LATHE SAFETY SHIELD • EVOLUTION OF A GOBLET DESIGN • PHOENIX SYMPOSIUM PREVIEW

AMERICAN WOODTURNER

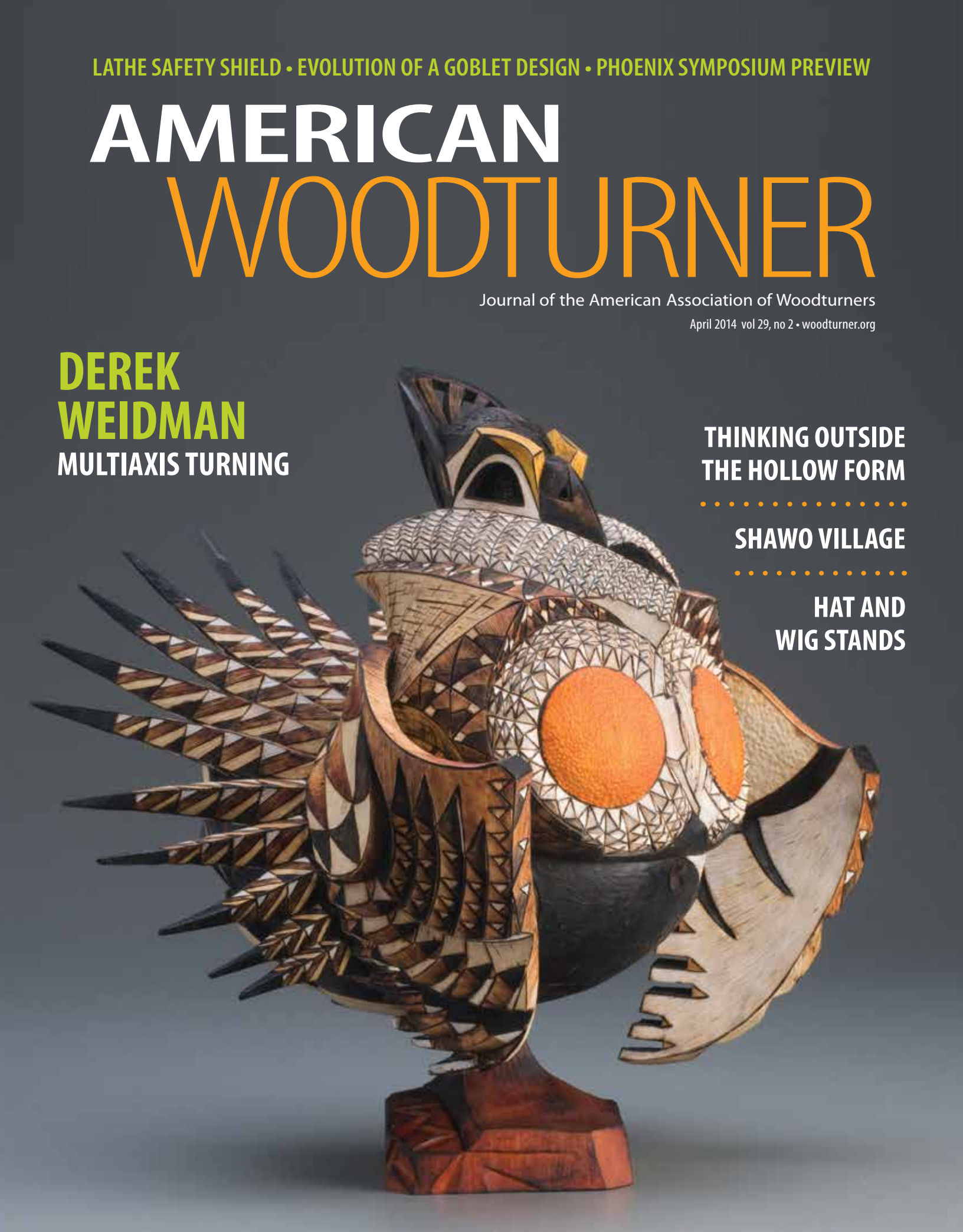
Journal of the American Association of Woodturners
April 2014 vol 29, no 2 • woodturner.org

DEREK WEIDMAN
MULTIAXIS TURNING

THINKING OUTSIDE THE HOLLOW FORM

SHAWO VILLAGE

HAT AND WIG STANDS



Derek Weidman

Pennsylvania

I have dedicated the last decade to exploring lathe-based sculpture, with multiaxis turning as the foundation. This distinctive shaping process is a visual language that only the lathe can speak. Using the lathe to carve, I create abstract representations of a wide range of subjects, from portraits based on human anatomy to various animal forms.

I work from a basic question: "What would a rhino or tiger or sage grouse look like if expressed via the endless positioning possibilities of multiaxis turning?" Answering that question captures the essence of animals and humans in novel ways.

