as a method to apply liquid shellac using a pad to produce a relatively clear, deep, glossy finish that is valued to this day with conservators, some furniture and musical instrument makers, and perhaps more than a few woodturners. Shellac remained popular through the early 20th century until lacquer became dominant.

Alan Lacer (www.alanlacer.com) is an *American Woodturner* contributing editor. He lives near River Falls, Wisconsin.



Tips

Got a Great Idea?

Share your turning ideas! If your tip is published, you'll earn \$35. Send your tips with relevant photos or illustrations along with your name, city, and state to:

John Lucas
529 1st Ave N.
Baxter, TN 38544
jlucas@tntech.edu

Boring bar stabilizer and pivot

When roughing out a bowl interior, my hands and arms often get tired. I've solved this problem by threading a 5/16" eyebolt—sized to allow a 3/4" boring bar to slide through—into my 1"-diameter tool rest.

This gives me stability and a

leverage point for the boring bar. The length of 1" PVC pipe puts the rest at the same height each time and provides additional support. The 18" boring bar is set 4" into a 24" handle, allowing my body to push the bit into the wood. I use this mostly for roughing.

Don Olson, Lincolnton, N.C.



Wood sealer dispenser

Try this method the next time you need to transport and dispense end sealer. By using a snap-close drink bottle (sometimes called a sports bottle) with a wide-mouth filling top, you can fill, carry, and dispense just what is needed. The snap close prevents any end sealer from drying out.

Any inexpensive brush works for spreading. You can either rinse it in the sink or stash it in a plastic bag. I have used the same brush for more than two years.

Sam McDowell, Statesville, N.C.



Replacement indexing pin for Oneway lathe

I use the indexing pin frequently on my 2436 Oneway lathe—especially when sanding. Because the pin locks with a setscrew, I have to find the allen wrench each time to lock or unlock the pin. To make life easier, I replaced the setscrew with a 40mm-diameter M8x35 metric plastic knob (part no. 64829971, \$2.18 from MSC). Now I don't have to locate that elusive allen wrench.

Al Basham, Cary, N.C.

Inexpensive depth gauge

Here's an inexpensive way to make a depth gauge from two wooden 12-inch rulers or yardstick sections. Cut one section down the middle lengthwise, keeping just the important number area. On the full-width piece, locate the center, drill two starting holes, and then cut out a rectangular area for the narrowed piece as shown *below*. I cut the opening to be a snug fit so I don't need any other means to lock the sliding piece.

Richard Mialki, N. Tonawanda, N.Y.



Save PSA sandpaper for another day

I use a lot of pressure-sensitive adhesive (PSA) paper, but I rarely use it up. Unfortunately, when I peel it off the pad and leave it exposed, the adhesive dries and can't be used again.

I have taken to sticking it to the window near my lathe. This keeps it fresh for weeks if necessary. The same thing will work with a 12" square piece of glass. Plastic doesn't work because of the static.

Harvey Fein, New York, N.Y.



Easy photo background

When photographing turned objects, it takes a lot of effort to set up baffles and mirrors to get a pleasing "fade to dark top" effect. There is a product, Varitone no. 9 (white to black), that simplifies photography wherever there is natural or studio light and no direct sun. I bought my 31x43" sheet from a photographic background company, Photo Tech (phototechinc.com; 800-525-6486). A similar product, Varitone no. 49, fades from white to gray. Your local camera shop may stock this product.

Harvey Fein, New York, N.Y.

Finding sandpaper

When sanding a turned piece, I used to spend lots of time hunting through the shavings for the next finer grit. My life as a turner has been made easier with the following time-saver.

I use a range of grits of 2"-wide cloth-backed sandpaper cut into 16" lengths. Now, I stack the pieces of sandpaper in order from rough to smooth and hold them together with a small spring clip (available from office-supply stores). The next sandpaper grit is obvious when I hold up the stack by the clip. I switch the clip to the other end of the stack when the free ends are spent.

Ed Youtz, Emmaus, Pa.

