Medallion Ornament • Chainsaw Safety • Get a Good Start at the Lathe

The Journal of the American Association of Woodturners
Fall 2008 Vol. 23, No. 3 • woodturner.org

American Woodturner

Leaf Extraordinaire

Step-by-step ring-turning technique

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Richmond Instant Gallery

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13>
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$7.50

Tops Again

A collaborative piece by Bonnie Klein and Jacques Vesery was again the top-selling piece at the Educational Opportunites Grant (EOG) auction at the AAW symposium in Richmond. British woodturner Joey Richardson paid $11,800 for the 8"-tall piece titled "National Treasures." Materials were reclaimed and donated by Bill Jewell of the Historical Woods of America.

The EOG silent and live auctions brought in $69,555 for the popular AAW program. An auction of pieces from *The Sphere* exhibit drew in an additional $81,500 for the Professional Outreach Program (POP).

In the last six years, Klein-Vesery collaborations have raised more the $50,000 for the EOG program.

A detail locates the source of historic woods used in the piece. The top includes cherry from Mount Vernon, catalpa from the lawn of the Ellwood mansion in Virginia (where wounded Confederate soldiers were treated following the Battle of Chancellorsville), white oak from the 1854 Rappahannock River Crib Dam, and red oak from the gravesite of Thomas "Stonewall" Jackson.

Inside the top is a night sky and a representation of early Virginia history.

The bottom view of the spinning top includes a steel tip. Magnetics in the base secure the top to the base.

American Woodturner

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The French Association for Artistic Woodturning has juried another fascinating exhibit of lathe creativity.

Tree-Trimming Medallion 30

Bob Rosand's newest Christmas ornament provides an ideal surface for an array of surface treatments.

32 Doughnuts, Anyone?

Neil Scobie shows you how to link turned rings that will engage friends and family.

Keeping It Together 36

Minimizing the differential movement between wood surfaces is one of the primary challenges facing segmented turners. Jim Rodgers dives into solving this and other assembly issues that vex woodturners.

Dedicated to providing education, information, and organization to those interested in woodturning

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Featured on this issue's cover

Tim Yoder used German-style ring-turning techniques to create the leaf paperweight. "Pupa" by Satoshi Fujinuma was a Purchase Award at the AAW symposium in Richmond.

Photos: Bob Hawks (top) and John Lucas

woodturner.org

EDITORIAL

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AAW does not endorse any product featured or advertised in this journal.

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.

When I was a newbie on the AAW board of directors, I made the error in judgment to call *American Woodturner* a magazine. I did so more than once, and each time I was corrected: "You should call it a *journal*. It is not a magazine!" OK, it looks like a magazine to me but if it's not a magazine then what is it? What is a journal?

After giving it some thought it occurred to me that a journal is a diary as someone goes through life. I kept one while in art school. Mostly it was a pictorial journal, intended to track my likes and dislikes in the shapes and colors in the world I saw. It also kept track of random thoughts throughout that time. Then it struck me! That is what the *American Woodturner* should be!

Once I made that connection, it was easy to see that our journal should be a written and pictorial record of the woodturning journey through time. This eureka also gave me some insight into what was being talked about in some of the threads on the website.

Beginners want more "beginner" articles. Pros want more critical essays on design or other hot topic issues. There are vocal minorities on both sides of the spectrum but little input from the vast majority in between. I consider myself someone in between.

In an effort to understand what constituted "beginner" articles I asked for a list on the forum. Boy! Did I get one! When I asked for people to write, only one person stepped up and offered to help. Thank you John Lucas! It is my plan, after my tenure on the board, to start writing about some of these suggested topics.

I also think that people who are new to turning want more information than they could ever assimilate in any one turning session. It's only natural; I was the same way when I was first smitten by woodturning. I believe, too, that to become good at anything it is important to inform your subconscious by reading to be sure you have a frame of reference when you encounter a similar turning condition in the shop. It helps! It does not substitute for real time at the lathe; that is where you create the shapes that will form muscle memory and the skills you need to progress.

Not every article in *American Woodturner* will strike a familiar chord with all members. An article can satisfy some of our 13,000 members some time and others another time. Can we try to be sensitive to the needs of beginners? Sure we can! And we do!

As we have said before, the editor usually will not elect to reprint an article from years ago because techniques, tools, and equipment change. However, I am confident that journal editor Carl Voss would consider a new spin on a previously published technique. As a member of the AAW you must be aware that the contents of the journal are member-driven. If the members write articles, then Carl has articles to print. Without your articles, he must farm the articles through various sources, which means that you get the articles Carl has at hand, not necessarily the articles you prefer to see.

Angelo Iafrate
President
iafrateturns@cox.net

AAWNEWS

Linda VanGehuchten fills board vacancy

Linda VanGehuchten

The AAW board of directors tapped Linda VanGehuchten of Sarver, PA, to fill the unexpired term of Larry Genender, who resigned this summer. Linda previously served two terms on the AAW board. Linda's term expires December 31, 2009.

Newsletter editors, webmasters recognized

During the AAW symposium banquet in Richmond, chapters were recognized for outstanding chapter newsletters and chapter websites. The Montgomery County Woodturner were winners in both categories.

Website winners

First place: Mid-Columbia Woodturners, Walla Walla, WA
Webmaster: David Biancosino
mcwoodturners.org
Second place: Montgomery County Woodturners, Montgomery County, MD
Webmaster: Doug Pearson
montgomerycountywoodturners.org
Third place: Woodturners Club of Pueblo, Pueblo. CO
Webmaster: Daniel Miller
woodartbydan.com/puebloturners

Newsletter winners

First Place: Montgomery County Woodturners, Montgomery County, MD
Editor: Bert Bleckwenn
Second Place: Chicago Woodturners, Chicago, IL
Editor: Paul Shotola
Third Place: Apple Ridge Woodturners, Ellijay, GA
Editor: Bob Gearing

Environmental Responsibility A Personal Point of View

Salvaged Massachusetts ash (1988)

I recently read Brad Whitman's Environmental Responsibility articles with great interest. I agree that it is very important turners be well aware of the environmental consequences of how we obtain wood and then how responsibly we use it. However, with respect to Whitman's focus on this subject, I question his comments about our alleged lack of awareness and responsibility. I believe one cannot simply categorize the majority of us in such broad, generalized terms.

With respect to consumption, I am not sure that the market for tropical forest products is readily understood, especially now that it is truly global in nature, involving many economically emerging countries, some of which have ever-increasing rates of consumption and few, if any, regulations. However, from a woodturning perspective, it seems to me that the global market for mass-produced finished items, such as flooring, cabinetry, and production furniture for homes and offices, far exceeds the use by woodturners who purchase any type of wood commercially. This is an area where governments of countries have difficulty tracking and controlling their own environmental degradation, much less trying to quantify the relatively small effects of consumption by artists and craftspeople.

This is not to say that, because of our limited consumption, woodturners should be indifferent to the destruction of the rainforest, or other environmental issues. On the contrary, there are significant implications as to why we should be truly aware of these issues, which I will point out.

The issue with statistics

Where I take issue with Mr. Whitman is when he emphasizes that woodturners in general do not know much about these things, and secondly, when he suggests that woodturners are not keeping pace in awareness—especially by his statement that "…90 percent of woodturners are almost completely uninformed…."

First of all, I am curious how he ascertained a realistic assessment of consumer awareness globally. Furthermore, I'd like to know how he arrived at the 90 percent value for woodturners without some type of substantive evaluation, such as, for example, a poll across a wide spectrum of the turning community.

With respect to the "blind purchasing system" to which he alludes, I would be interested in knowing the percentage of woodturners using that system in relation to the number of woodturners who completely bypass any commercial system by using salvaged wood. My guess is that the percentage is low. If anything, and with some effort, turners who buy tropical woods might possibly influence those marketing specifically to them—both, in my view, small groups indeed in the global marketplace.

I believe that those turners not involved with the responsible act of salvaging wood are missing much of the enjoyment that woodturning has to offer. This includes:

(1) Extending reverence to dead or dying trees that may have historical or personal significance.

(2) Providing a service in assisting communities, as trees (normally a great asset) become liabilities when they are felled or uprooted due to the ravages of weather, disease, or neglect.

(3) Discovering unusual forms of domestic woods that can rival any tropical wood in color and figure, usually free for the taking, as shown in the photo *above*.

Mr. Whitman also mentions David Ellsworth's approach to woodturning as "the ultimate in harmony with the environment." Does he believe that only 10 percent of woodturners feel and act in the same manner as Ellsworth, and 90 percent do not? I think not. I am hoping that Mr. Whitman will give a much broader spectrum of turners the benefit of the doubt regarding their concerns about and responsi-

bilities for the environment, based on the following, which in part manifests my point on the subject.

Green turnings step up

In 1992 I was privileged to be juried into the *Conservation by Design* exhibit at the Rhode Island School of Design (RISD) Museum of Art. The show was touted as "the first international woodworking exhibit to focus on the artist's and designer's relationship with, and responsibility to, the natural environment." The exhibit and catalog documenting it were the result of a collaboration between the RISD Museum of Art and the Woodworkers Alliance for Rainforest Protection. The issues and concerns that Mr. Whitman addresses in his articles are virtually the same as those addressed in the catalog 16 years ago. Moreover, artists were required to justify their entries with respect to responsible acquisition and use of the material.

Salvaged turning stock (possibly acacia) from the Phoenix area (2008).

More recently, at the 2007 symposium in Portland, Oregon, the AAW sponsored an exhibit entitled *Turning Green*. Bill Haskell, AAW board member and exhibit chair, cites in the catalog, "In looking over the 120 juried pieces that were submitted…one thing that struck me was the deep environmental sensitivity many turners expounded upon." And, "Working with salvaged wood and timber rather than using trees from our forests was also a strong component of the show."

Regarding the acquisition of material, woodturners are fortunate in that most of us can bypass commercial markets altogether for essentially as much wood as we can use. It is easy for us to utilize wood directly from the tree, with little or no intermediary steps of processing other than cutting up the tree on-site and bandsawing rough blanks. Indeed, local chapters have set up hotlines, notifying anyone interested in material to be salvaged for little more than sweat equity. I hardly know of any woodturner who does not have an interesting story to tell about his or her personal experiences of gathering wood this way.

Living in the desert climate of Scottsdale, Arizona, I am fortunate to obtain wood that is both exotic and rare in nature—exotic in the sense that the species are not indigenous to the area, and rare because unusual trees have been introduced from many tropical and subtropical regions of the world. I acquire this wood when the trees are removed by others due to age, condition, invasiveness, construction, or road widening. Few of these species are available commercially, and include African sumac, carob, eucalyptus, acacia, citrus, and mesquite from Chile and Argentina. If it's possible to salvage wood in the harsh desert environment of Arizona, surely the same could be done in more temperate regions.

Actions speak louder than words

Scott Landis, editor of the catalog *Conservation by Design*, stated 16 years ago: "It is not within the power of artists or craftspeople to stem the tide of environmental degradation. The causes are many, and the actual consumption of timber by artisans is probably negligible. But if politically correct bowls and cabinets won't save the rainforest, they will help tell the story."

In this context, Mr. Whitman is correct in urging woodturners to become more aware of the impact of their woodturning endeavors. As woodturners, we emphasize the exquisite qualities of wood—the beauty of grain, color, figure, or burl patterns—and thus become significant promoters of the material. Consequently, whether we realize it or not, we evoke a powerful influence on the public's perception of the beauty of all wood through our work. This translates into an increased demand for wood products—from high-end art to mundane objects of utility. Therefore, as ambassadors of goodwill for wood, we must also assume the responsibility of informing the public of the sources of our material. And because global climate change and environmental degradation are hot topics now and on everyone's mind, I believe that this course of action is proper and necessary. For as surely as we tout the beauty of the material, if we do not qualify details of how it was acquired, the public will be unaware of the distinction between the irresponsible use of imported endangered wood and the responsible use of the wood resource. It is up to us as woodturners to tell the story.

—J. Paul Fennell
Scottsdale, Arizona

Spending Wisely

By A. J. Hamler

Fat treasuries? Hardly. Let's hear some applause for chapters that leverage proceeds from successful turning events to fund more woodturning programs.

Profitable events keep local AAW chapters actively functioning, but wisely applying funding to educational pursuits does more than share the wealth. Several chapters have learned that funding educational programs contributes directly to chapter growth as well as to the betterment of the woodturning community in general.

"Let's lift up these chapters," Larry Genender, AAW board member and chapters chairman, said. "It's great when chapters reinvest proceeds in educational programs. Money sitting in a bank account or gaining interest in a CD should further woodturning programs. That's what it's all about."

But what types of programs work the best? Here's a sampling of what chapters from across North America have found to be the most successful.

Channel Island Woodturners, Ventura County, CA. CIW established a mentoring program for the lathe with the only local middle school still teaching woodworking by donating approximately $1,000, combined with additional EOG funding from the AAW and the school itself. The chapter provides two mentors weekly for six students in each of four classes.

"A lot of time goes into this effort, but we are rewarded many times over by the students' success in their projects," said Al Geller, chapter mentoring chairman. "Our goal is to teach self-confidence through woodturning, and it works."

Dallas Area Woodturners, Dallas, TX. The group purchased several mini lathes for demos and hands-on training, and used chapter funds to rent a working space for the lathes. Monthly workshops for members were expanded last year to extend training through turning classes presented through the local parks and recreation programs. Chapter president Jon Lindgren said that the first year saw two beginner classes with a total of 12 students, and a level-2 class with five students.

Susquehanna Woodturners, Harrisburg, PA. Ron Sheehan reported that chapter funds support one- or two-day seminars each spring and fall that feature a professional woodturner giving demonstrations. Not only do 35 to 40 chapter members regularly take part, but other area AAW chapters are invited to participate.

Bill Seabolt, a member of the Buckeye Woodworkers and Turners, helps a camper during a turning session at Camp Y-Noah.

Chattahoochee Woodturners, Gainesville, GA. Chapter president Dan Albertus said they have scheduled seven training workshops, four of which are sessions for young people. Three more training sessions are planned for older/retired people just taking up woodturning. These sessions are in addition to monthly demonstrations/workshops and two symposiums held throughout the year. Last year the group conducted a raffle for a week's full scholarship to the John C. Campbell Folk School.

Capital Area Woodturners, Alexandria, VA. During years of surplus chapter funds the CAW has given scholarships of $500 to several members for education. In addition, funds were used to purchase grinders, Jet mini lathes, and larger lathes for use in skill-enhancement sessions and public demonstrations.

Apple Ridge Woodturners, Ellijay, GA. ARW initiated a program to create a barrier-free woodturning station at the John C. Campbell Folk School's Willard C. Baxter Woodturning Studio. Working with other AAW chapters and individuals, they purchased a Oneway 1236SD (sit-down) lathe along with tools and other accessories. (The Oneway's lathe bed rotates, allowing wheelchair users and other chair-bound individuals to enjoy the lathe with the same freedom able-bodied turners enjoy.) The response to this initiative provided the funds not only for the turning station, but also a pair of tuition-only scholarships to the school.

According to chapter secretary Bob Gearing, "The educational opportunities that now exist are tremendous and cannot be overestimated, as a whole new segment of our population can now discover the art of woodturning."

Willamette Valley Woodturners, Salem, OR. Last year the chapter helped a local school's turning program obtain three Jet 12×20 midi lathes, two Oneway talon chucks, and an assortment of donated tools. Club members serve as mentors for students.

Calgary Woodturners Guild, Alberta, Canada. The chapter has for five years presented a woodturning symposium at a local high school with four rotations on three lathes throughout the day. The group also provides a scholarship for a basic turning class at the Black Forest Wood Company in Calgary.

Buckeye Woodworkers and Turners, Clinton, OH. The BWWT provides equipment and knowledge to support local YMCA efforts with weekly workshops for the YMCA summer camp. Last year's camp exposed 85 campers to woodturning. The 2008 session is expected to expand to 10 workshops for about 100 campers.

Tuckessee Woodturning Club, Clarksville, TN. Through the Renaissance Center in Dickson, the group initiated woodturning classes that have taught approximately 150 students the basics and advanced concepts of woodturning over the last two years. A number of the students went on to form another local woodturning chapter, and are now beginning to supply instructors for these classes.

Cape Atlantic Woodturners, Cape May County, NJ. The chapter established a partnership with the local vocational/technical school to offer an introductory woodturning course in the school's adult division accommodating 11 students per course. The group's Woodturning Education and Skills Enhancement Program also offers mentoring, regular demonstrations and open turning sessions at meetings, and an annual turning workshop.

"We have found that the woodturning course is a great way to get new members for our club," said chapter treasurer Tom Henry. "During the past several years, some 40 percent of the course participants have become club members."

A. J. Hamler (AJ@AJHamler.com) writes about shop-related topics from his home in Williamstown, WV.

TELL YOUR STORY FOR AAW'S SILVER-ANNIVERSARY BOOK

The editors of the AAW's upcoming 25th-anniversary book invite AAW members to submit short essays about their introduction to the woodturning field and the AAW as an organization.

"We're going to go after writing from the well-known members, but we're also looking for essays from those who might not be so well-known," the volume's editor, John Kelsey, explained. "We want to be sure ordinary members have a way to tell their woodturning stories in this important anniversary volume."

John Kelsey

The AAW board of directors has appointed Kelsey as editor and manager for the 25th-anniversary project. He'll be working through 2008 and 2009 to gather material for the 256-page book.

"We'd like to hear from as many members as we can," Kelsey said. "We'd like members to write about how they came to the field of woodturning, and what it has meant in their lives."

The editorial team also invites members to submit photographs they have taken at AAW events. It's important that these photographs be dated, and they should be accompanied by as much information as possible about the turners and turnings that appear in them.

Members who would like to discuss this project, or participate in it, are welcome to contact John Kelsey at editorkelsey@gmail.com.

A Gift That Keeps Giving

If there was a way for you to make a gift that would continue giving every year, forever, you'd like to learn about it, right? Well read on, because there is one now.

The AAW Memorial Endowment, created by the AAW Board of Directors in the fall of 2007, is a trust fund with the purpose of receiving gifts to be broadly invested in a diversified portfolio to produce income to support woodturning education on a perpetual basis.

Three trustees, appointed by the AAW board of directors, manage the Memorial Endowment fund, with its investment portfolio designed and managed to generate sufficient income to allow for growth, keep up with inflation, and make five percent available each year for woodturning education. Of course, the larger the endowment fund becomes, the more money is available for educational grants. And note: All donations to the AAW Memorial Endowment are fully tax deductible.

How to make a gift

If you would like to make a gift that will provide continuing education, and if you believe in the AAW's mission to provide woodturning education, either give now or enter a bequest in your will (and tell your family about your wishes). Visit woodturner.org/org/bequest for more information, or contact trustees Bill Haskell, John Hill, or Jack Hastings. Under any condition, discuss this with your family and let them know this is your wish.

The Endowment fund at work

Norman Powers, an industrial arts teacher from Lynwood High School in metro Los Angeles, California, learned about the AAW's Educational Opportunity Grants (EOG) program at the El Camino chapter to which he belongs.

Industrial arts teacher Norman Powers, *center*, helps Lynwood, California, High School wood shop students turn at their new mini lathes.

Norman's high school is a Title I school situated in a low-income area, yet it has an industrial arts program comparable to many high schools in more affluent areas.

Norman had noted an interest in turning by some of his woodworking students, and was looking for a way to give them more tools to pursue that interest. Because the woodturning equipment in his school's shop was basic, he submitted an EOG application to purchase more equipment, then motivated 19 of his students to also submit EOG applications. Due to the impossibility of granting all of those applications, EOG chair Malcolm Tibbetts worked with Norman to consolidate them into one package that encompassed the necessary funds to purchase mini lathes, tools, and supplies. As a result, the AAW Memorial Endowment provided a $4,000 grant to the teacher and the Lynwood High woodworking program.

With the EOG grant, four Jet mini lathes were purchased, along with chisel sets for each lathe and a grinder. The new tools and equipment augmented Lynwood High's two Powermatic 3520 lathes and three old Delta lathes. Part of the grant allowed Norman to attend a Stuart Batty intensive two-day woodturning class to expand his lathe knowledge and skills. He took home a whole new level of know-how, plus a set of DVDs he'll share with his students.

To give students more time to develop their lathe skills outside of class, Norman plans to schedule a loan program this school year that will allow select students to borrow several of the mini lathes for a month at a time. With his plan to also start a woodturning club at the school, Norman has his Lynwood students excited about woodturning and looking forward to the beginning of classes this fall. We could use more instructors like this!

A grant for enthusiasm

An effective approach Norman uses in teaching his woodturning students is giving personal attention to one or more students with the objective of developing them as mentors to help teach other students. As a result of the EOG grant and Norman's approach to teaching, there's a growing enthusiasm, even a passion, for woodturning among students at Lynwood High. Kids even return to the shop after school to turn wood, forcing Norman to turn off the lights by 5 p.m. so he can go home! And the woodturning interest has become infectious—non-shop class students even join in on the after-school sessions. Norman encourages his serious woodturning students to continue with their woodturning development after high school by enrolling in nearby community colleges that offer advanced woodturning classes.

As one of his first spindle projects, Lynwood student Cesar Diaz turns a wooden mallet.

In summary, Norman and his students are especially appreciative of the opportunity and help the EOG grant provided to build a better woodturning program and promote it among the youth of Lynwood. The Memorial Endowment fund has indeed been put to good use in this example of how past and future gifts to the fund will keep on giving for years to come.

—Bill Haskell and John Hill

AAW ballot, renewal information arriving soon

Any day now, you should receive a mailing from the AAW office that includes statements by the six AAW board of director candidates, a ballot, and an AAW membership renewal form. You may return a paper ballot or vote on-line. On-line ballot closes Oct. 21; paper ballots must be postmarked on or before Oct. 21.

Three board members will be elected to serve from 2009 through 2011. The six candidates are Kurt Hertzog, Henrietta, NY; Dale Larson, Gresham, OR; Binh Pho, Maple Park, IL; Joe Ruminski, Fairview, NC; Cassandra Speier, Germantown, TN; and Walter Tate, Tyler, TX.

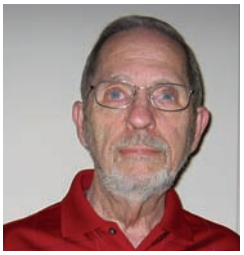
Kurt Hertzog

Dale Larson

Binh Pho

Joe Ruminski

Cassandra Speier



Walter Tate

DRIPPING WITH TURNED SINKS

Alan Lacer's turned sink in a recent issue brought additional submissions.

"Thought you might like to see my sink vessel," wrote Fred Warshofsky, a member of Atlanta Woodturners Guild. "I turned this two years ago when we redid our powder room. It is spalted pear, 6" high by 15" diameter. I waterproofed it with 10 coats of spar varnish and finished it with three coats of high-gloss polyurethane."

Canadian woodturner Sheryl Samuel of Sangudo, Alberta, has been using this turned sink for more than a year. "I turned it from green West Coast maple," Sheryl wrote. "It is 19" wide and 5" deep. I painted the Celtic design in the bottom and then finished it with coats and coats of marine varnish. The wall where it sits in the bathroom is curved, and I wanted it installed in the bathroom as minimally as possible, without a counter or cabinet. My son-in-law achieved this for me by creating jatoba wings on each side to which it is attached."

Chapter Collaborative Challenge 2009

For the 2009 American Association of Woodturners 23rd Annual Symposium in Albuquerque, New Mexico, the chapters and membership committee will again sponsor a Chapter Collaborative Challenge.