Traveler, 2013, Holly, pigments, 6" × 4" × 5" (15cm × 10cm × 13cm)
Photo: Karl Seifert

Buffalo in Snow, 2013, Holly, ebony, boxwood, pigments, 6" × 9" × 4" (15cm × 23cm × 10cm)

Collection of Tom and Melinda Wirsing
Photo: John Carlano

(Clockwise from top left) Round Horn, 2013, Maple, quilted maple, stone, holly, pigments, 7" × 6" × 4" (18cm × 15cm × 10cm)

Collection of Stephen Weinroth

Photo: Karl Seifert

Rhino With Roller, 2014, Cherry, holly, ebony, pigments, 10" × 6" × 11" (25cm × 15cm × 28cm)

Photo: Bill Smith

Tiger Study, 2013, Basswood, pigments, 4" × 5½" × 4" (10cm × 14cm × 10cm)

Collection of Jeffrey Bernstein and Judy Chernoff

Photo: John Carlano

Verdancy Recycled, 2013, Maple, pigments, 13" × 10" × 11" (33cm × 25cm × 28cm)

Private Collection

Photo: Bill Smith

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

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Journal of the American Association of Woodturners

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Cover – Derek Weidman, *Sage Grouse*, 2014, Holly, ebony, redwood, pigments, 13" × 11" × 12" (33cm × 28cm × 30cm) Photo: John Carlano

Back Cover – David Nittmann, *Baby Needs New Shoes*, 2014, Hard maple, quartz crystal, paela, acrylic paint, archival inks, 6" (15cm) cube, Photo: Tim Benko

woodturner.org

EDITORIAL

Editor Betty Scarpino
editorscarpino@gmail.com

Editorial Advisors Kip Christensen
Denise DeRose
John Giem
Malcolm Zander

Journal Production **Albarella Design**
Linnea Overbeck
Art Director
Production Management

EDITORIAL SUBMISSIONS

Send article ideas to:
editorscarpino@gmail.com

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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.

From the Editor

The potential for the AAW to connect with the wider woodturning community is immense, and many of these connections revolve around turning bowls. We make bowls in our shops, at local chapter meetings, and during national symposiums. Chris Enke's essay on turning bowls appropriately leads into the Shawo Village story—bowls were a mainstay of turning in China. Yes, Chris, we turn and re-turn.

Terry Martin's article on woodturning in Shawo Village illustrates the possibilities for worldwide connections, and its sum is more than the words and images contained within. Woven together are AAW's international symposium, an Australian turner and author, the International Wood Culture Society, a remote village in China, and our journal.

Using the lathe to carve, as in multiaxis turning, is capturing the imagination of an increasing number of woodturners. Two outstanding examples in this issue—the work of Derek Weidman and Michael Foster—were barely conceivable a few years ago. Let yourself be inspired!

The vast potential the AAW has to foster connections awaits your involvement—nationally, through your local chapter, or simply by vicariously experiencing a woodturner's journey to China.

Betty Scarpino

—Betty Scarpino

From the President

I am in favor of more woodturning—anytime, anywhere, by anyone. Woodturning can be learned at numerous regional symposiums and at nonprofit and commercial woodturning schools. There are a growing number of international events similar to AAW's symposium: TurnFest in Australia, AFTAB-sponsored events in France, and gatherings in Great Britain organized by the AWGB. Woodturning has a growing presence around the world.

Three years ago, a discussion started within AAW about connecting with woodturners internationally: What is the best way to organize individuals, groups, and institutions so woodturners and ideas could easily move around the global woodturning community? At the San José symposium in 2012, the AAW established the Turners Without Borders (TWB) committee with the goal of improving communications with woodturners beyond North America.

TWB has partnered with the International Wood Culture Society (IWCS), an organization dedicated to wood culture in all its forms around the world. Mike Hou, executive president of IWCS, supported Terry Martin, chair of TWB, on a trip to China. In 2013, IWCS sent AAW members Avelino Samuel to Tanzania for World Wood Day to showcase woodturning in Dar es Salaam and Andi Wolfe to speak and demonstrate in China. This March, IWCS sponsored World Wood Day in China and paid for five AAW members to demonstrate woodturning. AAW and IWCS are also partnering to create a woodturning program for children at the Wenzhou Special Needs School in China. Stan Wellborn from AAW worked with IWCS in Washington, D.C., on World Wood Day activities there this March.

TWB member Louis Vadeboncoeur, from Canada, in collaboration with Carmen de la Paz, is planning a program in Puerto Rico. The goal is to establish an AAW chapter and start to reach out to woodturners in Latin America. Carmen was a presenter at AAW's San José symposium and is a TV personality with a significant presence in Latin America.

TWB's vision is to build a platform where woodturners across the globe can expand their contacts, share ideas, and promote woodturning. The AAW is uniquely positioned to support international cooperation among all woodturners. I welcome your support and ideas.

Dale Larson

Dale Larson
AAW Board President

AAW 28TH INTERNATIONAL SYMPOSIUM

PHOENIX, ARIZONA • JUNE 13-15

Our international symposium is an excellent opportunity to watch world-class demonstrators share their techniques, to find out about the latest innovations in tools and materials, and be inspired by the Instant Gallery and other woodturning exhibits. Join us to experience in person the creative passion of woodturning while enjoying the company of others who share your interests.

FEATURED DEMONSTRATORS

See the February journal for rotation titles. The latest symposium information can be found on AAW's website, woodturner.org.

ALAN CARTER
JIMMY CLEWES
J. PAUL FENNELL
DOUGLAS FISHER
CLAY FOSTER
TODD HOYER
RUDOLPH LOPEZ
MICHAEL MOCHO
CHRISTOPHE NANCEY
JOSHUA SALESIN
NEIL SCOBIE
MICHAEL WERNER

Photo: Andi Wolfe

AAW 28TH INTERNATIONAL SYMPOSIUM IN PHOENIX

SELECTED DEMONSTRATORS

John Beaver, California
- Techniques for Making Wave Bowls
- How to Mount, Turn, and Finish bangles
- Photographing Your Work

Open Wave, 2012, Cocobolo, 4" × 10"

Patrick and Peggy Bookey, Alaska
- A New Spin to Turning it Thin
- Super Bowls Are Full of Holes: Piercing

Untitled, 2013, Birch, blackwood, 5½" × 8¼"

Les Casteel, Arkansas
- Improve Production of Segmented Turnings Using Manufacturing Techniques