Stephen Gleasner

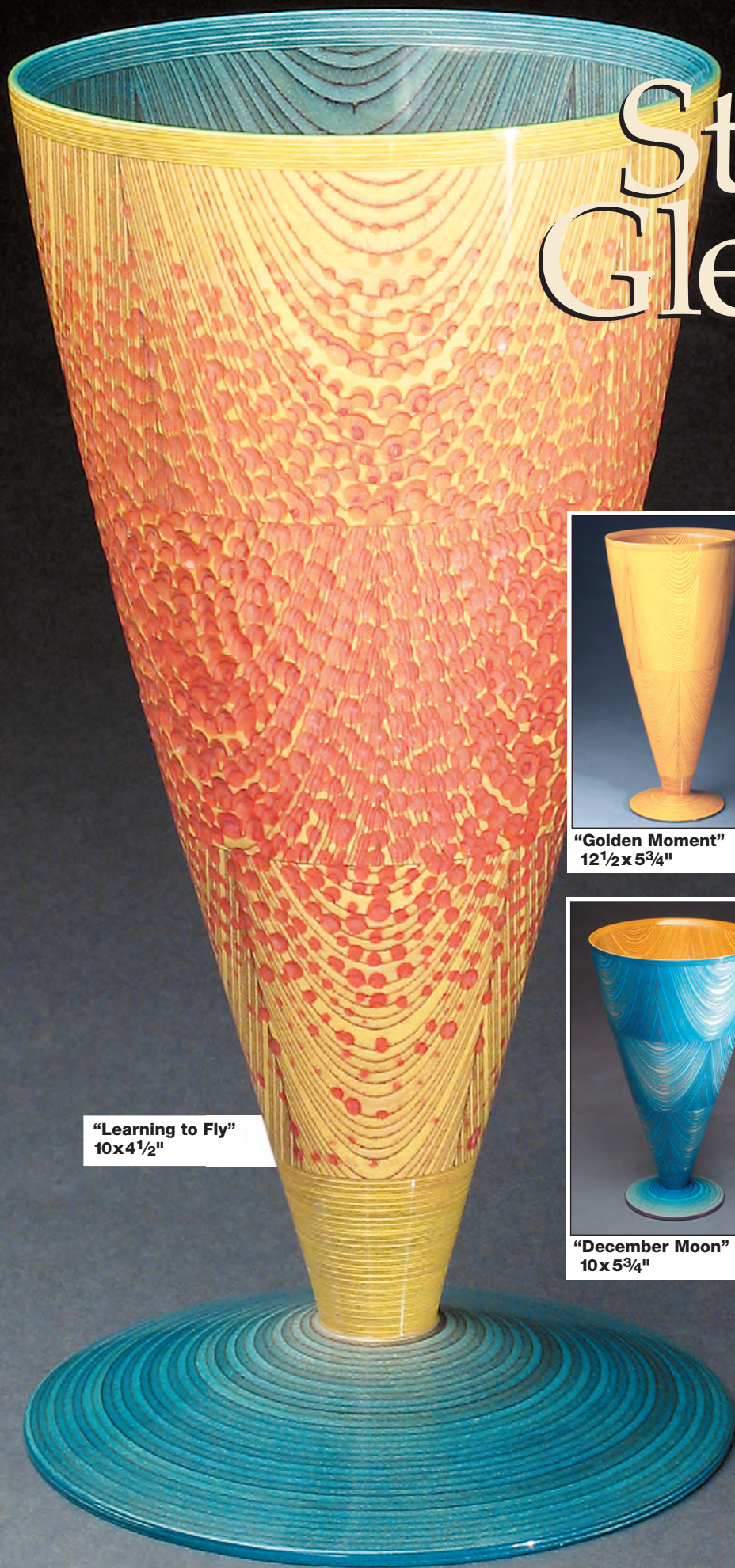
stephengleasner.com

In a recent issue, *Crafts Report* magazine named Stephen Gleasner as one of "10 People to Watch in American Crafts." He was the only woodturner recognized in the issue celebrating the magazine's 30th anniversary.

From his Appleton, Maine, studio, Stephen turns about 30 pieces a year from $\frac{1}{4}$ " Baltic birch plywood imported from Finland.

"I am often asked how I apply the color on my pieces," Stephen said. "One tool I use is sandpaper as a 'negative paintbrush.' Sometimes I color and lacquer a piece and then start carving and applying more color. This can give great depth to the work.

"These situations demand passionate and focused concentration to find attractive solutions. They can also lead to breakthroughs that make risking failure worthwhile."



"Learning to Fly"
10x4 $\frac{1}{2}$ "



"Golden Moment"
12 $\frac{1}{2}$ x5 $\frac{3}{4}$ "



"December Moon"
10x5 $\frac{3}{4}$ "