Each AAW chapter is invited to submit one collaborative work created by as many chapter members as possible, with a minimum of six participants.

Rules

• The work can be any turned object, functional or not.
• The size and weight limits of the Collaborative pieces, including the packing container and all packing materials, will be those set by UPS for a single standard box (see sidebar *below*). Assembled pieces may be larger but must fit in the single standard box. Size restrictions apply regardless of commercial or chapter delivery.
• The names of all participants must be on the work or on an accompanying nameplate.
• At least one chapter representative must be in attendance at the symposium to be responsible for displaying and return shipping of the entry.
• Any electrical/electronic device in the piece must have an obvious power switch for safety and noise reduction. However, the AAW cannot ensure that electricity will be available where the Chapter Collaborative Challenge is set up.

Each chapter must specify in which one of the following three categories they wish to submit their Chapter Collaborative entry:
• Artistic
• Mechanical/Technical
• Fantasy

Four prizes will be awarded as follows:
• Best in Show plaque
• First Place plaque in each of the three categories

The pieces will be displayed during the symposium in an area near the Instant Gallery. During the symposium, attendees will be invited to select, by ballot, their choice for Best in Show and their favorite piece in each of the three categories. Votes will be tallied prior to the annual banquet and Educational Opportunity Grants auction, where the winners will be recognized.

In addition, the chapter's name will be engraved on the Collaborative Challenge perpetual plaque, which lists the winners since the 1998 Akron symposium and resides in the AAW offices. All entries will receive a certificate of participation.

Collaborative Challenge pieces may be donated to the EOG auction. If a chapter so chooses, a silent-auction bid sheet will be placed beside the piece. A minimum bid may be indicated on this bid sheet. The highest silent-auction bid will be the opening bid at the live auction. If there is no silent-auction bidding, that piece will not be offered at the live auction and the chapter will retain it. A chapter whose piece is sold will receive 50 percent of the selling price. Any donated entry must be accompanied by a box and packing materials for shipment to its new home. Shipping the work to the buyer is the joint responsibility of the chapter and the buyer.

Standard packages can be up to 108 inches (270 cm) in length or up to 165 inches (419 cm) in length and girth combined. The packages can be up to 150 pounds (70 kg).

UPS package size is determined by adding the length (the longest side of the package) and the girth (2× width + 2× height). Details of this measurement are at: ups.com/content/us/en/resources/prepare/weight_size.html.

John Grass Wood Turning Company

Receiving a Second Life

By Walter P. Palmer Jr.

The John Grass Wood Turning Company is one of the oldest commercial hand woodturning shops in America. The family company was founded in 1863 in Philadelphia and was operated by members of the Grass family until 1911, when it was sold to the grandfather of the current owner, Louis Bower III. Until recently, Bower operated the current shop in much the same way as it had been run by his family for 93 years with electric motors that drive a series of line shafts and belts that engage the machines and individual lathes along the long lathe bed.

Today, the John Grass Wood Turning Company is a silent shell of what it once was—an efficiently run woodturning operation located at 146 N. Second Street in the Old City District of downtown Philadelphia. The building is run-down and is in desperate need of repair. Its doors are closed…its machines are silent. There are no woodturners coming to work each day. Production has come to a halt.

This, however, is not the end of the story. The Wood Turning Center (WTC) is embarking on an ambitious program to save the John Grass building and move the WTC program into remodeled upper floors of the building. For details on how turners can help, see *page 16*.

The John Grass Wood Turning Company is in the historic Old City District in downtown Philadelphia.

To fully appreciate what business life was like in Philadelphia in the 1860s, we need to step back for a moment. During the 19th century, Philadelphia had earned the title "Workshop of the World." On North Second Street alone, there were many individual shops and small factories making all the needs of the day. A partial list includes a brass clock factory, machine shop, spice mill, tin factory, shoe factory, malt house, confectionery factory, shovel factory, tin and sheet iron factory, linseed oil factory, tobacco factory, and a hat factory.

Will the wrecking ball demolish this piece of woodturning history, or can it be preserved as a tribute to its past accomplishments?

A number of immigrants were attracted to the vicinity of North Second Street by the possibility of employment and better lifestyles. With little or no capital to purchase land, these immigrants became tenants in the housing near their workplaces.

As a German immigrant, John Grass came to the United States in 1853 at the age of 15. He began his apprenticeship as a woodturner and established his turning business in the neighborhood in 1863. (He had just married the year before.) The country was embroiled in a horrible civil war with Abraham Lincoln as president. Little did young John Grass know that his small woodturning company in Old City Philadelphia would survive for more than 140 years in the same vicinity.

The company began turning banner poles, rolling pins, balusters, nightsticks, crash sticks, and a whole host of domestic objects. As

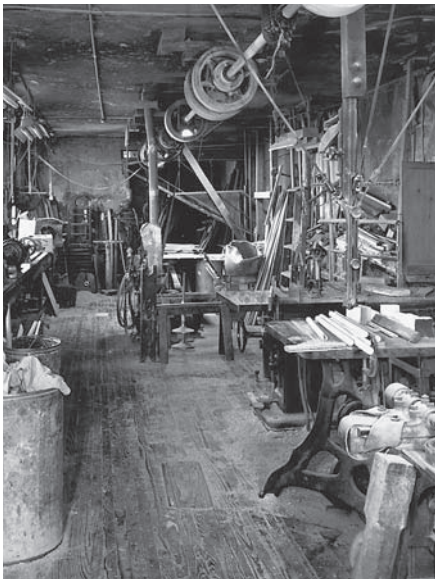
Artist's rendering of the renovated John Grass building that would also be home to the Wood Turning Center.

the company grew, it took on more custom work. It wasn't long before the reputation of this firm spread far and wide. By 1911 the company was in high gear and the John Grass Wood Turning Company became a corporate entity, with the Bower family becoming part owners. In 1916, the company moved to the present location on North Second Street. Third-generation woodturner Louis (Lou) Bower III currently owns it with his wife, Marcia.

The building today contains the same lathes, saws, planers, benches, and tools that were in use as early as 1870. Perhaps the most striking thing about the shop is the overhead line shaft system and the leather belts that drive every machine. Originally powered by a steam engine in the basement, this antique system is still in use, powered now by a large electric motor. The line shafts and belt drives personalize this unique operation as much as the artifacts of woodturnings completed for customers over the years. Many of the area's leading architects took their commissions for custom turnings to the John Grass shop. Lou Bower even turned replacement balusters for Independence Hall and Christ Church in the John Grass shop.

In 1989 Albert LeCoff, executive director of the Wood Turning Center (WTC), obtained a grant to document the historic significance of the John Grass shop. A volunteer team of historical architects, led by John Bowie of John Bowie Associates, documented every turning machine and every phase of the shop's operations on measured drawings to Historic American Engineering Record (HAER) standards. Photographer Jet Lowe documented the Grass shop with large-format black-and-white photos.

When Lou Bower decided to cease operations in 2005, the future of this company came into question. Would the wrecking ball demolish this piece of history with all of its past accomplishments lost forever, or could it somehow be saved and preserved as a historic treasure to share with the public?


The overhead line shaft system and leather belts still can provide the power to drive every machine at the John Grass shop.


Lou Bower III turns one of the specialty pieces produced at the John Grass Wood Turning Company.

The answer came from a likely source—the Wood Turning Center, at Fifth and Vine streets in Philadelphia. A nonprofit, the WTC promotes an understanding and appreciation of wood art, especially woodturning, and conducts many activities that feature and recognize contemporary wood artists. The WTC also provides educational opportunities and a place for woodworkers and collectors of wood art to exchange interests and knowledge. Included are gallery spaces to display wood art, a research library that contains more than 25,000 documents, a permanent collection of more than 1,000 objects, and a small museum shop to feature additional artwork.

Albert realized early on that saving the John Grass Wood Turning Company was an incredible opportunity for his organization, and a way to combine the presentation of history and contemporary art made from wood. Albert's vision is for the WTC to acquire and restore the John

Grass building and key equipment and tools to their original condition, and to reopen the facility so that visitors and students alike can view firsthand an authentic working commercial woodshop from Philadelphia's past.

Artists would periodically work in the shop and reinterpret its inner workings. The WTC would relocate its current operation to the John Grass building and manage the historic shop and contemporary galleries. Such a facility would preserve and present in an authentic setting both the history and the future of contemporary woodturned art. The restored John Grass building and the new home of the Wood Turning Center would be a special addition to Philadelphia's Old City District, the home of historic sites and contemporary galleries.

Help save the historic John Grass Wood Turning Company and create a new home for the Wood Turning Center

"Imagine – under one roof – the history of woodturning and the future of contemporary wood art!"
—Albert LeCoff

The Wood Turning Center's John Grass Task Force urges you to help save the John Grass Wood Turning Company of Philadelphia from being dismantled and demolished. The current building houses the intact woodturning shop, sample products, and the company papers from the past century. Included are the lathes and beds (several from the 19th century), tools, and equipment.

SEE woodturningcenter.org for more details or contact Albert LeCoff at 215-923-8000. Or, go to YouTube.com and search for "Save John Grass."

Heavy-duty cast-iron woodworking and woodturning machines that were used as early as 1870 are still in place today.

The WTC board of directors voted to move ahead with this preservation initiative and formed an energetic task force chaired by Alan Keiser, a prominent Center City Philadelphia attorney. The John Grass Wood Turning Company is well on its way to receiving a second life in conjunction with the WTC.

John Grass is not a virtual experience; it's the real thing. The task force has hired the Philadelphia architectural firm of MGA Partners and John Bowie Associates to develop a master plan for the development. When complete, the site will provide an opportunity for individuals to view and appreciate what life was like in Philadelphia during the "Workshop of the World" era. Visitors will see the shop, hear the flapping of the belts powering the machines, smell the wood shavings, and touch the actual tools and the products made there.

Imagine this: John Grass was born in 1838 in Bavaria. He came to the United States and built a successful commercial woodturning business. Today, 170 years later, the John

John Grass's original desk is still located in the front of the shop.

Grass Wood Turning Company can be brought back to life. This effort requires a lot of financial assistance and vision. But it can be done.

Funding for the project will come from a variety of sources: government and corporate grants and contributions from private individuals. Already several grants have been secured and several more are in the development phase. Fund-raising events are being planned to support this vision. City and state governments also have pledged support, including a $700,000 challenge grant from the state.

Walter P. Palmer Jr. is the Senior Labor Advisor of the General Building Contractors Association (GBCA). Palmer also serves on the John Grass Task Force of the Wood Turning Center.
Palmer drew from original research by industrial historian Jane Mork Gibson. This article was originally published in the Spring 2008 issue of *Construction Today*, a GBCA publication.

Spirit of the Southwest

Ray Allen, now deceased, turned this classic 3¾×4½" vessel in 1998. Courtesy of the Nish Collection.

Spirit of the Southwest is the theme of AAW's 2009 juried exhibit, which will premiere at the 23rd Annual AAW Symposium in Albuquerque, NM. We invite all AAW members to apply for this new exhibition.

The exhibit will focus on the Southwest geographical area, history, and culture. This area of the United States has a rich and varied history, which provides ample opportunity to be both creative and symbolic. Surprise the judges with your interpretation—the more creative pieces submitted, the stronger the exhibition.

The exhibition will open June 24 at the Albuquerque symposium site and be on display for its duration. Efforts are being made to have the show travel in that area before heading to the AAW Gallery in Landmark Center, St. Paul, MN. Other venues are being sought as well.

Sales

A 30 percent commission will be charged on sales made during the exhibitions. All sold work will remain with the exhibition until the final venue concludes.

Application Information

This exhibition is open to AAW members of all ages and from any country. Turners working in any and all styles are encouraged to apply. Pieces must have been turned after September 1, 2008. Up to three pieces may be submitted per person, although only one piece per person will be selected. Application forms are on the AAW website (woodturner.org).

Deadlines and Fees

Both a completed application form and digital images must be submitted on a CD that is postmarked by February 7, 2009. CDs will not be returned. A $25 nonrefundable entry fee must accompany the application. Acceptance notifications will be mailed no later than April 30, 2009.

Shipping Information

Initial shipping and insurance costs for accepted work will be the responsibility of the turner. Specific shipping information for selected works will accompany the jury notifications to chosen participants. The AAW will pay for return shipping and insurance.

Accepted Work

The following criteria will be applied to all submissions; work that does not meet these criteria will not be accepted:

- The piece must in some way reflect the exhibit theme, *Spirit of the Southwest*.
- The artist's statement about the piece must adequately reflect how the item relates to the theme.
- A significant portion of the work must be lathe-turned.
- All work must be for sale.
- The size of a piece—the sum of its circumference or girth (2× width + 2× height) plus its length—may not exceed 108".

The exhibition committee reserves the right to reject pieces that do not match the submitted digital images or do not adequately meet the criteria above.

POPNews

"The mission of the Professional Outreach Program (POP) is to promote a greater understanding of professionalism within the field of contemporary woodturning."

Instant Gallery Awards

The POP committee is pleased that the implementation of an exciting program for the recognition of creativity and technical skill within the field of woodturning was well received at the symposium. At this year's Instant Gallery in Richmond, we presented six Excellence Awards, as chosen by jurors David Ellsworth, Louise Hibbert, Steve Keeble, and Albert LeCoff. These $500 awards went to the outstanding turned objects created by Ken Deaner, Irene Grafert, Ed Kelle, Dale Larson, Derek Weidman, and John Williams. In the youth category, Eric Johnson and Chris Ljostad-Lavinio each won $300 awards. See *pages 21–23* and *24* for photos of their work.

David Ellsworth of the POP committee, an AAW Honorary Lifetime Member, sums up the intentions of the POP committee: "The opportunity to provide these awards is one of the more rewarding things the POP can do for the AAW members, especially the youth awards. People need encouragement for their efforts, and there's nothing better than recognition from your peers.

"In this case, we had a collector and three artists making selections. It's really not as difficult to identify good-quality work as some might expect. We considered design, concept, and execution. The jurors had lengthy discussions about each piece in order to explain our selections to each other. This gave us a way to bring up ideas about the objects that other jurors might not have considered. It was a very democratic process."

Louise Hibbert, one of this year's resident artists, commented: "When choosing a piece for an award, I want to select work that stands out as being distinctive and interesting, in addition to being well balanced and finely crafted. It is important to me that the person's individual style and personality come through—it always makes the work more engaging."

Photo: Jane Mason

At the EOG auction, Jane and Arthur Mason purchased "Haeckel Pod," a Louise Hibbert and Sarah Parker-Eaton collaboration created during the Richmond symposium.

Additions to AAW's Permanent Collection

Phil Brennion, AAW past president, began a program several years ago to build an AAW permanent collection of turned objects. The POP committee is helping to continue his efforts by allocating funds for purchase awards at the national conferences. Each year the POP committee will purchase one or more items for AAW's permanent collection, as chosen by a group of jurors. This year, POP enthusiastically announced the purchase of turned objects by Benoît Averly, Satoshi Fujinuma, and Jon Sauer for the permanent collection. For photos of the pieces, see *pages 22–23*.

Resident artist program

As the first resident artists at the AAW conference, Louise Hibbert and Sarah Parker-Eaton showcased their techniques for collaboration on lathe-turned and embellished objects. The display of their work, located in the Instant Gallery area of the symposium, gave attendees a chance to watch two artists working on lengthy projects. "The resident-artist position was a great opportunity for Sarah and me to work alongside each other as we created a piece," Louise said. "As full-time professional makers, we rarely have the time or financing to be able to do that. As the resident-artist position continues, and as people become more familiar with it, the program will definitely enhance the symposium more and more. Attendees have a unique chance to see a body of work by a professional woodturner, as well as the processes that go into creating that work, in a relaxed atmosphere where they are free to chat and ask questions."

With this program off to a great start, we are pleased to announce that Jean-François Escoulen will be the resident artist at the Albuquerque symposium in 2009.

Events & Deadlines

POP Fellowship Grants will be awarded in 2010 and 2012. Details and application requirements can be found in the POP section of the AAW website (woodturner.org). The next deadline for submission is June 1, 2009.

The POP committee is soliciting proposals for future symposium presentations that relate to the growth of professionalism in woodturning.

Proposals need not be in great detail or length, but should convey the scope of the topic to be presented. Send fellowship grant submissions to Jacques Vesery (jvesery@mac.com).

‘Friends of Phil’ hit $50,000 mark

The woodturning family has donated more than $50,000 to assist Phil Brennion, former AAW president, in his recovery from his eighth operation. The raf es of equipment donated by WMH Tool Group, including a Powermatic 3520B lathe, alone raised more than $28,000 (see details on *page 12)*. Individuals and chapters contributed more than $12,000. Dale Nish personally delivered a $10,000 check from the first live auction at the Utah Woodturning Symposium.

On his computer, Phil tapped out this message to the woodturning community:

This past year has been one of the most challenging, as well as rewarding, times in my life. Becoming quadriplegic has certainly been a more-than-interesting experience. The support and kindness shown by the woodturning community has given me tremendous strength.

I find it is impossible to adequately express my gratitude in writing. You have given me incredible financial and spiritual support through the many symposium auctions and raffles, including the Utah and AAW symposiums, along with businesses, individual AAW chapters, and woodturning members from around the world. My appreciations, and that of my family, cannot be accurately conveyed. This support has touched me, and given another glimpse into the remarkable individuals that make up the turning community.

The recovery process, albeit slow at times, has come a long way from my surgery a year ago. I have progressed from moving one finger, and now operate my wheelchair with my left hand, use the computer mouse, and almost feed myself.

Each day has brought improvement, and at the moment I am practicing holding a bowl gouge in preparation for the day I return to my shop and woodturning. I am looking forward to using a standing frame in the near future, which will be another step in this direction.

The daily rehabilitation schedule is extremely grueling. At times overwhelming, my motivation is always renewed when I think of the support I have and continue to receive from the woodturning community.

As I have said before, words cannot sufficiently express my appreciation to each and every person. I want to attempt to convey my sincerest thank-you to the AAW members, the woodturning community, and all of my friends. I hope that in time I can offer each of you in return even a small fraction of the support and encouragement you have provided. Each of you has given me tremendous support and the gift of friendship. I will be forever grateful.

See you all in the sawdust soon!

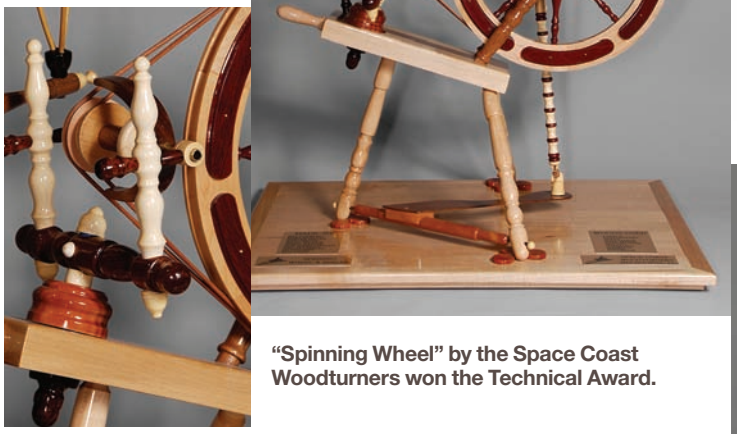
—Phil Brennion
(philb@northlink.com)

During the Richmond symposium, 66 kids attended Youth Turning Room classes taught by Nick Cook, Bonnie Klein, Larry Miller, and Joe Ruminski. The volunteer instructors were assisted by nearly 60 generous AAW members led by David Sterling, Almeta Robertson, and Sherry Hockenbery.

Thanks from the 25 lucky participants whose names were drawn at the symposium to win a complete turning outfit: Jet mini lathe and stand (WMH Tool Group), four-piece tool set (Crown Tools), Nova precision midi chuck (Teknatool), and face shield (Woodcraft Supplies).

The Space Coast entry, which included a skein winder (*left*), was the third award in three attempts by the Florida chapter.

"Justice" by the Woodturners Guild of Ontario won the Fantasy Award. Twenty-eight members participated in the project.



"Spinning Wheel" by the Space Coast Woodturners won the Technical Award.

"Protect Our Earth" by the Northeast Florida Woodturners won the Artistic Award and was chosen Best in Show by a popular vote. The entry includes 35 wood species.

Chapter Collaborative

Photos: John Lucas

Northeast Florida Woodturners were thinking green when they designed this year's Best in Show entry for the Chapter Collaborative Challenge at the AAW symposium in Richmond. Twenty-five members turned more than 261 spindles (plus a few spares) for the award-winning collaborative. See *page 13* for next year's rules.

Instant Gallery

Highlights from the Critique

"**Vessel**" by Mark Gardner of Saluda, NC. Maple; 13½×8x8". "Mark has developed a way of hiding the point of connection between the top and the bottom," Louise observed. "Your eye is not distracted by how the piece is made."

Another standing-room-only crowd greeted Albert LeCoff, Louise Hibbert, and Steve Keeble when they started their Instant Gallery critique at the AAW symposium in Richmond. The panelists selected and critiqued about 20 pieces from more than 800 turned pieces displayed in the Instant Gallery. Among those discussed were eight Purchase Awards and Excellence Awards made by the panelist with David Ellsworth, representing the Professional Outreach Program.

"**Aether Thought**" by Derek Weidman of Green Lake, PA, won an Excellence Award. Holly; 8×7x5". Derek explained that he came across the concept while working at the lathe. The mask was turned on five axes. "This has almost Venetian mask quality," Louise noted. "You can see the artist's passion come through in the work."

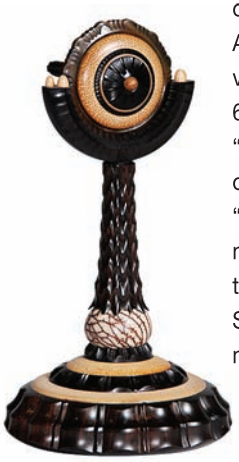
"**Circle Bowl**" by Everett Eisen of Cambria, CA. Wenge and aluminum; 3¼×9⅝". Steve commented on the construction documentation that accompanied the bowl. "This piece improves with detail," Steve said. "You think about it more and more."

"**Sculpture Pair**" by Benoît Averly of St. Point, France, was a Purchase Award. Maple; the taller piece is 12½" high. "This becomes a piece of art," Steve said. "This makes me think. This engages me." Louise added. "The fact that you can't see the wood grain, you are drawn to the lines and the carvings." Albert said, "This was very successful as a pair. It is not how much turning an artist does but the end result."

"**Madrone Bowl**" by Dale Larson of Greshman, OR, won an Excellence Award. Madrone; 5¼×12¾". The panel picked this piece from three of Dale's signature designs. "Because of the material and the way it was turned, this becomes art," Steve said. "This one sits a little more proud than Dale's other pieces. It has the slightest indentation or angle around the rim."

"**Wave Essence III**" by Ken Deaner of Lawrence, NY, won an Excellence Award. Maple; 6½×12¾". "This bowl has great form," Louise noted. "The carving matches in terms of scale to the size of the bowl. Even the base has great attention to detail." Ken's inspiration came from waves he sees while surf casting and from the movement of flowers in his garden when ocean breezes blow through them.

"**Pupa**" by Satoshi Fujinuma of Tokyo, Japan, was a Purchase Award. Keyaki; 4⅜×3½×6⅜". "This is such an interesting form," Louise said. "This doesn't remind me of anything I've seen before. I like the contrast between natural wood and pyrography." Albert said, "The big surprise was when I looked at the bottom. It is very carefully hollowed out."