Walnut Basket Bowl, 2012, Walnut, maple, brass, 14" × 16"

Andy Chen, Texas
- Segmented Turning 101: The Basics
- Segmented Turning 201: Accent Rings

Suspended, 2013, East Indian rosewood, curly maple, walnut veneer, Nicaraguan cocobolo, 5¾" × 1½"

Kip Christensen, Utah
- How to Teach New Turners: Projects and Techniques
- Turning and Decorating an Ornament (Youth Room)
- Kitchen Whisks and Mini Screwdrivers (Youth Room)

Tower Box, 2009, Amboyna burl, African blackwood, turquoise, 6" × 3"

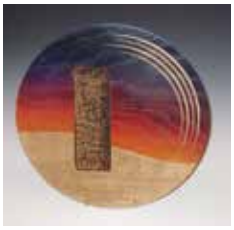
Nick Cook, Georgia
- Rotations for the Youth Program: Garden Dibble, Candleholder, Platter

Untitled, 2004, Silver maple, 16" dia

Collection of James and Marisa Pruss

Richard Findley, England
- Stair Spindle With Routed Flutes
- Spindle Turning Featuring a Hand-Cut Barley Twist
- Spindle Turning for Furniture Restoration

Joe Fleming, California
- The Airbrush Demystified



Desert Moon Rising, 2013, Oak plate, air-brush paint, carved, burned, and textured, 11" dia

Brian Gisi, Colorado

- Advanced Pen Designing
- Advanced Pen Construction

Titanium Spyder, 2011, 5½" × ⅝"

Theo Haralampou, Australia
- Xylobowl Tongue Drum

Ghost Who Walks, 2011, Huon pine, 12" × 3"

Anthony Harris, Kansas
- Dual-Chambered Tobacco Pipe

Pregnant Guppy, 2012, White heath burl, vulcanite, acrylic, aniline dyes, wax, 2" × 6½" × 3½"

Al Hockenbery, Florida
- String Puzzle (Youth Room)
- Ball in a Ball

Nested spheres, 2005, 2007, Osage orange, camphor, pecan, largest sphere 5" dia

Bonnie Klein, Washington

- Stick Pens (Youth Room)
- Acrylic Threaded Box
- Spin-Top Box

Photo: Andi Wolfe

David Lindow, Pennsylvania
- Ornamentally Turned Hexagonal Box
- Ornamentally Turned Pens
- Cutting Patterns for Thin Layered Boxes

Pendant, 2012, African blackwood, silver, enamel (by Ron McGuire), 2" dia

Photo: Eric Spatt

Bill Ooms, Arizona
- Mini Metal Lathe for Woodturning
- Boxes With Thin Layers
- Making Pen Parts on a Mini Metal Lathe

Black Eggs, 2012, African blackwood, maple, tamboti *(left)*; African blackwood, maple, bloodwood *(right)*, 4" × 3" dia

Joe Ruminski, North Carolina

- From Tree to Bowls
- Introduction to Turning (Youth Room)
- Ball and Cup Toy (Youth Room)

Sunset #2, 2012, Poplar, oak, brass, dye, 28" × 24" × 12"

James Santhon, California

- Spindle Turning and Duplication

Untitled, 2013, Walnut, 8½" × 3"

Photo: Larry Marley

Jennifer Shirley, Indiana

- Hammered Copper Lids for Containers

Untitled, 2013, Cherry, copper, 7" × 3"

Lee Sky, Florida

- Acorn Birdhouse Ornament, Thread-Chased Top, Palm Nut Eggs

Ornament, 2014, Norfolk Island pine, boxwood, Christmas palm nuts, 2½" × 1½"

Alan Trout, Texas

- CA Finishing: Vessels and Turned Forms

Red Neck, 2013, Olive root burl, red pigmented resin, 4½" × 6½"

Derek Weidman, Pennsylvania

- Drawing With the Lathe: Minimal Tools, Dramatic Results

Sage Grouse, 2014, Holly, ebony, redwood, paint, steel, 13" × 12" × 12"

Photo: John Carlano

Vince Wilson, Colorado

- Introduction to Metal Spinning

Untitled, jewelry box, 2013, Oak burl, walnut, ebony, sterling silver, brass, 4⅛" × 4¼"

Tom Wirsing, Colorado

- Everyone Can Turn a Perfect Platter
- Everyone Can Turn a Perfect Bowl

Untitled, 2013, Bigleaf maple, 16" dia

Photo: Tim Benko

SYMPOSIUM VOLUNTEERS NEEDED!

The success of every symposium is due to the many individuals who volunteer for a variety of tasks before and during the event. If you are attending this year, please give a few hours to this vital effort. The greatest need is for demonstrator assistants, aid in the Youth Room, and help in the Instant Gallery.

To volunteer, contact John Ellis at NMWTwebman@aol.com. Volunteer early to have the best chance of being assigned your preferred demonstrator and time slot. All volunteers receive a complimentary symposium T-shirt.

COMPANION PROGRAM

Spouses, partners, and adult guests can register for our Companion Program to receive information about non-woodturning activities, including tours, demonstrations, and lectures in a variety of media. Bring your craft items to work on and share. If you would like to share your skills, contact linda@woodturner.org. ▶

POP SHOWCASE ARTISTS

Steven Kennard, Canada

- Turn a Teardrop Box From African Blackwood

Lost Orchard, 2008, African blackwood, cocobolo, thuya, 3¾" × 3½"

Jason Schneider, Colorado

- Turning Corrugated Cardboard
- Cardboard Objects, One Step Further: Fillers and Wax

Plaster Push, 2007, Corrugated cardboard, plaster, 5" × 10"

AAW 28TH INTERNATIONAL SYMPOSIUM IN PHOENIX

SPECIAL INTEREST NIGHT (SIN) THURSDAY

- The exhibits "Rising," "Ceremony," and Clay Foster POP Merit Award will open at 6:00 p.m. and will include a reception with refreshments.
- New this year, SIN will be on **Thursday at 7:30 p.m.** and will include informative sessions on a variety of topics.
- **The Segmented Woodturners National AAW Chapter** will hold their annual meeting during SIN activities. For more information, contact Jim Rodgers jlrodgers@aol.com.

