



SHARPENER ALTERNATIVES • SHOPBUILT SPHERE-CUTTING JIG • MARQUETRY AND TURNING

# AMERICAN WOODTURNER

Journal of the American Association of Woodturners

**JEWELRY  
BOXES**

.....

**SYMPOSIUM  
HIGHLIGHTS**

.....

**DAVE HARDY**

# InstantGalleryAwards

Professional Outreach Program  
San José Symposium 2012 *Photos by Steve Wolfe*

## Excellence Awards



**Elizabeth Lundburg**, *Coral in Tulip Poplar*, 2012, Poplar, 7" x 8" x 5" (18 cm x 20 cm x 13 cm)

[studio-e-artworks.com](http://studio-e-artworks.com)



**Jacques Vesery/Alain Mailland**, *Spirit Pipe*, 2012, Holly, granite, 11" x 10" x 2½" (28 cm x 25 cm x 6 cm)

Courtesy Riley Galleries, [rileygalleries.com](http://rileygalleries.com)



**Jim Christiansen**, *Subliminal Grok*, 2012, Walnut, acrylic paint, 16" x 5½" (41 cm x 14 cm)

[finewoodartists.com](http://finewoodartists.com)





**Hal Metlitzky**, *Double Helix*, 2012, Pernambuco, satiné, holly, rosewood, imbuia, ebony, yellow heart, walnut, 10" x 19" (25 cm x 48 cm)

halmetlitzky.com  
Bohlen Collection



**Mike Lee**, *Ipu*, 2008, Koa, milk paint, 4½" x 7" (11 cm x 18 cm)



**Cindy Drozda**, *Sunshine Wildfire*, 2012, African blackwood, fire opal gemstones, 14k gold, 24½" x 7" (62 cm x 18 cm)

cindydrozda.com

## Youth Awards

**Sienna Bosch**, *Hamburger*, 2012, Elm, ash, lignum vitae, holly, redwood burl, 3" x 10" (8 cm x 25 cm)



**Kailee Bosch**, *Kailee*, 2012, Elm, 1½" x 8" (8 cm x 20 cm)



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those interested in woodturning

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## A NOTE ABOUT SAFETY

An accident at the lathe can happen with  
blinding suddenness; respiratory and other  
problems can build over years.

Take appropriate precautions when you  
turn. Safety guidelines are published online  
at woodturner.org/resources/safety.htm.  
Following them will help you continue to  
enjoy woodturning.

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**Cover** – Photo by Joshua Friend

**Back Cover** – Steve Sinner, *Red Pipe*, 2012,  
Maple, stainless steel, brass, embroidery floss,  
2½" × 2½" × 6 ½" (6.3 cm × 6.3 cm × 17 cm)



## From the Editor

AAW member Eugene Lee lost his battle with cancer in July, one day after turning seventy-three. Although he did not see his article "Sphere-Cutting Jigs" (pages 42-46) published, he was able to review an early designed version. His son Jerry wrote in an email, "Dad found woodturning late in life and I believe it was one of the things that helped him cope with cancer over the past four years." John Kelsey, who edited the article, had heard much the same thing in conversations with Eugene. Woodturning enriched Eugene's life—it was something he lived for.

For many of us, woodturning is more than learning the techniques of making shavings to create bowls, hollow vessels, and candleholders. It is a connection that builds friendships, provides camaraderie with people of similar interests, and gives us an outlet through which we can create and do something meaningful with our time.

You've been encouraged to "volunteer to help at your local chapter" but what does that really mean? It could mean forming a common bond with someone in your group who seems to be at the edge of activities. He or she may simply need that extra support to step forward and participate or push themselves enough to experience the feeling of trying something new. Engage that person in conversation. Your encouragement may be the key that opens up a willingness to get involved.

At one time or another, most of us cope with a medical problem that affects our well-being. These times are small reminders that the

connections we make in all parts of our lives are our legacy. Connect with a fellow woodturner today.

—Betty Scarpino



## President's Letter



### Woodturning: A legacy for all ages

Research by British woodturner Stuart King traces the craft of woodturning back some 4,000 years. The AAW is proud to continue that long tradition by helping our members pass along the knowledge of woodturning, to each other and to the next generation. All of us can encourage beginners and younger folks to experience the fun of woodturning—whether as a hobby or a profession.

As you help others learn our craft, you develop into a better turner. I gain the most knowledge of how to turn when I explain to a new woodturner why I use a tool in a certain way or mount the wood in a given direction. The more attention you put into passing on your skills, the sharper your own will become. This sharing of woodturning knowledge is at the core of AAW's mission.

Gaining new woodturning skills is a never-ending journey. I have been turning wooden bowls for thirty-four years, and I am still learning new ways to turn a better bowl. Years ago, at a demonstration by Rudy Osolnik during an AAW symposium, someone asked him why he didn't go crazy turning the thousands of candlesticks he was famous for. Rudy answered that he tried to make each candlestick better than the last one and to make it a little faster. That was Rudy's last symposium appearance, and he was still passing on his skills to the next generation, a legacy that goes far beyond the thousands of candlesticks he made. Rudy touched and influenced countless woodturners.

Here's how you can help: Offer to demonstrate for your local chapter. Ask a new turner if he or she would like help with a project. Go through your abundant woodpile and share turning blanks with new members in your chapter. Involve your club in the national Chapter Collaborative Challenge Competition (see page 13).

As we have done in the past, the AAW will continue to energetically fulfill our mission: *Dedicated to providing education, information, and organization to those interested in woodturning.* By renewing your yearly membership, you and thousands of other woodturners help ensure that the AAW will be able to continue its legacy of woodturning education. And, as you fill out your renewal form for 2013, consider giving a donation. The AAW is a 501(c)(3)—your contribution is fully tax deductible. Thank you for your enthusiasm for woodturning and for your continued support of this great organization!



Dale Larson

## Remember to Vote! AAW Board Election

Photos and statements of the six nominees running for election to the AAW Board of Directors appeared on pages 5–6 of the August issue. Please read the statements and then vote for up to three candidates.

There are two options for voting: (1) by electronic ballot, available on the AAW website at [woodturner.org/BoardVote](http://woodturner.org/BoardVote) or (2) by paper ballot, included in the plastic bag with the August journal. The ballot contains your name and membership number. Tear off the ballot where instructed, put it in the enclosed envelope, affix a stamp, and mail the ballot. **Ballots must be cast electronically or received in Saint Paul no later than midnight Central Standard Time on October 19, 2012.**

We encourage you to participate in the voting process and hope that you take the time to help make this election turnout significant.

# AAW International Symposium – Our 26th Year! San José

Last June in sunny San José, the McEnery Center hosted more than 1,400 AAW members from every corner of the globe. The talent of the attendees and demonstrators was evident by the work on display in the Instant Gallery and special exhibits. The woodturners who demonstrated provided something for everyone's interests.

## Local chapter volunteer support

Building their teams before the Saint Paul symposium had closed, Dean Adkins and co-chair David Vannier coordinated the five Bay Area AAW chapters hosting the event: The Bay Area Woodturners Association in Castro Valley, Silicon Valley Woodturners in San José, West Bay Area Woodturners in Los Altos, Wine Country Woodturners in Sonoma, and the NorCal Woodturners in Sacramento. Many volunteers from these chapters all joined together to help make the event a success. Hats off to everyone for their support and dedication, thank you! ▶

*Photos by Andi Wolfe.*  
*andiwolfe.com*



One of the many unique creations in the Instant Gallery

J. Paul Fennell



## Primary committee heads

The AAW extends a sincere thank-you to the following volunteers who led efforts to ensure that the symposium ran smoothly:

- Dean Adkins and David Vannier, local chapter symposium liaisons
- John Ellis, national volunteer coordinator
- Deryl Duer, videographer coordinator
- Mike Lanahan and Cecil Dobbs, chapter volunteer coordinators
- Bill Mellberg, demonstrator assistance
- Larry Miller, Youth Room coordinator
- John Whittier, Youth Turning Room equipment shipping and coordination
- Corwin Jones and John Whittier, youth training aids

- Jim Abreu, Rich Johnson, and John Ross, equipment
- Hugh Buttrum, grinder setup/tear down
- Norm Robinson, international demonstrator greeting
- Carol Ellis, craft room coordinator
- Chris Bannister and Anne Sinner, AAW products coordinators
- Gary Keogh, Return to the Community, "Empty Bowls"
- Kay Haskell, lathe raffle coordinator
- Kristin Haugan, Instant Gallery coordinator
- John Hill, auctioneer
- Rob Wallace, auctioneer assistant
- Deborah Kermode, special exhibitions coordinator

As with all AAW symposiums, the event starts with an empty convention center and the teams descend upon it to transform it into a woodturning symposium environment in a matter of hours. The teams orchestrate the delivery of equipment and supplies from the staging areas to the correct spaces in the convention center. When machinery and equipment are in place and tested in one area, it is time to move to the next task. As in past years, the many volunteers made it all happen in time for the start of the symposium. Their support is essential and very much appreciated!

Dean Adkins, co-chair of the local chapter volunteer committee



The tradeshow enticed many to buy and bring home the latest in woodturning equipment.



An attendee looks closely at a piece in AAW's juried exhibit, "A Walk in the Woods."





Trent Bosch and the POP Committee honored Richard Raffan with the POP Committee's Lifetime Achievement Award.



Binh Pho introduced John Jordan, AAW's 2012 Honorary Lifetime Member.

See the action up close!  
Eli Avisera



The spouse craft area included many demonstrations of interest to crafters in all fields.



## Events

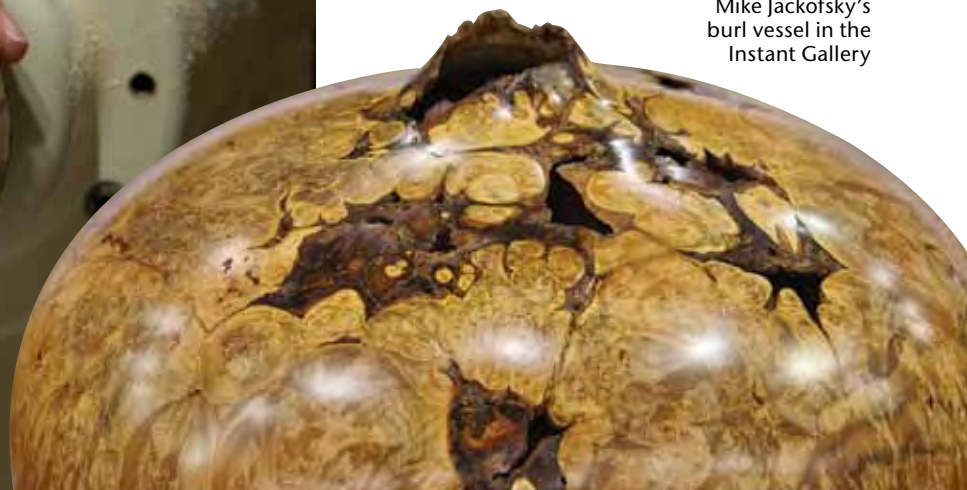
AAW Board President Dale Larson officiated at the opening ceremonies. With the hall filled to standing room only, Dale welcomed attendees and announced the last-minute information on schedule changes. He introduced Phil McDonald, AAW's new Executive Director, and Phil gave a short talk on his background and what he hopes to bring to the organization.

The Special Interest Night sessions packed nearly every room on Friday night for demonstrations, lectures, and meetings: Pen Turners, Segmenters, Regional Symposia, Marquetry and Turning, and Gizmos and Gadgets.

At the banquet, winners of the Website, Newsletter, and Chapter Collaborative Challenges were announced, and the raffle winners of the Powermatic and JET lathes were drawn. Congratulations to the winners, and thank you Walter Meier for donating the lathes!

The EOG auction is the culmination of the Saturday evening banquet. The highest bid pieces from the silent auction are brought to the after-dinner auction to raise money for the Educational Opportunity Grant fund. Auctioneers John Hill and Rob Wallace brought the evening's bid total to \$52,910. One of the more memorable moments was the ongoing bidding to purchase John Jordan's hollow form. John was recognized as AAW's 2012 Honorary Lifetime Member, and the lively bidding was a testimony to John's influence on many. ►

Mike Jackofsky's burl vessel in the Instant Gallery





See the action up close!  
J. Paul Fennell

Special  
Interest Night



The Instant Gallery  
offered an extensive  
variety of turned  
objects for inspiration.



### Powermatic/JET lathe winners

Congratulations to Brian Williamson, winner of the Powermatic lathe and to Ed Larson, winner of the JET lathe! Both raffle winners are from California.

The gross amount raised from sales of raffle tickets was \$5,695. Thanks to everyone who purchased raffle tickets and thank you to Walter Meier/Powermatic/JET for donating the lathes!



### Return to the Community, 2012

The annual AAW Return to the Community program recipient for 2012 "Empty Bowls" fundraiser was Second Harvest Food Bank. The food bank has two locations: Santa Clara and San Mateo Counties.

AAW members generously donated 167 bowls and turned items. The event raised \$4,175 from the \$25 ticket sales. The AAW was able to make a significant donation to the shelves of the two California food pantries. It is my hope that people will enjoy their new wood-turned treasure and feel good about participating in this worthy program. Thank you for your generous support. You have all made a difference!

—Linda Ferber, Program Director



Kay Haskell coordinated the symposium lathe raffle. During the Saturday banquet, Merina Theobald and Kailee Bosch helped draw the winning tickets.





### Youth Turning Program

We extend a sincere thank-you to Avelino Samuel, Andrew Glazebrook, Joe Ruminski, Bonnie Klein, and the many room assistants who helped make the youth turning room a huge success! The coordinating efforts of Larry Miller and Almeta Robertson were invaluable.

To help make this program successful, donations included:

- Walter-Meier Powermatic/JET, 27 JET mini lathes with stands
- Crowne Tools, 27 sets of woodturning tools
- Woodcraft, 27 faceshields
- Vince's WoodNWonders, sandpaper
- The Sanding Glove, glue
- Teknatool, 27 chucks and safety centers

On Sunday, twenty-seven youths won a complete turning package, including a JET lathe, Crowne tools, and a faceshield. A mixup in the drawing resulted in two extra packages being required, and the JET representative, Joan Duvall, offered the additional lathes. Woodcraft and Crowne Tools

followed suit. The vendors' support of this program is outstanding!

Two families with multiple wins each gave up one lathe, resulting in twenty-nine winners this year.

### Youth Lathe Winners

Connor Ainge  
Sienna Bosch  
Loren Bricker  
Lucia Chuaqui  
Julian and Leopold III Frilot  
Andrew Gaskell  
Paolo Godcharles  
Kade Godfrey  
Daniel Gur  
Alan Hardesty

Alexander Hersh  
Ethan Hodgkin  
Sydney Hoff  
Roman IV Hruska  
Alexis Johns  
David Kiener  
Rachael and Tim Lee  
Ian Masters  
Ian Thomas McKenzie  
Caleb Miller  
Mercury Muse  
Liam Scales  
Emma Seyer  
Annika Walukas  
Sarah Weinberg  
Nick Westerlund  
Patricia Xu ►



Participants and volunteers in the Youth Turning Program at San José.





### Best of Show and Artistic Winner

Wine Country Woodturners  
*Picnic in the Woods*



### Technical Award

Beaver State Woodturners  
*Kraft Wagon*



### AAW Local Chapter Collaborative Winners

Thank you to the five local chapters that entered the Chapter Collaborative Challenge (C3). All of the creations were excellent in their concept and execution. Congratulations to the winners! By vote of the attendees at the symposium, the results are:

- **Best of Show**, Wine Country Woodturners, *Picnic in the Woods*
- **Fantasy Award**, Tennessee Association of Woodturners, *Nashville Has Rhythm*
- **Artistic Award**, Wine Country Woodturners, *Picnic in the Woods*
- **Technical Award**, Beaver State Woodturners, *Kraft Wagon*

Other chapter participants:

- Big Island Woodturners
- Central Oklahoma Woodturners Association



Central Oklahoma  
Woodturners Association  
*Circus Time*



### Fantasy Award

Tennessee Association  
of Woodturners  
*Nashville Has Rhythm*



Big Island  
Woodturners  
*Hawaiian  
Collection,  
Ku'oho Form*



# San José: My First Symposium

Tom DiNardo

As a novice woodturner, I had never attended a structured woodturning workshop, let alone a symposium. AAW's 2012 international symposium was my first in-depth exposure. Summed up: Extraordinary!

I arrived Thursday as a volunteer to assist setting up the Instant Gallery (IG) where I was able to see firsthand some of the amazing submissions from around the world. Of particular note was Hal Metlitzky's segmented *Helix*, which won an Excellence Award. I frequently visited the IG over the next few days. I was inspired!

During the event, I ran into fellow club members, Melanie Mankamy, Mike Young, Ray Shields, and TJ Anderson. Try as I might, I did not see Gerrit Van Ness. I did see one of his pieces displayed in the POP "Beyond Containment" exhibit.

Friday alone would have been enough to justify my trip; my woodturning abilities advanced by a year. Joey Richardson's session on airbrush techniques revolutionized my previous understanding of the application of color. Mike Jackofsky gave a terrific class on turning hollow forms and Andy Cole showed the crowd how to easily turn a bowl. With my head almost exploding, I attended Dixie Biggs's session. I was a woodcarver before turning, and Dixie furthered my understanding and approach to carving turned objects.

Saturday began with a stroll through the tradeshow. Like a kid in a candy shop, I wanted to take *everything* home with me. I ran into TJ Anderson; he had that same look in his eyes.

French woodturner Alain Mailland's wood-bending approach was low tech, easy, and inspiring. Seeing woodturners from around the world gave me an opportunity to push my own thinking and ideas. Just because we have learned one approach to woodturning does not mean there are not others. The international demonstrators silently conveyed

this point to me. Pearls of wisdom were there for the observant open mind.

Later Saturday afternoon, I attended another woodcarving class, this one with Mike Lee, which also provided new and exciting ideas. The last rotation was a first-rate bowl class with one of the most influential woodturners, Richard Raffan.

Saturday night's banquet and auction were simply amazing. As a professional auctioneer who eats his share of plated banquet meals, I found the food tasty and satisfying. John Jordan was honored as AAW's 2012 Honorary Lifetime Member. During the auction that followed, I assisted auctioneers, John Hill and Rob Wallace, as a bid spotter. The auction went incredibly well.

After the auction, I joined Mike Lee and international woodturner Graeme Priddle for a drink at Original Joe's, a San José landmark. Mike and Graeme's candid assessment of the recession's impact on sales intrigued me. Mike has taken a full-time job, and while this may appear to be a setback, in Mike's words, "I used to make what I thought people would buy, but now I make what I want. It's a good balance."

Sunday I attended a demonstration by Canadian Doug Fisher, and from there I went to the special exhibitions, where I met Richard Raffan. I thanked him for his influence on my woodturning. In jest, I declared, "I learned about safety and what not to do by watching some of your earliest DVDs with a bowl flying off of the lathe." I hope never to become a member of the *Flying Bowl Club*.

I attended the POP auction on Sunday and again spotted for John Hill. In an



Mike Lee



Dixie Biggs



Mike Jackofsky

exciting and fast-paced atmosphere, John auctioned many terrific works of art to collectors and fellow woodturners.

For those who have never been to an AAW symposium, I encourage you to make plans to attend in the future. This symposium provided me with an indispensable woodturning education, amazing exhibits, terrific demonstrations with up-close action, many fellowship opportunities, and an unforgettable experience. The 2013 symposium will be in Tampa, Florida, June 28–30. I hope to see you there. Consider volunteering! ■

*Tom DiNardo is a woodturner, freelance writer, and an auctioneer. He can be reached at [DiNardoandLordAuctioneers.com](mailto:DiNardoandLordAuctioneers.com).*

## Tampa, Florida, next year!

Mark your calendars for AAW's 27th international symposium to be held in Tampa, Florida, June 28, 29, and 30. It promises to be another great event. The invited demonstrators include Glenn Lucas, Phil Irons, Cynthia and Michael Gibson, Michael Mode, Mark Gardner, Mike Mahoney, Hans Weissflog, Don Derry, Tania Radda, Steve Sinner, Michael Kehs, André Martel, Keith Gotschall, Nick Agar, Trent Bosch, and Mark Sfirri. The symposium will be an exciting event for woodturners and Florida's vacationland is something the entire family can enjoy. I hope to see you there!

—Kurt Hertzog, Chair, Symposium Planning Committee



## Apply for an AAW Educational Opportunity Grant

AAW's Educational Opportunity Grant (EOG) fund continues to be strong, thanks to the wonderful generosity of donors and buyers at our annual symposium auction. Funds are available for worthy proposals.

**To be eligible, applications must be received by December 31, 2012.**

**All AAW members are eligible to apply** (except for recent recipients). You can complete the application form and review the guidelines at [woodturner.org/resources/eog/](http://woodturner.org/resources/eog/).

The committee will not consider applications that are incomplete or vague. Please take care when applying. The following tips will help you with your application:

- Complete the application online at [woodturner.org/resources/eog/](http://woodturner.org/resources/eog/). Only online applications will be accepted.

- Provide sufficient information so EOG committee members can clearly understand what you are requesting and how you intend to use the funds. Please be as concise as possible to make your points direct and clear.
- Include details of how you will use the funds. Specific needs should be itemized. Funds will not be granted for miscellaneous, incidental, or unspecified expenses.
- Explain your educational goal or experience you wish to obtain. Keep in mind that these grants are for educational purposes. In particular, please explain how others will benefit as well.

Grants are limited to \$1,000 for individuals and students and \$1,500 for local chapters, schools, and nonprofit organizations. Your budget may exceed

these limits; however, your grant request should not exceed EOG limits. For special situations, at the discretion of the EOG committee and the AAW Board, grants are available in larger amounts. In addition to EOGs, the committee will award ten certificates for registration to AAW's international symposium.

If you have questions, contact the EOG committee chair or the AAW office. The AAW Board encourages you to take advantage of this membership benefit. ■

*Kurt Hertzog, EOG committee chair  
kurth@woodturner.org*

## Prize Drawing for AAW Members

One of the many benefits of membership in the AAW is our monthly prize and year-end grand prize drawings. Thank you to the vendors who donated this year's prizes, which include tuition scholarships, \$100 certificates, sanding supplies, DVDs, chucks, grinding jigs, and lathes!

When you patronize our vendors, please thank them for their support of the AAW. Visit our website at [woodturner.org/org/mbrship/drawings\\_winners.htm](http://woodturner.org/org/mbrship/drawings_winners.htm) to see each month's prizes and winners.

At the end of 2012, we will draw another name from our membership roster to give away a Powermatic 3520B lathe. That winner will name a local chapter to win either a JET 1642 or five JET mini-lathes. The Powermatic and JET lathes are donated by Walter Meier Powermatic/JET. Included is free shipping in the continental USA, or up to a \$500 allowance for international winners.

### 2012 Donors

(Others may be added during the year.)

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Thompson Lathe Tools, [thompsonlathe.com](http://thompsonlathe.com)  
Totally Turning/Showcase Symposium, [totallyturning.com](http://totallyturning.com)  
Trent Bosch, [trentbosch.com](http://trentbosch.com)  
Walter Meier Inc. Powermatic/JET, [powermatic.com](http://powermatic.com) and [jettools.com](http://jettools.com)  
Woodturning Design magazine, [woodturningdesign.com](http://woodturningdesign.com)

## Call for Demonstrators AAW Symposium 2013 Deadline: October 15, 2012

The AAW's 27th international symposium will be held in Tampa, Florida, June 28-30. Visit the AAW website at [woodturner.org/sym/sym2013/](http://woodturner.org/sym/sym2013/) for instructions on how to submit your application. For more information or assistance, contact the AAW office at [inquiries@woodturner.org](mailto:inquiries@woodturner.org) or call 651-484-9094.