"**Bamboo Series**" by Jon Sauer of Pacifica, CA, won a Purchase Award. Bamboo, blackwood, vera wood, and betel nut; about 6½" tall on the matching stand. "Jon is an established artist in ornamental turning," Albert said. "It's a sculptural object and not just a spinning top. It's very tactile. Several pieces move." Steve added, "This is technical mastery."

"**Ripening**" by John Williams of New Hope, PA, won an Excellence Award. Box elder; 4×5". "I love the surface topographic pattern," Albert said. "It reminds me of a John Jordan and the spirals and pattern create movement." Louise added, "This piece is successful because of the combination of turning and carving."

"**The Ripple of Tide and Time**" by Ed Kelle of Glen Head, NY, won an Excellence Award. Maple; 2×9". "This was the most organic piece in the show—far and away," Steve declared. "This pushes piercing to another level," Louise added. From the audience, Ed noted that he worked on the texture for nearly a year.

"**Organic Pleasures**" by Irene Grafert of Skaarup, Denmark, won an Excellence Award. Hawthorn; each about 2×3x5". "I fell in love with these pieces," Albert gushed. "They feel magnificent in your hand." Steve said, "The three talk to each other." From the audience, Irene explained that the rims are epoxy and resin.

Magical Moments

One of the items that was auctioned at the AAW symposium in Richmond was a bright orange fiddle turned by Bernie Hrytzak and appropriately titled "The Orange Slice Special." I had decided to bid on it and make it a gift to Andi Wolfe, a good friend and a fiddle player.

Auctioneer John Hill moved the bidding up to $600, where it stalled. It was not nearly enough for this wonderfully made instrument. At this point, rather than close the bidding and award me the fiddle, he said that he had intended to have someone come on stage and play it for us, but the person that volunteered couldn't be found. He asked if anyone in the audience could play.

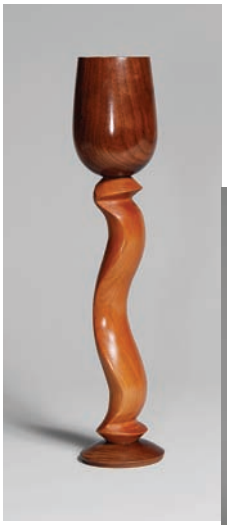
Suddenly Andi appeared on stage, fiddle in hand. After a bit of tuning she played a jig to the delight of the AAW audience.

John then reopened the bidding and the price went to $800, at which point he closed the bidding and awarded the instrument to me. I went over to the table where Andi was sitting and told her that I had purchased the instrument for her. In my head it was the sort of thing that she could take to her gigs and use as a sight gag. Sort of a fun thing! As it turns out, that was also her first thought after her initial surprise. Andi asked J. Paul Fennell if he would take a picture of me giving the fiddle to her. At this point Bernie came by and the four of us proceeded to the payment table so I could gain possession.

After I paid for it, I took it to a small table against the wall and opened the case. Andi took the fiddle out of the case and, after rosining the bow, was immediately approached by a young boy asking if he could play it. As it turned out, Knick McKay was 12 years old and had been taking violin lessons for two years. He was in Richmond as part of the youth turning program. His mother later related to me that Knick had made numerous trips

Knick McKay, *center*, holds the "Orange Slice Special" fiddle turned by Bernie Hrytzak, *second from left*. Harvey Fein, *right*, purchased the fiddle during the EOG auction and presented the instrument to Knick. Andi Wolfe, *left*, played the fiddle during the EOG live auction.

Bernie Hrytzak used the lathe to produce the body, neck, pegs, and end pin for "The Orange Slice Special."



***Below*: "Maple Natural-Edge Winged Bowl" by Chris Ljostad-Lavinio, 14, of Hampton Bays, NY, won an Excellence Award in the youth turning division. His dad, Gary Ljostad, reports that Chris has been turning for about four years.**

***Above*: Eric Johnson's 12"-tall multiaxis goblet won an Excellence Award in the youth turning division. Eric, 15, lives in Stillwater, MN, and has been turning since he was 12 years old. His first turning projects were for his 4-H club. After watching Jimmy Clewes demonstrate at the Richmond symposium, he turned a long-stemmed goblet for this year's county fair.**

Photos: John Lucas

Youth Turning Room grows again

Sixty-six youths participated in the Youth Turning Room at this year's symposium in Richmond. To keep the program running smoothly, 49 assistants volunteered nearly 200 contact hours (1:2 teacher-to-student ratio) and 60 preparation hours.

See *page 19* for the thank-you to the Youth Turning Room sponsors.

between the turning room and the Instant Gallery to see the fiddle. Of course he didn't dare touch it, for the sign said "DO NOT TOUCH." Andi, without skipping a beat, handed the instrument to Knick. He took it, tucked it under his chin, and started to play.

I was standing within two feet of Knick. The energy coming off him literally stopped my world. Nothing else existed but Knick playing. When I regained my senses a few moments later, I found Andi standing a few feet away.

I looked at her, she looked at me! In that moment I knew what I was to do. I leaned over and said to Knick that it was now his fiddle. He said, "No, it's yours," and I responded, "Yes, it was mine, but I am giving it to you." What followed was the second most amazing moment. He looked at me with total disbelief, and then gave me the most ecstatic hug I have had in a long time. People were crying, people were applauding, and Knick was beside himself with joy.

—*Harvey Fein*

***Left*: Nick Cook assists Natalie Rose, 9, with her project. Natalie attended the symposium with her grandfather, Don Crisp, of Palmetto, GA. When Natalie was an infant, she was given a baby rattle turned by Nick.**

***Below*: Gerald Barton, a Youth Turning Room volunteer, helps Kristen Vogelbein, 11, with her garden dibble. Kristen, who lives in Hayes, VA, attended the symposium with her dad, Wolfgang. Kristen also won a lathe in the youth drawing.**

***Above*: Soyee, *left*, and Yuri Park proudly show their completed projects. The sisters attended the symposium with their mother, Jinok Kim, of San Diego.**

***Center:* Bonnie Klein stands beside a proud 10-year-old Kailee Hill, in the Youth Turning Room. Kailee, who lives in Malvern, OH, attended the symposium with her grandfather, Cliff Hill of Oriental, NC.**

***Left*: Nick Cook introduces the students to the lathe and lathe tools. Knick McKay (orange shirt) is the youth who ended up with the fiddle featured *opposite*.**

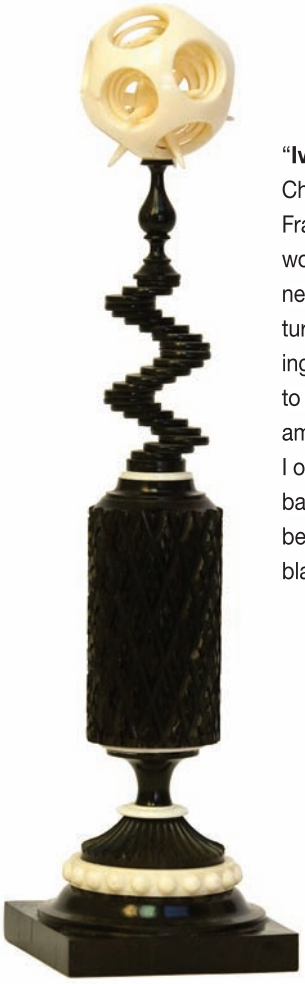
Photos: Ed Davidson

New AFTAB show begins tour

The French Connection

"**Odoroscope**" by Joss Naigeon of Saou, France. Mahogany, maple, and brass; 8×12". "Last year I created the 'Odoro Senso,' which is meant to be a personal perfumed pendant. This piece has a box in the middle containing a piece of cotton with perfume, and it's supposed to emanate through the holes when the 'Odoroscope' is swinging slightly on its base."

From Heart to Bark is the juried traveling exhibition organized by AFTAB, the French Association for Artistic Woodturning. Every other year, about 50 pieces are selected to showcase the art of its French and European members. The exhibit encompasses all trends of contemporary woodturning. The 2008–2009 edition selected 58 pieces, which will be shown at several locations in France over the next two years. For a look at more pieces in the exhibit, see the AFTAB website (aftab-asso.com).



"**Ivory Sphere on Pedestal**" by Christian Delhon of Berck sur Mer, France. Ivory and African blackwood; 12". "I really wanted to try new techniques with this ornamental turning work, and it was very exciting. It was also a great pleasure to try using ivory because it's an amazing material for woodturners. I only use recycled material (billiard balls) and I appreciate the contrast between ivory and African blackwood."

"**Déclinaison**" by Elisabeth Molimard of St. Laurent les Bains, France. Pear; diameters of 6½" to 9". "After my recent adventures in the sophisticated multi-axis world, I'm coming back this year to my favorite turning obsession: the bowl. Hollowing a bowl has always been a source of great pleasure for me. Space is appearing, defining the shape little by little, searching for the line."

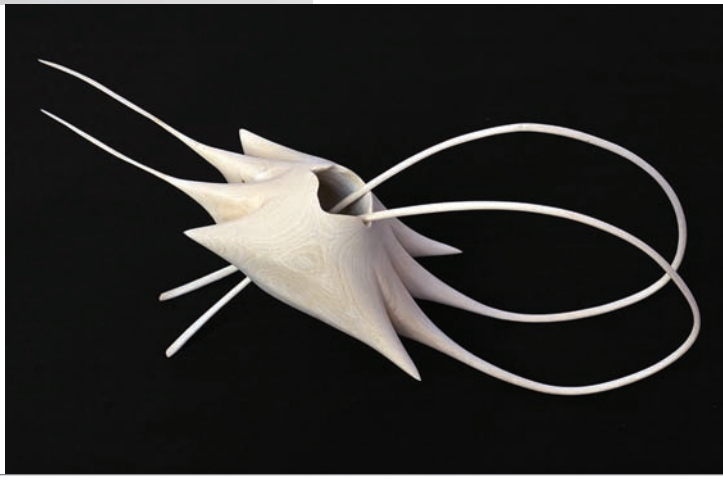
"**Osiris**" (*opposite*) by Jean-Pascal Lheureux of St. Rémy en Bouzémont, France. Ash, scorched and wire-brushed to create relief; 52×20×3". "This piece is inspired by an Egyptian god as a contemporary representation of its symbol. The finish is done with a wax incorporating black oxide pigments, a red lacquer, and a crackling varnish for the background."

"**Mineral**" by Jean-Pascal Lheureux of St. Rémy en Bouzémont, France. Locust; 7×10". "This piece was inspired by fossils and seashells polished and patinated over time, unveiling their curves and beauty. The locust was turned and hollowed, then hand-carved to create the waves. It was then wire-brushed, ebonized with an oxide pigment, and limed."

"**L'essence, L'inclusion Différenciée**" by Jean-Baptiste Bugnon of Grandsivaz, Switzerland. Birch burl and maple; 9×12". "Making, producing, or creating an object to magnify its essence without denaturing it is the challenge that drives my research. This turned piece echoes Albert Camus's words: '*On ne se donne que si l'on se possède*' (one can commit only if one controls oneself). Should existing be reduced to being a consumer's product? What work in its essence would allow it to be perceived as an act of giving or sharing?"

"**Hollow Form**" by François Prudhomme of Vuadens, Switzerland. Redwood; 9×20". "I like to emphasize the material, the simple beauty of ordinary woods. Here the strength of the piece recalls the grandness and giant size of the redwood. The tree springs from the fire, its seeds sprout, thus its burnt aspect. Redwood also grows in Switzerland in parks and gardens."

"**20,000 Years Under the Sea**" by Jean-Louis Fayolle of Bagnols, France. Hackberry; 16×9x5". "During a forced stop from work, I have dreamed, thought, and drafted the design of this piece. It was living in me and wouldn't leave my mind. I had to make it! This piece involves several techniques: turning, carving, and steam bending. Going toward new discoveries and adventures, dreaming, turning back, leaving again for another direction. That's my poetry."



"**Le Pique-touïour**" by Pascal Oudet of Goncelin, France. Boxwood root burl; 12½×7x8". "This is a tribute to Claude Ponti, an author of books for children (and their parents), who creates very strange and funny creatures and was the inspiration for the title. The boxwood root burl is a great material to work with despite the hidden stones."

"Les Sinusoïdes" by Georges Baudot of Sadirac, France. Ash; height 2½" to 4"; diameter 2¾" to 3⅝". "I designed a box where rotating the lid allows an easy opening while keeping an accurate fit."

"**Collaboration with Leperisinus Varius, II**" by Rüdiger Marquarding of Wustrow, Germany. Wormy ash, ebony, and pear with tin inlay; 4×14". "My interest in this infested wood arose from noticing the free- owing lines and graphic patterns. But it was not easy to utilize them as a means of design. To make an object with two drawers out of this branch was just fun."

Tree-Trimming Medallion

By Bob Rosand

If you turn and market Christmas ornaments, you'll find that every year you need to come up with a new ornament, or at least a new variation on the ornaments that you already have.

This point was succinctly made one year when a good customer came into my booth looking for something "different." When I didn't have a "new and improved" Christmas ornament, she responded by saying, "Oh," and exited the booth without buying anything.

The medallion came about because I was trying to come up with a new ornament, and also trying to provide a canvas on wood for my wife, Susan. I also had a lot of scraps and cutoffs that were just too good to throw away, but not big enough for bowls or platters.

When I started writing this article, I was a bit concerned that people would not attempt turning this ornament because they could not paint. Fortunately, that is not a problem. If you can paint or have a spouse who paints, this project is great. But you can make numerous variations without being skilled in art. The first is not to paint the ornament at all, but simply to turn the ornament and accentuate the wood. You also can texture the center of the medallion with a Sorby texturing tool or a chatterwork tool.

A second method is to make stencils or purchase them at a crafts supply store and stencil a decoration such as a wreath, reindeer, Christmas tree, dove, or snowflake in the center of the ornament.

A third method is to purchase appropriate ink stamps, stamp the center of the ornament, and then use a pyrography tool to burn the stamp into the ornament. If your penmanship is good, consider customizing the ornament with the year or with the name of a grandchild. Be creative and come up with your own variations.

Get started

For turning tools you will need a ½" or ¾" spindle roughing gouge, ⅜" spindle gouge, parting tool, ½" beading tool (I use an Ashley Iles tool), and texturing tool (Sorby makes the only model I'm aware of).

For turning stock, use end-grain scraps about 4½×4½×½". End grain works great, especially with the texturing tool or the chatterwork tool, but side grain also works.

The pieces shown on these pages are turned from ambrosia maple.

Turn the front

Sand one face of the blank flat on a belt sander and glue it, centered, to a wasteblock. For end grain, use a ¾" spindle roughing gouge to true up the outside of the blank. For side grain, use a standard spindle gouge. Turn the blank to a 4" diameter. Then use a spindle gouge to true up the face of the blank. Note that the tool is turned on its side with the flute pointed in the direction of travel (toward the center). The bevel is rubbing, giving control of the tool. Do not cut with the tip of the tool.

Next define the perimeter of the ornament with three beads with the flute pointed down (**Photo 1**). With the rim complete, use the spindle gouge to slightly hollow the center of the medallion.

If it helps, think of the medallion as a small plate, which it essentially is. If you plan to use a stamp or stencil on the center section, make the medallion a bit flatter so you don't have trouble transferring the stencil or making an impression with the stamp. Now use the spindle gouge to round over the edge of the medallion and start shaping the

Photo: John Hetherington

back. Finish-sand the face of the ornament and the turned portion of the back.

Detail the back

For me, now comes the fun part. To finish the back of the ornament, reverse the disc and hold it in a vacuum chuck. The vacuum chuck used on this project is from the Summer 2006 issue of *American Woodturner.* You can find a copy of that article on the AAW website (woodturner.org).

Note: If you don't have a vacuum chuck, make a jam chuck from a wasteblock and friction-fit the medallion into it. When making multiple medallions, carefully turn each medallion to fit one jam chuck, or make a new jam chuck for each different-size medallion.

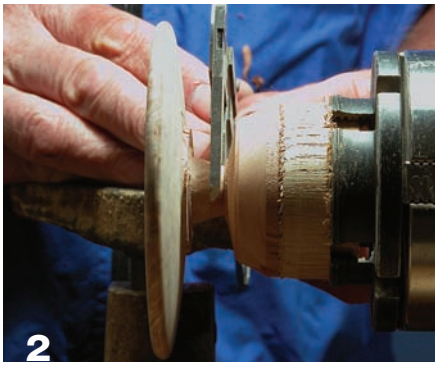
I always had a difficult time centering work on the vacuum chuck; it was always off just a bit. The solution is incredibly simple.

First measure the inside diameter of the tailstock quill with calipers. Measuring with the calipers, turn a taper on the wasteblock of the medallion (**Photo 2**), part it off, reverse it, and place the taper into the tailstock quill. Slide the tailstock up to the headstock, press the medallion against the vacuum chuck (**Photo 3**), and turn on the vacuum pump. The piece should be perfectly centered. Just to be safe, put the tail center in place to hold the medallion while turning the back.

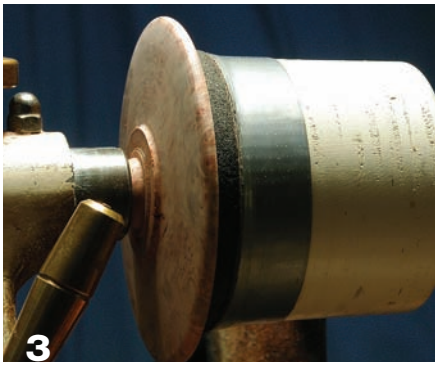
When most of the back is turned, back off the tailstock and turn away the remains of the wasteblock (**Photo 4**). Take gentle cuts or you may pop the piece loose.

With the back of the medallion turned and sanded, you can texture or finish it. I used a Sorby texturing tool to cut decorative spiral lines (**Photos 5** and **6**).

Use a beading tool to cut three beads into the rim of the medallion.

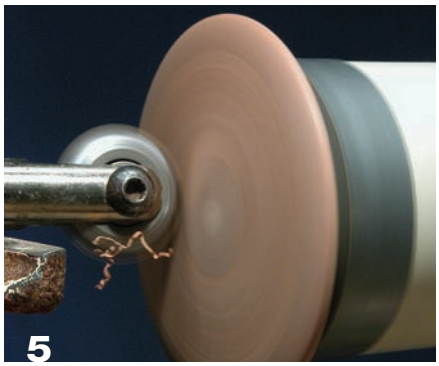


Turn a tapered tenon on the medallion wasteblock using calipers to check the diameter.

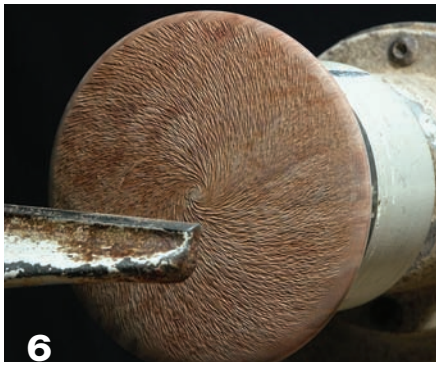


Insert the medallion taper into the tailstock quill and press it against the vacuum chuck.

Back off the tailstock and carefully turn away the remaining small tenon.



Texture the back of the ornament with a Sorby texturing tool.



The Sorby texturing tool cuts a beautiful spiral pattern.

Use the tool as a scraper with the cutting end of the tool angled down and the handle up. I also tilt the head of the tool to about a 45-degree angle. Engage the tool at the edge of the medallion and move it toward the center. It is important to get the cutterhead rotating before moving the tool along the tool rest. If you don't, you risk getting scratch marks as the tool begins to rotate. Experiment with different cutterhead orientations to make different texture patterns.

Now decorate the medallion. Don't forget to drill a 1/16"-diameter hole at the top of the medallion for hanging on a Christmas tree.

Finally, apply a finish (I use Deft satin lacquer).

Bob Rosand (RRosand.com) is an *American Woodturner* contributing editor. He lives in Bloomsburg, Pennsylvania.

Doughnuts, Anyone?

By Neil Scobie

Sandblasted white beech

Ever wondered what desk toy to make for an executive to fiddle with in times of contemplation? This project could be the answer.

Making doughnuts is a simple task and, as with many projects, there are multiple ways to make them. I will show a couple different methods from which you can choose, depending on the equipment you have. There also are many options for decorating the doughnuts and ways to display them.

The idea for the doughnuts came from my daughter, Anna, about five years ago when she was a teenager. She wanted to make something a little different for an exhibition she was having. We talked about methods of making doughnuts and then went to my workshop, where Anna made a pair, and then another pair on a stand, *opposite top*. She actually turned two doughnuts, and then cut one in half and rejoined it. The problem with this method is that you lose timber in the cut and then again while trying to straighten the cut, resulting in a doughnut that is not round.

Get started

At the lathe, you will need a ½" or ⅜" spindle gouge, 4-jaw scroll chuck, spur center, revolving cup center, extra wood for a jam fit, and bowl jaws for your scroll chuck if you have them.

Almost any timber is suitable for turning these doughnuts. Choose timber with attractive figure unless you want to decorate it as shown on the sandblasted white beech example at *right*. Harder timbers are better because the two doughnuts will hit and rub against each other when handled. I chose white beech, river red gum, forest oak, and blackheart sassafras.

Prepare the split doughnut

To prepare the doughnut that will be separated, cut your timber in half in width on a bandsaw or tablesaw. Run the sawn edges over a jointer or hand-plane them to a good fit. When you are satisfied that the two edges will join without gaps, mark where to drill the dowel holes. I found it best to clamp the two pieces together in a vise or G-style clamp, and then mark out the inner and outer circles with a compass or dividers. Now adjust the compass to the midpoint of the inner and outer circles and mark across the joints (**Drawing 1**).

Use a try square to square a line across the edges to be joined, find the midpoint, and drill holes for dowels. I used a 5/16"-diameter dowel 1" long, so I needed to drill ½" into each surface. Drill the holes on a drill press if you have one, but if not,

Set of three in river red gum

keep the holes perpendicular to the joining surfaces.

Now apply polyvinyl acetate (PVA) glue, such as Titebond II, to the middle part of the two pieces, making sure that you keep the glue well away from the areas that will be separated (**Photo 1**). Clamp the two pieces in a vise until the glue dries (**Photo 2**).

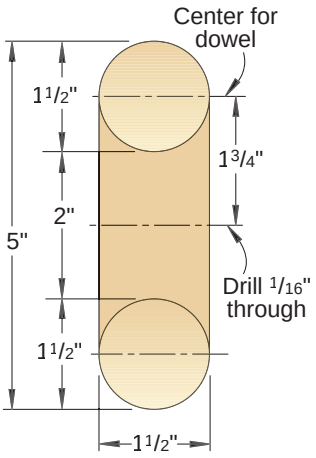
Turn the outside

Next, cut out the circular blanks on the bandsaw, allowing a little waste outside the line. I find the best way to turn the outside of the doughnut is to place it between centers and turn the front and back without having to reverse the blank. (Note: If your headstock and tailstock centers do not line up perfectly, you will get a wobble when you turn the blank around.)

At the drill press, mark the tailstock center. (I drilled a 1/16" hole right through the blank at the compass center.) Now, with centers marked on both sides, mount the blank with a spur center on the headstock side and a revolving cup center on the tailstock side.