SYMPOSIUM HOTEL

Sheraton Phoenix Downtown Hotel

Adjacent to the Phoenix Convention Center

$129/night plus tax

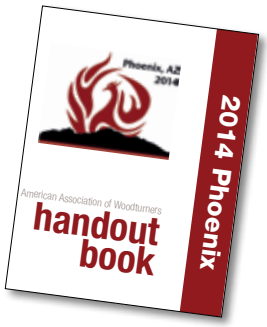
https://www.starwoodmeeting.com/StarGroupsWeb/booking/reservation?id=1309124077&key=49758

Reservations 866-837-4213

Reference AAW or American Association of Woodturners

FREE SYMPOSIUM HANDOUT BOOK

This comprehensive book features all of the demonstrators, shows images of their work, and contains valuable how-to information of topics covered in demonstrations. Buy an extra copy for $25 to share with your woodturning friends back home!



PROFESSIONAL OUTREACH PROGRAM PANEL DISCUSSIONS

Panel discussions are open to all symposium attendees.

How to Make a Great Demonstration, David Ellsworth, Barbara Crockett, Lynne Yamaguchi

Professional Development for Woodturners, Kevin Wallace, Binh Pho, Tom Riley

Artist Showcase, Malcolm Zander, Steven Kennard, Jason Schneider

Makers' Intent, David Ellsworth, Clay Foster, Terry Martin

Woodturning With Challenges, Andi Sullivan, Ken Fulkerson, Dave Hinkelman, Wally Dickerman

Elements of Critique: Right and Wrong Ways, Andy Cole, Kevin Wallace

Let There Be Light: Illuminating Wood Art, Dave Long, John Beaver, Steven Kennard

Photography As a Tool and Resource for Woodturning, Andi Wolfe, John Kelsey, Terry Martin

The Current State of Wood Art, Tania Radda, Kevin Wallace, Tom Riley

Benefits of Regional Symposiums, Andy Cole, Wayne Furr, Trent Bosch

The Best Turning Class for Your Needs: Get Smarter Faster, Al Hockenbery, Trent Bosch, Rudolph Lopez, Jimmy Clewes

Instant Gallery Critique
Neil Scobie, Hayley Smith, David Wahl, Heather Lineberry

Collectors of Wood Art
A Lively Look at the Collector/Maker Connection, Judy Chernoff

WOODTURNING TRADESHOW

You won't see a larger woodturning tradeshow anywhere else! Ongoing demonstrations let you watch tools and machinery up close and in action, so plan plenty of time to experience it all.

Advanced Lathe Tools
Airbrush-on-Wood
Canyon Studios
Carter and Son Toolworks
Carter Products
Chucks Plus
CPH International
Crabtree's Woodturning & Tools
Craft Supplies
Curt Theobald
Earth's Watch
Elbo Tools
Flute Master
J C Artworks
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North Woods
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The Golden Nib
Thompson Lathe Tools
Travis Zumwalt
Trent Bosch
TSDr LLC
Turningwood.com
Vince's WoodNWonders
Wildwood Design
Woodcraft of Phoenix
Woodworkers' Emporium
Wood World of TX

There are a limited number of booths and tabletops still available. Contact Pierre Productions, Erica Nelson, 763-497-1778 or erica@pierreproductions.com.

AWARDS CEREMONY

An awards ceremony will be held Saturday evening, beginning with a social hour at 6:00 p.m. Hors d'oeuvres begin at 7:00 p.m. There will not be a traditional plated dinner or table service as in previous years. The silent portion of the EOG auction will end during the awards ceremony.

ART GALLERY BOOTHS

Thomas Riley Gallery, "Art of Adornment: Jewelry"

YOUTH TURNING ROOM

Youth ages 10 to 18 are eligible to register for free hands-on instruction. Each registered youth must be accompanied by an adult who is registered for the symposium. Students will make a variety of projects.

On Sunday, 25 young turners will win a complete turning package, including a lathe, tools, and faceshield.

Volunteer teachers are Joe Ruminski, Nick Cook, Kip Christensen, Al Hockenbery, and Bonnie Klein.

- Walter-Meier Powermatic/JET, 25 JET mini lathes with stands
- Crown Tools, 25 sets of tools
- Woodcraft, 25 faceshields
- Vince's WoodNWonders, abrasives
- The Sanding Glove, glue
- Teknatool USA Inc., 25 chucks and safety centers
- Easy Wood Tools, 25 sets of tools
- Hunter Tools, wood and project supplies

Photo: Andi Wolfe

THREE FUNDRAISING AUCTIONS!

*EOG **Live** Auction,* Friday, 7:30 p.m., will include online bidding with artwork viewable in advance. Hors d'oeuvres will be provided and a cash bar will be available.

*EOG **Silent** Auction*, opens Friday 8:40 a.m. and closes during the awards ceremony.