## AAW Forum Contest Winners

The challenge for the last AAW Forum contest was lidded boxes, “turned from a single piece of wood, except for the knob or finial, and can be carved, burned, stained or otherwise decorated. However, the main body and lid must show the grain of the wood. The emphasis will be on form and the combination of any and all extras that work to complement each other in total.”

Thank you to Kelly Dunn who juried the entries, and to everyone who entered the contest. Congratulations to the winners! To enter the next contest, view all the entries, and read the judge’s comments, visit the Forum section of the AAW website at [woodturner.org](http://woodturner.org). ■

—Kurt Bird, AAW Forums Moderator



### First Place

**Bob Delio**, Maine, untitled, 2012, Cherry, cocobolo, zinc, acrylic paint, 2" x 3" (50 mm x 76 mm)

Photo: Margaret McKenna

### Third Place

**Robert Lane**, Germany, untitled, 2011, Muninga, jasper, 2½" x 3" (65 mm x 80 mm)



### Second Place

**Mike Marek**, Florida, Walnut Bowl and Oil Lamp, 2012, Walnut, 3" x 8½" x 8¼" (8 cm x 22 cm x 21 cm)

## Chapter Collaborative Challenge 2013

For AAW’s 27th international symposium in Tampa, Florida, the chapters and membership committee will again sponsor a Chapter Collaborative Challenge (C3).

Each AAW chapter is invited to submit one collaborative work

created by as many chapter members as possible, with a minimum of six participants.

The complete rules for entry can

be found in the August issue of *American Woodturner*, as well as on the AAW website at [woodturner.org/sym/sym2013/](http://woodturner.org/sym/sym2013/).

The pieces will be prominently 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 of Show and their favorite piece in each of the three categories. Votes will be tallied prior to the banquet, during which the winners will be recognized.

This year, in addition to plaques awarded for the winner in each category, the AAW will provide one free symposium registration to each chapter that wins an award. ■

## Call for Entries 2013 Juried Member Exhibit

Get your entry ready! Entries for the 2013 juried member exhibition,



“Currents,” will be accepted online November 1–February 3. The title was inspired by Florida’s sparkling waters and sea breezes, but artists are encouraged to interpret freely. “Currents” premieres at the AAW symposium in Tampa. All AAW members are eligible. Work must be less than two years old and created at least in part on the lathe. No size limit, but only a few pieces that ship oversize can be accepted. Entry fee: \$30 for up to three pieces; 45% commission on works sold. For details, visit [woodturner.org/sym/sym2013/](http://woodturner.org/sym/sym2013/) or contact Tib Shaw at the AAW Gallery of Wood Art, [tib@woodturner.org](mailto:tib@woodturner.org).



## New York Chapter Pairs With Local High School

Last spring, students enrolled in technology education classes at Ward Melville High School in East Setauket, New York, participated in a full-day interactive woodturning workshop. Students had a chance to hone their skills during this in-school fieldtrip provided by the Long Island Wood Turners Association (LIWTA) and the Three Village Central School District technology education department.

Ed Moloney and Mark Suesser, technology education teachers at Three Village, organized and coordinated the workshop. More than fifteen members of the LIWTA volunteered and sixty students participated. Fourteen lathes were available in the technology lab.

During the hands-on workshop students learned how to turn bowls and make pens. Students kept the bowls they turned and donated the completed pens to the Penn State Industries-sponsored Freedom Pens program.

This woodturning program helped students develop fine motor skills, challenged them with problem-solving, and taught them the design process. "I hope by participating in this workshop the students took away an appreciation for woodturning and perhaps take it up as a hobby," commented Mark Suesser.

Sponsorship for the woodturning workshop came from the Long Island Wood Workers Association, which received an Educational Opportunity Grant from the AAW, the New York State Education Department Three Village Learn and Serve America grant program, Penn State Industries, which provided the pens, and Three Village Education Foundation grants.

We would like to make this an annual workshop and expand it to the junior high schools. The school district has also created a technology club, which includes woodturning. ■

—Ed Moloney



Carl Saenger, veteran turner, acts as mentor to students in bowl-turning.



Master pen turner Greg Nicharico assists two students with their Freedom Pens.

## Educational Opportunity Grant Recipient

The North Central West Virginia Woodworker's Cooperative received an EOG in 2011. We proposed to use the funds to support a series of basic and advanced woodturning workshops at the Randolph County Development Authority in Elkins. The co-op has about twenty-five members, all of whom are experienced in one or more types of woodworking. Only a few, however, had experience with woodturning and there was much interest in learning to use the lathes.

David Shombert and Tom Lynch taught the four workshops, which consisted of basic spindle turning, bowl turning, basic hollow forms, and

special topics: sanding, finishing, and buffing; turning materials other than wood; multi-axis turning; and dealing with defects in a turned object.

Each one-day workshop included instruction on safety, basics, and a demonstration. Students then tried the techniques themselves, with the instructor assisting as needed. There were between six and twelve co-op members at each workshop, so everyone shared time at the lathe, which led to sharing experiences. While each student was trying his or her hand at a particular technique, the others would offer helpful advice and support. This co-op enjoys a high

degree of mutual respect among its members, and the camaraderie of that spirit was much in evidence.

The wide range of material presented was an ambitious undertaking. We achieved our goal of providing an overview of several popular subjects in woodturning and the chance to try techniques under the supervision of an experienced woodturner. The seeds are now planted for the members to go further. The co-op is most grateful for the financial support of the AAW for this effort. ■

—Kent Armentrout, President, North Central WV Woodworker's Cooperative



## The Woodturning Spirit

Woodturning is more than a craft; it is a way to meet people with different backgrounds, occupations, and life circumstances. People come together from around the world not only to turn wood but also to share their life experiences, knowledge, and humor.

That was certainly the case at the tenth anniversary TurnFest in Australia this year (TurnFest Masters). Held on the Gold Coast in the state of Queensland, demonstrators and attendees came from around the world to celebrate the milestone event. As a part of this celebration, Australian Terry Martin and New Zealander Terry Scott collaborated on a piece that would be presented to a person who they believe epitomizes the spirit of TurnFest. They chose Terry Lewis, who has attended every TurnFest since the first symposium in 2003 and has often been accompanied by his wife Gina. Terry has been a turner and an active member of his

local club, the Woodturners Society of Queensland, for more than twenty-five years. What differentiates Terry from the rest of his turning community is that both he and his wife are deaf, but that has never stopped them from contributing to the enjoyment and spirit of TurnFest. I have known them both for many years and we have become the best of friends. They have also taught me to sign, for which I will be forever grateful.

The two makers called the gift they made for Terry Lewis, *Terrys' Piece*. The flow of the piece draws the eye to the turning at the center, which is set in what looks like an undulating landscape with leaves coming from different directions. To me this represents the many people who are drawn to turning from so many different backgrounds.

Terry Lewis was the standout recipient and it was a rare chance that he had the same first name as the two makers. His love of woodturning is obvious as you watch him marvel at the possibilities when he holds a raw piece of figured wood, but his love of turning takes second place to his love of life and of people. Terry's deafness doesn't affect his gregarious nature and he has developed his own animated communication style, with facial expressions and hand gestures to communicate with people who have not learned to sign. He also has a delightful sense of humor and the most infectious laugh—even though you can't hear it. His interest in people has endeared him to everyone who has had the opportunity to meet him. Congratulations Terry Lewis for what you have brought to woodturning and to TurnFest! ■

*Theo Haralampou is a woodturner and regular presenter at TurnFest. Contact him at [theo@woodturner.com.au](mailto:theo@woodturner.com.au).*

### Local Chapter Contact Information

Has there been a change in your local chapter information? If so, please let a staff person at the AAW headquarters know. It's easy, just call us at 651-484-9094 (toll free at 877-595-9094) or send an email to [info@woodturner.org](mailto:info@woodturner.org). Please help us keep our records current by providing:

- Names of the current president and board members
- When and where meetings are held
- Number of members in your club

If you have questions or concerns that the staff in Saint Paul can help you with, please let us know. Thank you!

—Linda Ferber, Program Director



*Terrys' Piece*, 2012, Jacaranda, copper patina, 15½" x 7" x 4" (40 cm x 18 cm x 10 cm)

Photo: Terry Martin



Terry Lewis receives his award at TurnFest 2012 in Australia; (l to r) Terry Lewis, Cindy Drozda, Tom Wirsing, Terry Martin, and Terry Scott.

Photo: Peter Farkas

## String Algae Pen Chad Barson

I work at our family-owned greenhouse in Michigan and our growing season runs from March through December, so I have free time to devote to a hobby. I decided to try my hand at woodturning and have been turning for two years.

To get started, I signed up at the local Woodcraft store for a beginning class on tool handling and basic cuts. Enjoyment of that class led to taking Bill McGee's pen-turning class. Bill got me hooked on making pens and two weeks later I purchased a JET mini lathe, tools, and a sharpening setup. Within the next few weeks, I bought every pen kit and type of wood I could!

After a month of turning pens and looking at magazines, I reconnected with Bill and visited his shop where he showed me pen blanks made with coffee beans embedded in epoxy. I learned that pen blanks could be cast

out of anything, so I decided to think of a way to make a pen blank unique to me.

One day at work as I cleaned out a pond overtaken by string algae, I missed the wheelbarrow with the shovel of string algae and it splattered flat on the ground. At that moment, a lightbulb turned on and I thought, "That's it! I don't know how yet, but I'm turning that into a pen blank!"

I pulled out the algae in thin sheets and dried it on a table. Then, with help from the guys at Woodcraft, I cut it up into squares, sized to fit an old baking pan I was not using. I covered the sheets in marine epoxy resin and pushed each sheet back into the pan, squeezing as much air out as possible. Unfortunately, this batch was a huge failure—there were big air pockets everywhere.

For the next batch I used a vacuum food sealer to eliminate air bubbles in the resin—success! The string algae blanks turned like concrete, probably because I used boat resin, but the color was lovely, like green-colored wood.

With Bill as a mentor, I joined the Michigan Woodturners club in Holly. I brought my string algae pen to the first meeting and enjoyed telling the story of figuring out how to use algae for making pens.

At the Chicago woodturning symposium after exhibiting my pen in the Instant Gallery, I became known as the *pond scum pen guy*, which I find amusing. I am currently in the process of making string algae blocks to use for bowls and platters. From pond scum to platters, I think I have found my niche!



Chad's string algae pen and pen blank.



String algae hangs from rocks in waterfalls, attaches to plants, or simply hangs on the water's surface. It is also called blanket algae.



Sheets of dried string algae are ready to be covered in epoxy.



A brick of algae and marine epoxy resin is ready to be cut into pen blanks.

## Laser Guide for a Boring Bar Walter Wager

I own a Lyle Jamieson captured boring bar system that I use for large turnings. For smaller turnings, I use my Stewart or John Jordan turning handles with Jordan's boring bars; however, neither has a laser guide, so I made one that I could use with my hand-held system. The end product is a copper-tube support system for a laser pointer that attaches to a boring bar handle with an electrical ground-

ing clamp (*Photo 1*). It was easy to make and here's how.

To get started you will need the items shown in *Photo 2*. Except for the laser pointer, all can be found at hardware stores. The laser pointer I like is the pen type that uses two AAA batteries (Apollo c/o Acco World Class Two Standard Pen Size Laser Pointer). I use rechargeable batteries, which last through a couple of turning sessions.



A shopmade laser guide is easy to construct.

Laser pointers can be purchased in most business supply stores or discount retailers. Small inexpensive laser pointers will work, but may not last as long as you want without changing batteries.

The copper tube is  $\frac{3}{8}$ " (10 mm) outside diameter (OD), utility tubing, and can be purchased in five-foot lengths. The clamp is an electrical-grounding clamp. The clamps come in different sizes, so be sure to get one that will fit on your handle. I have found the  $\frac{1}{2}$ " to 1" (13 mm to 25 mm) clamp fits on most handles. The 1.5"- (38 mm-) long carriage bolt is to replace the screw that comes in the clamp. Test the bolt in the store to be sure it has the same threads as the screw in the clamp.

### Make the laser guide

After you have gathered your materials, create a bow out of the copper tubing. Cut off 2.5' (76 cm) of the copper tube and bend it into a bow so that the top makes a semicircle starting at about 10" (25 cm) from the lower end (*Photo 3*). The bow should have a diameter of 11" to 12" (28 cm to 30 cm).

Using a hacksaw, cut the head off the carriage bolt and use the threaded part to replace the center screw in the clamp. The copper tube bow will be glued onto this bolt (*Photo 4*).

I used two-part quickset epoxy to affix the clamp onto the copper tube bow. So that the epoxy will ooze out and to help secure the tube to the carriage bolt, drill a few small holes in the copper tube. Squeeze out about 1" (25 mm) each of parts A and B epoxy onto a piece of plastic (I used the side of an old milk bottle) and mix thoroughly. Spread liberally over the carriage bolt. Slide the copper tube

Two hose clamps  
Laser pointer  
 $1\frac{1}{2}$ "  $\times$   $\frac{1}{4}$ -20 carriage bolt  
 $\frac{1}{2}$ " to 1" grounding clamp

Epoxy adhesive

2.5'  $\frac{3}{8}$ " outside diameter copper tubing



Only a few simple parts are needed to construct the laser guide.

over the bolt and make sure the epoxy is oozing out through the holes. The clamp should be 90° (perpendicular) to the tube as it lies on the table (*Photo 5*). (If you have the equipment, you could sweat-solder the bolt into tube.)

On the other end of the bow, attach the laser pointer to the copper tubing using hose clamps. The laser pointer I'm using has a contact switch that is flush with the body. I can hold the switch in the on position with an O-ring slipped over the body of the laser pointer (*Photo 6*). You could also use masking tape to hold the switch on.

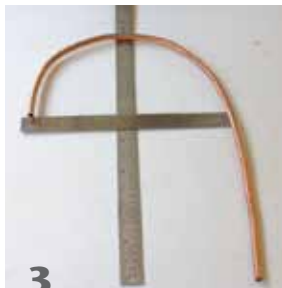
The laser beam can now be adjusted by bending the copper tube. The laser light should point directly onto the tip of the cutter (*Photo 7*). This is an easy adjustment to make because the copper tube is easily bendable. It will stay in this

position until you change the boring bar, at which time you can rebend it to shine on the tip of the new boring bar.

I was initially worried about vibration changing the position of the laser with regard to the tip because the copper tubing is relatively soft. I was surprised that vibration hasn't been a problem. To begin each hollowing session, I adjust the light to shine directly onto the tip of the cutter, so I know exactly where the tip is inside the hollow form.

Let the epoxy cure overnight before using your new laser-guided boring bar. Happy hollowing!

*Walt Wager started woodturning in 2002. He is the past president of the North Florida Woodturners, is a member of AAW, and belongs to four regional art societies. See Walt's work at [flickr.com/photos/wwager/sets/72157626239169524/](https://www.flickr.com/photos/wwager/sets/72157626239169524/).*



**3** Bend the copper tubing to create a bow.



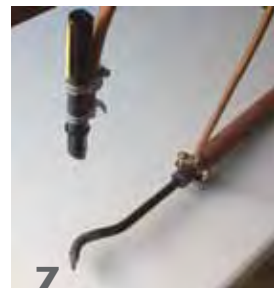
**4** An electrical grounding clamp with a replacement carriage bolt put in will allow you to insert the bolt into the copper tubing.



**5** Epoxy the carriage bolt/clamp into the end of the copper tube bow. Small holes in tube allow excess epoxy to ooze out.



**6** Clamp the laser pointer to the other end of the copper tube bow.



**7** Adjust the laser to shine onto the tip of the cutter.



## Morning Coffee A Wooden Insert for a French Press Coffee Maker

In December 2010, I broke the glass insert of my French press coffee maker. I used the press every day so I needed to replace the insert as quickly as possible. I had three choices: buy a new French press, find a replacement insert, or make a replacement from wood. I had made many useable drinking vessels from wood, including a teacup, so I chose the last option. I looked in my woodpile and found some walnut wood.

The insert was simple enough to make—it is a straight cylinder. The inside diameter had to be 2.5" (64 mm) so that the press screen would fit. The outside diameter had to be less than 2.7" (69 mm) to fit into the metal holder. I drilled out

the inside using Forstner bits and then coated the surface with epoxy resin to make it leak proof. To achieve a uniform coating of epoxy on the inside, I coated it while still on the lathe and then kept the lathe rotating until the epoxy set.

I finished turning the outside and bottom and then coated those surfaces with epoxy resin. Before I used it to make coffee, I conditioned the insert by filling it with boiling water and letting it set for about an hour. I repeated this several times, which accomplished two things: It completed the curing of the epoxy and leached out any water-soluble materials that might affect the taste of the coffee or the health of the drinker.



I used the French press for the first time on December 17, and use it daily. It is still going strong and should last for a long time. ■

—Jim Rinde

## How Do You Learn?

Lee Carter helped establish the Rocky Mountain Woodturners in northern Colorado. He told us that whenever he watches a demonstration, he tries to learn at least one new thing. Here are some tips to help you learn one new thing (or more) from demonstrations, workshops, and reading material.

### Ask why?

When a statement is made or a technique shown, ask *why*? When you know the *why* of a technique, you will be able to successfully internalize and utilize the information in the future, especially if a situation is different from your own experience.

### Trust but verify

When you read an article, you can be fairly confident that the author is making statements that are true; however, just because something is published, it does not necessarily mean that it is correct or that it applies to your situation. Verify that the information applies to your goal. How much verification you require will depend on: your personal comfort level for safety, materials on hand, time constraints, your equipment, and your level of skill. Verification can take many forms: personal experience, consulting other

experts, reading and researching additional articles, and even going to the shop and trying it out. The archives of *American Woodturner* are always available for research and the various online forums are open for consultation.

### Transfer techniques

Take workshops and classes to learn new ideas and techniques that can be applied to other projects. When I took a carving class from Dixie Biggs, we used oil for finishing our carvings. She used a small disposable brush to dab the oil into the details of the carving until the oil was absorbed, which avoided applying too much. This helped solve a problem I had with my woodturnings: When finishing turnings that had fine details, oil would puddle in tight areas. Using Dixie's method solved that problem.

### What did the demonstrator say?

Sometimes a statement is made that we do not understand or that does not sound right. Ask the demonstrator (or author) to explain in more detail. When there are time (or space) constraints, sometimes clarity is sacrificed or perhaps your prior knowledge or personal perspective are not considered. Demonstrators appreciate questions and often your questions

will help others better understand the information being conveyed.

The Internet provides resources for exchanging ideas and clarifying concepts. The AAW forum at [aawforum.org/vbforum/](http://aawforum.org/vbforum/) is a good place to start. There, you can ask questions and get feedback from fellow woodturners. Verify, though!

### Take notes

It has been said that the faintest of pens is stronger than the best of memories. Take notes. Don't like to write? Use your smart phone to photograph equipment setups, techniques, and demonstration pieces. Underline passages in books and magazines (or bookmark them in your digital reading device), make sketches, and acquire literature at tradeshow to aid you in remembering important details.

### Summary

When you learn something, you will be able to boldly create exciting new woodturnings with your newfound insights and knowledge! You don't have to look far to find some rich experience and resources—so explore!

*John Giem is a longtime woodworker and engineer and is active in the Rocky Mountain Woodturners.*

## Calendar of Events

December issue deadline: October 15

*Send information to [editorscarpino@gmail.com](mailto:editorscarpino@gmail.com)*

### Canada

October 13 and 14, 3rd annual turning and carving competition, "The Passion of Carving and Turning Competition," Maisonneuve Market, Montreal. During this two-day event, turners and carvers will share and exchange their mutual passion of working with wood. For more information, contact Michèle Perreault at [micheleperreault@langevinforest.com](mailto:micheleperreault@langevinforest.com).

### Alabama

January 18–April 7, "Shadow of the Turning," exhibit of new work by Binh Pho, Mobile Museum of Art. For more information, visit [mobilemuseumofart.com](http://mobilemuseumofart.com).

### Arizona

February 22–24, Desert Woodturning Roundup, Mesa Convention Center. This 5th biennial symposium, hosted by the Arizona Woodturners Association, features Richard Raffan, Malcolm Tibbetts, Michael Hosaluk, Molly Winton, David Marks, John Lucas, J Paul Fennell, Matt Monaco, and Rex Burningham. The event includes pen-turner gathering, live and silent auctions, vendor area, instant gallery, and door prizes. Following the symposium, Richard Raffan will teach a hands-on workshop. Further information is available at [desertwoodturningroundup.com](http://desertwoodturningroundup.com) or call 480-650-5185.

### Florida

June 28–30, AAW's 27th international symposium in Tampa. Mark your calendars now!

### Idaho

February 23 and 24, "Idaho Artistry in Wood," Boise Hotel and Conference Center, Boise. Competitors from all skill levels are invited to submit woodcarving, scrollwork, fine woodworking, and pyrography for display and judging. The show will feature demonstrations, vendors, raffles, auction, and banquet. For registration forms and more information, visit [idahoartistryinwood.org](http://idahoartistryinwood.org).

### Minnesota

Through December 28, "A Walk in the Woods," Gallery of Wood Art, Landmark Center, Saint Paul. Ongoing exhibit is "Touch This!" featuring fascinating facts about wood and woodturning, as well as pieces that you can touch. For more information, visit [galleryofwoodart.org](http://galleryofwoodart.org).

### Montana

October 6–7, Yellowstone Woodturners Symposium, Career Center, Billings. Malcolm Tibbetts will demonstrate segmented woodturning. For more information visit [yellowstoneturners.org](http://yellowstoneturners.org).

### Nevada

October 18–21, 3rd Segmenting Symposium, Horizon Resort and Casino, Stateline (Lake Tahoe). Demonstrators are John Beaver, Andy Chen, Dennis Daudelin, Ray Feltz, Lloyd Johnson, Bill Kandler, Dennis Keeling, Craig Kirks, Phil Miller, Michael Mode, Dave Peck, Jim Rodgers, Mike Shuler, and Malcolm Tibbetts. Special guest Bud Latven will give a PowerPoint presentation of his work. For registration and more information, visit [segmentedwoodturners.org](http://segmentedwoodturners.org).

### New York

March 23–24, 10th annual Totally Turning Symposium, Saratoga Springs City Center. Demonstrators are Mike Mahoney, Binh Pho, Ernie Conover, Kurt Hertzog, Steve Sinner, Steve Worcester, David Nittmann, Lyle Jamieson, Harvey Fein, Bruce Hoover, Mike Sutter, Joe Herrmann, Jeffrey Noden, Jerry Sambrook, and Giles Gilson. For more information and registration, visit [totallyturning.com](http://totallyturning.com).

### Pennsylvania

October 13, Cumberland Valley Woodturners host Mark Sfirri demonstration, Kauffman Community Center, Greencastle. For more information contact Bob Robinson at [popswoodshop@comcast.net](mailto:popswoodshop@comcast.net).



**Dave Hardy, Michael Kehs**, Ornament, 1999, Various materials, 5½" x 3" x 3¼" (14 cm x 8 cm x 8 cm)

Read about Dave Hardy on pages 59-61.

The Center for Art in Wood Museum Collection

### Tennessee

January 25–26, Tennessee Association of Woodturners' 25th anniversary woodturning symposium, Marriott Hotel at Cool Springs, Franklin, just south of Nashville. Featured demonstrators include Dixie Biggs, Jimmy Clewes, John Jordan, John Lucas, and Mike Mahoney. Upcoming details on [tnwoodturners.org](http://tnwoodturners.org) or email [tawssympo-sium@aol.com](mailto:tawssympo-sium@aol.com) or call 615-973-3336.

### Wisconsin

November 3–4, 4th annual Wisconsin Woodturners Expo, Eau Claire, at the Plaza Hotel & Suites, sponsored by the Chippewa Valley Woodturners Guild. Invited demonstrators are Sally Ault, Steve Antonucci, Mike Hunter, Dave Hiller, and Barry Grill, along with regional and local talent. Proceeds from a silent auction will support the guild's youth outreach program. For more information, visit [cvwg.org](http://cvwg.org).