Adjust the tool rest parallel to the face of the doughnut, and using a 1/2" or 3/8" spindle gouge, turn the edge from the tailstock side (**Photo 3**). To cut with the grain, cut from the center of the blank toward the outside with the bottom half of the gouge.

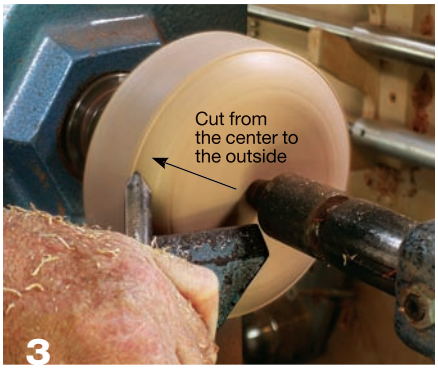
Next, turn the inside on the tailstock side, rolling the spindle gouge on its side so that you are cutting with the bottom half. To cut with the grain this time, cut toward the center.



DRAWING 1
Suitable size for a pair

Apply glue sparingly and keep it away from the inner lines.

Use the cross lines to make sure the pieces align properly under clamp pressure.



With a spindle gouge, turn the outside part of the doughnut on the tailstock side.

Red cedar

Blackheart sassafras

Forest oak

Decorative treatments

There are endless ways to decorate your doughnuts, but bear in mind that coarse-grain timbers such as the forest oak (*above bottom*) and river red gum (*opposite bottom*) are probably best left plain and just oiled. Possibilities for decoration include stippling with a small rotary burr (*above top*), stipple burning or burning a pattern, sandblasting (*opposite top*), ebonizing, or bleaching.

Turn the inside section on the headstock side with the bottom half of the gouge.

Turn a tight-fitting jam chuck to prepare the inside section of the doughnut.

After turning away the inside, sand the doughnut while it's still in the chuck.

Now set up the tool rest on the headstock side and parallel to the face of the doughnut. Turn the edge, cutting toward the outside with the bottom half of the gouge (**Photo 4**). Turn as much as you can of the inside on the headstock side. (The headstock will prevent you from getting in too deep. You'll complete the doughnut inside in the next step.) Fully sand the faces and edge to 400 grit. Repeat this process for the second doughnut.

Turn the inside

For the inside turning process, mount a circular blank about 3" bigger in diameter than the doughnut on a faceplate or screw center and turn it to jam-fit your doughnut (**Photo 5**). If you have used jam fits before, you know that there is only a smidgen of difference between too tight and too loose. A wrap of masking tape can get you out of trouble if you happen to make the opening too big. Turn the inside of the doughnut a bit past halfway and sand that section. Now remove the doughnut from the jam fit, reverse it, and turn the second side. Once the doughnut is sanded, you may want to reverse it again and resand the other side (**Photo 6**). Then, repeat the same process steps on the second doughnut.

After turning and sanding, the split and solid doughnuts are ready for assembly.

With the solid doughnut unencumbered, clamp the split doughnut.

Connect the two doughnuts

Complete any surface decorating before you join the doughnuts together. I sandblasted the pair of white beech doughnuts before joining and then touched up the joined area with the sandblaster after the glue dried.

Pull the split doughnut apart (**Photo 7**), then apply a small amount of PVA glue to the dowel holes and flat surface, join the split doughnut capturing the second one, and clamp in a vise (**Photo 8**). Apply glue sparingly; it becomes messy if it squeezes out. After the glue dries, sand the joined areas and touch up any surface decoration that needs attention.

To mount the doughnuts on a base, drill a ¼" hole about 1" deep in the bottom of one doughnut to accept a metal spike.

I finished the sandblasted pair with four coats of oil with a white pigment in it. Some of the pigment sticks in the low parts of the sandblasting to give a brighter effect.

Make the stand

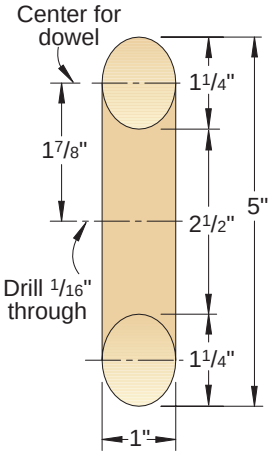
If you decide to make a stand for the doughnuts, two options are shown on these pages. (The rectangular stand is my favorite.)

For a turned stand, place a 4×4x5" blank between centers and turn the stand to your desired shape, turning the waste areas on each end to about ½" diameter (**Photo 9**). Sand the stand to 600 grit, then saw off the end spigots and sand smooth. Drill a ¼"-diameter hole 1" deep in the top for the spike. To contrast the white beech, the red cedar base on *page 32*, is ebonized with a solution made from cider vinegar and steel nails.

Turn a set of three

This trio uses an alternative turning method. When you capture two doughnuts inside a third one, you will need to turn them thinner so they will move freely inside each other. I have also made them oval (**Drawing 2**). The trio is turned from river red gum. As with the other pair, almost any timber would be suitable. You will predrill and glue the split doughnut in the same manner as described above, and it will be turned between centers as well.

For the two doughnuts that are not split, drill out the center with a 2"-diameter saw-tooth or Forstner bit or a holesaw. Now hold them in your scroll chuck with the jaws in expansion mode for turning the edges. This is an easy and accurate way to hold the doughnuts for turning and sanding the edges and reversing them for turning the second side.



DRAWING 2
Suitable size for 3

You also can turn partway into the center section (**Photo 10**). This is a quicker method for turning the doughnuts. But remember, you can't turn the split doughnut with the chuck jaws expanding outward.

An alternative method for turning the inside is using bowl jaws that are available for most chucks (**Photo 11**). (I inserted a 5/16" hexagonal nut behind each red nylon block so that the gripping portion of the nylon blocks reached over the center of the doughnut.) Make sure you still have enough thread of the bolts penetrating the bowl jaws. If there is any doubt, buy longer bolts. Once you turn and sand one side, reverse the doughnut and repeat the process on the other side. Pull the split doughnut apart and glue it back together, capturing the other two doughnuts.

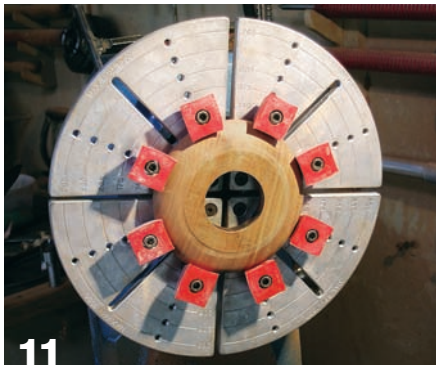
Keep the offcuts from bandsawing the blanks to help clamp the halves together, or bandsaw a new pair of clamping blocks. Apply PVA glue to the dowel holes and a little on the flat face, then assemble and clamp the split doughnut, capturing the other two. This time I used two F-style clamps instead of a vise (**Photo 12**). With the glue dry, fine-sand all the doughnuts and apply an oil finish of your choice.

Whatever timber and decorative treatment you use will give you an attractive toy or sculpture to enjoy. It is natural for people to pick up the doughnuts and play with them. Enjoy your projects and have fun making them.

Neil Scobie (neilandlizscobie.com) is an *American Woodturner* contributing editor. He lives in Lower Bucca, New South Wales, Australia.

For a tapered stand, hold the 4×4x5" blank between centers.

You can hold the doughnut in a 4-jaw scroll chuck in expansion mode.



Adjustable bowl jaws provide another option for holding doughnuts.

To glue three rings, use cutoffs and F-style clamps.

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American Association of Woodturners

Glue, Grain, and Joints

Keeping It Together

By Jim Rodgers

Joinery is one of the great challenges in woodworking, whether you're building cabinets or a segmented vessel. Although cabinetmakers can employ a wide variety of worked joints as well as hardware, we woodturners have more limited choices. As a result, turners need to pay careful attention to all of the details to achieve joints that are tight and long-lasting.

5 key considerations

Material movement and joint strength are the two interrelated concerns. The more the wood moves, the greater the problem; if neighboring pieces move in different directions, it becomes even more of a problem.

Here are five key challenges:

1. Joining woods that move at different rates.
2. Using joinery to aid fastening.
3. Joining woods that move in different directions.
4. Improving the quality of the fastened surfaces.
5. Selecting the best glue types for the application.

Our solutions lie in:

- Minimizing the differential in movement between wood surfaces being joined.
- Increasing the joined surface area to improve the joint strength.
- Using adhesives suitable to the specific task.
- Wise species selection.

Special challenges for segmented turners

In segmented turning, woodturners usually deal with more different species of wood in a single project than other turners do. In designing a project, then, we must consider the relative rates of movement of the adjacent species. If each wood species is moving at approximately the same rate, the joint will be less stressed.

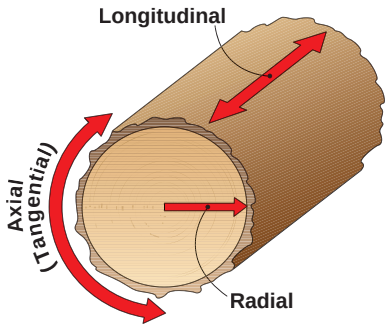
We also need to consider the relative density of the species being joined so that the turning task is more manageable. This is important because moving our tool from soft to hard wood while turning may cause tool control and tear-out issues.

How wood moves

There are a number of possible variations of grain alignment between joined pieces. The strengths of those you're likely to use are listed in the sidebar "Wood Orientation and Joint Strength," *opposite*, prepared with the technical assistance of Dr. Roman Rabiej, a scientist formerly at Franklin International (manufacturer of Titebond glues) and now a professor at Western Michigan University. But before diving into the three most common configurations, let's briefly review wood movement.

Wood moves in three dimensions: radial, longitudinal and axial (sometimes called tangential). The rates of movement differ dramatically in

each dimension and from species to species. Typically, **longitudinal** movement (along the grain) is near zero, but **axial** movement can be as much as 8 percent and **radial** movement about half of that.



Radial grain to axial grain

While the two presentations of the wood are moving at different rates, the relative movement to each other is all that is important. The concern here is that even though no end grain is involved, the movement between the two faces can still be substantial. Large glue-ups (even single species) may fail over time due to continued flexing if the species' axial and radial movements differ greatly. Solutions include:

- Be sure that the surfaces to be glued are as flat as possible, thus increasing the bonding surface area.
- Always seal all exposed surfaces to reduce the movement due to moisture gain or loss.
- Work with species that have minimal movements.
- Assure that wood grain is aligned in the same plane before cutting the segments for a ring.
- Use glue with elasticity (creep) such as polyvinyl acetate (PVA) glues. More about that later.

End grain to radial or axial grain

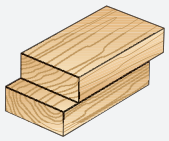
This glue joint has a significant problem because the side-grain timber is moving in two planes at different rates. Additionally, the end grain adsorbs the glue into the long cell structure of the timber, reducing the bonding strength.

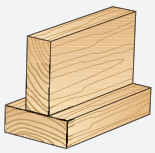
Cabinetmakers address this issue by choosing joints that present stronger grain orientation and sometimes even add mechanical strength as well. For example, box joints increase the side-grain surface area, reducing reliance on the end-grain bond. Although dovetail joints do the same thing, this joinery introduces mechanical strength. Panel doors, tabletops, and other tongue-and-groove connections eliminate the glue in troublesome areas and allow the larger wood surface to "float."

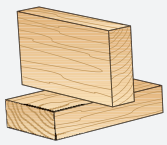
Neck rings, disc feet, and other cross-grain segmented design elements create situations similar to those faced by cabinetmakers, but turners have fewer possible solutions. Here are a few suggestions:

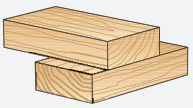
- Preseal the end grain with thinned glue (1:1 mixed with water). Allow the glue to dry and then reglue the joint as usual. The initial sizing coat will close the open cell structure, thus increasing the glue surface area. The joint will be a glue-to-glue joint (joining glue rather than wood).

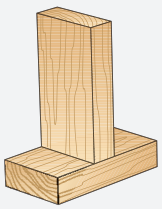
Wood Orientation and Joint Strength

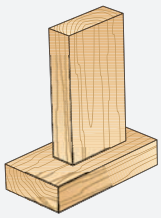

1 Radial to radial

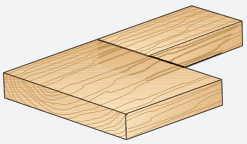

2 Radial to axial


3 Cross radial to axial


4 Cross radial to radial


5 End to axial


6 End to radial


7 End to end

Wood Orientation	Glue Joint Strength
1 Radial grain to radial grain (flat sawn to flat sawn)	100%
2 Radial grain to axial grain (flat sawn to flat sawn)	65–70%
3 Cross radial grain to axial grain	50%
4 Cross radial grain to radial grain	50%
5 End grain to axial grain	15–20%
6 End grain to radial grain	15%
7 End grain to end grain (sized joint, see text for details)	30%

Dr. Roman Rabiej, professor of Engineering and Applied Sciences at Western Michigan University, provided technical information for this chart on the relative strength of various orientations of glued wood joints. Dr. Rabiej is a recognized expert on wood technology.

Analysis of a simple ring-segmented vessel

All segments are arranged with horizontal running grain. This means that each ring was glued up end grain to end grain. Each ring was brick laid to add strength by gluing side grain to side grain. All joints were overlapped to add more strength.

Veneer added here was made from a single sheet of veneer, cut into a circle and glued between the rings. At only two side locations is the grain of the veneer running parallel with the grain of the adjoining rings.

The veneer acts with the adjacent woods and not as a separate wood element.

Spacers in the feature ring were too wide (⅛") to act as veneers and were cut so that their grain runs parallel with the stabilized/dyed box elder burl feature wood.

The vessel was nished both inside and out to further reduce uneven expansion/contraction possibilities.

The solid wood foot attached with a veneer spacer layer has both parallel-grain and cross-grain attachments to the rst ring. Good surface preparation, gluing, and its small size (under 4") minimizes problems.

This vessel is 10×8". The base is black acacia with a body of redheart. The feature ring is built from stabilized and dyed box elder burl and yellowheart banded on either side with a narrow ebony ring. The neck is ebony.

Is your glue good to go?

To assist in building the strongest joints in vessels, our glue must also be in prime condition. Glue degrades over time, and poor storage conditions shorten that period even further.

According to Franklin International, Titebond guarantees its polyvinyl acetate (PVA) glues for a one-year shelf life because the company does not know and cannot control the conditions under which the glue is stored.

Photo: John Hetherington

However, Titebond II can enjoy a shelf life of up to four years when stored under optimal conditions (moderate temperature and dim lighting). Other Titebond products have shelf lives of two to three years.

Titebond products can stand up to six freeze/thaw cycles with some decrease of strength with each cycle. After being frozen, the glue may need to be stirred to homogenize it. If the glue is stringy, however, discard it. Similar degrading problems occur with extreme heat cycles. If your shop area isn't climate controlled, store your glue in a living area of your home.

To determine the manufacturing date of your Titebond product, check the date code stamped on each bottle. The date code can be found in the batch stamp on each bottle indicating the year (number) followed by the month (alpha code) of manufacture. The additional digits encode other batch information.

—Jim Rodgers

• Consider increasing the glue area by using a tongue-and-groove construction for a foot or neck ring. In *The Art of Segmented Woodturning*, Malcolm Tibbetts suggests a great bowl foot idea that is exactly like the cabinetmaker's floating panel. As shown *above*, a rabbet captures the "foot" between the first and second base rings of a vessel. The base is cut slightly smaller than the rabbet and allowed to float.
• Avoid this construction.

End grain to end grain

These are the weakest possible joints. The amount of surface area to be glued is minimal and the glue is wicked away from the available surface by capillary action.
These are your options:
• Don't do it.
• Overlap an end-grain joint with another side-grain joint (brick-laid joinery), thus providing more face-grain strength.
• Size the joint first with a 1:1 solution of glue and water; allow it to dry and then glue. This will create a joint where the sizing seals the end grain and creates a glue-friendly surface, although the bond is actually glue-to-glue.

Joint quality

Wood that is being glued must be flat and clean, free of inhibiting burrs and debris. A poorly prepared joint may fail when all else is fine.
• Oily species should be glued immediately after cutting or wiped down with acetone, naphtha, or other solvent to remove accumulated extractives, such as terpenes and oils, immediately before gluing.
• Crosscuts should be made with a sharp finish-cut blade. A 10"- dia. blade should have 60 or more teeth.
• Wood should be held firmly while cutting to eliminate accidental movement and vibrations that would reduce the cut surface quality.
• Burrs and surface tear-out should be sanded away to prevent capture in the glue joint.
• The face of the cut should also be sanded to improve the surface quality, especially on soft (western soft maples) or open-grain woods (walnut, wenge) as well as brittle species (purpleheart).

Choosing appropriate glues

Some glues permit movement and some don't. Other adhesives expand and fill while many don't.

For example, when cyanoacrylate (CA) glue is catalyzed, it becomes a solid acrylic material incapable of moving. Thus, CA glue can't expand or contract with the wood movement. Therefore it is not appropriate for segmented turning.

Polyvinyl acetate (PVA) glues (white glues) and modified PVAs (Titebond I & II are two examples) creep and will allow for some relatively slow movement in the joint. Some epoxy glues are also formulated to allow constant movement and twisting (West System epoxy and System 3 are two examples).

5 strategies for segmented woodturners

Here are five key guidelines to help ensure gluing success:
1. Use PVA glues.
2. Prepare joints that are clear of obstructions.
3. Increase the glue area.
4. Wipe down oily exotic woods before applying glue.
5. Never align glue joints in adjacent layers. Always overlap to add more strength to the joint.

Final thoughts

Here are some general considerations that will also aid in reducing the number of potential joint failures in your next segmented project:
• When using a solid hardwood as a bowl foot, keep the size small so that it is less affected by movement. Less than 5" in diameter is best.
• Use burl woods that have totally dried to ambient conditions. (This will vary depending on your climate.) Burls are stable and don't move much because of their interlocked grain structure.
• When inserting a veneer between layers of a vessel, maintain clamping pressure until the joints are completely dry. Veneers tend to absorb moisture from glue and will swell and crinkle, causing the joint to open if unclamped prematurely.
• Other than appearance, the movement in cross-grain veneers is not a concern. The thinness of the wood when bonded to a solid wood causes it to move with the wood to which it is attached (not as a separate element).
• All turnings should be sealed inside and outside to minimize uneven movement due to uneven absorption of moisture.

Jim Rodgers (jlrodgers@aol.com) has written several journal articles about segmented turning. He is a former president of the Bay Area Woodturners and lives in Martinez, CA.

Paperweight in German-Style Ring Turning

Leaf Extraordinaire

By Tim Yoder

Years ago while surfing the Internet, I saw a turned leaf much like the one shown on these pages. There were no instructions or even a name attributed to the piece. I thought it was a great project but only recently decided to give it a try. Needless to say, it took me quite a while to stumble my way through the steps.

For me, this German ring turning, as it is known by many, is a counter-intuitive method of turning. Usually when I remove a piece from the lathe I have a recognizable and desirable shape…um…most of the time. With this project I wind up with a disc covered with abstract-looking ridges and grooves. The only way to reveal the leaf is to slice up the disc on the bandsaw.

Get started

The maple-leaf template shown here is available as a free download at clipart.peirceinternet.com or you can photocopy the leaf at *right* for your leaf template.

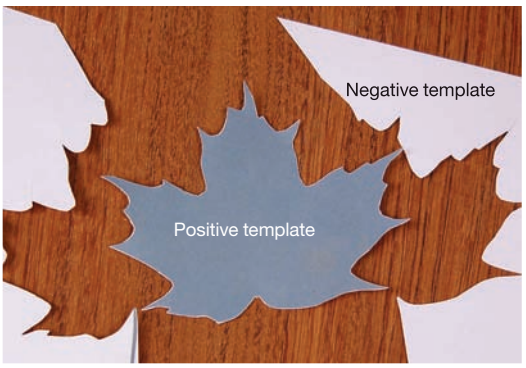
At the lathe, you'll need a ¼" roundnose scraper, a ⅜" spindle gouge, a ¾" bowl gouge, and a curved multitip scraper.

For turning stock, choose a blank a bit thicker than the leaf width and twice the leaf height plus 2½" in diameter. Pick stock with some visual interest such as spalting or burl. (I used a 4×10×10" maple burl blank.) Use a dry blank to reduce the chance of the wood warping or cracking.

Prepare the blank

Draw the largest possible circle on the blank with a compass. Press hard with the compass point to create a dimple for your drive center.

Cut away the waste on the bandsaw, then use the compass to find the center of the other face. Mount the blank on the lathe between a 4-prong drive center and a live center with a cup and point. True the edge and both faces of the blank with a bowl gouge. Make push cuts on the blank edge. On the faces, start 1" in from the edge and make a pull cut. Now work your way to the center with a series of 1"-wide pull cuts.



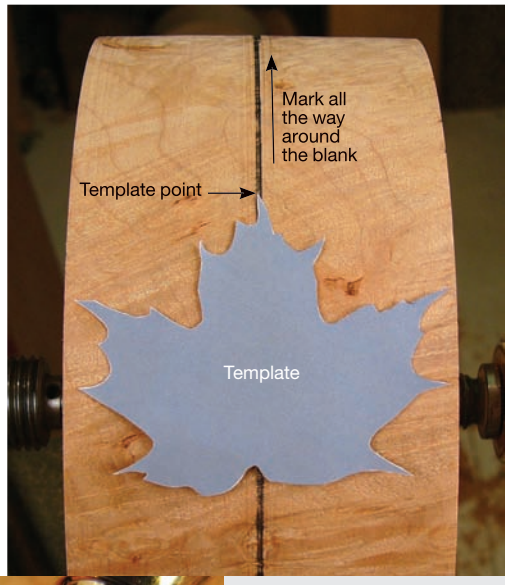
Make the template

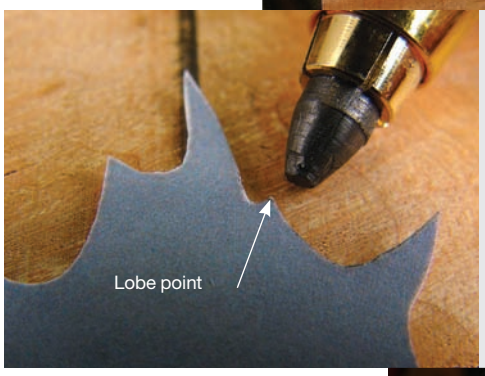
1 Print a leaf that matches the thickness of your turning blank. Use the printer settings to enlarge or reduce the copy as needed. The leaf has to hold up to some abuse, so print on heavyweight paper. (I printed the leaf in gray so the details show up better for this article.) Now carefully cut out the leaf, saving both the positive and negative parts. Make two or three copies in case you lose or damage the original pattern.

From one turned ring, you can produce eight maple-leaf paperweights.

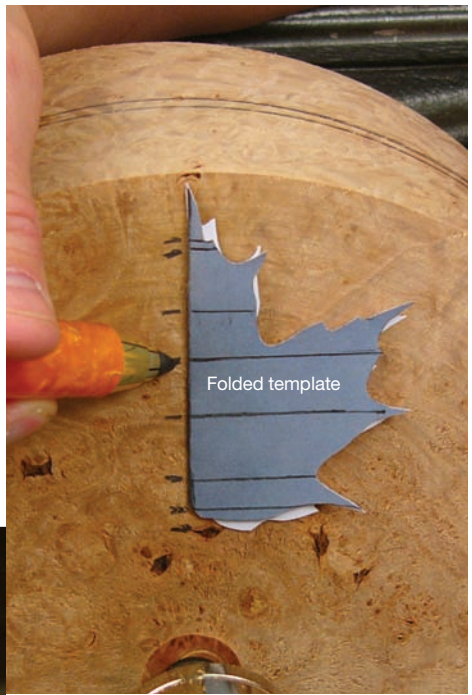
Mark the blank

2 The challenging part of the project is not the turning, but understanding what wood needs to be removed and in what order. Center the leaf template on the edge of the blank and mark the topmost point.