"Ceremony" POP Exhibit Live Auction, Saturday, 3:15 p.m., includes online bidding

RETURN TO THE COMMUNITY

Each year, local chapter organizers select a project for fundraising supported during the symposium. This year, we have two. Bring a turned bowl or other object for the Empty Bowls fundraiser, which benefits Seeds for Autism, a nonprofit vocational arts program for young adults. You can also donate boxes to support Beads of Courage.

WOODTURNING EXHIBITIONS!

Instant Gallery

Bring up to three of your woodturnings and participate in the largest display of turned-wood objects under one roof! While there, vote for your favorite Chapter Collaborative Challenge (C3) entry, use the intimate critique to have an informal discussion about your work, see EOG auction items, admire award winners, and participate in ReTurn to the Community.

2014 POP Merit Award: Clay Foster

The texture-rich surfaces and timeless forms of Texas-born artist Clay Foster evoke a sense of the sacred. The evolution of his work is illustrated in 10 pieces.

"Rising"

The AAW-member juried and invitational exhibition drew its theme, "Rising," from the mythological phoenix that rises from its own ashes.

"Ceremony"

This invitational exhibition of the Professional Outreach Program brings together works by 38 established and emerging artists from five continents.

The public is welcome to tour all of these exhibits; registration is not necessary. Please encourage local friends to stop by, see what woodturners make, and perhaps purchase a bowl or two!

Phoenix, AZ 2014

AAW | AMERICAN ASSOCIATION OF WOODTURNERS

Donate a Box to Beads of Courage

SWAT and Phoenix Symposiums

In August last year, 925 woodturners converged at the Waco Convention Center for the annual symposium of the South West Association of Turners (SWAT). SWAT is made up of 27 AAW chapters from Arkansas, Louisiana, New Mexico, Oklahoma, and Texas, and they sponsor this yearly event to provide education and skill development for those interested in woodturning.

One of the symposium events is Beads of Courage, a program that supports children who have serious illnesses. Woodturners make lidded bowls or boxes, which are receptacles for the beads children acquire as they go through stages of treatment. The vessels that symposium attendees donate are displayed in the Instant Gallery, and are then delivered to local hospitals. This year, woodturners donated 120 boxes. Vendors at SWAT donated prizes for six of the best Beads of Courage boxes.

2014 AAW Phoenix Symposium

Headquarters for the Beads of Courage is located in Tucson, Arizona, and because this year's AAW symposium will be held in Phoenix, it would be wonderful if all woodturners would make a box for the program and bring it to the symposium. Here are the guidelines:

- In order to sufficiently hold beads, turned boxes need to be no smaller than 6" (15cm) in diameter. Larger is okay.
- If possible, engrave or burn Beads of Courage on the lid.
- Make sure lids are easily removable.
- Finials or knobs should be easy for a small child to grasp and not too elaborate or pointed.
- Sign your name or write American Association of Woodturners on the bottom.

If you would like to use an official Beads of Courage ceramic logo bead in your design, visit beadsofcourage.org/catalog.htm?item=231 to place an order. For more information, contact info@beadsofcourage.org. ■

—Johnny Tolly

Beads of Courage

Ohio Valley Woodturners

The Ohio Valley Woodturners Guild (OVWG) has joined the national Beads of Courage program to provide boxes and covered bowls to children undergoing treatment in hospitals. This past June, the OVWG donated 28 containers to the Cincinnati Children's Hospital. After the club's biennial symposium in October, we sent another 13 containers, which had been displayed in the Instant Gallery. Beads of Courage is an ongoing program for the OVWG, with donations collected at each meeting. ■

(Left to right) K. C. Kendall, President, OVWG; Jane Livingston, Cincinnati Children's Hospital; Michelle Friszman, A5 Child Life; and David Wright, Secretary, OVWG

—K. C. Kendall

2013 Fundraising Campaign

We want to express our deep appreciation for the support shown by those who gave to the AAW during our 2013 fund-raising campaigns. Your donations will be used to fund general operations, youth education, and Educational Opportunity Grants (EOG). We also want to thank all of our members who contributed artwork to support the EOG auction in Tampa. Visit woodturner.org for a complete donor recognition listing.

Your contributions matter immensely. In addition, we thank you for your personal expressions of support for the AAW and our nonprofit mission.

Dale Larson, President, Board of Directors
Phil McDonald, AAW Executive Director

$0 – $99

Susan & Wynn Arnold
Dan Baker
Ronal Bishop
Howard Borer
Virginia Buckman
Gary Bradley
Harvey Driver
Chet Houser
Steve Laue
Charles Mak
Max McBurnett
Chris Ramsey
Charles (Sam) Sampedro
David & Laverne Samson
Colin Schroeder
Gary Sundquist

$100 – $499

J. Dean Adkins
Rick Baker
Frederic Braun
Warren Carpenter
Denis Delehanty
Sharon Doughtie
William Durbin
Richard Essenmacher
Gil Fuqua
Peter Gibson
Arthur Glickman
John Gogola
Dennis Goring
Harry Hamilton
Karl & Beth Jacobson
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Space Coast Woodturners

$500 – $999

Gayle & Robert Gaynes
James Piper

$1000 and up

Gorst DuPlessis
David Ellsworth
Larry Genender
Philip Hauser
John Hill
Jerome & Deena Kaplan
Dale Larson
Gerald Lepouttre
Mike Mahoney
Michael Pearlman
Betty Scarpino
Alfred Selnick
Kevin Wallace
Stan Wellborn
Mark Wood
Malcolm Zander

Powermatic Lathe Raffle!

1st Prize: 2014 Powermatic 3520B lathe, custom-painted

Winning ticket will be drawn at AAW's Phoenix symposium award ceremony.