## Burial Urns A Worthy Club Project

At a workshop sponsored by the Northeastern Woodworkers Association (NWA), Billy Aldous made some comments regarding the large number of unclaimed (and unburied) cremains of U.S. servicemen and women. From Billy's comment and a little research on the Internet, our club launched a project.

It has been estimated that there are approximately two thousand unclaimed cremains in *every state* of the United States. There are two organizations that have programs to locate these unclaimed cremains, identify them, and if they are from military servicepersons, arrange for a military funeral and interment in a national cemetery.

One of these groups is the Patriot Guard Riders, which we contacted. They recently had cooperated with the Flynn Bros. Funeral Home in Schuylerville, New York, to inter six such cremains in

the national cemetery at Stillwater. Both the Patriot Guard Riders and Flynn Funeral Home conveyed to me the importance of having a source of donated urns to the success of the program.

The Adirondack Woodturners Association and the NWA Crafters (both are special interest groups of the NWA) decided to make urns for this purpose. There are two designs, one square and one round.

A call to Curtis Lumber brought a donation of almost three thousand board feet of mixed hardwoods from Downes and Reader Lumber and Leonard Lumber (two suppliers to Curtis Lumber).

We initially promised about fifty urns to the Patriot Guard Riders for their recovery program. More will follow when needed. The project addresses a

need that must be filled and everyone involved feels good about making a contribution.

Thank you to the Patriot Guard Riders, Flynn Bros. Funeral Home, Curtis Lumber, Leonard Lumber, Downes and Reader Lumber, Adirondack Woodturners, NWA Crafters, and to Billy Aldous. The contribution of ideas, efforts, and materials are sincerely appreciated.

### Staves and cylinder end cones

These plans will produce an urn with an internal volume of

about 230 cubic inches. (Remains are cremated to roughly one cubic inch per pound.) Urns of this style can be made to hold a range of volumes by varying the width and length of the staves.

Cut staves  $2\frac{1}{4}$ " (57 mm) wide (on the wide side) with sides angled at  $15^\circ$ . The thickness should be about  $\frac{3}{4}$ " (19 mm) or slightly greater (*Photo 1*). Any species of wood or any mix of species will produce a nice urn. Cut these staves to  $7\frac{1}{2}$ " (19 cm) long.

Glue twelve staves together to form a twelve-sided tube (*Photo 2*). Use two steel band clamps to clamp the staves while the glue dries. I used Titebond III glue. It's important to wipe the glue from the interior of the cylinder with water-soaked rags—the inside of the cylinder will not be turned.

Prepare two faceplates with wood circles (*cones*) tapered as shown. These cones will be used to temporarily hold the cylinder onto the lathe.

With the two cones inserted into the ends of the cylinder, mount the assembly onto the lathe between centers. Use the cone with the faceplate at the headstock and the cone without the faceplate at the tailstock. Use a live center in the tailstock. Center the cylinder and make it fit snug between the cones using pressure from the tailstock. Turn the cylinder down to a diameter of 8" (20 cm) (*Photo 4*). Sand to 220 grit.

Square off the ends of the cylinder using a parting tool. Note: Take care not to cut all the way into either cone; otherwise the cylinder will become loose between centers. Stop  $\frac{1}{16}$ " (1.5 mm) shy



**1** Cut twelve staves,  $2\frac{1}{4}$ " (57 mm) wide (on the wide side) with sides angled at  $15^\circ$ . They should be  $7\frac{1}{2}$ " long.



**3** Prepare two faceplates with wood circles (*cones*), tapered as shown. These cones will be used to temporarily hold the cylinder onto the lathe.



**2** Glue twelve staves together to form a twelve-sided tube.



**4** Turn the cylinder to an 8" (30 cm) diameter.



of the cone. Sand this small amount off on the belt sander. Mark one end of the cylinder *top* and the other end *bottom*.

### Turn the top cap first

You will turn a cap for the top and one for the bottom. The top cap will be glued onto one end of the cylinder; the bottom cap will be screwed onto the other end.

To turn the top cap, mount a 9"- (23 cm-) diameter by 1"- (25 mm-) thick piece of wood to a faceplate or chuck. Turn the blank round, then cut a mortise into the face so that the end of the staved cylinder (marked *top*) will fit into the mortise (*Photo 5*). If using a chuck, create a tenon of just a little more than ¼" (6 mm). Remember that the cylinder is round on the outside and ragged on the inside: Make the tenon wide enough to accommodate the inside, and narrow enough to achieve a flush fit on the outside.

While the top is still attached to the faceplate (or chuck) at the headstock, glue the cylinder onto the top. Apply glue and slide the cylinder into the mortise. Use the lathe as a clamp to hold the assembly. Be sure the cylinder fits into the mortise all the way. Apply pressure with the lathe (*Photo 6*). Allow the glue to cure.

### Turn a bottom

In a similar fashion to the top, turn the *bottom* from a disc of wood 9" in diameter by 1" thick. Turn a mortise on the face to hold the bottom of the urn. *Do not glue!*

In the center of the mortise scribe a pencil line as the bottom slowly turns on the lathe (see *Photo 5*).

Drill ⅝"-diameter holes at 90° through the bottom disk along the pencil line within the mortise. Turn the bottom disc over and countersink the holes just drilled (*Photo 7*). In some fashion, mark one of the holes



The caps for the *top* and *bottom* will be similar. The bottom (shown here) will have holes drilled for screws.



To glue the top onto the cylinder, use the lathe as a clamp.



Countersink the holes on the underside of the bottom cap. Add button feet if desired.

to indicate the first hole. This will be used for indexing the screws.

Place the bottom disc, which still has a faceplate or chuck attached, onto the bottom of the cylinder. Use four sheetrock screws (1½" long) to fasten it in place. Make a corresponding mark on the cylinder to match the indexing mark on the bottom. The indexing will be used to replace the bottom with the screw holes matching after the ashes are placed into the urn. These marks should be permanent. I used a nail punch to make two dimples, one on the bottom and one on the cylinder.

The entire urn can now be mounted onto the lathe with the bottom at the headstock and the top at the tailstock. Turn and sand as desired.

Remove the faceplate or chuck from the bottom. Sand as needed. I added small wooden feet between the screws

on the bottom. I used wooden plugs (see *Photo 7*).

Finish as desired. Unscrew the bottom cap from the assembly before applying finish. Finish can be sanding sealer, lacquer, polyurethane, or shellac. There is ample room in this design for personal expressions of creativity such as beads, coves, carving, pyrography, decals, and painting. Plain or fancy, all will be appreciated! ■

*Ken Evans is a retired chemistry teacher. He is a member of the AAW, the Northeastern Woodworkers Association, and the Adirondack Woodturners Association. He is the general chairman of Woodworkers Showcase, a large woodworking show held each spring in Saratoga Springs, NY. You may send completed urns to Ken and he will get them to the Patriot Guard Riders and their recovery program, with credit given to the maker.*

*Photos by Steve Schoenberg.*



Interment ceremony at Gerald B.H. Solomon Saratoga National Cemetery, Stillwater, New York

Photo: Tom Moran

# Tips

## Aid in removing tailstock center

My lathe came with a small rod for removing the tailstock centers and I had to hit it with a hammer to remove the center. I thought, "If that rod was heavier, I would be freed from using a hammer."

I bought a longer rod the same diameter as the original and glued one end into a drilled hole in a heavy chunk of wood.

I abandoned the idea of turning the block of wood into a cylinder (for a better look) when I realized that it would roll around. My new tool is not as attractive as it could be, but it is effective.

—Serge Duclos, Canada



## Share your turning ideas!

If we publish your tip, we'll pay you \$35. Email your tips along with relevant photos or illustrations to [editorscarpino@gmail.com](mailto:editorscarpino@gmail.com).

—Betty Scarpino, Editor

## Shopmade spindle steady

After turning a stool for my shop, I realized it was time to make a spindle steady to eliminate the vibration and flexing on longer spindles, which lead to chatter marks. If I had realized how easy it would be, I would have made one sooner. From a thrift store, I picked up a pair of in-line skates for \$5, which provided eight wheels. (I have enough to make a bowl steady, too).

I made an L from scrap 2 × 4 pine. I notched the base piece to hold the upright, which is glued and screwed. I made a pivoting sidearm of hardwood; plywood would work also. The hole for the pivot bolt should match the swing of your lathe. For my Powermatic 3520, the hole is 10" (25 cm) above the lathe bed. The pivot will allow for slight variations in mounting the wheels. I used ¼" (6 mm) × 20 bolts to bolt the wheels on and added a washer next to the wood on each side. The wheels almost touch and spin freely because they have bearings.

I cut a notch on the sidearm centered between the two wheels so the spindle won't touch the sidearm. Make a clamping block that fits between the ways of your lathe from two pieces of wood. I used a 4" × ⅝" (102 mm × 1.6 mm) bolt through the clamping block and the slot on the base. The slot allows for sliding the steady forward or backward to fit the size spindle you are working on. I drilled a series of ⅝" holes and did some clean up with a chisel. Assemble and let it spin and support!

—Mike Peace, Georgia



## Clearing away dust

I needed to clear the dust from some hard-to-reach areas around my lathe, so an old Titebond glue bottle cap (with the end trimmed) and a small wooden adaptor (turned) came in handy to attach a ½" (13 mm) vinyl hose to the end of a regular vacuum hose. I also used it to clean dust under my refrigerator and around the coils.

—Michael Pinto, Toronto



## Transport lathe tools safely

To safely transport sharp lathe tools, I use PVC pipe and end caps. One cap is cemented on and the other is a friction fit. I cement some foam into the loose end cap to cushion the sharp end. If I have a bunch of tools to transport, I use the ubiquitous 5-gallon bucket to carry them.

—John Kaner, Alaska





## Creative reuse and recycling

I like to make use of worn-out items. Here are a few examples:



An old barbecue brush becomes a push stick.



Worn out drumsticks can be turned into chopsticks.



Filters are easily washed and hung to dry straight using plastic clips.



The handle of a useless paintbrush makes a dandy brake for a grinder wheel.



A Glenfiddich can stores a chuck key.

—Michael Pinto, Toronto

## Stabilize a JET mini lathe

The JET mini lathe is a great little machine and has the ability to turn bowls up to 10" (25 cm) in diameter; however, anyone who has tried to rough a bowl or anything even closely approaching this size knows how much vibration and movement occur.

To solve this problem, I made a "cement saddlebag" that fits over the cross bar on the stand. It consists of a box with an upside-down U in the middle that I fill with concrete post mix. The box holds 100 lb (45 kg) and increases the stability of the lathe by an

order of magnitude or more. The box is just deep enough so that it can be lifted off the cross bar without taking the lathe off the stand. The top of the box provides a shelf for tools.

I have three of these lathes for use in my classes and also for club events; they are difficult to move without dismantling. To solve this problem, I built a lift system using a 1 × 4 piece of lumber with cleats on the bottom just high enough to allow a hand truck to fit under it and larger cleats on the top placed at an angle to fit

between the cross legs on the bottom of the stand. I use a hand truck to lift and easily move the lathes wherever I need them.

—Larry Miller, Washington



## Sharpen carbide safely

I read the tip about sharpening carbide cutters in the June issue (vol 27, no 3). I like the idea of sharpening carbide, but in my opinion this method is not safe for a person's lungs. The small particles will float up where the operator can breathe them in. Exposure is relatively small, but it may not take much over time, especially if you are young.

*To make this procedure safe:*

- Add coolant mist or flood spray.
- Use dust extraction, but when cleaning the extractor, dust is still a problem, so dispose of safely.
- Use a respirator.
- Find a professional who is knowledgeable in sharpening and uses safe disposal practices.

*Here are links for more information about safety and dust from metal:*

- [worksafebc.com/publications/health\\_and\\_safety/by\\_topic/assets/pdf/hard\\_metal\\_hazard.pdf](https://worksafebc.com/publications/health_and_safety/by_topic/assets/pdf/hard_metal_hazard.pdf)
- [ajrccm.atsjournals.org/content/176/1/2](https://ajrccm.atsjournals.org/content/176/1/2)
- [carbideprocessors.com/pages/technical-info/machine-coolant.html](https://carbideprocessors.com/pages/technical-info/machine-coolant.html)

—Phil Vetra, Langley, Canada, Past President, British Columbia Sawfilers Association ►



### Platform for midi lathe

I recently bought a midi lathe and soon realized that at 106 lb my lathe is not very portable. Space is at a premium in my basement workshop. I couldn't add a floor base, so I came up with this solution: I attached a platform to my lathe so it can be set up quickly and put aside easily, without breaking my back or hurting my hands. The platform acts as handles, it cushions my belly, and helps to balance and spread the weight. I use the platform to clamp the lathe firmly to my workbench.

To make the platform I laminated three ¾" (20 mm) plywood scraps together for rigidity and stability. I rounded over the edges with a router and sanded the platform. I drilled through-holes for the bolts, and from underneath, I counter bored the holes for the head of the bolts and washers. My lathe was supplied with feet to raise the bed to give room for the motor, so I added small blocks of wood the same thickness as the feet.

I'm very excited about this new setup. Now I wish I had a nail big enough to hang the lathe and its platform on the wall.

—Serge Duclos, Canada



### Protect wood from chuck jaws

After trying several ideas for reversing a small turning and holding it in a chuck to finish the bottom, I devised my own method, which is simple and inexpensive. I had tried cloth, tape, foam, and electrical wire, but always ended up with marks on the turning from the chuck jaws. To solve this, I took some plastic tubing, which is available by the foot in a variety of sizes, and slid it on the chuck jaws.

For pin jaws I cut pieces the length of the jaws. For No. 2 jaws, I cut pieces long enough to cover each jaw. I cut a slit in the tubing so that it can slip over each jaw. The tubing is thick enough to prevent the marks and also provides some holding power for the work piece.

For pin jaws I use ⅝" (16 mm) ID tubing and for the No. 2 jaws, ¾" (10 mm) ID tubing. Other chucks may require different sizes.

—Bill Fordney, Pennsylvania



### Attachment for sanding inside bowls

Turn a stick of hard maple flared on both ends. Cut it in two so that one end is longer than the other (for different-depth bowls). The diameter of the ends can be whatever size you want; mine are 1¾" (44 mm). The diameter of the stem is ⅜" (10 mm) to fit my hand drill.

Cut a 1¾"-diameter circle of soft foam from a flip-flop (purchased at a dollar store). Use Titebond wood glue or liquid nails to glue the foam onto one end of the stick. (I have tried other types of glue and most don't work.)

Glue a circle of 1¾" loop material to the foam on one end and to the bare wood on the other. When you are

ready to sand, attach hook abrasive to the loop material. You can now sand the inside of bowls using your drill custom attachments.

You can turn a flat or slightly domed profile on the end of the stick to match the contour of your bowl.

—Ed Otero, New Mexico



## Brewster Kaleidoscope Society



Marty Wildes demonstrates how to make a kaleidoscope at the Brewster Kaleidoscope Society conference.

**Marty Wildes**, *Hollow Form Kaleidoscope*, 2012, Walnut, mahogany, dogwood, 8" x 3" (20 cm x 8 cm)

The close association between woodturning and kaleidoscope making, long recognized, was demonstrated at the 22nd annual convention of the Brewster Kaleidoscope Society in Atlanta, April 12–15. Marty Wildes, veteran turner and member of the Georgia Association of Woodturners, was the featured artist. The slogan of his business, MJ Designs, is: "Turning Wood Into Art," which describes a wooden kaleidoscope. Marty set up a JET lathe and turned a scope barrel and end fittings, describing each step and the tools used. He distributed a six-page handout with chisels and tools required and step-by-step photos and instructions for turning a scope. These are available in color on Marty's website: [mjdesigns.info](http://mjdesigns.info). The audience was most complimentary of Marty's presentation, which was a highlight of the convention. You can view more designs at: [kaleidoscopeshop.com](http://kaleidoscopeshop.com).

—Bob Coleberd

## Mark Sfirri 2012 CWA Lifetime Achievement Award

Mark Sfirri has been chosen as the 2012 recipient of the CWA Lifetime Achievement Award from the Collectors of Wood Art. Mark is being recognized for his creativity as an artist, innovative approach, and reputation as a teacher and a scholar on the subject of wood artists. Mark has played a central role in the development of the wood art field.

Mark studied furniture making under Tage Frid at Rhode Island School of Design, where he started experimenting with ways to incorporate woodturning into furniture. Primarily working with wood, Mark creates furniture, utilitarian objects, and sculpture. He is noted for his pioneering work in multiaxis woodturning. Since 1981, Mark has taught at Bucks County Community College, where he coordinates the Fine Woodworking programs. He has taught workshops throughout the United States as well as Canada, England, Ireland, France, New Zealand, and Australia. Mark is an invited demonstrator at AAW's symposium in Tampa next year.

The James Renwick Alliance of the Smithsonian Institution recognized Mark's teaching in 2010 by awarding him a national Distinguished Educator Award (AW vol 25, no 1). Over the past decade he has published a dozen articles on design, technique, and history, five focusing on the life and work of Wharton Esherick. Mark presented a paper on the prints of Wharton Esherick for the symposium, "Wharton Esherick and the Birth of the American Modern," held at the University of Pennsylvania in 2010. He was a guest curator for the accompanying exhibit.

In 2012, Mark was one of a few artists selected as part of an oral history project organized by the Senior Artists Initiative, a non-profit organization in Philadelphia ([seniorartists.org/marksfirri.html](http://seniorartists.org/marksfirri.html)). To view a short video showing Mark at work, visit [youtube.com/watch?v=7uZNMvwHHIY](http://youtube.com/watch?v=7uZNMvwHHIY).

Congratulations, Mark!



*Continuous Column*, 2011, Poplar, paint, 25" x 5½" (63 cm x 14 cm)



## Two Local Chapters and a Christmas Display

In November 2011, the Blue Ridge Woodturners (Roanoke, VA) and the Smith Mountain Lake Woodturners decorated a Christmas tree with more than 300 turned ornaments at Hotel Roanoke. The tree, which is part of a special annual fundraising event for United Way, complemented a display case with other woodturnings, and a whimsical elf turning at a mini lathe. Guests and visitors make donations in the name of the twenty-five sponsors, and the three highest money raisers for United Way are honored. Other sponsors are local businesses and support groups and preference is given to returning sponsors. We were lucky to get in and hope to be included again.

Approximately sixty members began working on the project months before the invitations were announced in early September. We decided that if this project did not materialize, we

would try for another fundraiser featuring a decorated tree. Grand Home Furnishings donated a display case for other turnings such as bowls, pens, and bottle stoppers.

This effort brought together two clubs and many woodturners. Spirits were high, especially on November 21 when we set up and decorated the tree and arranged our display. It all came together perfectly.

We are currently looking for other ways to give publicity to our respective clubs and provide activities for our members. We want to recruit more woodturners and have more fun because mentoring and sharing of techniques keeps our members involved, connected, and active. ■

—Edward Leonard, President,  
Blue Ridge Woodturners



## Local Chapter Holiday Fundraiser

The Gwinnett Woodworkers Association features a diverse collection of woodworking skills. Located in Gwinnett County just northeast of Atlanta, the club includes general woodworkers, furniture makers, carvers, scroll-saw artists, and of course, woodturners. Skills range from novice to experts who have won prestigious awards in local and state competitions.

Last year, this AAW chapter became involved in two significant community

activities. Both involved broad-based member support within regularly scheduled club meetings, special workdays, and individual work in members' shops.

For the first activity, club members made and packaged 715 toys for the Toys for Tots program. These toys went to children who might not otherwise receive a toy for Christmas. This significant activity was highlighted in the July 22, 2011, edition of *Wood Toy News*.

For the second activity, club members made 212 ornaments that were used to decorate an Upside Down Christmas tree. Approximately 150 of these ornaments were turned, while the others were made with a scroll saw. The ornaments were delightful to behold since no two were alike. The scroll-saw ornaments featured fretwork and intarsia.

The turned ornaments featured sea urchin shells, segmented globes, chip carving, scroll-saw overlays, and spalted wood.

In December, the club auctioned this tree on the Peachtree Woodworking website and raised \$4,500 for Children's Healthcare of Atlanta. These activities are a great example of the impact that an individual woodworker or group of woodworkers can have on their local community. More information about our local chapter can be found at [gwinnettwoodworkers.com](http://gwinnettwoodworkers.com). ■

—Steve Mellott





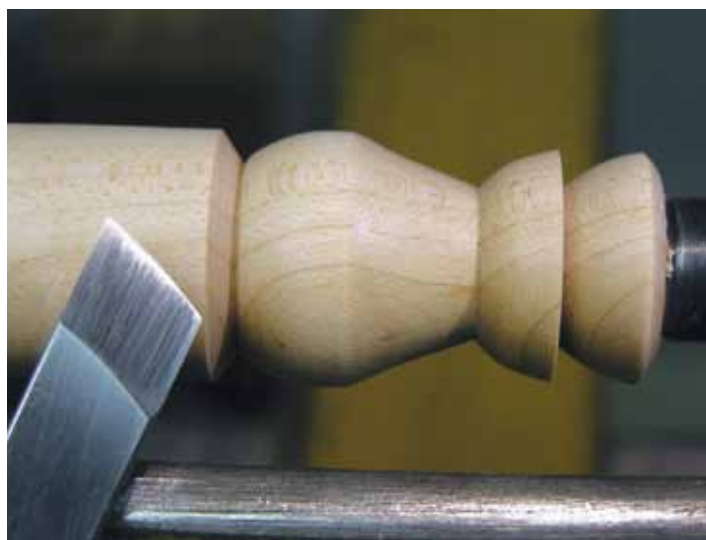
# Sharpener Alternatives

*{The joy of sharp tools}*

Jim Echter



For everyday sharpening, many woodturners rely on a slow-speed grinder with two 8" x 1" white aluminum oxide wheels. On Jim Echter's machine, the left wheel has a TruGrind jig for sharpening gouges, skews, and parting tools. The right has a Veritas adjustable-angle platform for sharpening scrapers.



Here's why: with sharp tools, you can turn cleanly and skip directly to your finest sandpaper grit.

**One of the major differences between an expert turner and most beginners is how sharp each turner keeps his tools.**

Sharp tools are also why one beginner becomes proficient much faster than another, and dull tools probably discourage some beginners who just give up. Our turning tools really are consumable items just like sandpaper. They need to be sharpened much more frequently than many beginners imagine, and yes,

repeated sharpening does use them up although it may take years.

When I teach I always advise beginning and intermediate turners to spend time learning how to properly sharpen their tools. A key advantage of belonging to the AAW and becoming active in your local chapter is that our clubs offer many opportunities to learn how to sharpen properly. My local chapter conducts sharpening workshops and we also have a mentoring program to help our new members get their tools properly sharpened so they have one less barrier to learning.

This article provides an overview of the various sharpening systems currently available: dry grinders, wet grinders, belt systems, and the new rotary see-through grinders that have come to market in recent years. I will explain the primary features, benefits, disadvantages, and costs of each system. Because many turners also have other woodworking interests, we will also look at other possible uses. Everyone has a different budget and workshop setup, so there is no single perfect solution, system, or method for sharpening. ►

## Dry grinders

The standard in most woodturning shops is a bench grinder with two 8" × 1" (200 mm × 25 mm) aluminum oxide wheels. Aluminum oxide wheels, usually colored white, blue, or pink, cut faster and cooler than grey carborundum wheels. Occasionally you can find a price near \$100 on an 8" slow-speed (1700–1800 rpm) or dual-speed (1700–1800 and 3400–3600 rpm) grinder with white wheels, which is a great deal. Some of these machines may have a small water tray for cooling the tool tip; the wheel itself runs dry.