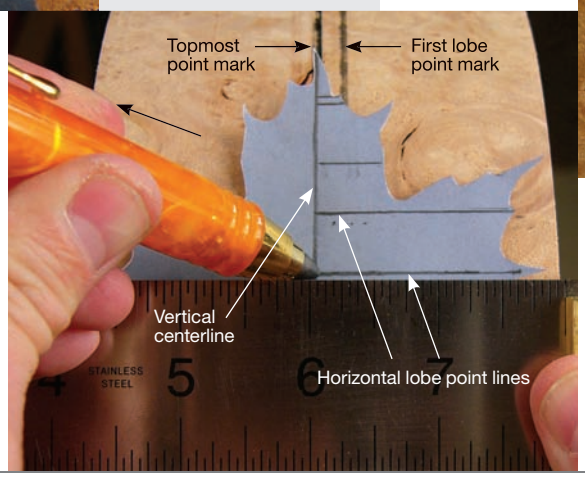




3 Mark the little lobe point to the right of the topmost point. Don't mark any of the other points at this time. (Additional marks would be turned away when cutting to the first lobe point.)



4 With the leaf still positioned on the blank edge, mark a vertical centerline and horizontal lines at each lobe point.

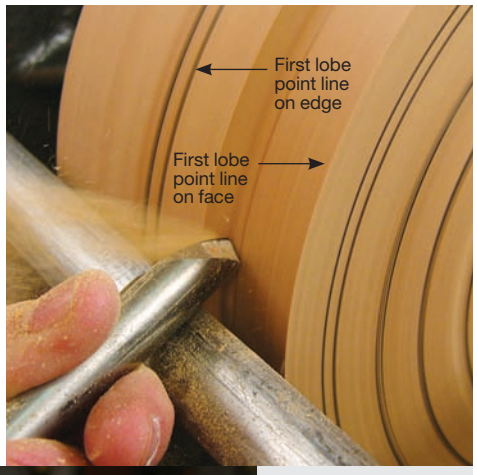


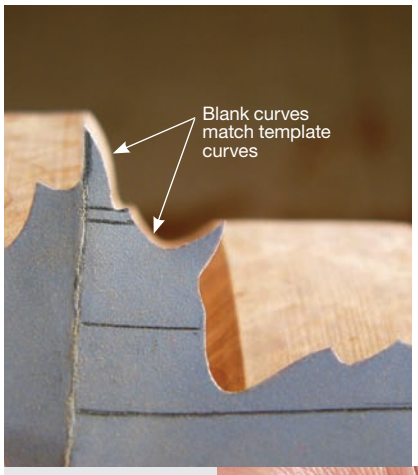
5 Cut or fold the template along the centerline and transfer the point locations to the front face of the maple blank.

Photo: Bob Hawks

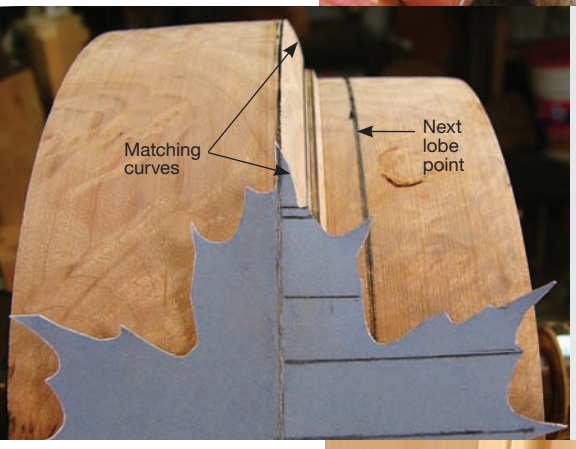
Turn the front face

6 Use the bowl gouge and a push cut to cut a step from the first line on the blank face to the line to the right of the centerline on the blank edge. Shape the leaf tip with a pull cut.

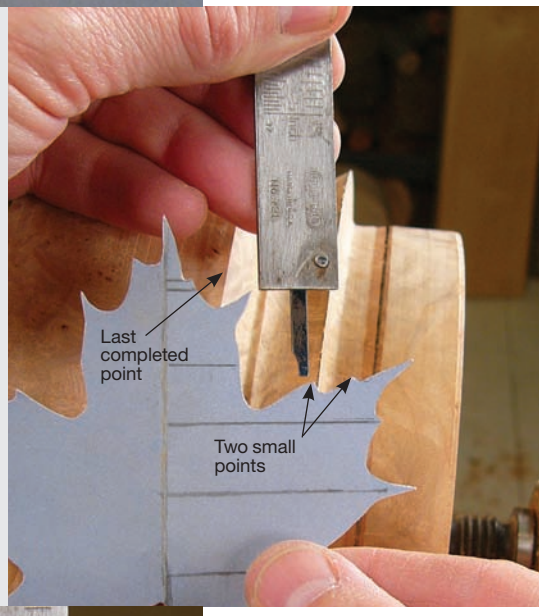




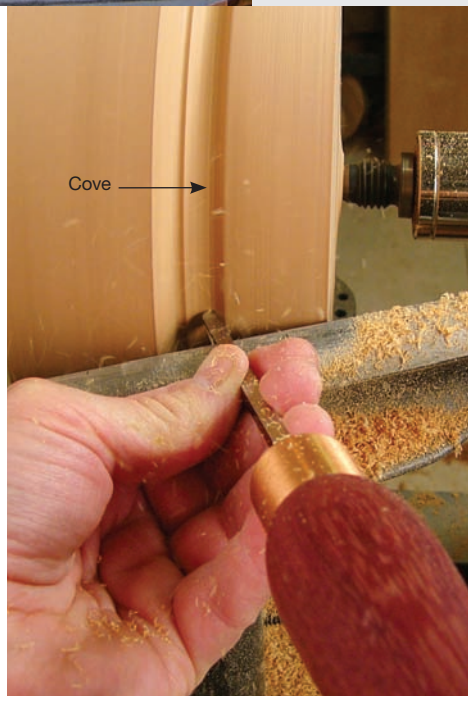
9 Use the positive template to check your progress on the front face of the ring.



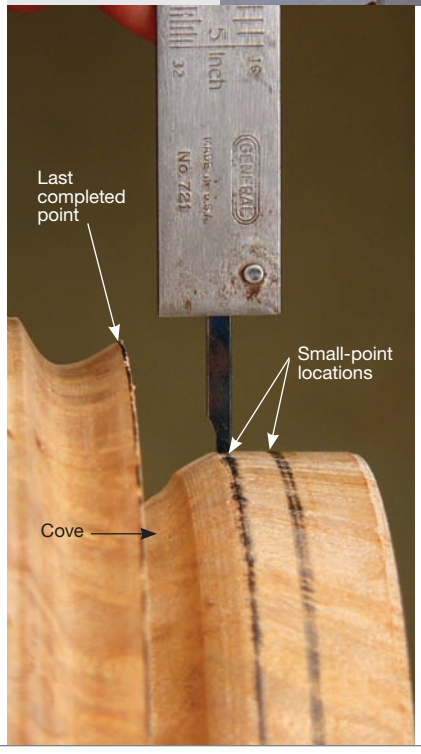
10 There are two small points on the next large lobe that are lower than the outermost point. Use your calipers as a depth gauge to measure the depth from the last completed point.



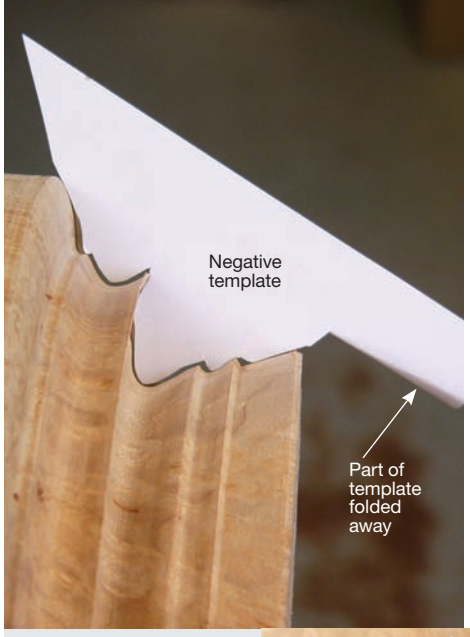
7 Now cut from the corner of the step to the centerline on the edge of the blank, reproducing the curve on the template. Then mark the next lobe point.



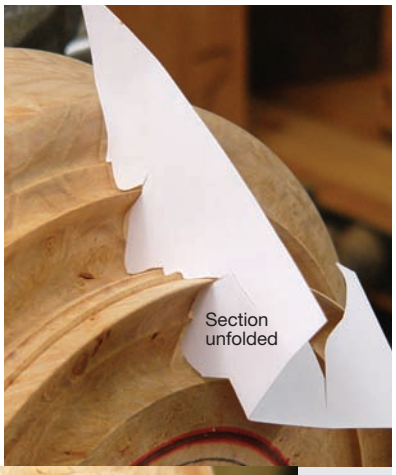
8 With the roundnose scraper, shape the cove between the two lobe points. To prevent tear-out, work from the low side to the high side of the cove.



11 Using the leaf template, mark the locations of the two small points so you can accurately position the depth gauge. Now use the scraper to remove the excess wood. Be careful around the points you are forming; they can be razor sharp.

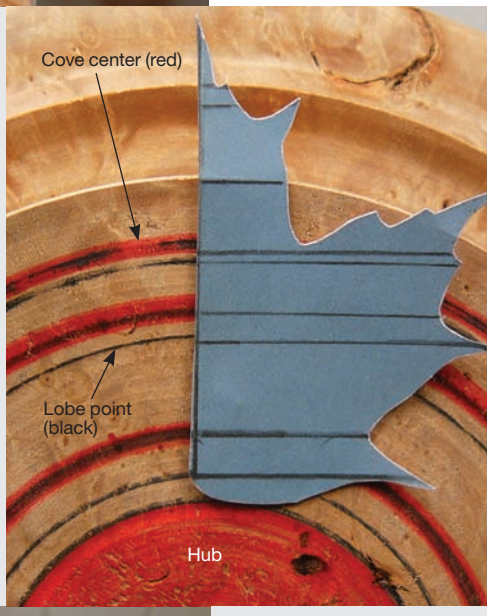


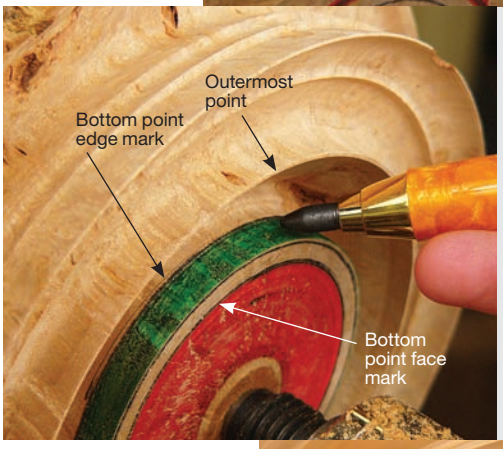
12 Use the template cutoff (the negative template) to check your progress. Fold back the parts of the negative template that represent the uncut portions of the profile to allow it to fit onto the portion on which you are working. Unfold the negative template as you work your way to the bottom of the leaf.



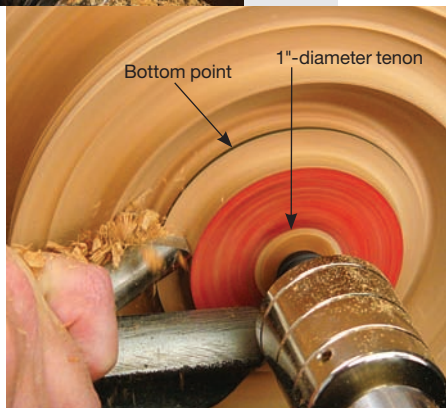
16 Unfold more of the negative template to check the progress.

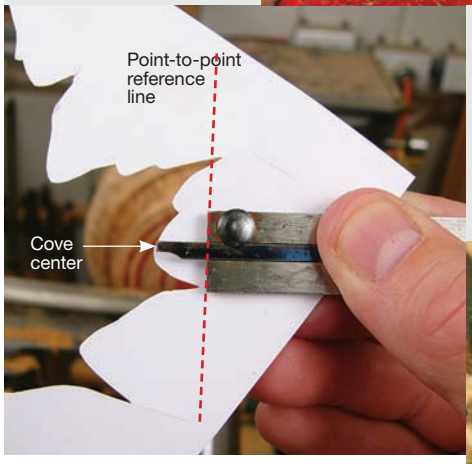
13 Now add some more reference marks to the blank face. The previously marked black lines represent the lobe tips and the red lines represent the coves between the points. The red hub is the 2½"-diameter allowance (the stem will emerge from this section).





17 The two outermost points of the leaf touch the blank faces. On the front face, the bottom point is recessed in from the outermost point about ½". The green mark shows how much wood to remove to reach the bottom point.

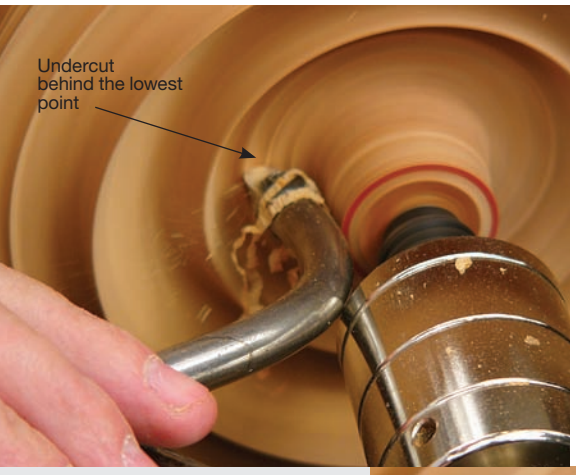




14 Measure the depth of the next cove with the calipers.

15 Remove the waste with the roundnose scraper. To prevent tear-out, scrape from high to low sections.

18 Remove the waste with a bowl gouge. To support the blank, leave a 1"-diameter tenon. Form the last cove and point, and check the profile with the negative template. The shape should be close, but it doesn't have to be perfect, although the cove depths should be accurate. Coves cut too deep can turn a fat maple leaf into a skinny oak leaf.

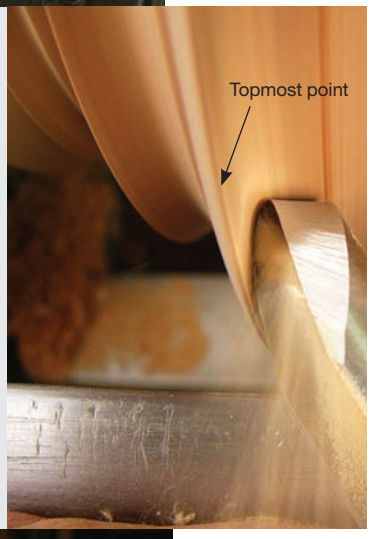


19 With the last point formed, use the curved multitip scraper to undercut behind the point to form the bottom of the leaf. Go slowly and make light cuts.

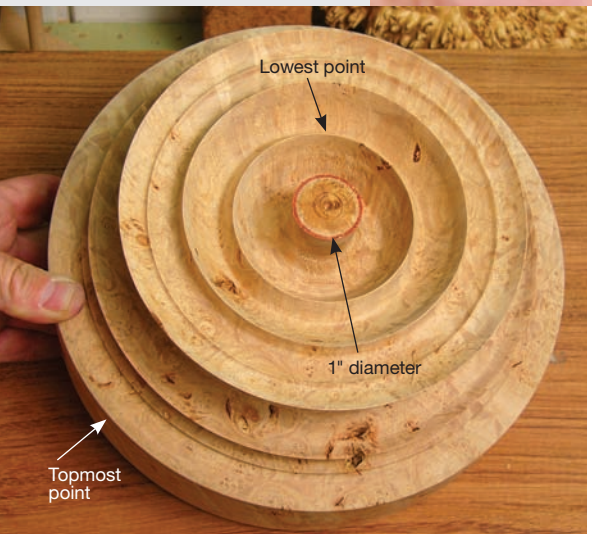
Turn the second face

22 Reverse the blank, mark it as before, and start turning the points and coves. Remember to flip the template. (The gray color is facedown in the photo.)

20 Now use your ⅜" spindle gouge to remove some of the waste from the bottom of the leaf to the 1"-diameter tenon. Stop hollowing about ½" from the centerline marked on the blank edge. Sand the front profile to 320 grit. Be careful not to sand away any of the fine details. Slightly round the sharp ridges so they are gentle to the touch.



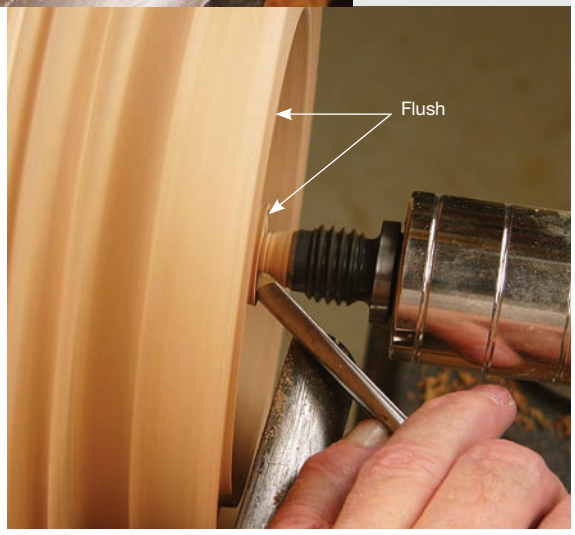
23 Make a delicate pull cut with your gouge to shape the topmost point.



21 The finished first face should look something like the profile *above*. Be patient; a leaf will emerge.

24 As you turn the second face, check the leaf width with bowl calipers. It is critical to be on the mark at this step. If the width isn't correct you will destroy the symmetry of the leaf and ruin the project. (Unfortunately, you won't know until you get to the bandsaw steps that you've miscut.)

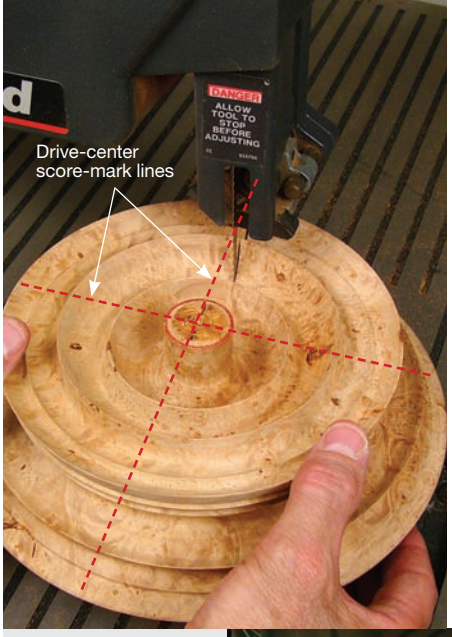
25 Keep following the previous steps of cutting and measuring. As you finish each lobe cove, use your bowl calipers and depth calipers to check your leaf dimensions.



26 With the second face turned and sanded, mark the tenon flush with the outermost leaf points, and turn the outer portion of the tenon (a spindle gouge works well) to about ½" in diameter. Remove the blank from the lathe and snap or cut off the tip of the tenon.

Finishing details

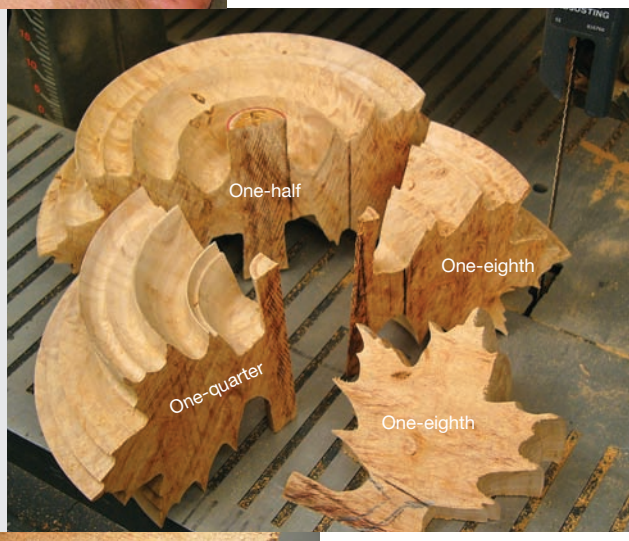
Sand the faces of each leaf on a disc sander, and then finish-sand to 320 grit. Apply a clear finish. I applied two coats of wipe-on polyurethane and rubbed out each coat with a 3M green pad. Then I buffed the faces on a cloth wheel loaded with white diamond compound. To keep from catching an edge, buff from the center of the leaf downward. Do not attempt to buff the edges (the wheel will pull the leaf from your hands). When fully cured, top off the finish with carnauba wax.

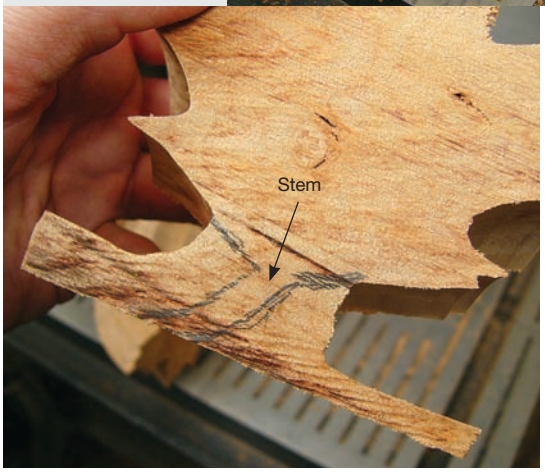


Move to the bandsaw

27 With the shortened tenon down, bandsaw the blank into quadrants, aligning the blade by eye with the score marks left on the tenon by the drive center. The shortened tenon supports the blank for safe cutting at the bandsaw.

28 Cut each quadrant in half for a total of eight leaf-shape pieces. The photo at *right* shows a one-half blank, a one-quarter blank, and two one-eighth blanks.





29 Draw a stem on the waste portion of each eighth section. You can exercise a little artistic license here. Form the stem with the bandsaw and a power carver or with hand-carving tools.

Tim Yoder (tyoder@rsu.edu) is a member of the Northeastern Oklahoma Woodturners Association and host of *Woodturning Workshop* shown on many public television stations. He lives in Tulsa, OK.

Join us for two more visits with couples who live and breathe arts and crafts.

Creative Couples

***Left*: Blackwood and silver ash lamp with creative machined-embroidered panels; 4'6"×9½"× 9½". *Below*: "Nautilus Bowl." Walnut with acrylic paint and texture paste; 7×3". *Bottom*: "Merging Waters." White beech sandblasted with white-tinted oil; 39×17×3".**

Neil and Liz Scobie

In Liz's words

Neil and I met at university while we were training to be schoolteachers, Neil in industrial arts and I in textiles and design. So we have been together a very long time. We know each other very well and know how each other thinks and works (well, most of the time).