Call AAW for details:
877-595-9094

Ticket holders do not have to be present to win. Prize includes freight allowance. Proceeds support activities of the AAW and Phoenix local chapters. Must be 18 or older to purchase tickets or win prizes. Additional prizes can be found at woodturner.org.

AAW Board of Directors

Call for Nominees

The AAW offers much to its members and we are looking for a few good people who can contribute something in return. Do you have the time, energy, and ideas to be a part of the AAW operations, as well as a willingness to help make it a better organization? Be a part of moving the AAW forward—run for a position on the AAW Board of Directors.

The AAW elects a volunteer nine-member board to represent the membership and move the organization forward. If you have been a member in good standing for the past three years, you are eligible. The nominating committee will select the six best candidates. From these six, members will elect three candidates to serve a three-year term, beginning in January 2015.

For information on the duties of board members, call any current board member or visit the AAW website at woodturner.org/info/bod/ for details.

If you are interested in serving on the board, please email the following to the executive director (phil@woodturner.org), no later than May 1:

1. A statement of intent, including qualifications and reasons for applying.
2. Letters of recommendation from two individuals who can attest to your organizational and leadership abilities.
3. A high-resolution photograph of yourself.

The nominating committee will review application materials and conduct phone interviews in late May and early June. Candidates will be presented in the journal, ballots will be sent out in the fall, and election results will be announced in late 2014.

Call for Demonstrators
AAW Symposium 2015

AAW's 29th international symposium will be held in Pittsburgh, Pennsylvania, June 25–28. Between *July 1 and September 15* to apply, go to woodturner.org/Events/CallforEntry.

For additional information, call the AAW office in Saint Paul, 877-595-9094 or 651-484-9094 or email, inquiries@woodturner.org.

Membership Dues Increase

The AAW Board of Directors voted for an increase in membership dues, effective April 1, 2014. The increase will be $2 annually for individual, business, and international levels. Dues will remain at 2013 rates for members who renew before April 1. The dues increase is necessary because of the higher expenses required to sustain and improve AAW membership services, such as our new website. Thank you for being part of this organization—we value your continued membership.

—Phil McDonald, Executive Director

Tool Bank
Turners Without Borders

Last year at the Tampa symposium, members generously donated tools for use in countries where we are helping to develop a woodturning culture. Due to the ongoing success of this "taking turning to the world" program, we are now in need of more tools. If you have a tool or two that you don't use, please bring them to Phoenix for deposit at the registration area.

Tools needed:

- ¾" roughing gouges
- ⅜" and ½" bowl gouges
- ¾" skews and square- and round-nose scrapers
- ⅛" and 1/16" parting tools
- Abrasives, up to 350 grit

Any surplus items will stay in the tool bank for future aid programs.

Learn about our recent experiences in Tanzania, China, and Haiti at the Turners Without Borders page on our website: woodturner.org/twb/index.htm.

Calendar of Events

June issue deadline: April 15

Send information to editorscarpino@gmail.com

Canada
July 25, 26, and 27, Symposium, Walter Murray Collegiate, Saskatoon, Saskatchewan. Demonstrators are Binh Pho, Douglas Fisher, Michael and Cynthia Gibson, Andrew Glazebrook, and local woodturners. For more information visit hubcityturners.ca.

New Zealand
October 2–5, Woodturning New Zealand International Symposium, Wesley College, Paerata (just south of Auckland). Demonstrators include Cindy Drozda, David Nittmann, Cynthia Gibson, Michael Gibson, Joey Richardson, Ken Wraight, Robbie Graham, Theo Haralampou, Shane Hewitt, Phil Irons, Richard Raffan, Vaughn Richmond, Neville and Emma Walker, and Bruce Wood. For more information, visit sawg.org.nz.

Norway
August 11–14, Woodturning Cruise. Sail along the coast of Norway while taking in woodturning demonstrations by Richard Raffan, Jimmy Clewes, Michael Hosaluk, Nick Agar, Terry Martin, Asmund Vignes, and more. Held every three years. For information, visit woodturningcruise.com.

Arizona
June 13–15, AAW International Symposium, Phoenix. Invited demonstrators are Alan Carter, Jimmy Clewes, J. Paul Fennell, Douglas Fisher, Clay Foster, Todd Hoyer, Rudolph Lopez, Michael Mocho, Christophe Nancey, Joshua Salesin, Neil Scobie, and Michael Werner. Selected demonstrators are featured in the April journal. For more information, visit woodturner.org.

June 12, National AAW Chapter of Segmented Woodturners annual meeting and discussion, Special Interest Night (SIN) at the AAW International Symposium, Phoenix. For more information, visit segmentedwoodturners.org.

California
September 12–October 19, 26th Annual "Artistry in Wood," juried exhibit, open to woodworkers and woodturners. For details, visit sonomawoodworkers.com.

September 14 through March 15, 2015, "In the Realm of Nature: Bob Stocksdale & Kay Sekimachi," exhibit at Mingei International Museum, San Diego.

Colorado
September 12–14, Rocky Mountain Woodturning Symposium, held at The Ranch, Larimer County Fairgrounds. For the latest information, visit rmwoodturningsymposium.com.

Georgia
September 19–21, Turning Southern Style XX, Georgia Association of Woodturners, Northwest Georgia Trade and Convention Center, Dalton. Demonstrators include Ray Key, Michael Hosaluk, Todd Hoyer, Nick Cook, James McClure, Frank Bowers, Vince Welch, John Jordan, Lyle Jamieson, Doug Thompson, and Tom Steyer. Vendors, Instant Gallery, banquet, auction, and spouse lounge. Information and registration at gawoodturner.org.