The 8" grinder solution is generally considered fast at both reshaping tool profiles and putting new edges on your tools. That is why you are likely to find one in most woodturners' shops, woodturning schools, and at most clubs. If you learn how to use the 8" grinder, you will be comfortable when you take a class, visit other turners' shops, if you teach, or if you mentor beginners. The 8" grinder has two disadvantages: first, with carbon-steel tools it is easy to overheat (blue) the metal and draw its temper; and second, the standard toolrest leaves much to be desired when you are trying to shape a gouge or a skew chisel. Many beginners have carbon-steel tools because they inherited them with their lathe or they bought them at a garage sale. There is much less risk of overheating modern high-speed steel tools, a big advantage for turners who sharpen often.

Interestingly, when a representative from a major abrasives company visited our local club, he made the point that a 3600-rpm grinder with proper wheels was actually cooler on the steel than the same wheel running at 1800 rpm. The rep explained that the wheel surface was designed to fracture and expose fresh cutting edges at the higher speed. I think the higher speed would be an advantage for a professional tool-and-die maker who works with metal every day. However, most woodturners find that slow-speed grinders are easier to control,

which is why they have become so prevalent in our shops. *Dry grinders* lists major and popular brands of dry grinders.

While dry grinders are fast and great for reshaping a tool, they do leave a ragged burr on the edge that sometimes needs honing, especially on fine detail tools like the skew chisel. Some production bowl turners prefer the edge right off the grinder because they believe its raggedness is like a serrated knife cutting through bread, especially when roughing green blanks. Some turners use a buffing wheel to hone their tools, while others prefer to touch them up with sharpening stones.

Dry grinders generally do not come with much in the way of toolrests. While you could cobble up your own, I believe you will get best results with aftermarket grinding jigs and platform rests designed

for sharpening turning tools. Good jigs and platforms help you maintain the tool's shape and bevel angle every time you sharpen. Gouges are particularly difficult to sharpen freehand, but inventors and manufacturers have come up with a number of clever jigs to help you grind and maintain the correct shape and angle. Adjustable-angle platform rests help sharpen skews, parting tools, and scrapers.

Recent and noteworthy jig innovations include the Hannes Tool multipivot gouge jig that permits the multiangle grind advocated by the hat-turner JoHannes Michelsen, and a heavy-duty angle gauge and adjustable-angle platform designed by Stuart Batty of Boulder, Colorado. *Grinding jigs and platforms*, p. 29, lists jigs and platform rests for dry grinders. ►

Dry grinders				
Manufacturer	Model	Details	Cost	Web address
 Baldor Industrial Grinder	8250W	8", 3600 rpm, replace grey wheels with aluminum oxide wheels	\$900	baldor.com
 Delta Variable Speed Grinder	23-199	8", 1725 and 3450 rpm, one 60-grit aluminum oxide and one 36-grit grey wheel	\$150	deltamachinery.com
 Grizzly Heavy-Duty Bench Grinder	G0596	8", 1800 rpm, replace grey wheels with aluminum oxide wheels	\$495	grizzly.com
 Woodcraft Slow Speed Grinder	105780	8", 1700 rpm, comes with 60-grit and 120-grit aluminum oxide wheels	\$125	woodcraft.com



Grinding jigs and platforms				
Manufacturer	Model	Details	Cost	Web address
 <p>Lee Valley Veritas Grinder Tool Rest</p>	05M23.01	Platform rest	\$55	veritastools.com
Lee Valley Veritas Skew-Grinding Jig	05N13.01	Jig for skews, use with platform rest	\$30	veritastools.com
 <p>Oneway Wolverine Grinding Jig</p>	2291	Base, sliding arm and platform rest	\$90	oneway.ca
Oneway Wolverine Vari-Grind Attachment	2480	Jig for gouges, use with platform rest	\$55	oneway.ca
 <p>PSI Woodworking Complete 4-Piece Precision Lathe Chisel Sharpening System</p>	LCGRIND4	Platform with jigs for gouge and skew	\$115	pennstateind.com
 <p>Sharp-Fast Tool Guide System</p>	S900	Jig for gouges	\$125	tmiproducts.net
 <p>Robert Sorby Universal Sharpening System</p>	447-RS	Platform with jigs for gouge and skew	\$140	robert-sorby.co.uk
 <p>Tru-Grind Sharpening System</p>	TRUGR	Platform with jigs for gouge and skew	\$130	woodcut-tools.com
 <p>Hannes Tool Vector Grind Fixture</p>		Jig for gouges; multibevel grind	\$140	hannestool.com
SB Tools Angle Gauges		Three gauges for setting grinder platform angles	\$105	woodturning.org

## Wet grinders

Wet grinders generally feature a 10" x 2" (25 cm x 5 cm) wheel turning slowly in a water bath. The water both cools the steel and carries away the grinding waste. Wet grinders can produce a very fine, smooth, and polished edge, by far the finest edge of all the different mechanical sharpening systems. Many turners believe there is an advantage to having such a sharp edge, but many other turners believe it is just not worth the expense for our type of woodworking. Beliefs aside, the real advantage of a wet grinder is that it is nearly impossible to overheat the tool edge, no matter how thin you grind it.

The most widely known wet-grinding system is the Tormek T-7. Tormek

offers an accessory kit for sharpening woodturning tools. JET Tools introduced their version a few years ago, also with accessories for turning tools. Lately there have been some inexpensive wet grinders coming out of the Far East, although these typically do not have a jig or accessory kit for woodturning tools.

One argument that many turners have against wet grinders is that they do not want a water tray near the lathe because it fills up with chips and makes a mess. Vendors have responded with nice covers to help keep debris out of the water, but many turners still consider it a hassle to have to uncover and cover the unit every time they sharpen. The other issue is that compared to a dry grinder,

a wet system is considered slow when initially shaping a tool profile. Before Tormek came out with their woodturning accessory kit, many turners felt that system also was too slow. However, in my opinion, the jigs available today make sharpening turning tools on a wet system very comparable in speed to sharpening with a dry grinder.

Wet systems are quite expensive, especially when you add in the cost of the accessory kits. On the other hand, most wet-grinding machines include a leather honing wheel, so they do offer a complete solution. If you are a carver or if you use hand planes and chisels for flat work, then it will be easier to justify the expense of one of these systems.

Wet grinders				
Manufacturer	Model	Details	Cost	Web address
 <p>Grizzly Wet Grinder</p>	T10010	10" wet wheel, leather honing wheel	\$170	grizzly.com
Grizzly Accessory Kit #2	T10024	Wheel dresser, angle guide, tool holder.	\$55	grizzly.com
 <p>Harbor Freight Wet/Dry Grinder</p>	35098	Both an 8" wet and 6" dry grinder, no accessories available	\$65	harborfreight.com
 <p>JET Slow Speed Wet Sharpener</p>	JSSG-10	10" wet wheel, variable speed, leather honing wheel	\$350	jetttools.com
 <p>Tormek Sharpener</p>	T-7	10" wet wheel, leather honing wheel	\$630	tormek.com
Tormek Woodturner's Kit	TNT-708	Toolrest, gouge jig, honing wheel, angle guide	\$320	tormek.com



## Belt sharpeners

A belt sander offers another way of sharpening turning tools. Most belt-sander systems produce a flat edge, instead of the hollow-ground edge that comes from wet and dry grinders. Some turners make the case that the flat edge gives them better control at the lathe. Others believe that a hollow-ground edge makes for easier honing, and therefore is sharper. What I find interesting is that tool vendors and knife makers all use belt systems in their manufacturing processes. Today, one can purchase high-quality fine-grit belts impregnated with aluminum oxide, blue zirconia, or silicon carbide. These belts are designed to produce a mirror finish on high-speed steel tools. This makes belt systems possibly the best all-around solution for a sharpening system.

The case for belt systems includes: (1) they are cooler than grinding wheels because the belts dissipate heat better; (2) since the belt usually is running away from the edge, you cannot jam the tool like you can with a grinding wheel; and (3) belts are easy to change. You can switch from a coarse belt for profiling to a fine belt for sharpening in a couple of seconds. If the belt is worn out, it is quick to replace. Belts are consistent and do not change dimensionally, like grinding wheels, and belts do not need to be dressed like wheels. Some belt systems, like most wet grinders, have the additional advantage of a buffing or honing wheel, which gives better and more consistent results than honing by hand.

The British tool manufacturer Robert Sorby has recently introduced their ProEdge Sharpening System. It has several optional accessories that include jigs for gouges and skewers plus a honing wheel; these are included in the Pro-Edge Plus system. What I find interesting is that the belt runs toward the tool

edge, whereas other systems have the belt running away from the edge so it cannot catch and tear, which seems safer. The ProEdge can do this because its various jigs position the tools in a repeatable manner. However, one major disadvantage of the Sorby system is that it uses non-standard belts.

One of our industry's long-time advocates of belt sharpening is professional turner Jon Siegel of Wilmot, NH. Jon makes a strong case for the flat sanding belt plus honing wheels. If you saw Jon's demonstration at the Hartford AAW symposium in 2010, you know just how fast and efficient he is at turning and sharpening. Jon had developed and sold a well-thought-out

sharpening system based on an inexpensive imported belt sander and buffing wheel. In my opinion, Jon's Big Tree Sharpening System should have been on everyone's tool evaluation and purchase lists. Jon's company recently suspended manufacturing this system, but a redesign is in the works and it will probably be available again early in 2013. Consequently, I decided to build my own belt sharpening system based on one of these low-cost import sanders. If you are a woodturner, the chances are good that you are frugal and handy and could build yourself a system if you wanted. In the December issue of this journal, I will show you how. These belt sharpeners work great and are fast. ►

Belt sharpeners				
Manufacturer	Model	Details	Cost	Web address
 Harbor Freight Combination Belt/Disc Sander	97181	4" x 36" belt with 6" disk sander	\$100	harborfreight.com
 Kalamazoo Belt/Wheel Sander	2SK7	2" x 48" belt with 7" grinding wheel	\$660	kalamazooind.com
 Lee Valley Sander/Grinder	68Z75.01	1" belt grinder, no motor	\$90	leevalley.com
 Robert Sorby ProEdge Plus System	PED01	2" belt system with jigs for turning tools and honing accessories	\$550	robert-sorby.co.uk

## Rotary see-through grinders

Recently, two companies, Jooltool and Work Sharp, have released affordable rotary grinders into the marketplace, alongside the unusual VisiGrind machine. These sharpening systems have a horizontal wheel or sharpening disk and you sharpen the tool on the bottom of the wheel, not on the top like horizontal water wheels. The unique feature is that the disks are slotted or perforated so you can actually observe the tool tip as it is being sharpened. The Work Sharp machine features interchangeable disks and a sanding-belt attachment, and the company recently has introduced a tool bar attachment that accepts Tormek and JET jigs for turning tools. All three manufacturers say their systems run much cooler than conventional sharpening equipment.

It is amazing to use one of these systems and actually see the edge being ground. I think for the experienced and professional turner who has great tool control, using one of these freehand rotary sharpening systems may be very quick for edge touchups. A new turner might find it difficult to use one of these systems freehand or to reshape a new tool. For that reason, the Work Sharp 3000 with JET or Tormek jigs for turning tools might be an interesting though expensive choice.

## Summary

As in most things in life, there are multiple methods for solving the woodturner's sharpening needs. You can get a sharp edge with any of these: a dry grinder, a wet grinder, a belt sharpener, or a rotary sharpener. It depends on your budget, your time, and whether you want to sharpen other nonturning tools.

Rotary see-through grinders				
Manufacturer	Model	Details	Cost	Web address
 Clear-View VisiGrind	K-SM180	See-through perforated diamond disk, top-view magnifier	\$800	sharperdrills.com
 Jooltool	Intro Pack	3M Ninja See-Thru abrasive disks	\$300	jooltool.com
 Work Sharp	3000	See-through dry grinder that can be used top side or see-through from below. Tool bar attachment accepts turning-tool jigs.	\$300	worksharptools.com

If you are a beginner, attend a sharpening workshop or class, and try out different systems. Pick one and go for it. Whatever system you choose, you will need to practice using it. The important thing to remember is that you need to touch up the edge of your turning tools before they get dull, so you can experience the joy of always turning with sharp tools.

*Jim Echter is a professional turner who lives near Rochester, NY. He specializes in making tools for fiber artists, turning custom architectural pieces, and teaching. Jim's home club is the Finger Lakes Woodturners Association, and his website is truecreations.biz.*

The December issue of American Woodturner will contain an article by Jim Echter on how to build a shop-made belt sharpener. ■



Trying to think up a good gift for a fishing buddy or a sturdy plaything for an active child? With this project, you can also create your own piece of Pop Art. Just as Andy Warhol did with soup cans and Brillo boxes in the 1960s, you can take an everyday object and make it interesting by exaggerating its size. Or, you could just use it to catch fish.

Turn a  
Fishing  
Reel

Turn a  
Fishing  
Reel

Turn a  
Fishing  
Reel

Turn a  
Fishing  
Reel

Jim Meizelis

Other than the crank handle and reel base plate, all the pieces can be turned, although the dowels that hold things together are easier to buy than turn. Making the reel from a combination of contrasting hardwoods—maple, walnut, cherry, hackberry—gives it a strong visual impact.

Like its real-life counterpart, the wood reel consists of a pair of face plates that hold the spool for the fishing line. Dowels keep the two face plates separated and attach them to the base plate. The crank handle and knob slide onto one end of the spool, and small, turned covers go over the ends of the spool. If you have the material, you can make a rod to go with the reel. I found that an old mop handle works nicely.

In order for the reel to look right and fit together properly, you need to lay out the position of the dowel holes carefully and hold the two face plate blanks together with double-sided tape when turning them. Even more important, you need to begin the project by making a simple centering jig so that the dowel holes match precisely.

### Make the centering jig

Although very simple, this drill-press jig is critical to the alignment of the

reel faces. It consists of an 8" × 8" (20 cm) square of medium-density fiberboard, plywood, or similar material, with a  $\frac{5}{16}$ " (8 mm) hole drilled partway through the center for a short length of dowel. When inserted, the dowel should stick up slightly less than  $\frac{3}{8}$ " (10 mm) from the surface (*Photo 1*).

To align the jig, bring the drill bit down into the hole in the center. Lock the quill and bit in place. Tighten the drill-press table and clamp or bolt the jig to it. To secure the jig, I countersank carriage bolts into it and tightened the

Contrasting woods stand out, and the reel's larger-than-lifesize makes an everyday object interesting.

bolts with T-knobs from the underside of the table (*Photo 2*).

### Lay out the face plates

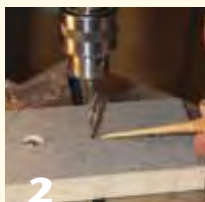
For the face plates, use two 5" × 5" (13 cm) squares of  $\frac{3}{4}$ " (19 mm-) thick material. Choose the two faces you want as the outside faces and join them together with double-sided turner's tape. Align the corners as close as possible. (The final outside faces are initially inside.)

Find the center of a face plate blank by drawing lines to opposite corners. ►





**1** The centering jig is shown with the indexing dowel in place. Carriage bolts hold the jig onto the drill press table.



**2** Use the drill bit to align the jig until you can clamp or bolt it in position.



**3** The blanks for the reel face plates are shown with circles to guide the turning and centers marked for the five dowel holes.



**4** With dowel holes drilled in one face, flip the blanks over, position a hole over the indexing dowel, and drill the mating hole.

Then lay out centers for the dowel holes and circles to mark the final outside diameter of the plates and the size of an inset for the line spool (*Figure 1*). Use an awl to dimple the centers of the five dowel holes as well as the center of the circle (*Photo 3*).

Drill a  $\frac{1}{16}$ " (2 mm) hole through both face plate blanks at the center. This becomes the center reference point on the opposite side. After drilling, mark the circles shown in *Figure 1* on the opposite face. You don't need to mark the dowel centers again.

With the  $\frac{5}{16}$ " drill bit, drill the five marked dowel holes  $\frac{3}{8}$ " (10 mm) deep. Then use the centering jig to drill holes in the opposite face. Insert the

indexing dowel into the centering hole of the jig. Flip the plates over, fit the indexing dowel into a drilled hole, and drill the matching hole. Move the face plates from hole to hole until you have finished drilling the dowel holes in the second plate (*Photo 4*).

### Turn the face plates

Chuck a 4" (10 cm) waste block onto the lathe, flatten the face, then attach the joined face plates to it with double-sided turner's tape. To center the face plate blanks, place the point of a tailstock live center into the small hole in the center of the blanks and advance the tailstock until the tape sticks. For safety, keep the tailstock in place for as long as possible.

Use a bowl gouge to bring the blanks to their final  $4\frac{1}{2}$ " (114 mm) diameter (*Photo 5*). If you want, bevel or round over the edges (*Photo 6*). Embellish the edge of each face plate with burn lines or shallow grooves (*Photo 7*).

Turn the reel line spool inset, making it  $\frac{1}{4}$ " (6 mm) deep and 3" (76 mm) in diameter. Use a 1" (25 mm) Forstner bit to bore a hole through the center of both face plates for the reel spool (*Photo 8*).

Remove the face plates from the lathe and separate them. Remove any tape or adhesive residue. Use a scroll chuck with pin jaws to hold each face plate while you finish the turning. You have to turn a reel spool inset on one of the face plates. And this is the time to add whatever embellishments you want on the outside faces (*Photo 9*).

### Turn the spool

Mount a suitable blank between centers and turn it to a 3" cylinder that is at least  $6\frac{1}{2}$ " (19 cm) long. (Added length gives room to make adjustments later.) Mark the location of the spool posts (*Photo 10*). At the left, the post is 1" long. At the right, the post is 2" (50 mm) long. This leaves  $3\frac{1}{2}$ " (89 mm) in the center.

Reduce the diameter of the spool posts to a hair less than 1" for a snug fit through the face plates (*Photo 11*). I used a bowl gouge and skew chisel for this. Use a spindle gouge to cut a cove in the center of the spool, being sure to keep the sides balanced (*Photo 12*).

### Make the remaining parts

For the spool post knob and buttons (*Photo 13*), begin with a pair of blanks that are about 2" in diameter and 1" thick. Drill a 1" diameter hole  $\frac{1}{2}$ " (13 mm) into the center of each one. Use the hole to mount the blank in the pin jaws of a scroll chuck and turn them with a spindle gouge.

I used a  $\frac{5}{16}$ " (8 mm) dowel to hold the knob onto the crank handle. I

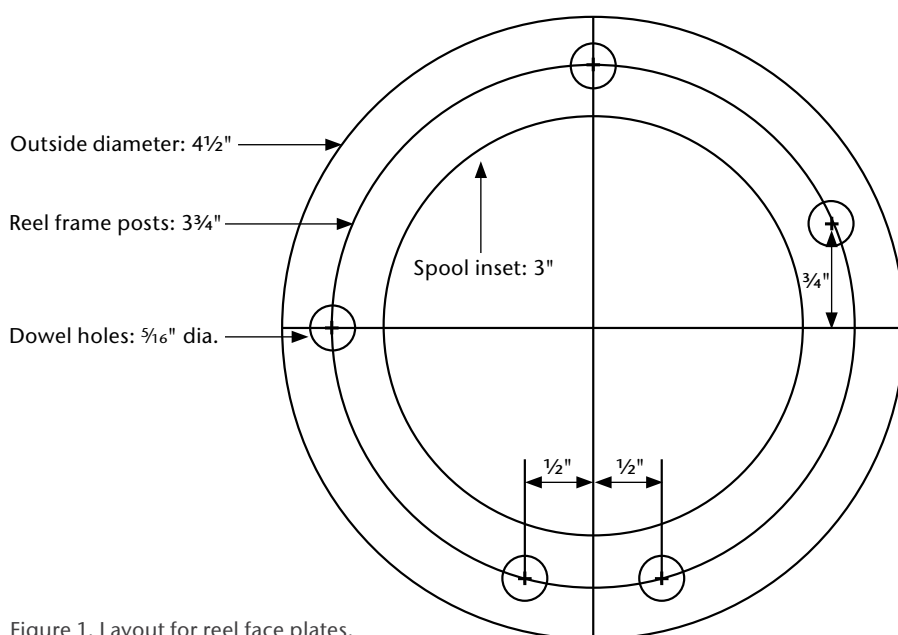


Figure 1. Layout for reel face plates.





**5** Turn the face plates to their final outside diameter.



**6** I use a three-point tool to round over the edges.



**7** Burn lines dress up the edges of the face plates.



**8** A face plate is completed, with a recess for the line spool and a hole for a spool post.



**9** Add embellishments to the front of the face plates.

drilled a hole in the end of the blank, inserted a dowel, and used pin jaws to hold it as I shaped the knob. I brought up the tailstock for added support.

To make the string guide, cut a piece 1" square and 2" long. Drill two holes through it at right angles, but offset so they do not intersect (*Photo 14*).

Bandsaw the crank handle from a piece of  $\frac{3}{4}$ "- (19 mm-) thick stock that is 3" (76 mm) wide and 4" (102 mm) long. It needs a 1" hole for the reel spool at one end, and a  $\frac{5}{16}$ " hole for the crank knob at the other. Beyond that, the shape is not fixed. There are many design options (*Photo 15*).

## Shape the base plate

The base plate connects the reel to the rod and holds the reel faces in place. Its shape is flexible, but I prefer a traditional shape with tangs at both ends (*Figure 2*). Begin with a  $\frac{3}{4}$ "-thick blank 3" wide and 8" (20 cm) long. Be sure the sides are flat and parallel. Double check the spacing of the appropriate dowel holes on the reel face plates, then drill mating holes in one side of the base plate. Optimally, the holes should be 1" apart and  $\frac{1}{2}$ " deep. After drilling the first two dowel holes, use the centering jig to drill the holes in the opposite side. Drill holes in the tangs, as shown in *Figure 2*, to attach the reel to a rod. Shape the tangs only after you have drilled the holes for the face plates (*Photo 16*).

Cut three lengths of doweling, each  $3\frac{3}{4}$ " (95 mm) long, for the three reel cross posts. Cut four pieces of dowel, each  $\frac{7}{8}$ " (22 mm) long, for the face-plate-to-base-plate connection. Cut one piece of dowel, about  $1\frac{1}{2}$ " (38 mm) long, for the crank knob, and one piece about 2" (50 mm) long to hold the crank handle onto the spool.

## Assemble the reel

Dry-fit the parts except for the crank handle, making any necessary adjustments so that the spool can turn freely

(*Photo 17*). Slide the crank handle onto the spool and drill a  $\frac{5}{16}$ " hole through the handle and spool for a dowel to hold the two parts together (*Photo 18*). You may also want to drill a hole through the center of the spool to tie the line through later. If you plan to use the reel to catch real fish, add leader line and a hook.

Disassemble the reel, sand the parts, and apply whatever finish you prefer. When the finish is dry, glue the reel together with white or yellow glue.

When the glue has cured for 24 hours, tie the baling twine to the spool and ►



**10** On the spool blank, lay out the locations of the spool posts and the cove for the line.



**11** Turn the two spool posts to slightly less than 1" (25 mm) in diameter.



**12** Cut the cove for the line.



**13** The crank knob (l) and the buttons that cover the spool posts can also be turned.



**14** The string guide has one hole that fits over a dowel, and the string threads through the other.



**15** The crank handle can take many shapes.



16

Be sure the holes in the side of the base plate align with holes in the reel face. Use the centering jig for the holes on the opposite side.



17

Dry-fit the reel to be sure everything aligns and the spool can turn freely.



18

Drill mating holes in the spool and crank handle for a dowel to hold the two parts together.



19

An oversized reel requires an oversized rod handle. I made this from the trunk of a Christmas tree.



20

Taper a long spindle for the rod shaft. You may need to make it in two sections.