Although we both work and teach in our own fields (Neil with wood and me textiles), we also spend a lot of our creative working time on combined projects. We have been producing the turned and painted work since the 1980s and the combined textiles and wood for only about five years. We talked about doing combined work for many years, but building houses, having babies, and raising children all seemed to get in the way. Our first combined work commenced after one of our visits from Michael Hosaluk, who bluntly told us to "stop talking about it and just do it."

Even when we are working in our own areas, we tend to discuss what we are working on and toss around ideas and options.

The creative design process is not a formal one. It is a casual discussion over a cup of coffee on the front veranda. Or the tossing around of ideas over a meal. A few quick sketches on a scrap of paper or the paper table napkin—whatever is close at hand. It is really a part of our life rather than a conscious planning process.

Wendy and David Ellsworth

In David's words

Like so many of our friends, Wendy and I met through our interest in the arts, her focus being beadwork and mine woodturning. The circumstances of our getting together are a little unusual in that when we got married on Thanksgiving, 1980, I was living in the mountains of Colorado while she was living in Boulder, an hour away. In June of the following year, we decided to move east to some wooded land I had located in Bucks County, Pennsylvania, using money from the sale of her farm in western Colorado to pay for it. So in effect, we moved to land she had paid for but never seen and with a husband with whom she had never lived.

The reason for the move east was marketing. I was four years into making these interestingly weird-looking hollow forms, but there were very few buyers of wood-turnings in Colorado. I had been exhibiting on the East and West Coasts, where there was an interest in my work, yet it soon became clear that after each show, I'd go riding off into the sunset (in the eyes of the collectors), not to be seen again for another year. In the arts, absence does not make the bank balance grow larger.

One of the most unifying connections Wendy and I have is through our artwork. Beading and woodturning are both meditative processes, and they are also based on centering techniques. It is always exciting to observe in our art the growth and changes that each of us goes through over time, the inspiration for these changes, and the unknown mystery of where these ideas might lead. We often discuss one another's work in an inquiring way, as it is always helpful to verbalize one's thoughts once a body of work has been established.

***Above left*: David's "Homage Pots." Spalted sugar maple; 9" and 13" tall. *Above*: Wendy's "Black Orpheus." Glass seed beads and wooden stick armature; 1×4". *Left*: "Mandala," an Ellsworth collaborative. Satinwood and glass seed beads; 1×9". *Below left*: Wendy's "Flower Clutch." Dyed cowhide and glass seed beads; 5×9x2".**

Doorknob Upgrade

By Tim Heil

Woodturning provides a never-ending opportunity to make emotional connections with our daily lives. I personally enjoy the challenge of making things that get used around our home, and turned wood doorknobs fit this description to a tee.

In addition to adding beauty to interior doors, a well-designed doorknob highlights the natural beauty of wood and feels warm to the touch.

Get started

Finding the right hardware is the key to this project. You'll need hardware that allows you to easily attach the wood knob to a functioning door latch. I examined several interior doorknob sets and chose a model by Gainsborough Hardware (gainsboroughhardware.com). The set includes a porcelain knob.

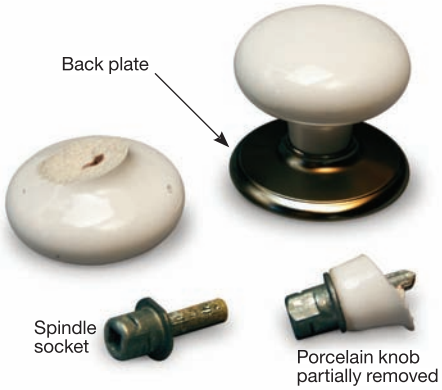
Remove the retaining ring that holds the knob to the back plate, and set the back plate and retaining ring aside. Break the knob and salvage the spindle socket shown at *right*.

At the lathe you'll need a ¾" to 1¼" spindle roughing gouge, ⅜" spindle gouge, parting tool, ¾" or ½" skew chisel, and a 4-jaw chuck.

For turning stock you'll need a 2½×2½×5" stable and dry turning square. (I chose mahogany, cocobolo, and mesquite for my knobs.)

Turn the knob

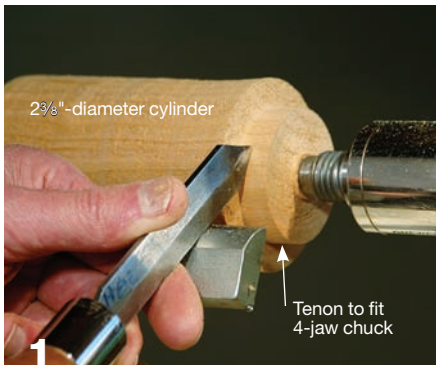
Mount the turning square between centers. With a spindle roughing gouge, turn the square to a 2⅜"-diameter cylinder. Then use a parting tool to turn a tenon to fit the jaws of your 4-jaw chuck on one end (**Photo 1**). Grip the tenon with the 4-jaw chuck, and mount a drill chuck in the tailstock quill. Install a ¼" drill bit in the chuck. With the lathe running, advance the quill and drill a 1"-deep hole in the end of the cylinder (**Photo 2**).



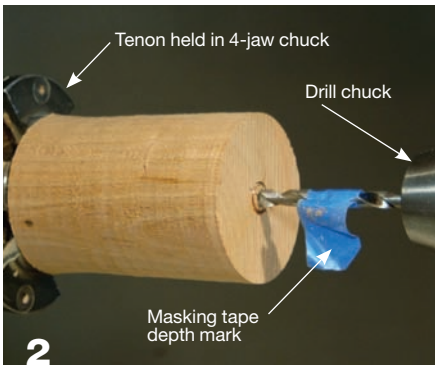
Remove the porcelain knob from the back plate, break the knob with a hammer, and salvage the spindle socket.

Replace the drill chuck with a cone live center, and support the end of the cylinder by inserting the cone center into the ¼" hole. Next turn a ¾"-diameter tenon ⅛" long on the end of the cylinder (**Photo 3**). Check the fit of this tenon into the knob back plate (**Photo 4**). Now shape the knob using a spindle gouge (**Photo 5**) and skew chisel. The finished knob should be about 1¾" long and 2¼" in diameter. Install the back plate to check the size and fit (**Photo 6**).

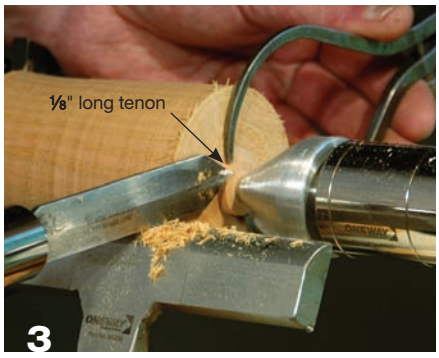
Look at existing doorknobs and the knob gallery *opposite* for design ideas. Add interest with carving or chatter work or by incorporating metal accents.



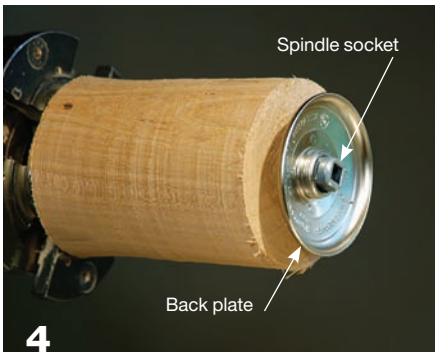
With the turning square rough-turned to a 2⅜"-diameter cylinder, use a parting tool to form a tenon on the end.



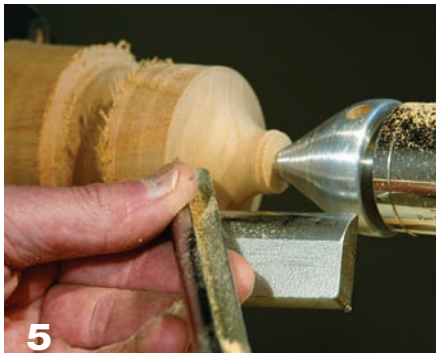
Grip the cylinder tenon in a 4-jaw chuck, install a drill chuck in the tailstock, and drill a ¼" hole 1" deep.



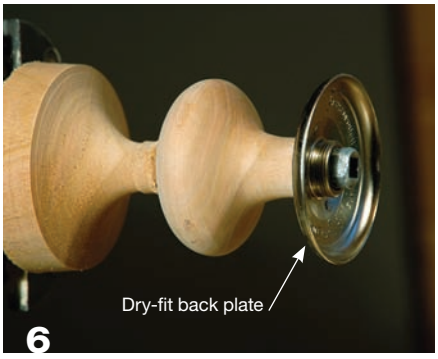
Support the cylinder with a cone center, measure the hole in the back plate with calipers, and turn a ⅛"-long tenon.



Dry-fit the spindle socket into the ¼" hole in the cylinder, and check the fit of the ⅛" tenon into the back plate.



Support the workpiece with the tailstock cone center, and use a spindle gouge to shape the knob profile.



Before parting off the turning stock, check the fit of the back plate with the 1¾"-long, 2¼"-diameter knob.

With the knob finish-sanded, use a skew chisel to reduce the tenon.

Sand the knob to 220 grit, and use the skew chisel (toe pointed down) to part it from the block (**Photo 7**).

Apply a finish

Because doorknobs are constantly being handled, they need special finishing considerations. A coat of oil really brings out the wood grain. Natural skin oil will renew the finish during use.

Burnishing is another option. To do this, sand the knob to 400 grit, then rub it with your hand. The natural oil and mild abrasiveness of your hand will start the finishing process. Over time the knob will develop a patina.

Mount the knob

Mount the finished knob onto the spindle socket with a slow-curing epoxy. After the epoxy cures, reconnect the socket to the back plate with the retaining ring. Follow the manufacturer's directions to install the hardware in the door.

Tim Heil (tim@heiltruckbrokerage.com) is a member of the Minnesota Woodturners Association. He lives in Gem Lake, MN.

Finished photos: Paige DeWess How-to photos: Alan Lacer

Bob's 17 Tips for Beginners

Get a Good Start at the Lathe

By Bob Rosand

People just getting started in turning usually have as many questions as a new runner hoping to finish a 5k race:

- What's the best chuck on the market?
- What kind of tools should I buy?
- What grit is best for sharpening?
- Should I buy a sharpening jig?
- What's the best way to sand?

If you teach or demonstrate frequently, you've heard all these questions many times over.

Sharpening

1 What grit do you recommend for sharpening tools?

Alan Lacer wrote an excellent article on sharpening, which appeared in the Fall 2003 issue of *American Woodturner*.

Regular use of a wheel dresser will true your wheel and expose fresh grinding surfaces.

Pitch the gray wheels that accompany most grinders and sharpen with a 60- or 80-grit aluminum oxide wheel. Although Alan and others advocate honing, I find it unnecessary for most woods and projects I turn. I go directly from the sharpening wheel to the lathe.

Over the years, I've discovered that a Oneway diamond-tip wheel dresser tears up the wheel less than a star wheel dresser. If used properly, the diamond-tip dresser prepares a true wheel and your lathe tool will not bounce (a problem with handheld dressers).

2 What speed grinder do you recommend?

Instead of the better-known 3,500-rpm grinder for general woodworking, I prefer to sharpen lathe tools with a 1,725-rpm grinder, sometimes referred to as a slow-speed grinder. The slow-speed grinder removes metal at a slower rate and allows me to work with the edge of the tool a bit (it's also more forgiving of errors). When I first started turning, I shortened the life of many tools by attempting to sharpen at 3,500 rpm. Don't make the same mistake.

If you don't turn frequently, a sharpening jig may become your best friend.

3 Should I buy a sharpening jig or should I learn freehand sharpening?

I often repeat Bonnie Klein's answer: "If you turn a lot, you probably don't need a grinding jig. But if you only turn a couple of days a week, it's well worth it."

I'll go one step further: Even though I learned freehand sharpening first (jigs weren't commonly available then), I now use a sharpening jig all the time.

If you use a jig for sharpening, keep in mind that it will not sharpen the tool for you and you still need to know what you want the grind to look like.

4 I just want to turn. Why is sharpening so important?

John Jordan has popularized this saying: "If you can't sharpen, you can't turn." I think that John is

absolutely right. You'll never become a proficient turner without first learning to sharpen your tools. And it's not only about speed and proficiency: A dull tool is far more dangerous than a sharp tool.

Before you get too excited about turning, I suggest investing a few hours of time (and money, if necessary) standing shoulder to shoulder with an expert sharpener.

Buying tools

5 What set of tools should I buy?

My answer is don't buy a set. Every set I've seen seems to include one or two tools that you don't need. It's better to buy individual tools and learn how to use them.

When you shop for tools, make sure you buy high-speed steel (HSS) tools. They hold an edge better than the carbon-steel tools that used to be popular. If you stumble across some garage-sale bargains or inherit a set from a relative's estate, chances are those are carbon steel. (Some deceptive marketers actually pass off new carbon steel as HSS. If the price seems too good to be true, be careful.)

There is nothing wrong with carbon steel, but if you are just starting out and have difficulties sharpening, you will probably blue the steel, removing the temper. The great thing about HSS is that you can blue the edge and the tool will still stay sharp. (The blued edge dulls instantly.)

I've also had people tell me that they purchased yard-sale tools (old, worn-out carbon-steel tools) to practice on until they got better at turning. The problem with this is that as a novice turner, you're compounding your problems: Now you have some inferior tools that you're not sure how to use.

Buy the best tools you can afford, even if you buy only one tool at a time.

Another reason I dislike tool sets is the uniformity of handles. A matched set of tools looks great hanging on your wall, but when you are turning and the chips cover the bed of your lathe, it's difficult to identify each tool. Virtually all of my tools have different handles, and I can identify each one amid the chips when I am hard at work.

6 What tools should I start with?

I'd suggest a ¾" spindle roughing gouge, a ⅜" spindle gouge, a ½" skew, and a diamond parting tool. If you want to turn bowls, select a ⅜" or ½" bowl gouge, although my personal favorite is a ⅜" bowl gouge. The next tools I would add are a ½" roundnose and ½" squarenose scraper.

5

With distinctive handles, you'll quickly locate the next tool for your turning task.

6

From *left*: ½" bowl gouge, ⅜" bowl gouge, diamond parting tool, ⅜" spindle gouge, ½" skew, ¾" spindle roughing gouge, ½" squarenose scraper, ½" roundnose scraper.

Setting up a turning area

7 What's the best lathe height?

Your lathe may be set to the proper height, but I doubt it. Measure the distance from the floor to your elbow. That should be the same as the distance from the floor to the centerline of the headstock. If you have to raise your lathe, I recommend reading the Del Stubbs article, "Tuning Up Your Lathe" (Spring 1995 issue of *American Woodturner*). Del discusses how to fabricate a solid base for your lathe so that it doesn't walk around the shop when you are turning. If your lathe is too high, build a stable platform that you can stand on and not trip over.

8 How much light do I need?

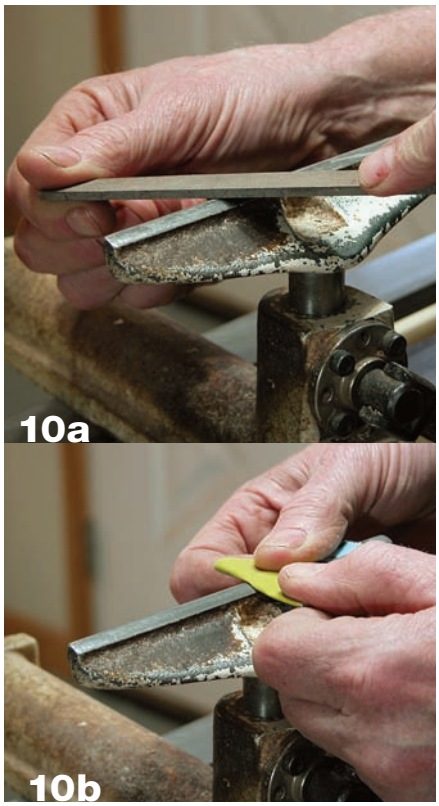
I've done countless demonstrations in shops with pitiful lighting. I don't recommend traditional fluorescent lighting because of the strobe effect it causes. (This is less noticeable with newer ballasts.) I prefer incandescent light. At my small lathe, I have three 100-watt bulbs overhead and one swing-arm lamp that I can focus on my work.

9 What's the big deal about safety glasses?

Always wear safety glasses! When I first started turning, I did not wear safety glasses or glasses of any kind. What a fool. After scratching my cornea numerous times and stopping to flush chips out of my eyes on many occasions, I won't even turn on the lathe today without a pair of safety glasses. If you still don't think that safety glasses or face shields are necessary, check out the Spring 2001 issue of *American Woodturner* (pages 28–30). If you are still not convinced, consider another avocation.

10 How much upkeep does a lathe require?

Every day, spend a few minutes doing some lathe maintenance. Feel around the bed of the lathe for rough spots and file them off. If the tool rest is new, file it and round over the edges. If the rest is old, file out the nicks and dings, and then smooth with 220-grit sandpaper. Rub a little paraffin (canning wax) on the surface of the tool rest. You'll be amazed at how it helps the tools slide.



Tune up your tool rest by regularly ling (top) and then sanding (bottom) the surface.

Turning

11 How high should the tool rest be?

I cut right at the centerline. So when I'm using a cutting tool, the handle needs to be down in relation to the tool rest. That means that the tool rest needs to be a little below the centerline of the lathe. If it is set just at the centerline, you will have to lift up on the handle to complete the cut because you always complete the cut at the centerline. If you switch to a smaller tool, you will need to raise the tool rest a little.

With a little experience, tool-rest height becomes intuitive and you find yourself making only slight adjustments as you are turning. If you have to raise the tool handle every time you finish a cut, you probably need to lower the tool rest.

If you are using a scraper, the handle needs to be up in relation to the tool rest. Scrapers are almost always used this way. Using a scraper with the tool handle down is asking for a big catch.

Set your tool-rest height slightly below center with the tool on center.

12 How close should I put the tool rest to the wood?

Keep the tool rest as close to the work as you can. Turning is a bit of a leverage game, and if you extend the tool too far over the tool rest, you are asking for trouble. If you are roughing a square block into a cylinder, bring the tool rest as close to the work as you can and rotate the piece to see that it does not bind. Start the lathe, rough the block partially, then shut off the lathe and move the tool rest closer to the work and repeat.

Moving the tool rest while the lathe is running can result in broken tool rests and possible injury.

13 At what speed should I turn?

I doubt you'll find any turning instructors who will offer up a firm answer to this question.

Variables include your skill level, what wood you are turning, even the kind of lathe you own. But if you have to ask that question, you should slow down a bit. On the other hand, it's possible to turn too slow, but that's far less dangerous than turning too fast. A good rule of practice is to reduce the speed, turn on the lathe, increase the speed gradually just to the point of vibration, and then back off a bit. (This is easy with a variable-speed lathe.) As the piece comes into round, slowly increase the speed. Your comfort level will change with time and experience. Finally, its safest to stand to the side of the lathe when you turn it on.

14 When am I ready to turn big bowls and platters?

I often get this question at hands-on workshops. I have no problem with bigger bowls, but the techniques to

turn a 6" bowl are the same as the techniques to turn a 24" bowl. If you are just learning and blow up a small bowl with an oops, you have far less time, energy, and money invested in the small bowl than you would in the large bowl. Plus, it's a lot safer turning smaller pieces

Start small and work your way up. Some people have made a career of turning small items.

15 What is the best chuck?

Pull back on those reins; there will be plenty of chances to plunk down money on a 4-jaw scroll chuck after you get your chops. After you've turned for a bit, you'll know exactly what kind of chuck you need.

Don't buy any chuck until you know what kind of turning you like to do. If you want to turn small items (up to 10"), a chuck such as the Oneway Talon or Penn State Barracuda 2N is ideal. But until you settle on what you like to turn, use a faceplate. It's a lot less expensive and you can do almost everything with a faceplate that you can do with a chuck.

For example, if you want to turn a weed pot, you can use a small chuck with #2 jaws, turn a shoulder on your turning stock, and grasp the weed-pot stock with the jaws.

You can turn the same project with a faceplate. After attaching a wasteblock to the faceplate with screws, use cyanoacrylate (CA) glue to adhere the turning stock to the wasteblock.

Sanding and finishing

16 What grit sandpaper is that?

I wish I had a dollar for each time I've been asked this question during a demonstration. How I sand depends upon what I am turning.

If I'm turning a weed pot or a ring holder, I might start with 120- or 150-grit sandpaper and work up to 600 grit. On a good day, I might start with 180 or 220 grit. However, when I first started turning I generally started with 80 grit or even 60 grit. But now that my skills are better, I can cut better and I have less tear-out, so I can start turning with a higher grit. I do like to use a good quality sandpaper. I'm particularly fond of the gold sandpaper from Klingspor (800-645-5555; klingspor.com), but I also use a blue zirconia paper from Red Hill Corp. (800-822-4003; Supergrit.com). Norton and 3M also make outstanding sandpapers for efficient removal.

If I am sanding something like a bowl or a platter, I sand a little differently. I generally start by hand-sanding with 120 or 150 grit with the lathe running (slowly) to about 220 or 320 grit. I then shut off the lathe, drop down to 180 or 220 grit, and use 3" sanding discs in a drill to finish the piece at least to 600 grit.

As a general rule, I like to slow the lathe down a bit when I am sanding, because it generates less heat. For protection, I often use a foam pad between the sandpaper and my fingers. I sand at the highest grit possible, but won't hesitate to drop down to a lower grit if necessary. The problem with sanding with lower grits is that you can easily sand away those fine details in your turning.

Finally, don't be stingy by trying to reuse sandpaper. If it's still cutting okay, fine, but if it's loaded up or clogged, throw it away and use fresh sandpaper.

17 What's the best finish to apply?

New woodturners shouldn't worry about a finished project! I know that sounds odd, but when you're just starting, your job is to have fun at woodturning. You need to get used to the tools, how they work, and what they will do. When you have mastered the tools, then you can start looking at finished projects.

I like the feel and look of an oil finish such as Waterlox. If I am in a rush, I may resort to a spray lacquer, let the piece dry, and then buff it. For things like my Christmas ornaments, I hang them in a row and spray them with a Deft satin lacquer.

Bob Rosand (RRosand.com) is an *American Woodturner* contributing editor. He lives in Bloomsburg, PA.

Start Easy

When I lead hands-on workshops, I limit students to small projects and usually bring sufficient material to complete three of the same projects (three birdhouses, three ornaments). I always tell the students not to worry about finishing the first project, but to go through the process, learn from their mistakes, and improve the next project. Most people are determined to complete their first project, but those who learn from their mistakes and get on to the next project are usually happiest with their results.

Finally, don't use valuable wood for practice sessions. Go out to the firewood pile and turn that wood until you are competent with the tools. Years ago, at one of the early symposiums, another turner and I purchased some beautiful redwood burl slabs. When we saw David Ellsworth, we asked him what we should do with it. His response was, "Put it away until you know the answer to that question."