Illinois
August 15–17, Turn-On! Chicago 2014 symposium held at The Conference Center at the University of Saint Mary of the Lake in Mundelein. This event includes featured demonstrators Trent Bosch, Binh Pho, Nick Cook, Andi Wolfe, Dick Sing, Alan Carter, Lyle Jamieson, Barry Gross, Steve Sinner, and Jason Swanson. Also included are hands-on events, tradeshow, onsite meals, banquet, and auction. For full event information, visit turnonchicago.com.

Minnesota
Ongoing exhibit: "Touch This!" featuring fascinating facts about wood and woodturning, as well as pieces you can touch. For more information, visit galleryofwoodart.org.

Montana
August 23, 24, Yellowstone Woodturners Symposium, Billings. Featured demonstrator is Kip Christensen. For more information, visit yellowstoneturners.org.

North Dakota
April 25, 26, 27, Dakota Woodturners' Spring Symposium, Bismarck. Three demonstrators will provide hands-on instruction for all levels of woodturners. For more information, email Alan Erickson at awerickson@bis.midco.net.

Ohio
October 3, 4, Ornamental Turners International biennial symposium, Hyatt Hotel in Columbus. There will be practical, theoretical, and historical lectures as well as live demonstrations on ornamental turning. For more information, visit ornamentalturners.org.

Oregon
March 6–8, 2015, Oregon Woodturning Symposium, Linn County Expo Center, Albany. Demonstrators include Mike Mahoney, Trent Bosch, Jimmy Clewes, Kirk DeHeer, David Schweitzer, Dale Larson, David Nittmann, Molly Winton, Eric Lofstrom, Nick Stagg, and Sara Robinson. For more information, email gerrost@yahoo.com or visit oregonwoodturningsymposium.com.

Pennsylvania
Through May 22, Mark Sfirri, "Many Things Considered: Works on Paper & Works in Wood," The Henry Gallery, Penn State Great Valley, Malvern. For more information, visit sgps.psu.edu/sfirri/.

South Dakota
June 21, The Siouxland Woodturners will celebrate their 10th anniversary with a one-day symposium featuring Alan Lacer, held at the Community Life Center in Sioux Falls. For more information, visit siouxlandwoodturners.org.

Texas
July 11–September 7, "Conversations With Wood: Selections From the Collection of David and Ruth Waterbury," Art Museum of South Texas, Corpus Christi. For more information, visit artmuseumofsouthtexas.org.

August 22, 23, and 24, SouthWest Association of Turners (SWAT) Woodturning Symposium, Waco Convention Center. Featured demonstrators are Alan Carter, Avelino Samuel, Allen Hockenbery, Keith Gotschall, Mark Gardner, and Rudy Lopez, along with 14 regional turners from the 28 chapters comprising SWAT. There will be an Instant Gallery, banquet, raffle, vendors, special interest groups, hands-on turning, tools-sharpening area, and activities for partners. SWAT supports Beads of Courage program and encourages attendees to donate boxes. For more information, visit swaturners.org.

October 16–19, Fourth Biennial Segmented Woodturning Symposium, Drury Hotel, San Antonio. For more information and registration, visit segmentedwoodturners.org.

Utah
May 15–17, 35th Annual Utah Woodturning Symposium, Utah Valley University campus, Events Center, Orem. This year's theme will be "A Tribute to Dale Nish." Demonstrators include: Kip Christensen, Hans Weissflog, Jakob Weissflog, Art Majerus, Ray Key, Mike Mahoney, Steve Gray, Stuart Mortimer, Bonnie Klein, Kirk DeHeer, Bill Ooms, Nelson Cassinger, Al Stirt, David Ellsworth, Kurt Hertzog, Jerry Kermode, Glenn Lucas, Don Russell, Tom Sorenson, Keith Tompkins, Richard Raffan, Rex Burningham, Joe Wagner, and more. Additional information is available at utahwoodturning.com.

Virginia
April 26, Richmond Woodturners Annual Turning Competition and Exhibit, Woodcraft Store, Richmond. For more information, visit richmondwoodturners.org.

May 2 and 3, 2nd Annual Mid-Atlantic Penturners Gathering, Woodcraft Store, Richmond. Demonstrations, vendors, contests, and door prizes highlight the event. Visit midatlanticpen.com for a review of the 2013 event and to learn more about the organization.

Washington
July 26, Creativity in Woodturning, seventh annual symposium, Lacey, sponsored by the Woodturners of Olympia. Featured demonstrator is Richard Raffan; local demonstrator is Nick Stagg. For more information and to register for hands-on classes, visit woodturnersofolympia.org.

Tips

Replicate bevel angles

I have been using the Oneway Wolverine sharpening system and the Vari-Grind jig for sharpening bowl and spindle gouges. I needed a way to replicate the grinds on the various gouges without having to go through the time-consuming trial-and-error process. Here is what I came up with:

Using a tape label-maker, I printed a 0-5 scale with one-fourth increments (it doesn't have to be inches; any scale will work) and stuck it on the V-arm shaft. Using a triangle file, I filed grooves into the Vari-Grind jig for each of my favorite angle settings. I filled the grooves with different-color paint (I used oil-based paint pens) so the grooves can easily be seen.

I screwed a block onto the grinder bench 2" (5cm) from the edge for setting the gouge extension from the jig. I use 2" for everything (it works for me). I labeled each gouge with its own setting combination, for instance, orange is 3.0.

The setup for a grind or touchup is simple. With the gouge in the jig, set the gouge extension to 2" and tighten the knob. Then, pull the V-arm shaft out to the appropriate setting (3.0 in this example) and lock it down. Then, set the jig to the appropriately colored groove (orange) and tighten the screw. Voilà, ready to grind!