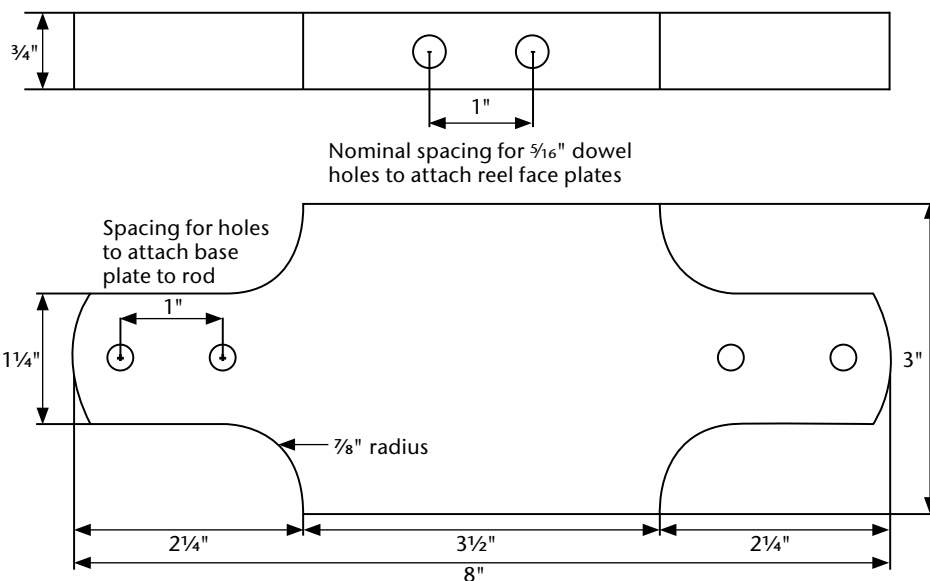


Figure 2.

crank about 20' (6 M) of twine onto the spindle, until it fills. I found it easier to thread the twine through the string guide after the spool is loaded.

## Make the rod handle and shaft

The design of the rod can be quite variable. You want the handle to be in proportion to the reel, so start with a blank that is about 18" (46 cm) long and 3" to 5" (8 to 13 cm) thick. The handle of the reel I made for this article was from the trunk of a Christmas tree (*Photo*

19). The length of the shaft depends on whether you use scrap like an old tent pole or mop handle or new stock, and on the turning capacity between centers of your lathe. I have a bed extension on my lathe, so I could make a fairly long shaft (*Photo* 20). I created a simulated joint to make it look as if the shaft has two sections. If you have a smaller lathe, you can turn two sections that fit together. Make the eyelets for the line from a light-gauge wire or baling twine stiffened with white glue.

Don't forget to add embellishments to the handle and the shaft. I like to use an odd number of lines and vary their thickness. If the pole is strictly for show, practice some multiaxis turning to make wooden fish.

My pole is ready. I'm picking up some bait and heading for the lake. ■

*Jim Meizelis began woodturning in 1998, when he inherited a lathe made from recycled coal mining machinery. He quickly discovered that turning was a good release from daily workplace pressures and it allowed him to be creative and mentally challenged. Since leaving corporate life in 2006, he has made woodturning his prime retirement activity. He can be reached at jim\_954@frontier.com.*

*Photos by Tony Meizelis.*



Rod and reel, complete with a turned fish.



# SMALL SHOP SPACE SAVERS

Mark Evans

I took up woodturning as a hobby just two years ago, and like many others, I don't have much room in my workspace. To find a place for all the new equipment, I made my lathe into a toolbox.

I used precast shelf brackets to install a shelf, made of  $2 \times 4$ s, between the legs of the lathe. A box fits on top of the shelf into which I put 150 lb of sand to help stabilize the lathe. On top of that box, I attached a box that has two drawers where I store my dust helmet, chuck jaws, and accessories.

Over the top of the box with drawers I attached a hinged lid to the bottom of the lathe bed. The angled lid directs the wood shavings onto the floor for easy cleanup. In the space under the lid I store extra-long and seldom-used tools. Just about everything I need is stored under the lathe. To move the lathe, I jack it up with my motorcycle jack and push it.

On the front of the lathe, I attached a piece of  $\frac{1}{4}$ " (6 mm) pegboard to hang commonly used tools. It's

angled so that when I turn an out-of-balance piece, the tools do not fall off the hooks.

To hold spur drives and other accessories, I made a bracket from  $\frac{3}{16}$ " (5 mm) aluminum and attached that to the lathe's headstock.

## Grinder stand

I had about 6' of wall space left and my cabinets were almost full. I did not want to mount the grinder onto my bench top, so I decided to mount it on the wall behind the lathe. When the lathe is not in use, I move it in front of the grinder and there is still room to park a car.

The grinder shelf is a  $2" \times 2"$  (5 cm) frame with a  $\frac{1}{2}"$  (13 mm) plywood top. I used two  $3\frac{1}{2}"$  (90 mm) door hinges and attached them to a  $2 \times 4$  that is securely mounted onto the wall. A sturdy wooden leg supports the shelf in its raised position. When folded down, it protrudes about 16" (40 cm). When swung out, the grinder is about 4' (1.2 m) off the floor, which is just the right height. ■



Drawers and a shelf are tucked under the lid.



I can move the lathe using my motorcycle jack.



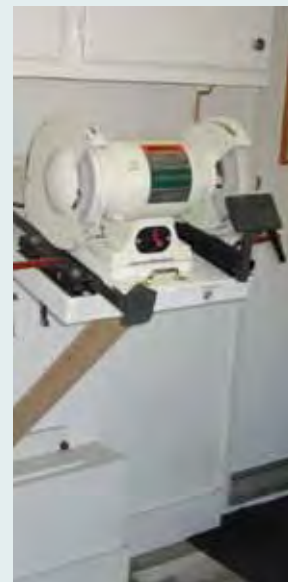
Tools hang on pegboard on the front of the lathe.



Lathe accessories are stored on a bracket attached to the headstock.



A grinder folds down out of the way when not in use, and can be easily lifted into position when needed.



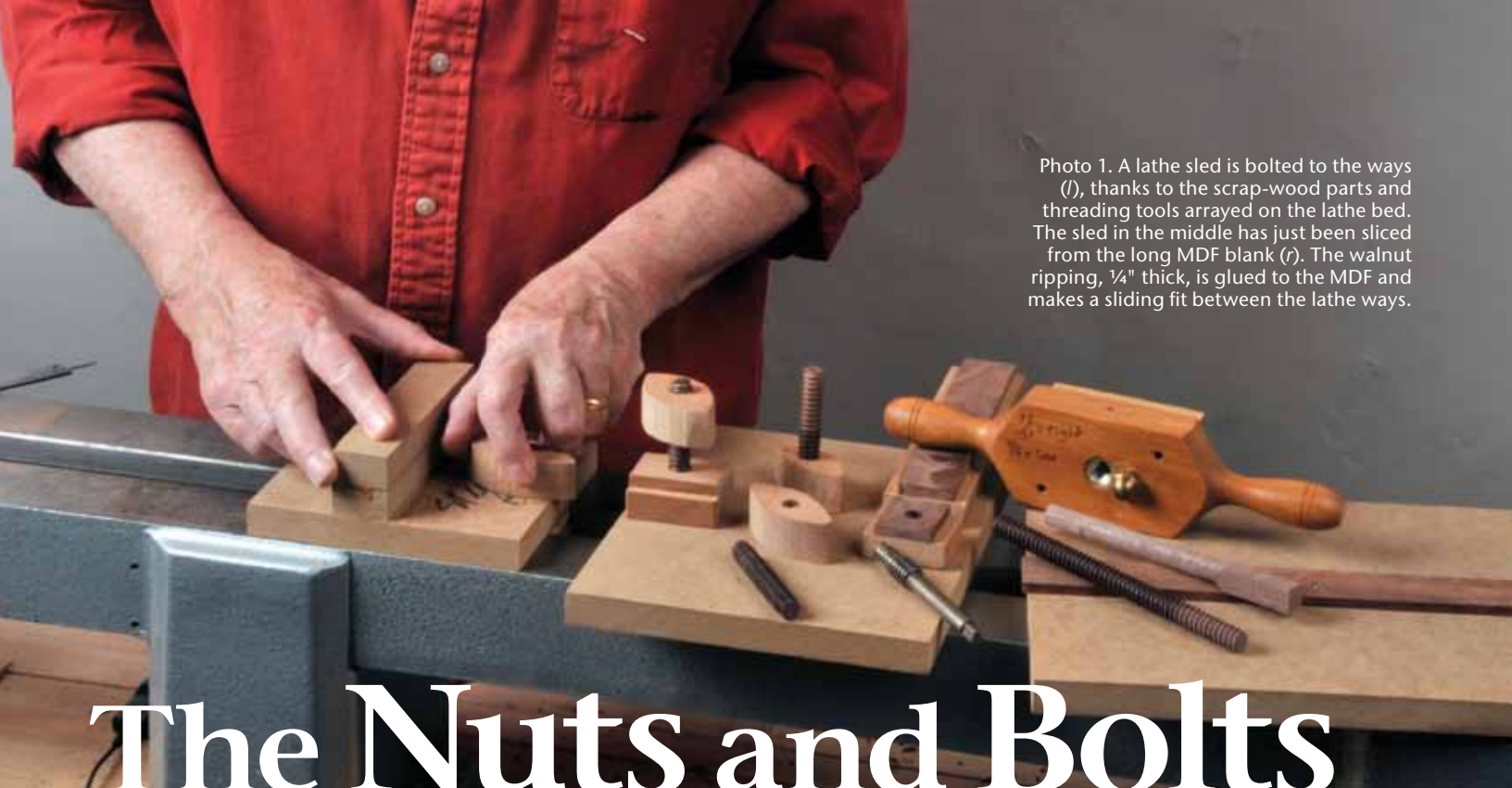


Photo 1. A lathe sled is bolted to the ways (l), thanks to the scrap-wood parts and threading tools arrayed on the lathe bed. The sled in the middle has just been sliced from the long MDF blank (r). The walnut ripping, 1/4" thick, is glued to the MDF and makes a sliding fit between the lathe ways.

# The Nuts and Bolts of Fixtures and Jigs

## Adventures in Woodturning

John Kelsey

Jigs guide tools and fixtures hold workpieces; they are aids to efficient and/or repeatable woodturning, but sometimes they only substitute for a skill you might be better off learning. I touched all of those bases when my wife wanted a folding base to support a 36" (90 cm-) round brass tray. It needed 36" walnut cross-spin-dles with pommels and tenons, and even as 1 1/4" (3 cm) squares they flexed while on the lathe. So I made a fixture to steady the workpiece.

There are two principles about jigs and fixtures that an apprentice or student would learn, but a self-taught amateur might not. First, you need a basic vocabulary of universal elements that are accurate, cheap, and quick to make. For the lathe, flat sleds with hardwood runners that lock on to the ways offer support to attach fences and mount vises, steady rests, router motors,

or whatever. Second, you will not get it right the first time and maybe not the second time either. Plan to make your useful gizmos twice, maybe even three times. The first pass—quick and crude—proves the concept and dimensions. Try to nail it on the second pass and be neat. Then if the gizmo really is a winner, go to town for Mark III, chamfer all edges, and wax or varnish.

### A jig sled

To make jig sleds I started with 2' x 4' (60 cm x 120 cm) panels of 1/2" (13 mm) and 3/4" (19 mm) MDF because they are flat, smooth, and inexpensive at the home center, plus runners sawn from hardwood scraps. *Photo 1* includes a few feet of sled made by gluing and screwing a 1/4" (6 mm-) thick walnut runner onto the MDF base. Then, as if you were slicing bologna, you can just saw off whatever size sled the next project needs.

To hold a sled onto the lathe ways I like wooden nuts and bolts, more key elements in my shopmade gizmo vocabulary. They work, they use up shop scrap, and best of all, I can tailor the parts to the job. People can't resist fiddling with wooden nuts and bolts—they can really dress up a project. *Photo 1* also shows the 1/2" x 8 tpi threadbox with matching tap that I got many years ago from AAW stalwart Ernie Conover, and you can buy similar sets online for about \$60.

### A few discoveries

- For a threaded rod, turn a hardwood dowel 1 1/2" (12 mm) dia. so it just spins freely in a 1/2" (13 mm) hole (*Photos 2, 3*).
- For wingnuts and bolt heads, drill 7/16" (11.1 mm) for a loose thread, 13/32" (10.3 mm) for a tight one—your mileage may vary, so you do have to experiment.



- Hard maple makes great nuts and bolts, walnut is good, cherry dowels twist off too easily but cherry makes good nuts.
- Make bolts by CA-gluing lengths of thread into nuts.
- Harden up new threads with a thin coat of CA, smooth it out by spinning a nut through the wet glue, but work fast and don't pause or it will freeze tight.

A sled made from MDF with wooden nuts and bolts is good-enough technology to build the lathe steady in *Photos 4 and 5*, from a design shown by the Australian turner Mike Darlow in his book *Woodturning Methods*. The V-shaped jaw plates have slots that fit over the wooden bolt that clamps them onto the sled. The setup needs the extra metal clamp at the top, and if I ever were to make Mark III, I'm sure I would clean that up.

## Feedback

When I took my wife's folding tray base (*Photo 6*) to show-and-tell at our Lancaster Area Woodturners meeting, the club guys did notice that the balls and trumpets point every which way, but nobody else has. Nor does anybody but me see the evidence of my further adventures: a nasty catch broke the last of the four long spindles, there wasn't any more full-length wood, I grafted in a leftover

half-length, and by now I was getting tired of wrangling the noisy steady. But the work thus far had built my confidence with gouge and skew, so I tried steadying the flexy spindle by wrapping my left hand around it. The grip felt contorted and unnatural at first, but even with these arthritic old digits, steadying the spindle by hand worked (*Photo 7*)!

I don't think there is going to be a Mark III lathe steady. Next time there

are long spindles to turn, I will continue learning and practicing hand grips that also steady the workpiece. I'm ready to tackle the skill instead of making more fixtures. But I did need the training wheels to get here, and, oh my, I do like those wooden nuts and bolts (*Photo 8*). ■

*John Kelsey says, "Now that I'm semi-retired, I've got the time to fool around in the workshop and I am having a blast!" John lives in Lancaster, PA.*



Use the parting tool and caliper to establish  $\frac{1}{2}$ " diameters, then connect them with a flat skew. Do not sand the dowel: Stray grit would dull the threadbox and it is a bear to sharpen.



The steady moves along the round section roughed into this long walnut spindle. The V-shaped jaws have slots that fit over the clamping screw. The big D shape is the clamping nut.



The cup chuck and steady fixture held this spindle well enough to skew off that chucking tenon.



For my wife's folding tray base, is there any best way to orient trumpets and eggs? We tried them all!



With only a little practice, I learned to steady the spindle with my left hand, with the left thumb guiding the tool.



Love the shopmade nuts and bolts! Here they are used to clamp a simple circle jig, or any other  $\frac{1}{2}$ " MDF jig base, to the bandsaw table.



# Anna Achtziger

## A Wedding of Materials and Methods

John English

**D**riving into Sundance, Wyoming, a greeting on the water tower proclaims, *Welcome to Sundance, where the Kid got his name*. Steeped in Western history, this sleepy settlement in the valley of the Bear Lodge Mountains (on the Wyoming side of South Dakota's Black Hills) is nestled

among rolling buttes, aglow with fiery shades of red. Skies are huge and blue, a combination of scale and color that inspired Anna Achtziger to create a tribute to the landscape.

*Sunset in the Black Hills* is a hollow vessel resting in a base of local scrub oak burl harvested in nearby Belle Fourche. The top and toe of the vessel are African blackwood. The body, covered in tiny woven beads, is segmented poplar.

Anna has achieved a national reputation for creating one-of-a-kind beaded jewelry that is sold in galleries throughout the West. "The first time I started to bead," she recalls, "I was seven years old. My grandfather was Blackfoot, and he taught me how. My initial efforts were on traditional pipe handles and moccasins.

Grandpa was born in Oklahoma, but he eventually moved to upstate New York where he met my Irish grandmother. I believe my

passion for natural forms comes from my Native and Celtic heritage, and it has now found a new way to express itself in turned wood."

Having taken jewelry to new levels, she began searching for a medium that would open opportunities to work with beads in innovative ways. She found it in woodturning. *Sunset in the Black Hills* is Anna's fifth turned piece. She came to the art just as carbide-tipped tools began to show up in the woodturning market. The rapid learning curve of this new generation of tools appeals to someone who would rather spend time shaping wood than sharpening tools. It allowed her to immediately immerse herself in form, creating shapes and profiles right away, without months (or even years) of practice. Combining those forms with beadwork has given her the creative outlet she desired.

Anna creates the bodies of most of her hollow vessels by laminating layers of poplar stock, aligning the grain as she goes. She will turn two deep, narrow vases, and then glue the top rims together to create a hollow vessel. This method

*Sunset in the Black Hills*, 2012, Poplar, African blackwood, scrub oak, glass beads, 15" x 8" x 7" (38 cm x 20 cm x 18 cm)



*"The important thing is to be open to possibilities and allow one's vision to change as a project progresses."*

*Secret Garden*, 2012, Marblewood, African blackwood, 24K gold beads, 7" x 5" (18 cm x 13 cm)

are lightweight, even when beaded.

When she sees the shape that emerges from a glued-up poplar

blank, she is inspired

and explores the form further.

Sometimes the shape itself suggests the color palette. Adding color to the natural tones of wood is a logical choice for a bead worker.

"The important thing," she notes, "is to be open to possibilities and allow one's vision to change as a project progresses."

Combining the drama of beadwork with the quiet sophistication of wood has resulted in a harmony of color and shape. Her favorite species for finials, necks, and bases is African blackwood, which turns beautifully with carbide tools. She appreciates the amount of control this species allows—its subservient grain patterns and dense fibers let her create delicate yet strong elements, without some of the surprises that can accompany other species. She selects beads for their quality as well as their stylish and artistic effects. Attention to detail, colors, and texture, is part of Anna's selection criteria. She chooses beads for their beauty but also for the role that each will play in the overall piece. For example, she recalls that she chose solid gold beads on *Secret Garden* "because the wood was so strong visually."

"I love to create distinctive, eye-catching jewelry that makes the wearer happy," Anna says. "Now I can do the

same for three-dimensional art. Having these two materials work together is more of an opportunity than a challenge." And when things work just right, the results delight and often surprise her. That's when she finds herself spontaneously bursting into smiles. ■

*Photos by John English.*

*John English teaches turning at the Black Hills School of Woodworking. His latest book is *Turning Wood with Carbide Tools*.*



*Purple Rain*, 2012, Poplar, redheart, zebrawood, glass beads, Swarovski crystals, 13" x 4½" (33 cm x 11 cm)

circumvents the need for deep hollowing through a narrow neck. It also allows this relatively new turner to create advanced forms quickly and safely. The joints are ultimately dressed in intricate beadwork, so any inexpensive wood works well.

Anna can achieve thin walls using the two-vase method; her finished pieces



*Dark Side of the Moon*, 2012, Poplar, aniline dye, Swarovski crystals, freshwater pearls, sterling silver, 12½" x 7" (32 cm x 18 cm)



# Sphere-Cutting Jig



## Eugene Lee

I've been turning for a few years and have honed my skills so that I can turn a sphere-shaped object, either as a solid or hollow form. They are always *sphere-shaped* rather than *near perfect* because when I rotated them in my hands, I felt some bulges and depressions—they were not as spherical as I wanted.

When turning a spherical object without the use of a jig, I am mindful that at any time I can cut too much and go inside the target radius. When that happens, I either recut the sphere to a smaller radius or leave it alone as a sphere-shaped

object. I wanted to spend more time exploring surface enhancements rather than turning the sphere itself, so I decided to build a sphere-cutting jig.

The jig's cutter has to be mounted at the lathe's center height, on an arm that pivots around a point directly under the intersection of the lathe axis and the equator of the sphere-to-be. Swinging the arm through a semicircle sweeps the cutter across the surface of the sphere. There are a number of metal sphere-cutting jigs on the market (*see page 46*), but I have no experience with machining, so I

(Above, l to r) Juniper spherical hollow form with a tilted band, 4¾" (12 cm)—band produced by multiaxis turning. Walnut, 4¼" (11 cm); Avocado, with John Jordan-inspired carving, 4½". Spheres were turned with the jig described.

designed a jig that can be built with hardwood, phenolic-faced plywood, and metal hardware.

## Make the jig

There are two parts to this jig (*Photo 1*): a platform mounted on the lathe ways, and a pivoting turret that

carries the tool. The turret pivots on a vertical pin embedded in the platform directly below the lathe axis. For tooling I am using the Easy Wood Tool's Ci1 Easy Rougher and the Ci0 Easy Finisher. For flatness, stability, and low friction I made the platform and turret base using  $\frac{3}{4}$ " (20 mm) phenolic-faced plywood, for which you can find suppliers on the Internet.

The jig dimensions are not critical and can be tailored to your own lathe and tools. The parts described here apply to my JET 16-42 lathe. *Photo 2* shows only the platform, a flat box that slides along the lathe bed and houses the pivot. My platform measures 10" (25 cm) wide,  $12\frac{3}{8}$ " (31 cm) front-to-back, and  $2\frac{7}{8}$ "

(73 mm) thick. The bottom view of the platform (*Photo 3*) shows  $\frac{3}{4}$ "  $\times$   $\frac{3}{8}$ " (20 mm  $\times$  10 mm) T-track dadoed into a guide bar of  $\frac{3}{4}$ " hardwood. For my lathe, the guide bar fastens  $2\frac{3}{4}$ " (70 mm) from the back edge of the plywood. *Photo 3* includes two blocks of wood with  $\frac{1}{4}$ " (6 mm) T-bolts and a plastic knob for locking the platform onto the lathe.

*Photo 4* shows the underside of the platform top plate with the  $\frac{3}{4}$ " plywood block that carries the pivot, a  $2\frac{1}{2}$ "  $\times$   $\frac{1}{4}$ " (63 mm  $\times$  6 mm) bolt with washer. A  $\frac{1}{4}$ "-20 threaded steel insert secures the bolt to the platform with about 1" (25 mm) protruding from the top as the pivot. The pivot needs to be directly under the lathe axis in order to turn a sphere. If it is

not right on, you will get a football shape. I fastened the top of the platform to the sides with #8 sheet-metal screws and washers in oversized counterbored holes to permit a little play for final adjustment. The distance from the top of the pivot to the lathe axis determines the biggest sphere, in this case a radius about  $4\frac{1}{4}$ " (110 mm).

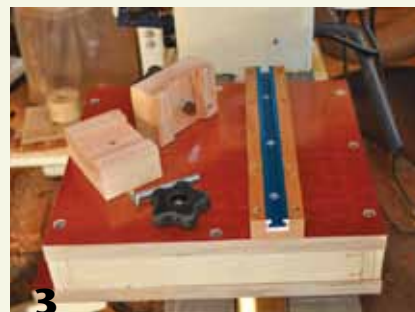
To locate the hole for the pivot, place the top onto the platform so that the tip of a revolving center is above the middle of the platform. Use a square to mark the platform directly under the tip. Use Forstner bits to counterbore the hole for a steel threaded insert, then complete the hole with a  $\frac{1}{4}$ " bit. Run the bolt into the threaded insert to help ►



**1** Sphere-cutting jig consists of a base platform mounted on the lathe ways with a pivot directly under the lathe axis. Pivoting the turret assembly and its carbide-tipped tool cuts the surface of the sphere.



**2** The jig platform is made of  $\frac{3}{4}$ " phenolic-faced plywood, which is flat, stable, and smooth. Note the bolt as pivot.



**3** Underside of jig platform shows the T-track, blocks, and knob that lock it onto the lathe ways.



**4** The pivot is threaded through an internal plywood plate to keep it in place.



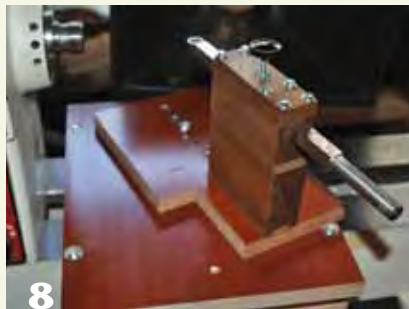
**5** The pivot mounts directly under the lathe axis.