Bowl Hunting With Mike

By Mike Mahoney

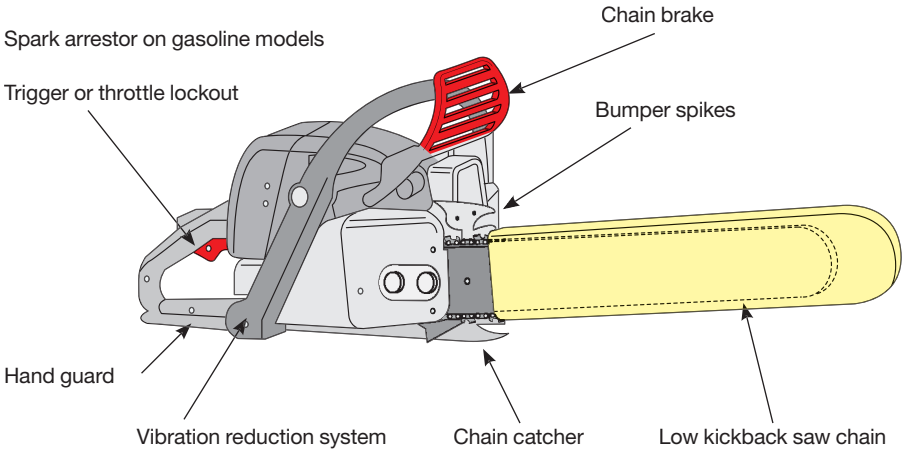
In 20-plus years of operating a chainsaw, Mike Mahoney has never had an accident (knock on a lot of wood). Mike thinks that if you are safety conscious, you can find great pleasure in harvesting your own turning stock.

The chainsaw is as important to me as the lathe. It helps me make my object to my specifications as compared to buying wood that is already dimensioned from a wood dealer.

The chainsaw is a must-use tool for woodturners. It gives us the ability to find beautiful local turning stock that is free or nearly so. For many of us, local timber also defines our work. (I rely on Utah's silver maple; Dale Larson is known for the madrone that grows near his Oregon home.)

Before you pick up a chainsaw, a safety clinic from an experienced trainer is important. I feel strongly that a chainsaw safety talk by a trained instructor should be part of the annual programming lineup for all chapters.

Your chainsaw should have these safety features.



Shopping for a chainsaw

I recommend always purchasing a saw from a chainsaw dealer. Discount stores will not provide the warranty and maintenance that are crucial for your safety and your saw's performance. Saw dealers also provide information on chain types that may be specific for your cutting needs and will recommend a sharpening service as well.

There are three types of saws for woodturners:

1) Lightweight saws have a bar of 8–12". These are good for cutting branches up to 10".

2) Middleweight saws have a bar 14–20". These are great for cutting branches and small trees up to 18" in diameter.

3) Heavyweight saws have bars over 20" and are generally reserved for the professional. I take 24" Stihl and Husqvarna saws to the woodlot.

TLC for your chain and bar

A dull chain is dangerous and therefore the chain should never touch the dirt while cutting. Dirt is the major cause of dullness on a chain. The chain should also be snug to the bar so as to not derail while rotating but not so tight as to bind. Chains loosen as they get warm so be prepared to tighten them as you work.

The bar of the saw is often overlooked as a source of problems while cutting. If your saw bar has had significant use, the channel widens

and becomes uneven. I replace or recondition my bars for every 10 chains I use. Most of this information is in the instruction manual, where you can learn a lot about the technical parts of your chainsaw.

Be prepared

In addition to the safety rules on *page 56*, here are other guidelines I follow.

When I go to the woodlot, a helper accompanies me. We always bring two saws and many sharp chains. (Inevitably I will find a saw that won't start or run smoothly.)

Since I cut urban timber, I expect to hit nails and other foreign matter. That's why I always pack a few extra sharpened chains before I leave my shop. Being prepared with an additional saw and chains saw saves time, improves efficiency, and reduces frustration.

Having trouble finding wood?

A word about urban forestry: According to Sam Sherrill in his excellent book *Harvesting Urban Timber*, three to four billion board feet of lumber is discarded into landfills throughout the United States every year. Staggering!

Many people have no idea where to find these landfills, and when they do find them they feel they don't have permission to cut in them. I have been told that many municipalities will not let you cut there due to liability. A little research on the structure of your town's urban tree landfill facility will earn you some great rewards. Call and ask questions; the benefits of your time are worth the effort.

A nice turned gift to the authority in charge of the trees might make access easier as well. If all else fails, make friends with a professional tree trimmer.

—Mike Mahoney

Look for cracks emanating from the pith. These references will help you plan cuts.

After marking both ends of the log, make the first cut through the 18"-long log.

Separate the two blanks. Note how the log is elevated to keep the chain out of the dirt.

Beautiful! Urban timber harvest at its best. Note the powerful fiddleback grain.

Some other necessary tools include a mallet, wedges, grappling hook, bar oil, properly mixed fuel, bar wrench, chainsaw file, and a first-aid kit. Don't forget to take along several heavy-duty pencils or markers to sketch out your bowl profiles.

The important first cut

The key to making a first cut is knowing the end product. A hollow form, for example, requires a different cutting approach than a salad bowl or natural-edge bowl. The photos at *right* illustrate cutting a log for salad and natural-edge bowls. The salad bowl *opposite* was turned from the silver maple trunk shown.

For efficiency, cut a series of crosscuts the length of the diameter of the log. Then drive in a wedge to keep the kerf open so it won't collapse and pinch the blade. To keep the chain from touching dirt, use care not to cut all the way through the log. When you've finished a series of cuts, roll the log over and cut from the top to separate them.

Before you start cutting bowl blanks, you need a plan. Look for cracks emanating from the pith (**Photo 1**). If the log has no physical defects on its bark, this step dictates the direction your saw should follow.

Use your pencil or marker to sketch out the bowl profiles. Be sure to draw the lines of both ends of the log. Then properly support your log. Brace the log on both sides for support. The first cut is a flat cut that makes the blank easier to handle on the bandsaw when you return to your shop (**Photo 2**). The second cut (**Photo 3**) separates the salad bowl from the natural-edge bowl and reveals fiddleback grain (**Photo 4**).

Mike Mahoney (latheguy@aol.com) is a full-time woodturner and popular demonstrator who lives in Orem, Utah.

Better safe than stitched

Play It Safe

By A. J. Hamler

Although it's an incredibly useful tool for woodturners, an improperly used chainsaw can be an accident waiting to happen.

The chainsaw is undoubtedly one of the greatest labor-saving devices for woodturners who gather their own stock. Fast, convenient, and efficient, a chainsaw can fell a tree and transform the downed trunk into dozens of pieces of turning stock within minutes. It's especially adept at preparing blanks for natural-edge bowls.

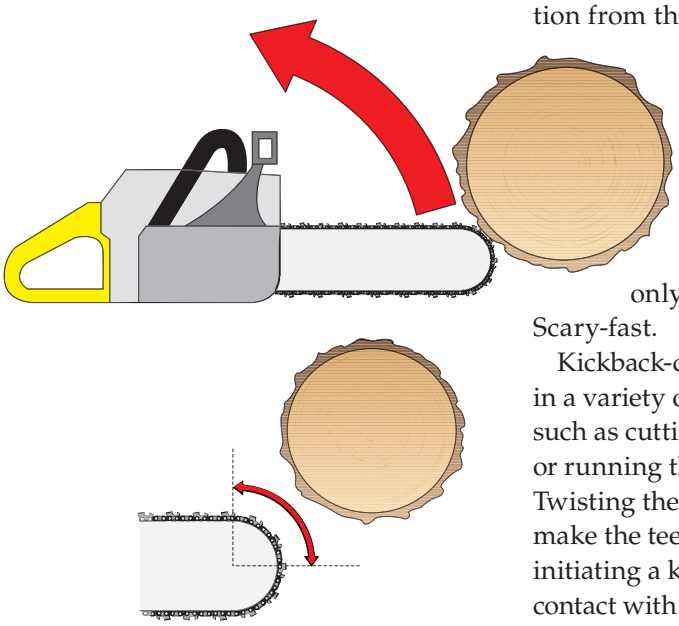
This convenience, though, carries risk. If used improperly, the chainsaw can cause particularly devastating injuries. The U.S. Consumer Product Safety Commission (CPSC) says there are 30,000 to 40,000 chainsaw-related injuries reported annually. For accident details, see the sidebar *opposite*.

Accidents have a variety of causes. As with all powered machinery—from cutters to cars—failing to heed proper usage guidelines and safety precautions is always a factor, as are fatigue and distraction. Loss of balance while cutting causes numerous accidents, while being struck by falling limbs and tree trunks causes non-saw chain contact injuries.

"…saw kickback can move in a 90-degree arc— the distance from the workpiece to the operator's face—in only one-tenth of a second."

Other causes are starting the saw while holding it by hand, carrying the saw while it's running, using a saw while on a ladder or in a tree, over-reaching and cutting overhead, being unaware of bystanders, cutting between the feet while standing on a log, or simply losing control of the saw.

Fully 85 percent of all injuries involve contact with the moving saw chain, and the CPSC estimates that the average injury from saw chain contact requires 110 stitches.



Kickback, an old nemesis

Most chainsaw injuries occur to the legs and arms, as shown in the pie chart *opposite*. Kickback is a violent action that sends the chainsaw upward and back in an arc directly at the operator (oftentimes at the shoulders or head). Kickback most often occurs when the moving teeth at the tip of the saw (usually the teeth on the upper quadrant of the rounded tip) unintentionally make contact with an object.

If this contact is solid enough, the forward motion of the teeth is slowed and the kinetic energy of the chain is transferred to the body of the saw itself. If you aren't holding the saw correctly, the kickback flips the saw in the opposite direction from that of the teeth, and it does this far quicker than your ability to react to it. A publication from the University of Minnesota Extension Service shows that a saw kickback can move in a 90-degree arc (the distance from the workpiece to the operator's face) in only one-tenth of a second. Scary-fast.

Kickback-causing contact occurs in a variety of other circumstances, such as cutting with a dull chain or running the chain too slowly. Twisting the saw while cutting can make the teeth bind at the tip, also initiating a kickback. But it's not just contact with the workpiece itself that

Safety clothing and gear, like this offering from Husqvarna, can help avoid or minimize injury. From left: Heavyduty jacket, chaps, leather gloves, helmet system with face shield and hearing protection, steel-toe boots.

can cause kickback. In fact, kickback is more likely when the tip of the saw unexpectedly contacts an object beyond the workpiece. This can be a rock, log, or even the ground.

Fortunately, due to voluntary standards adopted in the mid-1980s, today's chainsaws incorporate a number of improvements to help minimize danger. Manufacturers have redesigned cutting chains to reduce kickback-causing friction, while tip guards and narrower bar tips reduce the amount of contact area at the saw tip. Almost all chainsaws now feature a chain brake that can be manually set or automatically activated by the motion of a kickback. Some systems activate through mechanical contact with the front hand guard or by the inertia of the kickback alone. See additional details in the drawing on *page 54*.

22 ways to play it safe

Avoiding accidents should be the number one consideration when using a chainsaw. Frankly, a load of great turning blanks won't do you any good if you're spending your time in recovery and rehab. The companion article "Bowl Hunting with Mike" on *page 54* gives you great advice on planning your cuts to make the most of the wood, but you also need to think through the potential hazards of each cut before you make it.

With that in mind, here's a checklist of safety practices for chainsaws. Nothing can completely eliminate accidents, but following these guidelines can help minimize their occurrence, or at least lessen their severity if they do occur.

1. Maintain your equipment in top-notch condition. That means efficient motor performance, sharp chain, proper chain tension, and sound handles. Examine the guide bar for straightness before each use, and do not use the saw if the bar is bent.

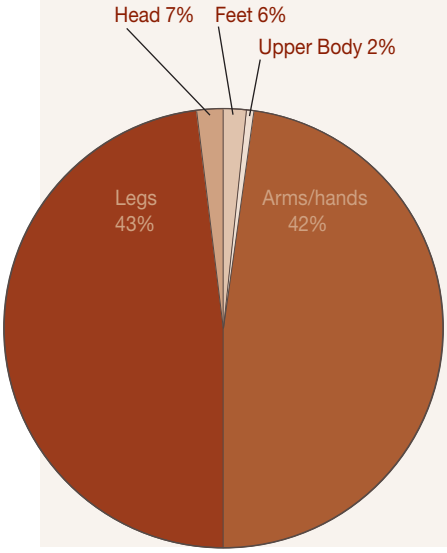
2. Read and follow all instructions in the instruction manual, paying particular attention to the special characteristics of your saw.

3. Replace an old saw with a model that has modern safety features. At the very least, replace the bar and chain with low-kickback versions.

Inside the accident statistics

Breaking down the numbers, the U.S. Consumer Product Safety Commission (CPSC) notes that nearly half the injuries (about 43 percent) involve the legs, while almost as many (about 42 percent) occur to the arms and hands. The remaining injuries involve the head (7 percent), feet (6 percent), and upper-body (2 percent). Because of the way a chainsaw is designed to be held by the left hand and controlled with the right hand, injuries occur far more often to the left side of the body.

Note: Some spokespeople in the timber industry feel that any accident in the forest is unfairly classsified as chainsaw-related.



4. Check your saw's safety features before each use.
5. Wear protective clothing—heavy-duty chaps or pants, steel-toe boots, and thick gloves. Never wear insubstantial footwear such as sneakers.
6. Use personal protective gear—safety glasses (always), face shield (if needed), hearing protection, and helmet. Consider purchasing a full helmet system that includes both face shield and hearing protection. Safety glasses should be worn under the helmet, as specified by ANSIZ87.1 standards.
7. Avoid dangling items that a chain can grab: loose sleeves, key chain, belt, bootlaces, long hair, and so on.
8. Check the area for hazards. Be sure that the saw tip will not contact any object near a workpiece while cutting. Take extra care and double-check your footing if conditions are wet, muddy, snowy, or icy.
9. Never cut alone. By the same token, be aware of any other people (and pets or livestock) and keep them away from the cutting area.
10. Never cut if you're tired, preoccupied, distracted, or in a hurry. Understand the effects of any prescription or over-the-counter medications you take, and don't cut if these medications cause drowsiness. No alcohol. Ever.
11. Always start the saw on the ground, not handheld. Use both hands when starting the saw, as shown *above top*. Before attempting to start the saw, be sure the chain brake is engaged. Never wrap the starter cord around your hand when pulling.
12. Always use both hands to control the saw when cutting. Never attempt to cut single-handed.
13. Don't stand in the line of cut or lean your head over the line of the guide bar. Always stand to the left of the cutline, and don't allow anyone else to stand in the line of the cut.

Hold your chainsaw firmly on the ground when starting. Handheld starts are dangerous because you risk losing control.

A chainsaw is safest when used near ground level. Never use a chainsaw above shoulder height.

Use a polymer wedge (available from a chainsaw store) to keep the kerf open in deep cuts. If you accidentally knick the polymer wedge, you won't damage the chain.

14. If you're working on a slope, brace or wedge the log if possible to prevent rolling. Always stand on the uphill side to avoid rolling logs.
15. Never carry the saw while it's running. (And, of course, never run with the saw!)
16. Don't overreach. If there's a danger of losing your balance, move to a more secure location. Never cut overhead; in fact, never cut higher than waist level.
17. Cut only while standing firmly on the ground, never from a ladder or up in a tree.
18. When removing branches from a downed log, cut with the guide-bar base whenever possible, not the tip.
19. Don't stand on a log while cutting, and never cut between your feet.
20. When making deep cuts, use a wedge to keep the kerf open. This helps prevent the saw from binding in the cut, reducing the potential for kickback.
21. If you need to refuel during a job, allow the saw to cool down before gassing up.
22. Trust your instincts and stop working if a cutting task feels overly difficult or if you're unsure about your ability to complete a cut safely.

You can view on-line safety videos at stihlusa.com (follow links under information) and usa.husqvarna.com (follow links under chainsaws). For additional tips on safe use of chainsaws, see forestry.about.com.

A. J. Hamler (aj@ajhamler.com) writes about woodworking topics from his home in Williamstown, WV.

A Walk Through the Trade Show

Yes! Plenty New

By Alan Lacer

The Serious SL2542 lathe weighs in at 1,300 pounds and has a 25" swing.

The AAW symposium in Richmond, Virginia, included a large trade show area where approximately 60 different vendors displayed and demonstrated a wide range of products. Here is a sampling of some of the noteworthy new items from that exhibition.

Lathes

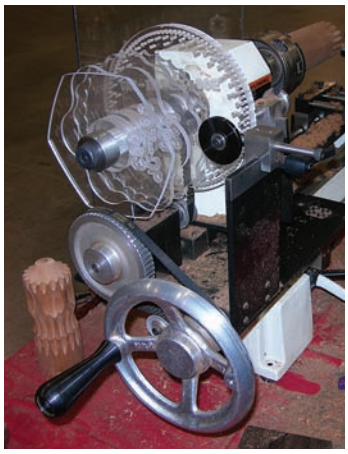
EBO (eboinc.net) showcased a completely new line of lathes, including the model 4015 bowl lathe that swings 40" over the bed. Two other lathes swing a more modest 25½": the model 2536 handles 36" between centers, while the model 2578 has a bed length for workpieces 78" long.

Serious Toolworks, Inc. (seriouslathe.com) debuted a single new model: the SL2542 weighs in at 1,300 pounds, including a 3 hp motor. Other vital measurements: 42" between centers, 25" inboard swing, and an optional attachment that will handle up to a 44"-diameter outboard bowl.

Robust Tools (turnrobust.com) showed one new lathe, the Sweet 16, but it can be set up in a number of different ways to accommodate a variety of turning challenges. The lathe gets its name from the standard 16" swing over the bed, but removing a bed section configures it as a bowl lathe that handles 30" over the gap. The standard bed length handles 40" spindles, but moving the gap bed to the end of the lathe increases the capacity to 54". You can also mount the gap bed as an L-shape tool rest at a right angle to the fixed headstock.

The EBO 4015 bowl lathe has a 40" swing. This is a fabricated lathe, also available in longer beds and with a smaller swing.

Laguna Tools (lagunatools.com) imports a line of modestly priced lathes grouped into its Platinum Series. The three models all have cast-iron legs and sliding headstocks, and you choose the swing you need: 14", 16", or 18". The series also includes a duplicating lathe with a capacity of 59" between centers.



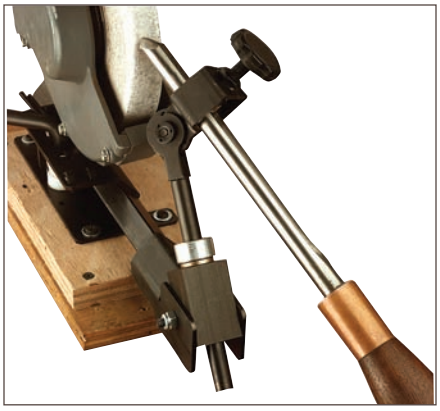
The prototype Modern Rose ornamental lathe attaches to the bed of a Jet mini lathe.

Ornamental lathes

The **Lindow-White Machine Works** booth (roseengineturning.biz) showcased a new rose engine lathe with a number of accessories.

The **Modern Rose** booth (themodernrose.com) demonstrated a working prototype of a device that bolts to a Jet Mini 1014 lathe. The company says that the one-hour conversion produces a system that's ready to tackle a wide variety of ornamental turning functions.

The Sorby ProEdge grinding system uses a 2×30½" belt (available in several grits) to sharpen tools.



The Sharp Fast grinding system is designed to prevent the lathe tool from running off the edge of the grinding wheel.

Sharpening systems

New at Craft Supplies USA (woodturnerscatalog.com) is the **Sharp Fast** tool guide, a safety sharpening system for gouges. The guide clamps onto the tool, and includes a feature that prevents the gouge from running off the grinding wheel.

At the booth staffed by **Geiger's Solutions** (geigerssolutions.com), staff demonstrated a couple of accessories for grinding jigs. An adapter for the newer Ellsworth jigs allows its use with gouges smaller than ⅝" outside diameter. Another accessory is a gauge for the Ellsworth Vertical Solution system that makes it easy to accurately establish a 60-degree angle during initial setup.

Klingspor's Woodworking Shop (woodworkingshop.com) showed the ProEdge system developed by **Robert Sorby**. It uses an included belt grinder rather than a wheel.

Chucks and off-lathe holding tools

The new **Sorby** Patriot chuck was demonstrated at the Packard Woodworks (packardwoodworks.com) booth. The Patriot includes a complete line of accessory jaws.

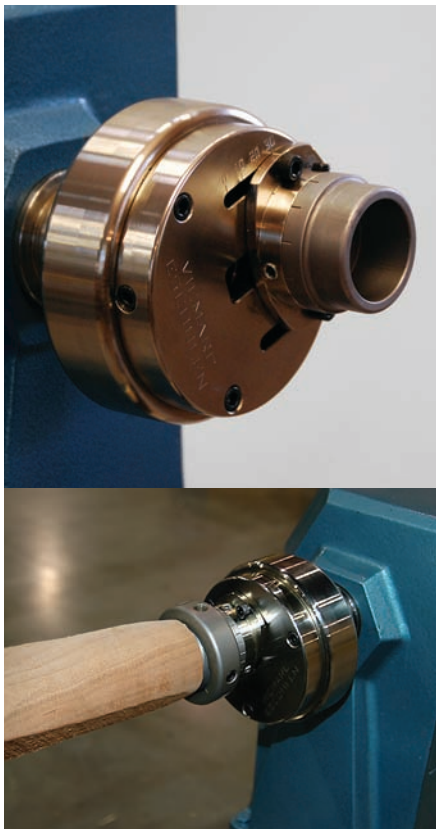
Oneway (oneway.ca) has a new line of #4 jaws for the Stronghold chuck with a range of 4¼" to 5¾" for external gripping or 4⅞" to 6½" for expanding into a recess.

Vicmarc's fourth-generation Escoulen chuck was shown at The Woodworkers Emporium (woodworkersemporium.com). This chuck allows adjustments in two ways: offsetting from the normal axis line (parallel to the lathe bed) as well as rotational adjustments (from a ball-and-socket system) that enable you to point the axis in almost any direction (not just parallel to the bed of the lathe). It also has a built-in counterweight system to compensate for the off-center nature of the chuck.

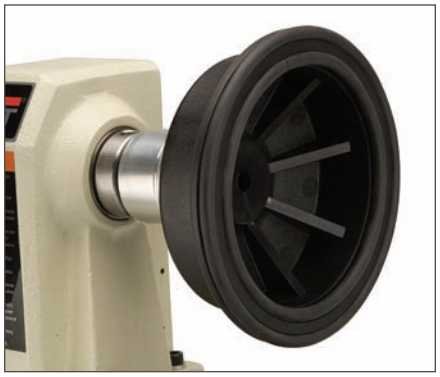
Laguna Tools (lagunatools.com) now imports a line of three different scroll chucks in their Platinum Series of tools.

Also at Craft Supplies USA (woodturnerscatalog.com) is the **Hold Fast** Vacuum Chuck System. It includes a line of accessories that accomplish a variety of vacuum chucking operations.

There were at least two new vacuum-holding systems shown for mounting work off the lathe for carving or other tasks. **Best Wood Tools** (bestwoodtools.com) offers the Vacuum Articulated Carving and Finishing Post. Packard Woodworks (packardwoodworks.com) sells the **Woodcut** Pro-Mount that holds the lathe-turned work by threading or by vacuum.



The newest version of the Escoulen chuck allows multiaxis turning parallel to the lathe bed and rotational adjustments. It includes a built-in counterweight system.



The Hold Fast Vacuum System allows chucking on a mini lathe with an air compressor and pressure regulator.

The Kobra Hollowing System is based on a customized tool rest and articulated joints. It is a heavy unit, shown here with the optional laser system for measuring wall thickness.