**6** The jig turret consists of a housing for the cutter (parts A and B), a spacer block (part C), and a mounting block (part D) that connects the turret to the bottom plate (part E).



**7** Brass connector bolts and cross dowels, parts F and G, hold the turret assembly together. The bottom block, part D, fits over a hardwood spline glued onto the bottom plate E. The nuts and bolts at right hold parts A, B, and C together.



**8** You may need to notch the turret's bottom plate so it can clear the headstock.

you screw it into the hard plywood without any misalignment. Recheck with a square to make sure the pin is directly under the tip of the revolving center (*Photo 5*). Clamp the top down, drill pilot holes, and screw the top onto the platform.

The turret's bottom plate, part E in *Photo 6*, has several holes for the pivot, to cut spheres of various diameters without the cutter overhanging too far. To reduce wear on the holes in the bottom plate, I epoxied  $\frac{3}{4}$ " long by  $\frac{1}{4}$ " steel spacers into it. Since the nominal  $\frac{3}{4}$ " phenolic plywood is actually a little thin, I had to grind the spacers to match.

### Adjust the cutter height

The greatest challenge in the design of this jig was how to adjust cutter height without using metal parts. I ended up with the four-block turret shown in *Photos 6* and *7*. From the top, block A and knob H clamp the cutter in place. Block B has a  $\frac{1}{2}$ "  $\times$   $\frac{1}{2}$ " (13 mm) dado sized to house the cutter. Block C is a shim that can be swapped out for height adjustments. Block D connects the turret to the bottom plate E by way of screws into a square spline that's dadoed into both parts. The size of the blocks is

not critical, so long as the cutter is secure and ends up exactly on the lathe axis. I used seasoned hardwood blocks measuring 4" (100 mm) long by  $1\frac{5}{16}$ " (30 mm) wide, for a total height of  $5\frac{1}{8}$ " (130 mm), which for safety's sake I shaped and cut from a larger board.

*Photo 7* also shows the  $\frac{1}{4}$ " brass connector bolts and cross dowels, parts F and G, that hold the blocks assembly together. Cut a  $\frac{3}{4}$ " dado about  $\frac{3}{8}$ " deep into the bottom of part D for attaching it to the bottom plate with a  $\frac{3}{4}$ " square spline and screws. Make part A last and install the  $\frac{1}{4}$ "  $\times$  20 steel threaded insert for the locking knob, part H in the photos. Fasten part A atop part B using #6 sheet-metal screws and washers. With the turret assembled, trim the length to 4" and set it aside.

The bottom plate, part E, is 10" (25 cm) long by 6" (15 cm) wide with a series of five holes 1" apart for the pivot. The turret mounts 1" from the last hole. This enables making spheres up to a little more than 8" (20 cm) in diameter. You may need to notch out the left side of the bottom plate (*Photo 8*) to clear the headstock. Cut a  $\frac{3}{4}$ " half-blind

dado about  $\frac{3}{8}$ " deep into the bottom plate, part E, and glue the connecting spline into it, then carefully fit part D onto the spline and screw the assembly together. With the completed turret in place, fit a  $\frac{1}{4}$ " nut onto the pivot and tighten it to barely touch the plywood. The sphere-cutting jig is complete.

To use this jig, first turn a cylinder that is longer than the diameter of the sphere. Center the jig on the cylinder and start cutting from side to side while you move the cutter toward the desired radius. Videos are available for viewing online with instructions on how to use a similar jig, so I will limit my discussion to a few advisories.

When turning larger spheres, I have found it best to rough out the shape using a bowl gouge before bringing the jig into play. I start with the Easy Rougher and, as I get close to the final shape, I switch over to the Easy Finisher. This speeds up the process and puts less wear on the carbide tips.

### Cup centers

The last step in turning a solid sphere is to part off the ends and mount the workpiece between cup centers to turn away the stubs. I use shopmade cup centers like the ones in "Spherical Thinking" by Frederick Hill (*AW*, vol 25, no 4). However, instead of fitting the cup center over the Oneway-type revolving center, I screw it onto the center's threads by epoxying a  $\frac{3}{4}$ "  $\times$  10 nylon insert lock nut into the wood (*Photo 9*). The tip of the revolving center juts out a fraction of an inch, so if you epoxy a couple of washers and a coin to the lock nut, it will completely cover up the threaded end of the revolving center.

To build a tailstock cup center for use on spheres larger than 4" (10 cm) in diameter, I turned a  $3\frac{3}{4}$ " (9.5 cm-) diameter cylinder out of three pieces of glued up wood. I cut a  $2\frac{3}{8}$ " (6 cm)





**9** The tip of the revolving center extends beyond a lock nut with a nylon insert.



**10** Glue up the blank for the cup center, then drill a hole for the lock nut. The nut should sit flush with the wood face.



**11** Teflon tape on the threads of the revolving center will help control the wet epoxy.

tenon about  $\frac{3}{8}$ " (10 mm) thick with a hole for the lock nut. Make this hole just deep enough so that the nut sits flush with the wood surface (*Photo 10*). Remove the nut and rough up the inside of the hole with a Dremel bit to provide an irregular surface for the epoxy to grip. Screw the nut into the revolving center tightly and then, to help manage the epoxy, wrap the metal with Teflon tape (*Photo 11*). Apply just enough five-minute epoxy into the deep part of the hole and to the front part of the nut so that when you insert the nut there will not be excess epoxy leaking out of the hole. Don't worry that most of the space between the nut and wood will not have any epoxy in it yet.

Rotate the wood cylinder and nut once to distribute the epoxy. After it has dried, unscrew the tailstock center from the nut and remove the wood. Trim off the Teflon tape, then cover the nut with masking tape. Use a sharp knife to cut out a ring in the masking tape between the wood and the nut so that slow-setting epoxy can be put into the gap to completely fill out the space. After this epoxy has dried, remove the masking tape and clean up the excess glue. Now grip the tenon in the scroll chuck so you can hollow out a cup with a 2" (5 cm) radius (*Photo 12*). The completed cup chuck can now be threaded into

the revolving center for use on spheres greater than 4" in diameter.

Although it is possible to remove the stubs from a sphere using the sphere-cutting jig, I get better results by scraping with a sharp straight-edge skew chisel resting horizontally on the toolrest and moving tangentially to the surface of the sphere.

When turning hollow spheres there is no need for cup centers. Instead, use a chuck to hold one end of the blank, with the revolving center supporting the tail. After using the jig to shape most of the sphere, remove the tailstock center and drill a hole for hollowing. Since the jig cutter is prone to catches as it nears the stub, reverse the swing to

start inside the hole and take very fine cuts to match the surface already cut. At this point you can continue swinging the jig in either direction, so long as you take very fine cuts. When you have finished hollowing out the sphere, reverse-turn the bottom using the jig (*Photo 13*) as close as the jig will allow. Finish the rest of the bottom freehand using a spindle gouge, then turn a shallow concave foot and part it off. ■

*Eugene Lee was a semi-retired engineer who lived in Palos Verdes Estates, CA, and was a member of the El Camino Woodturning Guild. Eugene died in July, but he did see his article in final layout. We are thankful to Eugene for sharing his knowledge.*  
—Betty Scarpino



**12** Use a cardboard template to turn a hollow in the cup chuck.



**13** The jig helps remove the chucking tenon that was used to mount this sphere for hollowing. The sphere's opening is hidden inside the cup chuck in the headstock.

## Spheres: A classic turning challenge

Creating a good sphere is a classic turning challenge that can be approached by hand, or with jigs. In early turning literature, such as Holtzapffel's 1881 treatise *Hand or Simple Turning*, the discussions on spheres follow methods familiar to us today. His detailed description of hand scraping an ivory billiard ball by repeatedly reorienting it in a cup chuck is, well, fascinating.

Practical approaches to hand-tool procedures are well documented in back issues of *American Woodturner*, available for online viewing in the Members' Area at woodturner.org. Christian Burchard offers the most engaging and easy-to-follow account (*AW*, vol 10, no 2). Starting with a log of green wood or a sawn billet, the basic technique is to rough out the sphere between centers, then part it off and remount it between shopmade cup chucks to finish-turn on at least three axes. With the near-sphere spinning, you can see the ghost image of what is to be pared away and what is to remain.

Christian's delightfully idiosyncratic presentation includes his realization that no matter how carefully you select and dry the wood, spheres usually crack. He therefore decided to rough the sphere and then put the wood through wet-heat-dry cycles so it would finish cracking before final turning. A few years later, John Brewer presented a sequential procedure solidly based in geometry as taught to him by Myron Curtis (*AW*, vol 16, no 2), and very similar to what you find in Holtzapffel.

Jumping off from Christian's article, Bob Rosand shows step-by-step the hand-turning procedure (*AW*, vol 18, no 2). Cliff Hill in the same issue details exactly how to cook and dry the wood to make it crack and check. Frederick C. Hill reviews all of these techniques and adds a number of sanding and finishing refinements (*AW*, vol 25, no 4).

Mike Darlow's book *Woodturning Methods* includes a comprehensive chapter on sphere turning with many illustrations of various tools, jigs, and techniques. As usual in Darlow's books, there are lots and lots of ideas for further

exploration, the most interesting being Andy Whyman's prototype gadget, which can also hollow a hemisphere simply by projecting the cutter beyond the sphere center.

All the sphere-cutting jigs that I have seen operate on this same fundamental geometry: The cutter is mounted right on center height, on an arm that pivots around a point directly under the lathe axis and the equator of the sphere-to-be. Swinging the arm through a semicircle sweeps the cutter across the surface of the sphere. Aside from Darlow's chapter, however, not much has appeared in print about making and using sphere-cutting jigs like Eugene Lee's. Not so on the Internet, where a search will turn up a number of informative videos on various approaches to the problem, a number of other plans for jigs, and two commercial jigs that well-heeled turners might like to buy.

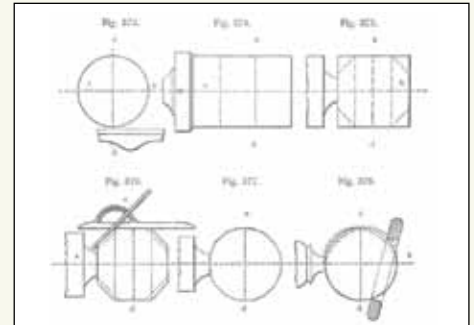
Whether they are working by hand or with jigs, turners can make good use of an interesting geometric property of spheres: Any circular ring laid onto any sphere will touch at all points. Conversely, the ring will not touch everywhere if the workpiece is not (yet) a sphere, as you can see in the photo. Brian Simmons wrote about using a plastic ring as a sphere gauge (*AW* vol 16, no 3), forming the ring from PVC pipe and attributing the technique to Soren Berger of New Zealand. Simmons says a good ring-to-sphere size ratio is 1:2 to 1:4, and it is important to start at the equator of the sphere then work toward the poles. Well, if a ring works, what about a circular scraping tool? Wouldn't that help achieve the perfectly spherical surface? F. Robert Brueckmann writes that indeed it will—he made such a scraper by carefully grinding the teeth off a hole saw mounted on a handle (*AW* vol 15, no 1). I'm looking forward to giving this clever trick a try.

John Kelsey



Christian Burchard, *Spheres*, 1994, White oak burl, walnut, olive burl, yew, manzanita, black locust, 4" to 12" (10 cm to 30 cm) dia

Christian Burchard works with the cracks and checks that typically afflict wood spheres.



Holtzapffel's geometric approach to the sphere uses the ring gauge (last drawing) to check it.



Fred Lindsay makes hollowing systems and sphere-turning jigs tailored to popular lathes, about \$300, [lindsaylathetools.com](http://lindsaylathetools.com). Fred has video tutorials on his website and on YouTube.



Enzo Verrecchia of Brisbane, Australia, makes sphere-cutting jigs and many other turning tools under his Vermec brand. The photo shows the Vermec device, about \$350, being demonstrated at the AAW 2012 Symposium in the booth of the U.S. importer, Woodworkers' Emporium, [woodworkersemporium.com](http://woodworkersemporium.com).



Ring gauge



As Mike Darlow shows with these photos of Andy Whyman's jig, how far the cutter projects determines whether it cuts the outside of a sphere (l), or the inside of a hemisphere (r).



**Joshua Friend**, untitled, 2011, Sipo mahogany, figured maple, 4" x 8" (10 cm x 20 cm)



# CROSSGRAIN JEWELRY BOXES

Joshua Friend

I like it when a customer challenges me to expand my turning repertoire. Recently, a woman asked if I would make her a jewelry box. I had turned plenty of endgrain boxes, but never one large enough to be regarded as a proper jewelry box, with dividers and a soft, welcoming interior. I began to consider how those standards could be applied to a turned jewelry box. Ultimately, the inquiry led me to explore turning lidded crossgrain boxes (also called lidded bowls).

## Benefits and considerations

Unlike traditional endgrain boxes where the grain runs parallel to the ways of the lathe, crossgrain boxes are turned in a perpendicular, or faceplate-grain, orientation. This orientation allows for larger diameter

boxes—expanses across the width of boards are usually larger than expanses across endgrain where the pith may be unavoidable. Wider diameters afford excellent opportunities to use the lid to showcase grain patterns, feature unusual figure, or add embellishments, such as chip carving. Also, the lid and body of the box can be made from different pieces of wood, which opens up possibilities for using contrasting species, like maple and walnut.

For endgrain boxes, the lid and body are usually made from the same piece of wood, with the grain continuing from the body to the lid. This means that when the wood expands and contracts with changes in moisture content, the body and lid are likely to move proportionately with one another and the original good

fit is maintained. The lid and body of a crossgrain box, however, may behave differently with seasonal movement, especially if varying species are used

together. For this reason, I do not try to achieve a tight or suction fit of the lid, which would be more likely to fail over time. Instead, I employ a tight fit only during the turning process and then intentionally loosen it for the final fit. Lifting a lid off a jewelry box should not require two hands.

Another consideration is the dryness of the wood. With most lidded boxes, endgrain or crossgrain, it is wise to start with wood that is thoroughly dried to minimize the effects of wood movement as a result of changes in moisture content. This especially holds true for crossgrain boxes. Professional turner Mike Mahoney noted about his crossgrain cookie jar, pictured on page 52, “I carefully dried the pieces: I brought the rough-turned pieces into the house for a few months to give them a natural environment.” *Photo 1* shows several lids for jewelry boxes, which I rough turned both inside and out. The general shape is defined, and I left the lids slightly thick. Rough turning allows the wood to do most (and hopefully all) of its moving prior to final turning.

Noted demonstrator and teacher Richard Raffan said, “The lidded bowl is still my favored project ▶



**1** Several crossgrain box lids are rough turned for drying.





**2** Turn a shallow tenon on the top of the lid.



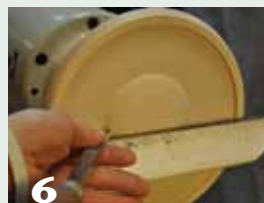
**3** Establish the lip of the lid.



**4** Shape the outside edge of the lid.



**5** Hollow the inside of the lid.



**6** Leave extra thickness in the middle to accommodate the knob.

through which students may practice facework techniques, and they are excellent design projects too." So, with these considerations in mind, let's make a lidded crossgrain jewelry box.

### Start with the inside of the lid

It is advantageous to begin with the lid since the lip of the body will be formed according to the lid's established dimensions. Use material that is at least 1" (25 mm) thick (not 4/4 dimensional lumber, which is only 3/4" [19 mm] thick). Mount the lid onto the lathe using a faceplate, but be aware of the length of the screws you choose and how deep they will go into the lid. Later, you will hollow out the inside of the lid enough to turn away the screw holes. I find that 3/4" screws are long enough for a secure hold but not so long that the result is a too-thin lid after the holes are turned away. Turn a shallow tenon, about 3/16" (5 mm), and begin to rough shape the outside of the lid (*Photo 2*).

Remove the faceplate and remount the lid into a four-jaw chuck using the tenon. In this orientation, you can work on the inside of the lid using light cuts with sharp tools—remember that the lid is mounted with only a shallow tenon. After truing up the face with a gouge, cut straight in with a parting tool about 1/8" (3 mm) deep to establish the lip of the lid (*Photo 3*), which later will mate with the lip of the body.

Shape the outside edge where the lid will sit on the body (*Photo 4*). Unlike a typical endgrain box, where the outside profiles of the lid and body are shaped together, I shape the two components of crossgrain boxes separately. In this orientation, however, there is a likelihood of the wood chipping out as the tool exits the lid material, so I typically employ a design that does not require a flush cut from lid to body.

Next, use a bowl gouge to hollow the inside of the lid (*Photo 5*). Undercut the inside enough to remove the screw holes. I like to leave

extra thickness of wood at the center to provide a decorative element and to accommodate the knob, which later will be glued into a recess on top of the lid (*Photo 6*).

Remove the lid from the chuck and set it aside. The top of the lid, including the knob, will be turned with the lid jam fitted onto the body after the body has been hollowed.

### Turn the body and top of the lid

Mount the body material onto the lathe, using a screw chuck or faceplate. Since this box will be used to store jewelry, presumably with items stored in a single layer, the finished depth need only be about 2 1/2" (65 mm). A taller box is not necessary.

True up the outside and bottom face and form a tenon (*Photo 7*). Then bring up the tailstock and advance the live center's point into the tenon to make a reference mark, which will be used later when jam chucking the body. (It will help you mount the body so that it will run true.)

Remove the body material from the lathe and remount it by holding the tenon in a chuck. Measure the diameter of the lip inside the lid (*Photo 8*) and transfer that measurement onto the body with a pencil. Use a parting tool to cut straight into the wood,



**Joshua Friend**, untitled, 2012, Walnut, figured maple, 4" x 8" (10 cm x 20 cm)

just a bit outside of this line to form a lip that the lid will later be jam fitted onto (*Photo 9*). It is important at this point to leave this lip oversized so that the lid does not yet fit onto it. There is a good chance that when the body is hollowed, the release of tension in the wood will cause the perimeter (lip) to change shape. If the wood is sufficiently dry, the hollowing will not cause much movement, but possibly enough to compromise a good jam fit of the lid, which is why I make the final jam fit of the lid *after* the body is hollowed.

Shape and sand the outside (*Photo 10*) and then hollow and sand the inside of the body (*Photos 11, 12*). It is not necessary for the inside profile to match the outside, as is usually the case with a bowl form. In addition, leave the wall thickness somewhat thicker than for a bowl to provide enough wood on the lip to ensure that it will not break off.

Next, make adjustments to the lip to ensure a jam fit of the lid (*Photo 13*). This can be done gently with a sharp parting tool or gouge. The goal is to achieve a fit that is tight enough to be able to final turn the lid (and knob) while it is jam fitted onto the body (*Photo 14*). Take small cuts, turning off the lathe frequently to test the fit. If too much material is removed, either moisten the wood fibers with water or apply masking tape around the perimeter of the lip to create a tight enough fit of the lid.

With the lid jam fit onto the body, it is time to add the knob material. A knob serves an important function, which is to allow the lid to be lifted with one hand. Knobs also provide interesting design opportunities.

Remove the body and lid from the chuck, but first make reference marks on the body and one of the chuck jaws to remount the tenon back into the chuck. This ensures that the body will run true when remounted. ►



**7** Turn a tenon on the body material.



**8** Measure the diameter of the lip inside the lid.



**9** Transfer the inside diameter of the lid's lip to the body and turn a lip.



**10** Shape the outside of the body and sand.



**11** Hollow out and shape the inside of the body.



**12** Sand the inside of the body.



**13** Make an adjustment to the lip to ensure a jam fit of the lid.



**14** The inside of the lid fits over the lip of the body and for the next step, a jam fit is required.



**15** Turn a cylinder for the knob.



**16** With the lid jam fitted onto the body, cut a recess into the center of the lid to receive the tenon on the knob cylinder.



**17** Test fit the knob.



**18** Glue the knob into the recess and use the tailstock as a clamp.



Shape and then sand the outside of the lid.



Shape the knob using either a round-nose scraper (l) or a small bowl gouge (r).



Mount the material that you will use for the knob into the chuck. Either crossgrain (faceplate) or long grain works fine—it is a matter of preference. True up the end of this material, making it as flat across as possible. Then shape a tenon onto the end, about  $\frac{1}{8}$ " (3 mm) deep and slightly smaller in diameter than the wood. Part off the material (*Photo 15*). Set the knob material aside and remount the body and lid into the chuck, aligning the reference marks. (The cylinder for the knob could be turned ahead of time, but for best results, shape the knob after it is glued onto the lid.)

Ensure that the lid is still jam fitted securely onto the body. Cut a recess into the center of the lid to receive

the knob's tenon (*Photo 16*). I like to use a parting tool because it makes it simple to achieve a flat bottom and perpendicular sides in the recess, which are important to achieving a good glue joint. Take small cuts, turning off the lathe to test the fit (*Photo 17*). When you have the right fit, glue in the knob material, using the tailstock to apply pressure. I use a two-part epoxy for its gap-filling quality (*Photo 18*).

When the epoxy has cured sufficiently (usually overnight), proceed with shaping the lid and knob. Regardless of how good a jam fit you may have achieved of the lid to the body, leave the tailstock in place for extra support. Take light cuts with sharp tools. A gentle shear scraping

can achieve a tear-free surface on the lid, even with figured wood (*Photos 19, 20*), so that I can begin sanding at 220 grit.

Shaping the knob can be a bit tricky, since you are trying to create a tight cove with limited access. I have had good results cutting downhill with a round-nose scraper. It is also possible to use a bowl gouge with the flute facing up and cutting with the wing, as long as the side bevel of the tool is rubbing and you are taking very light passes. Either way, cutting downhill with the grain is essential (*Photos 21, 22*).

Once you have the cove of the knob shaped, finish the top of the knob, taking light cuts. Remove the tailstock for the final passes (*Photos 23, 24*). If the jam fit of the lid is not tight enough, however, leave the tailstock in place, cut as far as you can, and finish the knob by carving and sanding with the lathe off.

With the lid shaped and sanded, remove it from the box. Now it is time to adjust the lip to achieve a loose fit of the lid. Do this by reducing the diameter of the lip on the body (*Photo 25*). Remove only a small amount of material and test fit the lid.

## Finish the bottom

To remove the tenon from the bottom of the box and create a foot, I jam fit the body over a scrap block, cut to accommodate the inside. I use small-bubble bubble wrap to protect



Final shape the top of the knob using the tailstock for support until the final cuts.



Adjust the lip of the body to achieve the final loose fit of the lid.





**26** Jam fit the body over a scrap block and use small-bubble bubble wrap to protect the box's interior.



**27**



**28**

Turn away the tenon and add detail to the bottom. Remove the remaining wood using a carving tool. Sand.



**29**

the box's interior surface and bring up the tailstock to hold the body in place (*Photos 26, 27*). Position the live center of the tailstock into the reference mark in the tenon that you made earlier.

Shape the bottom, undercutting it slightly, which will ensure that the box sits flat. I use a small bowl gouge, and when I get close to the live center, I switch to a shallow gouge. Leave a small nub, and remove it later with a carving chisel and abrasive. Add detail lines for visual interest or as reference lines for adding a personal inscription (*Photos 28, 29*).

### Dividers, finish, and flocking

For the dividers inside the jewelry box, I use medium density fiberboard (MDF). The thinnest I have found is 1/4" (6 mm) thick, which feels a bit too thick for the size of my jewelry boxes, so I reduce its thickness to 5/32" (4 mm) using a wide drum sander. Cut two pieces that will interlock and fit the profile inside the body. I use

a profile gauge to transfer the inside profile of the body to the MDF and use a bandsaw and belt sander to cut and fine-tune the pieces before gluing them in place (*Photos 30, 31, 32*).

Apply finish to the body and lid. I spray them with several coats of gloss lacquer, but use whatever finish you prefer.

To add a soft lining inside the box, I spray in flocking fibers, which come in several colors. The process is easy—simply follow the manufacturer's instructions. First, thoroughly seal the area to be flocked using lacquer, shellac, or varnish. Note, however, that if the surface is not sufficiently sealed, you may only get a thin application of flocking because the flocking adhesive will have soaked into the wood too much. Apply the adhesive (colored to match the flocking fibers). Then quickly apply onto that the tiny flocking fibers. The result is a soft, felt-like surface (*Photos 33, 34*).

Flocking materials, including special applicators, can be purchased from DonJer Products ([donjer.com](http://donjer.com)).

The jewelry box is now ready to receive its crowning glory: jewels from its new owner.

*Joshua Friend, a woodturner and writer, is a member of the Nutmeg Woodturners League, an AAW chapter that meets in Brookfield, CT. See [jfriendwoodworks.com](http://jfriendwoodworks.com) for examples of his work and contact information.*

**Joshua Friend,**  
untitled, 2012, Poplar,  
mineral-streaked maple,  
4" x 8" (10 cm x 20 cm)



**30**



**31**



**32**



**33**



**34**

Create dividers by using a profile gauge to match the curve of the interior.

Apply adhesive and flocking fibers for a soft, feltlike lining on the interior. Have your box placed inside a clean tub or plastic-lined box so you can collect and reuse excess fibers.



**Mike Mahoney**, *Cookie Jar*, 2010, Ash,  
African blackwood, 9" x 14" (23 cm x 36 cm)

**Bonnie Klein**, untitled, 2011,  
Basswood, 2" x 3½" (5 cm x 9 cm)



**Cindy Drozda**,  
*Fire Star*, 2008,  
Amboyna burl,  
African blackwood,  
Mexican fire opal  
in 14K gold, 6" x 7"  
(15 cm x 18 cm)



**Bill Clark**, *Running in Circles*,  
2009, Bigleaf maple, bloodwood,  
2½" x 5" (6 cm x 13 cm)



**Keith Gotschall**,  
*Tortilla Holder*, 2012, Maple,  
3¼" x 11½" (8 cm x 29 cm)



**Richard Raffan**,  
untitled, 1970, Walnut,  
4" x 8" (10 cm x 20 cm)

# Combine *Marquetry* and Turning

Dave Peck

Applying marquetry to turned objects offers turners a way to take turning to another level—an amazing range of subjects can be explored and represented. The amount of marquetry applied to a turning can vary from the tiniest inlay to images that become the focal point of a plate, bowl, or vessel.

The equipment needed is inexpensive and making and adding marquetry is easier than it looks. You will be able to use wood with high-quality figure—burls, fiddleback, quilted, and crotch. To help you begin exploring, I discuss how to inlay a round marquetry scene into a flat surface, such as the bottom of a plate, the lid of a box, or

the face of a clock. This is a straightforward application that will make you realize, “I can do that!”

## General information

You can buy premade inlays from most woodworking stores or acquire custom-made marquetry from specialty houses. The selection is limited, however, so many woodworkers create individualized designs.

Marquetry is commonly done with either a knife or a saw (handheld fretsaw or scrollsaw). In the United States, the saw is most popular because historically our veneers have been cut thicker than those in other parts of the world, making them difficult to cut with a knife.

Sawing is done with very small jeweler’s blades on a table that has a narrow  $\frac{1}{8}$ "- (3 mm-) wide saw kerf cut into it to provide close support on both sides of the tiny saw blade. If the table is properly slanted, the resulting bevel cut gives a tight fit between pieces. However, most beginners start with the table level because when bevel cutting, if you cut in the wrong direction (clockwise/counterclockwise), that doubles the angle of the saw kerf rather than eliminates it. The level table lets you cut in either direction and the tiny jeweler blade’s kerf is not objectionable, except to the trained eye of a professional.

Veneer comes in many thicknesses. Commercial thicknesses are commonly



*Redwood Coast*, 2003, Madrone, persimmon, olive ash, bubinga, sapele, walnut, holly, rosewood, myrtle,  $4\frac{1}{2}$ "  $\times$  10" (11 cm  $\times$  25 cm)

The marquetry is an oval shape inlaid into the side of the bowl.

between  $\frac{1}{32}$ " and  $\frac{1}{50}$ ". Woodworkers who prefer thicker veneers usually cut their own. For flat work, veneer thickness is a personal preference, but for curved work, thin commercial veneer is needed.

## Making the marquetry

To make the marquetry for this article, I drew a pattern (sometimes called a cartoon) onto tracing paper. I looked over the pattern and picked a veneer for the sky. I could have started with any of the other large areas, but I like to start near the top and add pieces below and coming forward. I cut the sky piece a little larger than what is shown on the pattern. Making that piece larger than needed strengthens the edges and prevents small pieces from chipping off. I make registration marks on the tracing paper and ►

There are many sources of patterns: Dover Books publishes books of patterns on various subjects that are free of copyright. The American Marquetry Society has a catalog of patterns available to their members for the cost of printing and mailing.



*Antelope*, 2010, Madrone, holly, mahogany, myrtle, birch, hawewood,  $6\frac{1}{2}$ "  $\times$   $3\frac{1}{2}$ " (17 cm  $\times$  9 cm)

This marquetry circles the neck of the vase.





**1** Having the pattern on tracing paper allows you to see through it and pick the perfect spot on the veneer. Registration marks (a minimum of two small x's) make it possible to put the pattern back in the same place as each piece is added. Place the x's where they will not be cut off as you add to the picture.



**2** A new piece on top allows view of figure and grain of the wood.



**3** Placing the new piece behind the previously cut section allows perfect alignment where the sky, already-installed mountain, and the new piece come together: As an example, the mountain peak to the left.



**4** The tiny jeweler's blade cuts smoothly. Keep your fingers close to the blade and keep the saw moving.

transfer them to the veneer so I can come back to the same spot as I add one piece at a time to the picture (*Photo 1*).

The double-cut method I use is fool-proof: Make a veneer sandwich of the sky piece and the veneer you are about to add. Cut through both pieces at the same time and even if you miss the line, the pieces still fit. For my first piece, I add the shady part of the mountain to the sky piece. I mark the new piece using the pattern's registration marks and transfer paper (carbon or wax-free) (*Photo 2*). Note that the new piece touches the sky but is larger than needed at the bottom. The excess at the bottom will be cut away as new pieces are added.

Sometimes it is best to put the new piece behind rather than on top. By putting it behind and marking on the face, you can see exactly where the cut will meet previously made cuts. *Photo 3* shows the second piece being added to the picture.

Saw out the piece with a fretsaw and 5/0 jeweler's blade (*Photo 4*). These are tiny blades with 72-teeth per inch. The small teeth create a smooth cut. Keep your fingers in close to the saw blade to hold down the veneer. As you reverse directions while cutting a sharp corner, keep the saw moving—if you stop, the blade will bind.

As you finish cutting each piece, throw away the waste that is cut away from the outside of the new piece and from the empty space where the new piece will be placed. I insert the new piece into the space. Tape (or glue) it in place. I use either painter's blue tape or transparent tape. The transparent tape is nice when you need to see what is going on under it.

You are now back to one single layer of marquetry and you are ready to add another piece. Repeat the process adding one piece at a time until the marquetry is complete. When you finish cutting the marquetry, you have a "jigsaw puzzle" that is one veneer thick, with all the pieces taped together (or glued onto a backing).

The thin, commercial veneer I used is quite flexible so I laminated it to another veneer (or you can use 1/8" [3 mm] plywood) before cutting it round. I like PVA glue for small projects. On larger projects, or where I want a rigid glue line, I use Unibond 800.

When you stop work, store your marquetry under a flat, weighted board until you are ready to insert into a turned object.

## Prepare the marquetry circle

After the glue is cured on the marquetry, mark a circle to just over the final size (*Photo 5*). Use a bandsaw to cut out the circle.

Next, you will mount the rough-cut marquetry circle onto the lathe to cut the circle perfectly round. Screw a piece of plywood to a faceplate, then mark a series of circles on it, just larger than the diameter of the rough-cut circle of marquetry. These circles allow exact placement of the marquetry, centered onto the plywood disk. Use double-sided tape to attach the rough-cut marquetry.

To ensure that the double-sided tape holds, put the assembly in a vise (or other clamping device) for a few

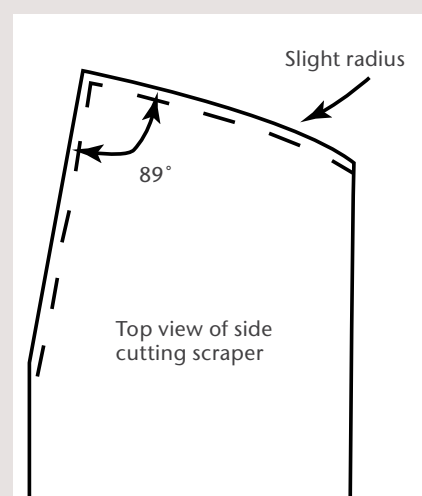


Figure 1. A scraper ground for side cutting is my favorite. The curve on the end allows movement to the right across the bottom of the recess without catching the right-hand corner.



*Fir Cone Becomes House*, 2005, Oak, maple, bay laurel burl, ebony, makore, walnut, imbuva, rosewood, spruce, gum, hawthorn, 15½" (40 cm) dia. The marquetry face is inlaid into a segmented ring.



*Cathedral Peak, Yosemite*, 2012, Poplar with marquetry, 2" x 12" (5 cm x 30 cm)

seconds. Usually this means clamping briefly several times around the circumference (the faceplate will be in the way of a clamp). Remember that clamps with small contact surfaces may cause dents, so use a thin piece of wood to protect the marquetry.

The toe of a skew chisel is my favorite tool for trimming the marquetry perfectly round. Make the cut square to the face or at the most 1° of relief toward the back of the marquetry circle. After you remove the marquetry from the plywood, sand off any tear-out on the back.

## Apply to a turning

Turn a shallow bowl with a flat bottom and leave it mounted onto a faceplate or in a chuck. It is now time to cut the recess for the marquetry circle to fit into. I determine the depth of the recess by measuring the inlay with a dial or digital caliper and use the depth probe to measure the cut. To make the recess, I prefer a side-scraping, square-ended scraper for making the cut (*Figure 1*). The slight curve on the end allows a sideways cut across the bottom of the recess toward the center without any danger of catching the right-hand corner.

Leave *islands* (slightly raised rings) to measure against. At this point, leave the diameter of the recess slightly smaller than the marquetry circle (*Photo 6*). When the same depth is achieved across the recess area, cut away the islands.

The final step is to widen the diameter of the recess until the inlay just fits. I get better results by putting the scraper into the recess and cutting sideways to increase the diameter of the recess rather than cutting inward from the face. Test often! Do not try to force the inlay into the recess—if you do, it may stick part of the way in and not want to come out.

At this point I use yellow glue, pressing the inlay into place on the lathe (*Photo 7*) or with clamps. When the glue is dry, it is time to sand. Don't be too aggressive. I start with 100 grit on the picture and move up to 320 grit before the first coat of finish. The last thing to do is to reverse the plate in a jam chuck or jumbo jaws and remove evidence of how you held it on the lathe. Marquetry places no limitations on finish, so use your favorite product. Let your next turned object be picture perfect! ■

*Dave Peck, a marquetarian for many years, now combines his two passions: marquetry and woodturning. He is retired and lives in Redwood Valley, California, where he is a member of the Redwood Empire Woodturners. He is active with the American Marquetry Society (americanmarquetrysociety.com), serving as their membership officer. See more of Dave's work at wood-veneers.com/gallery21.htm. Send questions to davejudypeck@comcast.net.*



5  
Scribe a circle on the marquetry in preparation for inlaying. The circle should be slightly larger than the final diameter of the intended design.



6  
Leaving islands at full height provides measuring points across a wide area.



7  
The tailstock and a plywood disk, just smaller than the inlay, serve as a handy press. Note a sheet of plastic, any thickness, protects the inlay and keeps it from sticking to the plywood if glue squeezes out.

## Sources

**Tools:** Major woodworking stores such as Woodcraft, Rockler

**Veneers:** B & B Rare Woods, wood-veneers.com

**Jeweler's Blades:** Otto Frei, ottofrei.com

**Books:** *The Marquetry Course* by Metcalfe & Apps

**Commercial Inlay:** Inlay Product World, inlays.com

From time to time, someone in the greater Houston metropolitan area contacts our woodturning club with a request, usually for something basic, like a rung to repair a broken chair or a pen from a special bit of wood. This story is about a special request, a challenging commission, and the unique vessel that emerged.

Susan contacted our club about commissioning a turned wood item from an oak log that had a special significance for her family. She posted her request in the member area of our club's website. After a month or so, no one had responded, so I contacted her to get some details. She told me that she had lost her nineteen-year-old son Daniel several years ago in a tragic automobile accident. Later on, when Hurricane Ike ravaged southeast Texas, a live oak

tree near the family cemetery plot lost a large limb. She had a piece of the limb trimmed, brought it home, and coated the ends with yellow house paint. I agreed to stop by and see what could be created from it.

After a brief chat, we took a look at the log. It was about 2' long and 10" in diameter. One end had been near a branch junction and the other end was straight. The log had been sitting in their garage in the south Texas heat for a couple of years. Some radial cracks were evident under the paint, which immediately eliminated some design considerations. I told Susan that a bowl form would not work, but that with some luck, an interesting vase or hollow vessel might be possible. I also told her that given the challenging quality of the wood, there were no guarantees. On the other hand,

maybe the cracks would not really be as bad as they looked.

### The nature of commissions

I almost never take commissions. Creating wood vessels is a creative outlet and a passionate pursuit, not my livelihood. I turn what pleases me. Some vessels live in my home, some get sold, and some I give away. Whatever does not meet my standards takes a short trip to the bandsaw on the way to the burn bin. Most commissions place some constraints on the source material, the design considerations, or both. In this case, if the commission had not been for a woman who had suffered a grievous loss, I would never have considered turning the piece of wood she offered. But, as the parent of two college-age children, I had to try.



# Filling Voids

## A Challenging Commission

Larry Zarra



## Safety

Weeks later, I bandsawed the log into a billet for a hollow vessel. This was my first chance to see what was under the painted ends. What the saw cut revealed almost convinced me to give up. The log had several large open cracks radiating from the center, with more cracks penetrating from the outside (*Photo 1*). Also, the outer circumference of the log had some pale discoloration that might indicate weak or punky areas. Ordinarily, I would put the log like this onto the lathe to do some initial shaping, but I had some very real concerns that after sixteen-plus years of turning, this could be the first log to disintegrate in my face. For safety's sake, I decided to fill the cracks with something that would be attractive and would also serve to hold the vessel together when I started hollowing.

I often design large hollow vessels to highlight defects and blemishes in the wood as focal elements. While a big vessel with strategically oriented checks or voids can be quite interesting, this log had an abundance of negative space that also compromised the structural integrity of the material. I decided to fill the negative space with dyed epoxy. I had most of a two-pint, part A & B quick-setting epoxy kit in my shop. In past experiments with tinting epoxy black, I had tried mixing in ground ebony shavings, but that would be too viscous for this particular application where I needed the epoxy to penetrate past the surface of the log. I decided to mix some alcohol-based aniline dye into small batches of epoxy, and then pour (and slather) the mix into the cracks. What could be easier?

## Filling the voids

For starters, most of the voids ran right through the log, so I sealed one end



**1** The first look at the raw material for the project revealed large radial cracks.



**2** The turning blank is covered in epoxy, which also fills the voids.



**3** Part way through the turning process, I filled the voids that were revealed during initial shaping.



**4** The vessel is taking shape and I am ready to turn a second foot and reshape the lower profile.

with inexpensive duct tape to keep the epoxy from running out the other end. It turns out that the epoxy or the solvent for the dye (or both) reacted with the adhesive on the duct tape. Some of the epoxy ran out and some of the epoxy that remained picked up a gray tint from the tape. Then I switched to the heavy metallic tape that is actually used for sealing air ducts. The adhesive backing did not dissolve as easily, but there was still some leakage. It turns out that a 10" diameter log can have quite a lot of interior negative space to fill. I used up the epoxy I had, then went through another costly pint of the stuff, and still had a lot of negative space to fill. I started looking for alternatives.

A sculptor friend recommended a local source for epoxy by the gallon, but that would have been beyond the scope of what I could reasonably recoup from this commission. Coincidentally,

another friend had access to a source that used black two-part epoxy in industrial drum quantities, and was able to secure a few quarts for my artistic pursuits. Instead of the gel epoxy I had been using, this was a mixture of a liquid resin and a liquid hardener. The liquid set up and gelled in just a few minutes, but until then it ran out of every unsealed check, split, and void. What a mess!

By now, I was working over a discarded plastic dish basin, wondering if I could fill all of the open space in the log, and hoping that what was happening inside the log was more uniform than the outside, which was becoming an ugly combination of wood, epoxy, and tape (*Photo 2*). This went on for a while—and then it was time to turn.

## Turn the vessel form

I oriented the vessel for side-grain turning, using the full round of the ►

log. This design places the pith of the log perpendicular to the axis of the lathe, and results in the center of the log being symmetrically disposed around the center of the finished form. I call this a cross-log orientation, and it is how I design most of my large hollow vessels. After orienting the vessel in the log, I sliced an inch off the top and base to remove some of the bark.

With the blank finally between centers, I started making shavings. The oak cut quite nicely considering that it was a lot drier than my preferred material, very green wood. The epoxy cut smoothly too, and soon I had a really nice shape to start hollowing.

A few unfilled voids were revealed after initial shaping, and they had to be filled before proceeding. The gel two-part epoxy worked better for this, but it had to be constrained by constructing masking tape barriers so that the viscous epoxy would stay put on the exterior of the rounded form until it set. Working between centers, I repeated the process of filling gaps and voids and then turning away excess epoxy and refining the shape by shear scraping with a bowl gouge (*Photo 3*). Finally, a vase form with flowing curves emerged. The base had a 3" × 7/16" tenon so that the vessel could be held in a chuck. All was going well, but not for long.

### Another setback

The rim of the vessel was slightly spalted, fairly soft wood and cut easily, but as soon as I got to the hard oak, the foot sheared off the vessel and the vase plopped to the floor. The foot was also slightly spalted, soft wood. I probably should have known better than to work with such a structurally compromised piece of wood. My frustration primarily came from having invested a lot of effort without much

promise of delivering a finished product. I almost gave up on this project a second time, and the footless form sat on a workbench for a while longer.

### Successful hollowing

Time passed, and eventually the drive to finish, or at least reach a definitive resolution, outweighed inertia. I put the vessel between centers again, this time with the rim toward the headstock, driven by an 1½" spur drive, and the sheared-off base toward the tailstock (*Photo 4*). The first step in the rescue/redesign process was to cut back the last of the soft wood at the base and shape another foot, this time located in wood that was more solid. Then I reshaped the profile into a similar, albeit shorter, form. Reshaping exposed more partially filled voids that involved even more filling and reshaping. With a more effective grip on the foot, though, hollowing proceeded more effectively the second time.

Completing the hollowed vessel at this stage was routine, but I did leave the wall slightly thicker than usual. This was not the time or place to risk one last pass. I sanded the vessel to 600 grit, and then put it back onto the lathe between centers to remove the foot and cut a dished underside. Of course there were more voids to fill, trim, and sand.

### Finish

I did the final hand sanding off the lathe using 800-grit abrasive. With a flawlessly sanded surface, the rest of the finishing was straightforward. For this vessel I applied four coats of wipe-on polyurethane, which is easy to apply: I wipe on the poly and then wipe off as much as possible. The residual film cures in several hours, but I wait a day in between applications. Each coat builds on the

previous one. A day after the final coat, I apply a thin film of paste wax and then hand buff to a glossy sheen. The last step is to sign, date, and number the vessel.

### Delivery

I had emailed Susan with brief updates at widely spaced intervals, and it was a pleasure to finally announce that her commission was finished. When I brought the piece by a few days later, she was very pleased. The result was a full-bodied Southwest-inspired design, shot through with veins of black epoxy. As I left, Susan handed me a thank-you note. In addition to a warm handwritten sentiment, there was a snapshot of Daniel and a verse from the *Book of Daniel* that poignantly tied together the whole experience.

So, while I almost never take commissions, this project was a rewarding experience for both of us. Susan owns a vessel that has a personal and spiritual connection, which helps fill a void in her life. I learned about epoxy and filling negative space, and more important, about the rewards of patience and perseverance while working on a very challenging piece of wood. ■

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*Larry Zarra has been an avid woodturner since 1995. He is a member of the Gulf Coast Woodturners. He has participated in a variety of juried shows, has been selected four times as a demonstrator at the SWAT conference, and has his work represented in commercial galleries. He is also a full-time earth scientist who regularly researches, presents, and publishes technical material for professional journals and conferences.*



Dave and his wife Florence at the Mercer Museum craft fair, showing his work.

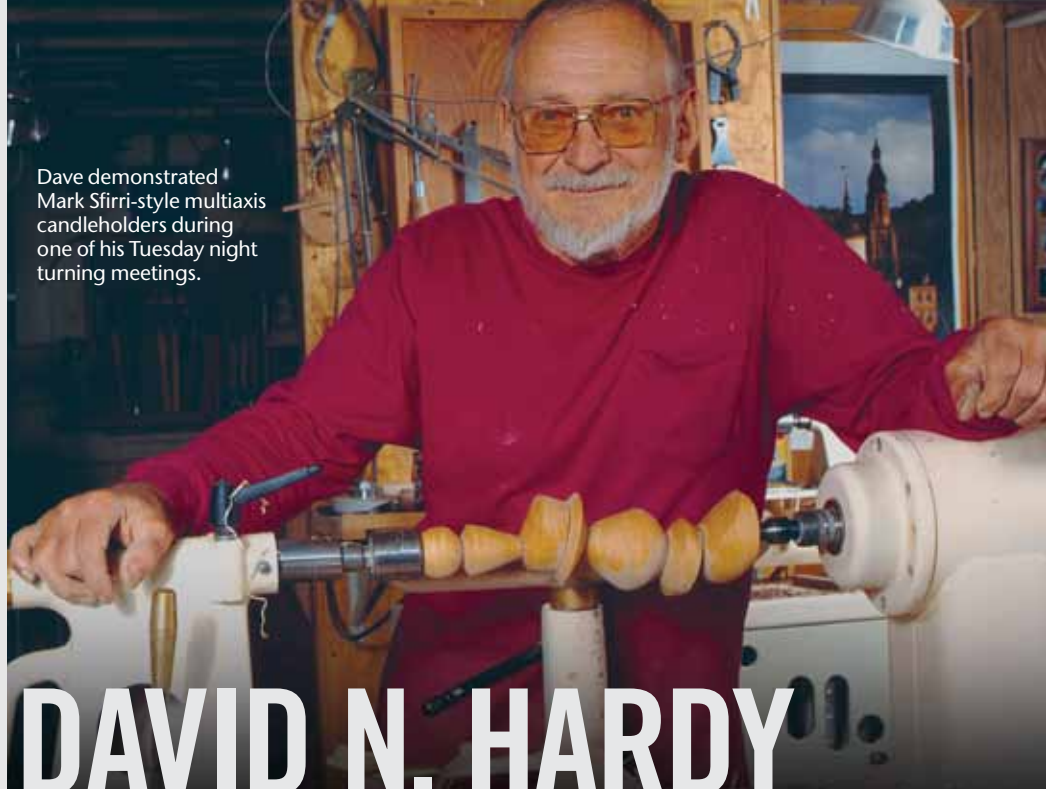
Photo: Dawn Wilson Hardy

**Generous.** That is the word most people use to describe my friend Dave Hardy. Dave always gives of himself to others, and he has been instrumental in getting countless people into woodturning.