Cutting, hollowing, and knurling tools

New at **Thompson Lathe Tools** (thompsonlathetools.com) is a full line of bowl and detail/spindle gouges in CPM 10V powdered steels. The company furnishes the tools unhandled, but also showed a selection of compatible tool handles produced by **David Peebles**. Or, you can make your own handles or use an interchangeable handle system.

Easy Rougher, a carbide-tipped tool shown at Craft Supplies USA (woodturnerscatalog.com), is a new tool intended only for the roughing phase of bowl or spindle work. You skip sharpening by merely replacing the cutter.

Craft Supplies also showed the **Wagner Texturing Tool**, which puts a decorative knurled design on both face- and end-grain surfaces. The standard ⅜"-width wheel is available in 12 or 16 tpi (teeth per inch). A narrower ¼" (16 tpi only) reaches into tight areas. You can use these tools on flat or convex areas, but they aren't intended for concave surfaces.

There were several new hollowing arms displayed at the trade show. The **Kobra** Hollowing System (rayt@indy.net) uses four articulating joints and a custom tool rest system. It's available in two sizes, depending on the swing of your lathe. **Oneway** (oneway.ca) has developed a new articulating-arm hollowing system.

More great products

At the Sanding Glove booth (TheSandingGlove.com) were new products from **3M, Norton**, and **Mirka**. Flexible diamond abrasive discs from 3M enable you to sand pieces with stone or glass inlays. Norton has a new line of sanding discs, and says that the heat-treated aluminum oxide abrasive grain with exible backing provides a faster cut rate and extended life compared to previous products. Mirka's Abranet products are a line of mesh sanding discs that give a long life and little or no loading, even when used on green wood. (The Abranet discs were also in the Turningwood.com booth operated by Steve Worcester.)

3M's Flexible Diamond Abrasive is available with an electrostatically resin-coated bond (*top*) and metal bond (*foreground*).

Vince's WoodNWonders (vinceswoodnwonders.com) showcased a line of abrasives from Swiss maker **Sia Abrasives**. These appear to be a premium disc system with a flexible backing. There is also a rubberized sheet material branded **Siasoft** for spindle work.

Butler's Tailstock Swing Away for the Powermatic 3520 A & B (butlerturning.com) was in the VM Woodworking booth, along with the Butler line of indexing plates and boring bar system.

Trend Airshield Pro is a powered respirator that has the motor mounted on the full helmet. Packard Woodworks (packardwoodworks.com) is one source.

Smooth Turning markets stainless-steel inserts for travel mugs (*above*), cocktail shakers, and ice buckets.

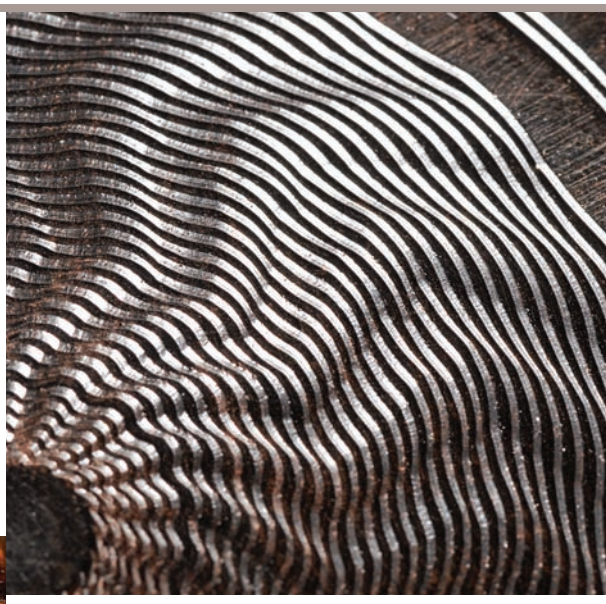
Oneway (oneway.ca) has developed a penmaker's point for their live center system (replaces the normal center pin). Something a bit different were stainless-steel inserts to create turned outside "skins" for travel mugs, cocktail shakers, and ice buckets from **Smooth Turning** (smoothturning.com).

Alan Lacer (alanlacer.com) is a turner, writer, and instructor living near River Falls, Wisconsin. Alan is an *American Woodturner* contributing editor.

OT

Phasing Fundamentals

By Jon Magill



***Above*: To produce the moiré pattern, the notch plates or phasing holes are moved forward a few, then back a few. This moiré example is turned with a fixed cutter on African blackwood end grain.**

***Left*: The first two phasing patterns to master are alternating, *far left*, and spiral, *near left*. This pattern is made with a square-tipped cutter on side grain.**

Those new to ornamental turning and rose engines will be fascinated with the magic of just a single cut made by a rose engine and seeing the patterns each rosette can make. The real reward of OT comes with mastering the manipulation of the lathe to create the interplay between multiple cuts.

It's just a phase

To expand your repertoire of techniques beyond single cuts, you need to learn how to combine multiple cuts and their relationship with each other. Moving to the next step means becoming proficient with phasing. A fundamental feature of all rose engines is the incorporation of some facility for doing phasing. This means the ability to adjust the position of the rosette relative to its geometry and to make additional cuts that have a prescribed relationship to prior cuts. Although the way that phasing is implemented varies from lathe to lathe, every rose-engine lathe includes some phasing provision.

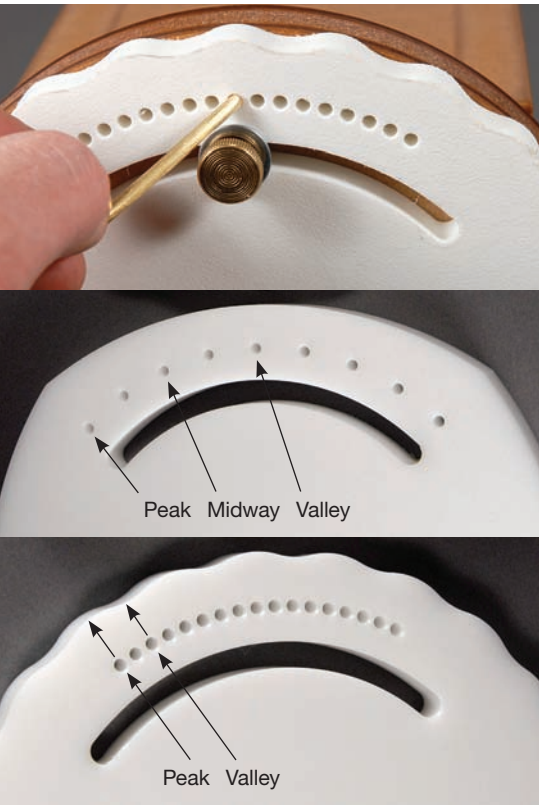
Most common on antique lathes was a notched plate, sometimes called a click plate, with detents around its periphery. This plate was typically connected to a barrel of rosettes by a pawl. Releasing the pawl, rotating the rosette barrel to a new position, and reengaging the pawl in a detent phased the rosette. After each cut, the pawl could be released, repositioned to a new notch, and the next cut made. This quick-and-easy adjustment was the key to making complex patterns in an accurate but easily repeatable fashion.

In the heyday of OT there was a fascination with multiples of 12. Hence rosettes with 12, 24, 48, and 96 lobes were commonplace. The notch plates had groups of notches that represented fractions of a circle. They were labeled, according to the count, as if the notches encircled the entire plate. But because only a small section of notches is required for any rosette geometry, the notches seldom include more than a few in each group. Given that 12s were popular, most antique notch plates will have groups of notches intended to easily facilitate the division of a circle into numbers that are multiples of 12.

A typical notch plate on an antique rose-engine lathe shows the predominant multiples of 12, and the small number of notches actually required for each group.

Most antique rose engines also have a worm wheel attached to the notch plate, which allows for very fine positioning adjustment. The worm can be used to set the initial position to align a pattern. It can also be used to subdivide the equivalent of the notch spacings, facilitating fine adjustments. The specific use of the worm is a more advanced topic for another article.

Other techniques for phasing include carrying the rosette-specific spacing on the rosettes themselves.



***Top*: Insert a pin through the phasing hole on a rosette. Note that the pin will be aligned with a peak of the 24-lobe rosette.**

***Center*: On a four-lobe rosette note how holes are aligned with each corner, or "peak," a hole is centered between the peaks, and then that space is subdivided into fourths.**

***Bottom*: On a 24-lobe rosette the holes align with the peaks, the valleys, and half-way in between each.**

The advantage of this is that rosette counts that are nontraditional (e.g., prime numbers) can easily be phased even though their multiples might never have appeared on a notch plate's detents.

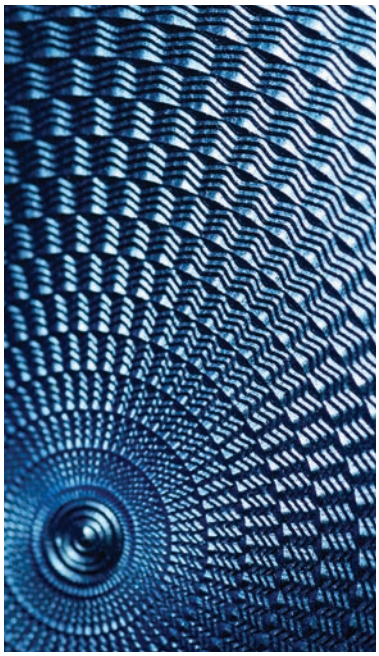
You can make an unlimited number of patterns using phasing as long as the phasing provision on your lathe allows you to align a pin or notch with a "peak" on the rosette, a "valley" on the rosette, and one or more intermediate subdivisions between those.

Creating patterns

If you want to create an alternating pattern with a 24-lobe rosette, a plate with 48 notches is a good starting point, as shown *left top.* Alternatively, a rosette with phasing holes in it would have holes aligned with the peaks, the valleys, and one or more holes between those, as shown *left center* and *bottom*.

To create an alternating pattern using the notch plate, you would engage the pawl in any detent on the 48-count group. With phasing holes, put the pin in a hole aligned with a peak of the rosette. Make your first cut. Now reposition the cutter for the next cut, but before cutting, move the pawl to the next detent in the notch-plate group (or the pin to a hole aligned with a valley of the rosette). Make your next cut. Now go back to the original notch or hole and prepare for your subsequent cut. Any notch grouping with twice as many notches as features on a given rosette will enable an alternating pattern.

The next pattern to master after alternating is a spiral pattern. The process is the same except that instead of returning to the prior notch or hole, you continue to step through the available notches or holes. Notch plates and rosettes with phasing holes are designed so that beginning in the first notch or hole, when you work through all the notches or holes, returning to the first again will continue the pattern.



Phased work as done in metal on traditional enamel work.

You can create a moiré pattern, or reversing spiral, by moving forward a number of notches or holes, and then reversing through the same notches or holes while continuing to move the cutter in the same direction (toward the center with each subsequent cut is one example).

These three simple techniques should open the door to experimenting with thousands of complex and beautiful patterns.

Ornamental Turners International (OTI), an AAW chapter, will host a symposium Sept. 26–28 in St. Louis. You must be an OTI member to attend. For details, see ornamentalturners.org.

Send feedback, questions, and topic suggestions to jon@magill.com.

Tips

Got a Great Idea?

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

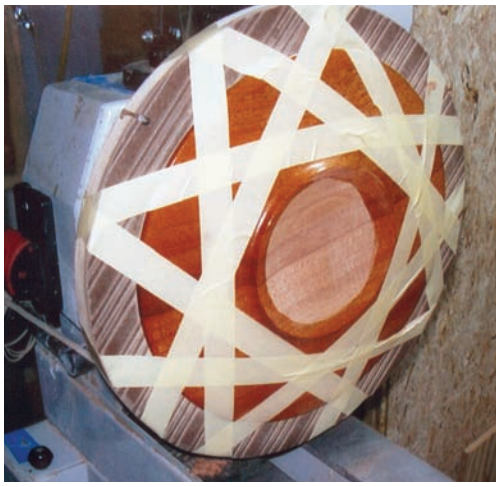
John Lucas
529 1st Ave. North
Baxter, TN 38544
jlucas@tntech.edu

Stop spinning spur drives

A long time ago, I discovered a solution to the spurs on a drive center spinning in the wood under load. After drilling a pilot hole, pound in the drive center until the spurs are well embedded. Pull out the drive center, drizzle thin cyanoacrylate (CA) into the wood fibers, and allow it to soak into the wood. Press the center into the now-reinforced impressions. I rarely get a spinning center under heavy roughing loads even in the softest woods.

Carole Valentine
Onley, Virginia

Call on cushioned floor mat to finish bowl bottoms



To turn the bottom of bowls and platters, I use a cushioned floor mat. I cut out a circle from a piece of the mat using a razor knife. I fasten a plywood disc to a 3" faceplate and then glue the mat to the board with yellow glue.

The work is either taped to the mat or held in place using the tailstock. The mat has enough friction to drive the wood and is soft enough to not damage the finish.

E. D. Colby
Wilmot, New Hampshire

Multiuse finishing pads

For all sorts of tasks around the shop, I rely on 4×4" nonsterile gauze pads that I buy at the local pharmacy. The pads are great for applying finishes, dyes, and friction polishes. They come stacked in a loaf-form package from which it is so handy to pull one or more at a time. The lint-free pads are about $6.25 per 200.

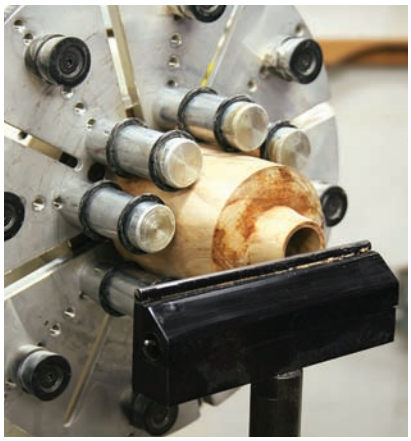
Mike Jones
Anderson, California

Keep track of Kelton setscrews

Setscrews that disappear from Kelton interchangeable tool handles vex some woodturners. Here's a simple solution that works for me:

Wrap a piece of masking tape around the handle over the screw location. This will keep them in place. With this simple precaution, you won't have to move the screws to the other end when you change the size of the tool.

Dick Hines
Lanexa, Virginia



Long paws make adjustable bowl jaws more versatile

I was searching for a simple way to hold cylinders for turning the bottom. The solution was to make some 2½"-long jaws for my adjustable bowl jaws. I machined eight of these from 1"-diameter 2011 aluminum bar. I trued them up on a small metal lathe and inserted a 6mm setscrew into the drilled and tapped end. This was secured with epoxy. O-rings on the aluminum jaws help hold the work.

Bob Hadley
Yorba Linda, California

Convenient caddy for sandpaper

Because I spend way too much time looking for sandpaper among the shavings, I designed a box from ¼" Baltic birch plywood to organize my sheets. The 4¼×2¼×2¼" box, which resembles a CD storage rack, holds nine 2½×1½" strips (one-eighth sheet folded into thirds). To mount the box to my lathe, I flush-mounted two nickel-size rare earth magnets on the back. Now I have a box that keeps my sandpaper in order and is easy to move around the shop.

Bruce Lewellyn
Westminster, California

Paint roller delivers inexpensive buffing system

For small turned pieces, I need a quick way to buff through three grits. An inexpensive 9" paint roller cover came to mind and seemed like an ideal solution.

I turned two pieces of wood to fit into the ends of the roller cover (a ⅜" nap works best for me). I turned one plug with a tenon so I can use it with my chuck or a 4-prong drive center. The other end is center-drilled for my tailstock. I mount the plugs and roller on the lathe and then charge three roller areas with a range of polishing compounds. Now it's quick and easy to buff each piece to completion.

Bill Dalton
Salem, Virginia

Remounting rough-turned bowls

In my shop, I wet-turn bowls straight from the tree and coat them with wax. Roughly a year later, the blanks are sufficiently dry and ready to remount, turn, and finish.

I've found that some timbers shrink more than others and sometimes the spigot for remounting the bowl may be smaller than my chuck. I solved this problem by adding hotmelt adhesive to the timber and the chuck. The adhesive builds up the spigot sufficiently so the chuck jaws have something to hold on to.

Terry Scott
Auckland, New Zealand

Magnetic tool storage

If you're like me, it's frustrating to sort through a pile of shavings to retrieve a missing Allen wrench, drill bit, or important screw. To reduce your search and rescue time, mount magnetic strips designed to hold kitchen knives on the legs of your lathe stand and on the nearby wall. Then place the items on the strips until they are needed. I have about five racks on the wall beside my lathe for chisels and all the small ferrous metal items, such as pen mandrels and brushes, drive centers, and drill bits.

For my lathe tools, I found that two magnetic strips set horizontally and about 1" apart are sufficient to hold most chisels. If your tools are particularly long, use three racks. Some woodworking catalogs sell magnetic strips designed for shop tools.

Hugh Lacey
Alexandria, Scotland

Shop-made faceplate and glue block

I have long been a fan of a glue block mounted on a faceplate for my demos and workshops. In my travels, I came across this idea for making a faceplate/glue block combination utilizing a nylon locknut and a section of a 2×4. It is a perfect accessory for all lathes with 1"-8 spindles and will cost less than a dollar to make. I typically make six or more of these at a time.

The key part in this project is a 1"-8 nylon locknut (Nyloc is one brand name). Mount the nut on the lathe to cut away the nylon insert with a square-end scraper, which will then allow the nut to seat all the way down onto the shoulder of the lathe spindle. For this task, it is helpful to have a plywood spacer (looks like a doughnut) behind it to avoid damage to the lathe spindle, as shown *above left*. The next step is to create indents or notches in the sides of the nut for a secure bond between the wood and nut. I use the corner of a grinding wheel to grind the notches in the nuts.

With a 1⅝"-diameter Forstner bit, bore holes in the face grain of the 2×4 spaced about ⅝" deep and 4" apart. Embed the nuts into the 2×4 with 2-part epoxy, as shown *above right*. After the epoxy cures, use a bandsaw to cut the new faceplate/glue block combinations into rounds. I do the final turning on the lathe and find that a 2½" finished diameter is ideal for most projects.

Now you have a reusable inexpensive faceplate with a glue block already attached.

Bonnie Klein
Renton, Washington

Calendar of Events

Photo: Tib Shaw/AAW Gallery

Michael Stafford's 2½×4" end-grain box is part of the *Turned for Use II* exhibit at the AAW Gallery in St. Paul.

Winter Calendar deadline: October 1. Send information to carlvoss@mac.com.

Arizona

Third Annual Desert Woodturning Roundup, Feb. 7–8 in Mesa. Featured demonstrators include Jimmy Clewes, Nick Cook, Cindy Drozda, Hans Finsterwalder, Dwight Klaus, Bonnie Klein, Alan Lacer, Mark St. Leger, and Keith Tompkins. Information: Jason Clark, 480-380-1444 or desertwoodturningroundup.com.

California

Del Mano Gallery, Los Angeles, *Bert Marsh: New Work*, Sept. 6–Oct. 4. *Jacques Vesery: Explorations of the Surface*, Sept. 6–Oct. 4. *Special Exhibition: Philip & Matt Moulthrop*, Oct. 11–Nov. 15. Information: delmano.com or 800-del-Mano.

Colorado

10th Annual Rocky Mountain Woodturning Symposium, Sept. 13 and 14 at Loveland. Featured demonstrators include Stuart Batty, Keith Gotschall, and Mike Mahoney. Details: Allen Jensen at 970-663-1868 or rmwoodturningsymposium.com.

Florida

Florida Woodturning Symposium, Jan. 9–11 at Lake Yale Baptist Convention Center near Eustis. Featured demonstrators include David Barriger, Stuart Batty, Bobby Clemons, Jimmy Clewes, Raymond Ferguson, Barrie Harding, John Jordan, and Richard Morris. Information: floridawoodturningsymposium.com.

Georgia

Turning Southern Style XIV, Sept. 19–21 at the Unicoi State Park Lodge near Helen. Featured demonstrators include Jimmy Clewes, David Ellsworth, and Bonnie Klein. Information: Harvey Meyer at him1951@bellsouth.net or 770-671-1080 or gawoodturner.org.

Southern States Symposium IX April 24–26 at the Georgia Mountains Center in Gainesville. Featured demonstrators include Soren Berger, John Jordan, Dennis Liggett, and Chris Ramsey. Information: southernstatessymposium.org.

Minnesota

AAW Gallery, St. Paul, *Turned for Use II*, Sept. 12–Dec. 19. Juried exhibit of contemporary practical objects, along with practical turned items from the past. Information: AAW Administrative Offices at 651-484-9094 or woodturner.org.

Nina Bliese Gallery, Minneapolis, *New Masters of Woodturning* (representative work from the new book) through Sept. 26. Information: ninabliesegallery.com.

Fesler Gallery at The Depot, Duluth, *Art From the Lathe—Everyday to Extraordinary*, through Sept. 30. Selections from the AAW Permanent Collection, works by members of the Superior Woodturners local chapter, and historic treenware. Information: thehistorypeople.org/exhibits.asp.

Missouri

The Ornamental Turners International Biannual Symposium, Sept. 26–28 in St. Louis. Featured demonstrators include Fred Armbruster, John Edwards, John Ferreia, Bill Robertson, and Joshua Salesin. Information: ornamentalturners.org, or Alan Bugbee at 860-658-4764.

Pennsylvania

The Wood Turning Center, Philadelphia, *allTURNatives 2008: Form + Spirit*, through Sept. 13. *Challenge VII: dysFUNctional*, Oct. 3–Jan. 17, 2009. Information: 213-923-8000 or woodturningcenter.org.

Tennessee

Tennessee Association of Woodturners 21st Annual Symposium, Jan. 23–24 in Nashville. Demonstrators include Jimmy Clewes, Cindy Drozda, Mike Mahoney, and Bob Rosand. Information: 615-300-0363 or info@tnwoodturners.org.

Texas

SouthWest Association of Turners (SWAT) Symposium, Oct. 17–19 in Waco. Demonstrators include Trent Bosch, Donald Derry, Matthew Hill, Art Liestman, Binh Pho, Mark St. Leger, and Betty Scarpino. Information: swaturners.org or Walter Tate at walter.tate@swaturners.org.

"Po'Girl's Daydream"
Maple, acrylic paint, and gold leaf
16×14×12"

Dream Hat

This was my first collaboration with Binh Pho. It's something we've talked about for three years but it took till last year for it to happen.

We spent some time pondering what form would work well for his treatment and it became obvious that a domed top would be best but not a cap or a derby/bowler. We arrived at a sun hat. I felt that it shouldn't be a typical sun hat, but one with a little extra attraction. The "Po'Girl," short for poor girl, was a hot style in the 1930s. The hats had extra-wide brims but were asymmetrical with the brim being cut quite small in the front and superlong in the back. A swooping brim would be a good description.

—JoHannes Michelson

I expressed to JoHannes that I am not fond of cowboy hats, since they have a sharp break line. I wanted something with a smooth curve such as a hat for a lady. We agreed that JoHannes would come up with the hat design, and then I would work from there. It took JoHannes quite some time, but he developed two designs and I was immediately drawn to the "Po'Girl" hat. [JoHannes' turned sun hat shown *above right*.] I could see the peacock feathers would work on this style of hat perfectly.

I thought JoHannes took a long time to come up with the design, but then it took me even longer to finish the dream collaboration. Finally it was done, and we proudly displayed at the del Mano Gallery booth at the biggest sculpture art exhibition in the world, SOFA Chicago 2007.

—Binh Pho