Dave was born in 1928 and raised in Bucks County, Pennsylvania. His father was a mechanic and his grandfather, a Quaker who was blind, taught Dave to run a wood lathe. When Dave was ten, Grandpa Walton would blind-fold Dave and have him imitate his turning techniques. His father taught him how to build things and work with wood. One of Dave's best accomplishments of his youth was a wagon he built to pull behind his bike.

Grandpa Walton also taught him the ways of the Quaker life, of

Dave demonstrated Mark Sfirri-style multiaxis candleholders during one of his Tuesday night turning meetings.



# DAVID N. HARDY

**GENEROUS MAN AND FRIEND** Michael Kehs

accepting your lot in life and being happy. Dave inherited Walton's gift of compassion and his ability to teach and lead. As a successful businessman, Dave generously shares his expertise, time, workspace, or wood to anyone in need of help.

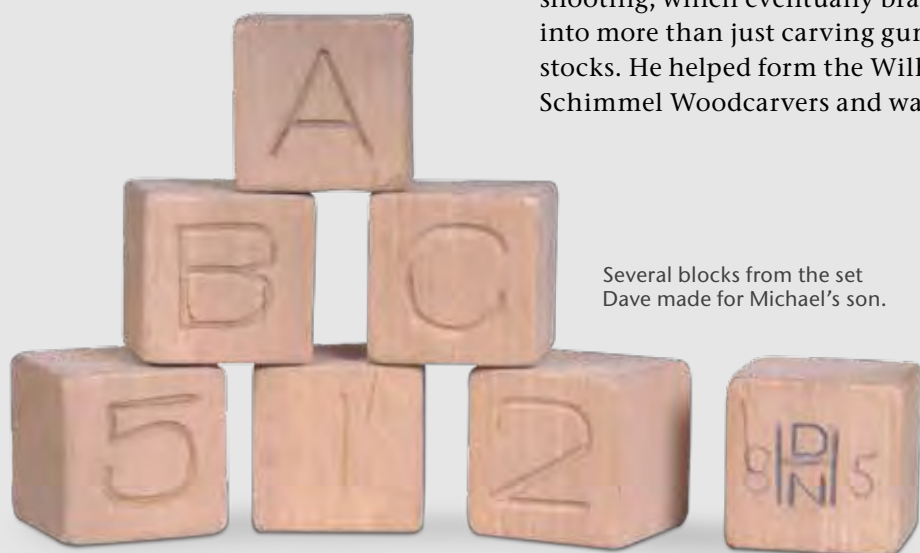
## An interest in woodturning

Dave became serious about woodworking when he got into building muzzle-loading rifles for competition shooting, which eventually branched into more than just carving gunstocks. He helped form the Wilhelm Schimmel Woodcarvers and was also

a member of the Delaware Valley Woodcarvers Association.

In the mid seventies, he met Palmer Sharpless, a woodworking instructor at the George School in New Town, PA, and one of the founding members of the AAW. Through Palmer, he met Jake Brubaker, a woodturner by trade who made a living turning. Palmer and Jake significantly influenced Dave's learning how to turn: Jake had complete control with the skew chisel, and after watching him demonstrate turning at a craft fair for most of a day, Dave decided he, too, could use a skew chisel. No matter how hard he held the tool down, however, it ripped across the wood, leaving an impressive, deep spiral gash. Dave called his friend Jack Shelly, also a woodturner, to come over and to give it a try. They both soon learned that brute strength was not the solution, so they decided to take a class from Palmer, who quickly straightened them out.

Palmer and Jake showed Dave how to turn eggs, honey dippers, three-ring circuses (baby rattles with captured rings), and other small items. The project that ►



Several blocks from the set Dave made for Michael's son.





Ornament, 1986, Maple, rosewood,  
5 3/4" (15 cm) dia.

The Center for Art in Wood Museum Collection



Dave was a regular volunteer demonstrator at many fairs and turning events. Here he is with a treadle lathe in Doylestown, PA, at the Mercer Museum Fair Mothers Day weekend circa 1997.

Photo: Dawn Wilson Hardy

essentially made Dave into a wood-turner was the copies of flax spinning wheels he made after a friend convinced him to build them. He borrowed a wheel that had a broken spoke, which he fixed as payment for borrowing it.

### Open shop at Dave's

On the second Tuesday in January 1986, Dave invited four turners to his shop to turn wood and share ideas. This early meeting of what became known as Dave Hardy Night was the beginning of a twenty-five-year, monthly tradition. Whether Dave was home or not, his shop was open.

When Dave met someone who was interested in turning or carving he would invite him or her to either his Tuesday night turning meeting or a Thursday morning carving meeting. Years ago, when I needed a turning for a carving project, Dave invited me to his shop. At the time, I was a member of the Wilhelm Schimmel Carving Club, where Dave taught me how to use and sharpen carving tools. From there, he gave me the confidence and direction to turn a large piece of walnut into a pedestal for a backgammon table. He was a pool of knowledge and I was the sponge. I was one of many that Dave helped, taught, mentored, guided, critiqued, and pushed to be a better turner, a better person, and a better friend.

Dave could be a bit gruff and was what some might say rough around the edges, but that made him who he was: a man who knew exactly what he believed and wasn't afraid to share it. Many Tuesday nights went well into the wee hours of the morning while we tried to solve the world's problems. I often wondered why he didn't kick us out, but I believe he enjoyed it more than we did. I will remember those late nights for a long time.

### Volunteer service

Dave was on the executive committee of several carving clubs

and the Bucks Woodturners, he helped at the Wood Turning Center (now the Center for Art in Wood), and was active with the Keystone Woodturners annual Top-a-Thon. Dave hosted turners from all over the world while they were in the area for demonstrations and classes. He hosted the first two Echo Lake events, a risky, yet generous thing to do, but this was Dave.

He was instrumental in getting the local club to donate a lathe to the Bucks County Community College, where we held our meetings. "Nobody did anything to keep me from doing it. I get a lot of credit for it, but I really didn't do anything," he said of the four-month fund-raising campaign and ultimate purchase of the \$3,000 machine. "It's really not a big deal," he said with a shrug. "The world turns around a wood lathe."

### Dave's turning

Dave is an inquisitive man who is willing to try new techniques as well as share them with his Tuesday night group. He gave demonstrations and taught classes all over the country. His motto: come, learn, and pass it on. As a result of Dave's encouragement, many of us have become demonstrators and teachers.

Dave is known for his hollow segmented ornaments, among other things, and David Ellsworth convinced him to write an article on these for the young AAW journal (vol 2, no 1). Ellsworth photographed the process and took notes while Dave turned.

One of Palmer Sharpless's inside-out, turned trees intrigued me, but it wasn't until Dave showed me the technique that I gave it a try. I have since become known for my method of inside-out turning. Dave would set me up behind the lathe and instill confidence in me, as he did with many other turners. It became easy

to believe in our capabilities with Dave's encouragement.

I feel a close bond with this man whom I have come to greatly respect. When my first son was born, Dave hand carved a set of alphabet blocks, complete with every letter, double vowels, and pictures corresponding to letters. My family cherishes that gift.

I believe that Dave has had more influence on more people than

anyone else I know. I am a better person by knowing him. A few months ago after suffering several strokes that left him unable to turn, Dave asked me if I would take over the Tuesday night turning meeting. I consider it a great honor, but I accepted with a bit of sorrow, knowing that I won't be going to Dave Hardy Night again. It's a loss that a lot of us will feel for some time. I hope to be able to

carry on the tradition half as well as our friend and mentor, Dave Hardy. ■

*Michael Kehs is active in local and national turning and carving clubs, his work has won major awards in art and craft shows, and he is represented in the permanent collection of The Center for Art in Wood. Michael lives in Bucks County, Pennsylvania.*

## Dave Hardy, Local Treasure

Every region and locale has a woodturner whose actions and words have created a positive local impact. Dave Hardy is just such a guy.

Dave lives in a peaceful wooded setting with a big woodshop underneath his house. Over the years, Dave organized and hosted hundreds of sessions in his shop. As a master machinist, he ran his own company for decades and knew patternmaking and every kind of metal machine skill. When he retired, he became involved in woodturning and quickly mastered tools, machinery, and unique approaches. With a twinkle in his eye, he excels at woodturning, woodcarving, and teaching. Hundreds, or perhaps thousands, of turners and instructors know Dave's shop and enjoy the hours of stimulation and learning that occur there.



*Woodworkers' Christmas Tree, 1987*

The Center for Art in Wood Museum Collection

In 1987 Dave proudly showed Palmer Sharpless one of his first complex ornaments (see page 19). Palmer remarked, "The challenge is to make a lot of these and make them so well that people will buy them to enjoy." Dave created sixteen ornaments in all, along with the *Woodworkers' Christmas Tree*. The ensemble was juried into the 1988 landmark exhibition, "International Turned

Objects Show," organized by The Center for Art in Wood (formerly the Wood Turning Center), in Philadelphia. The sleek tree provides a simple contrast to the turned, carved, and polychromatic ornaments, as documented in The Center's publication, *Lathe-Turned Objects: An International Exhibition*. Mr. and Mrs. Peter Lamb purchased this treasure for their private collection.

In the early 1990s, Dave, Ken Wurtzel, and Mark Krick created a revolutionary computer-driven ornamental lathe they named the HAWK (for their initials). At The Center's 1993 World Turning Conference, held at the Hagley Museum and Library in Wilmington, DE, they demonstrated this innovative machine.

Dave's interests include practical matters as well. Early on, he became concerned with the quality of woodturning demonstrations, troubled that many were high on entertainment, but low on substance. He and Palmer Sharpless worked together in Dave's shop to train many local turners how to teach. These workshops



**Dave Hardy, Mark Krick, Ken Wurtzel**, paperweight, 1992, Plexiglass, 3" (8 cm) dia.

Made on the HAWK lathe.

The Center for Art in Wood Museum Collection



**Dave Hardy, Mark Krick, Ken Wurtzel**, paperweight, 1993, Plexiglass, 1¾" (4 cm) dia.

Made on the HAWK lathe.

The Center for Art in Wood Museum Collection

focused on techniques for teaching everything from basics to complex turning, along with the best ways for each instructor to convey his or her own specialized techniques.

Dave was instrumental in helping The Center develop hands-on classes for kids—our Community Outreach program. He and the late Norris White, another Bucks member, built wooden stands for mini lathes that held all the tools for a workstation, which made the boxes and lathes easy to transport. They also guided the turning classes for a group of young boys with special needs. Dave told me that these were his most challenging and rewarding classes.

Dave's work is included in The Center's Museum Collection, and documented in the 25th anniversary book, *Turning to Art in Wood: A Creative Journey*. Dave, knowing you has made my journey all that much more exciting and fruitful.

—Albert LeCoff

Director, The Center for Art in Wood

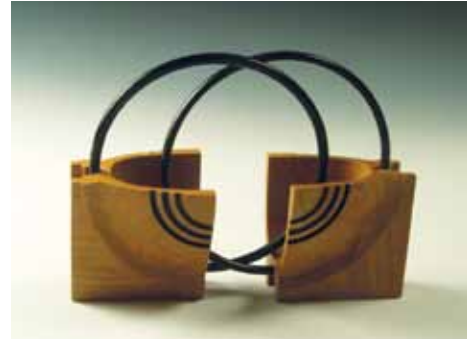
# MEMBERS' GALLERY

## Bob Chapman

I have been turning bowls for almost thirty years and I still enjoy making them. The process became routine, however, so I began thinking about cutting bowls apart and rejoining the pieces. How might I develop this concept? The result was a cut-apart bowl sculpture that won first prize in an international woodturning competition at Alexandra Palace in London. It was sold to the Daniel Collection.

*Married Quarters* came next. A square bowl cut into quarters and then joined with rings? What else could I call it but *Married Quarters*? It is interactive because the pieces can be rearranged. I made several other sculptures, all based on the concept of cutting up bowls and recombining the pieces. In many, I use turned wooden rings to re-form the circle.

*Nautilus* is the result of a careless error while using a bowl-saver. Intending a nest of simple bowls, I cut through the bottom of the first one. My experience of cutting and re-joining bowls meant I knew how to make good use of the wreckage. Ribbed and stained purple on the outside, *Nautilus* has textured chrome



*Married Quarters II*, 2010, Cherry, paint, 6" x 7" x 2½" (15 cm x 18 cm x 6 cm)

paint and curved stitching with silver wire to add highlights and enliven the space within the shell.

The more I looked at *Nautilus*, however, the less I liked it. I was not happy with the silver wire, so I cut it all away, removed the pegs, disguised

the repairs with texturing, replaced the pegs, and restrung the void with silver metallic elastic thread. I also added a suspended central focus and a different base. Then, I renamed it *Metamorphosis*.

More of Bob's work can be seen on his website, [bobchapman.co.uk](http://bobchapman.co.uk).



*Nautilus*, 2012, Beech, stain, chrome paint, silver plated wire, 12" x 6½" (30 cm x 17 cm)



*Metamorphosis*, 2012, Beech, stain, chrome paint, silver elastic thread, 12" x 6½" (30 cm x 17 cm)







*Jacks*, 2010, Cherry, ball is 6¼" (16 cm) dia,  
jacks are 6½" (17 cm) in each direction

### Joseph Greiner

Construction of the jacks is probably more meaningful than the segmented ball, which is hollow. The jacks almost invite multiaxis turning, but there would always be some weak grain directions, and a horrendous amount of waste chips. In my construction, all the legs are long grain. They are secured onto the ends of three-piece burrs of inter-locked dowels.



**Paul Stafford**, *Oliver Twist Can't Do This*,  
2012, Walnut, 8½" × 7" (22 cm × 18 cm)

*Hex Ovo Australorum*,  
2011, Freijo, emu egg  
shell, dyed maple, gold  
leaf, 11" × 6½"  
(28 cm × 17 cm)



### Rob Wallace

Rob Wallace's work was accepted into the 44th annual "Clay, Fiber, Paper, Glass, Metal, Wood" national juried exhibition at the Octagon Center for the Arts, Ames, Iowa, which was on display January 27 through April 7, 2012.



*Tequila Sunrise*, 2011, Spalted black maple,  
aniline dyes, ink, 5" × 12" (13 cm × 30 cm)



**Joe van Keulen**, *Celtic Bowl*, 2011,  
Birch, paint, 5" x 13" (13 cm x 33 cm)

Photo: Charles Mak

## Joe Luther

The inspiration for carving stones on turned forms came from my memory of a rock dam on a small creek on our family farm. It amazed me how people with primitive tools built that dam using those huge stones. Stone and wood are a big part of our history. It just seems right to incorporate the look of stone with wood.

I realize that some woodturners have a different opinion about the use of color and carving on turnings. In my mind, art is the connection of the artist with the material. Sometimes it seems best to leave the wood natural, sometimes finished, and like these stone vessels, carved, textured, and colored. ■



*Stone Egg*, 2012, Pear,  
8½" x 6" (22 cm x 15 cm)



*Green Stone Vase*, 2012, Pear,  
6½" x 6" (17 cm x 15 cm)



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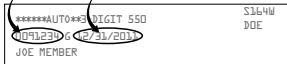


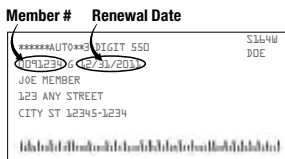
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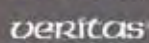
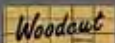
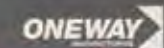
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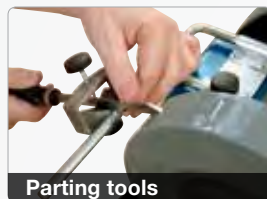
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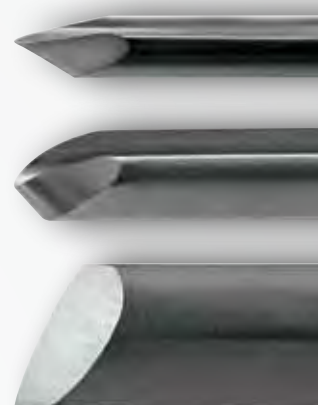
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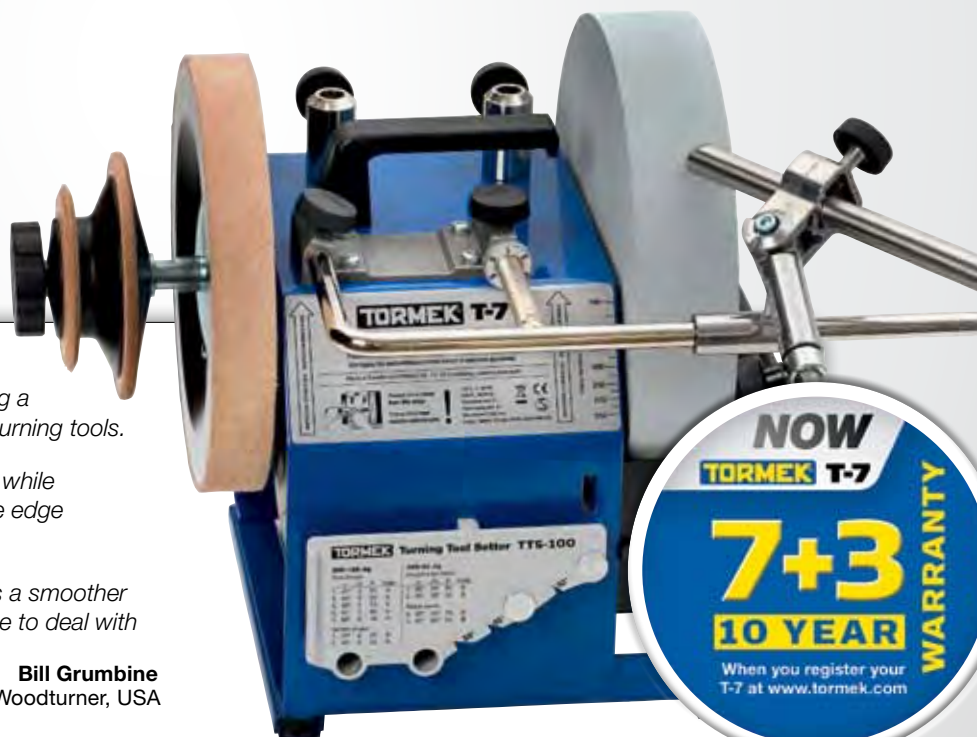
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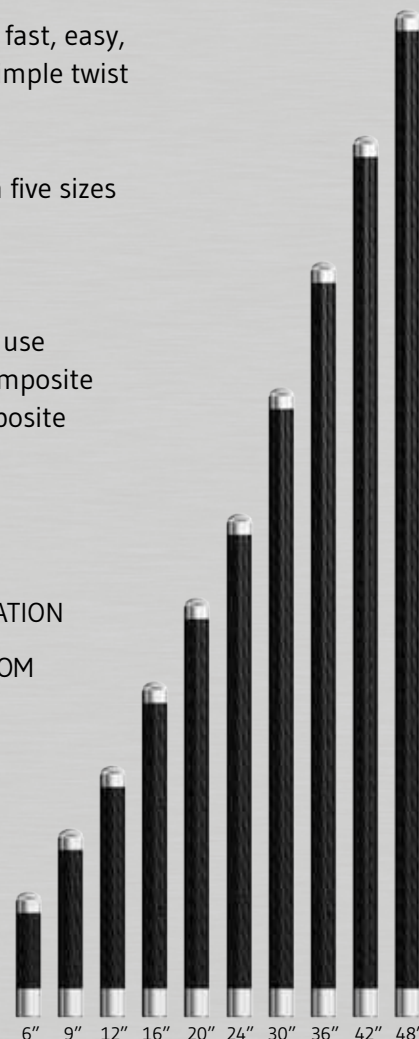
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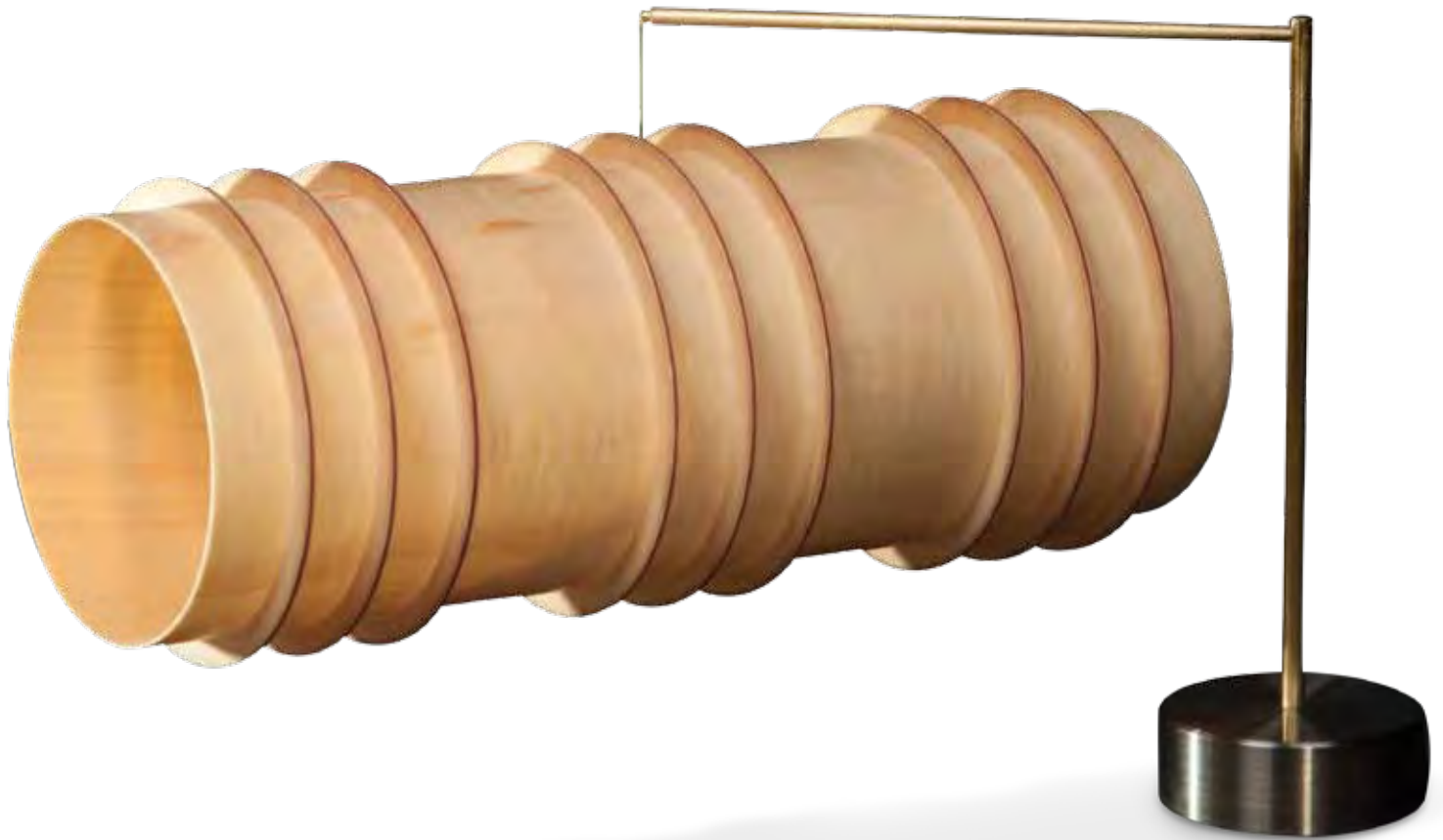
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# STEVE SINNER

## RED PIPE



I made this kinetic sculpture from a single piece of sugar maple and turned it to just less than .02" thick. The nine integral fins are inlaid with red embroidery floss, embedded in optical-grade epoxy. The stainless steel stand and brass posts are separate from the pipe and are not included in the dimensions.

*Steve Sinner is an invited demonstrator for AAW's 27th international symposium in Tampa, Florida, June 28–30, 2013.*

*Red Pipe*, 2012, Maple, stainless steel, brass, embroidery floss,  
2½" × 2½" × 6½"  
(6.3 cm × 6.3 cm × 17 cm)