When using the same gouge for a large turning, I leave everything set so that when a touchup is needed, I simply put the gouge into the jig, set the 2" extension, and sharpen.

—Reuben Hufham, North Carolina

Solution for lost setscrews

Over the past month I lost two setscrews from my Stronghold chuck adapter. These setscrews prevent the chuck from backing off the headstock when the lathe is running in reverse. I use setscrews when needed, but when turning a bottle stopper or pen, I don't tighten them. I usually notice a missing setscrew long after the shavings have been swept up.

To prevent setscrews from backing themselves out, I wrap the setscrew threads with plumbers Teflon tape. This white tape provides enough friction and dampens vibrations to keep setscrews from falling out when not tightened.

—Tom Coghill, Alaska

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.

—Betty Scarpino, Editor

Visual advantage

In order to better visualize a turned object in the orientation it will have when finished, I mounted a security camera on its side and connected it to my shop television. A video connection on the TV or monitor is required, and probably any type of camera could be used.

The camera is attached to a clip that is secured to my overhead shelf and aimed at the turning. The position can be adjusted to have the headstock at the top of the picture as well.

The mounted (finished) vessel is projected to the TV in an upright position. The camera can be zoomed in and focused so I can look at any type of turning in the orientation that helps me shape the piece. The correct orientation allows me to get a better sense of form and adjust my cuts accordingly. I can now determine where a few finesse cuts, on the shoulder and body, would give this vessel a more elegant appearance.
—Bob Patros, Wisconsin

Mixing containers

Often, I have to mix paints, epoxy, and dyes, and I cannot find a suitable lid or jar to do the job. Well, no more. The caps on spray cans are ideal for mixing and in a few minutes, a rotary tool, such as a Dremel, can remove the center ring and have the container ready.

I use a flat cutter on the Dremel to remove the inner ring, and then a knife or straight-slot screwdriver to remove the torn plastic fuzz so it does not contaminate what I am mixing. Make sure, however, you do not cut through the lid and leak the contents onto your new shirt like I did. If you do cut through the lid, mix up some five-minute epoxy and repair the hole—you have the perfect container. If the rim is too tall, cut it down to suit your needs.
—Walt Nollan, California

Clean bandsaw blades

I was using my bandsaw to mill green cherry wood, using an appropriate blade. Pretty quickly, I noticed that my cut speed and quality were deteriorating. I stopped the saw and realized that a large amount of pitch had accumulated on the blade.

I tried a few different methods to remove the pitch: holding a block of wood to the side of the moving blade, using my sanding-disc cleaner, and applying sandpaper, but nothing worked. Not wanting to throw away a relatively new blade, I searched the Internet, where the only solutions I found involved removing the blade from the saw and soaking it in various solvents. I did not have any of those solvents handy, nor did I want to accumulate toxic chemicals in a space often shared with my young daughter and dog, so I nearly gave up and changed blades.

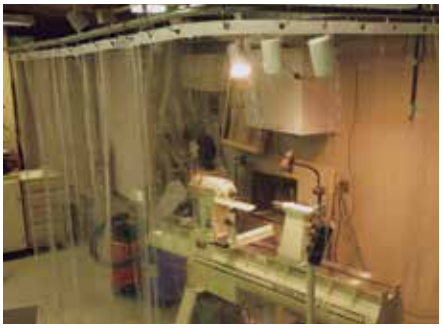
Then, I had one more idea. I took an old, flat-front turning scraper, held it at an angle against the stopped blade, and slowly advanced the blade by hand. Most of the pitch came off. By varying the angle slightly, I was able to get most of the pitch off the blade. Once I made a full revolution of the blade, I switched to the other side.

Finished, I turned the saw back on to see if I had fixed or wrecked the blade. It worked perfectly. I now keep that scraper near the saw and clean the blade frequently when working with green wood, greatly extending the life of my blades.
—John Voloudakis, Massachusetts

Editor's note: A bench chisel also works well. And, to clean the gummy sawdust off the "rubber" on the wheels of a bandsaw, scrape with a bench chisel, rotating the wheel by hand. ▸

Chip curtain

Remember what fun it was the first time using your lathe, when the chips flew across the shop? The fun ended when you had to clean up the chips, on tables, mixed in with tools, and strewn across the floor. Or, maybe you didn't clean them up right away and the wet chips rusted the cast iron surfaces on your other woodworking tools. Shower curtains, strategically placed around the lathe, eliminate the problem.



For my shop, I determined that two regular shower curtains would be needed, in an L configuration in front of and across the end of the lathe. I placed the curtain rod about 3½' (1m) in front of the lathe to ensure I had enough room to work. For the rod, I used ¾" (20mm) electrical conduit that I joined together with a conduit coupler. I placed the rod at about 7' (2.1m) high.

To bend the conduit properly, you may have to borrow a conduit bender from an electrician. Before hanging the curtain, wind electrical tape over the coupler joint, so the curtain hooks will not catch as you move the curtain. Make the rod long enough so the curtain can be pushed out of the way when not in use. Also, buy clear curtains so that lighting is not diminished.

With the curtain in place, the chips stay near the lathe. They still have to be cleaned up, but the job is simpler and quicker—I haven't figured out how to eliminate that step.

Word of advice: Do not steal the curtain from your shower. You will be in big trouble!

—Buren Gilpin, New Jersey

Paint lathe guard flat black

Painting the lathe guard on a Powermatic flat black reduces bothersome light reflections off the guard. Your eyes will see beyond the guard because of the eye's cone of vision and brain dynamics. After just a short period of time, your eyes will cancel out the black and focus on your turning and tools.

—Larry Sefton, Tennessee

Stuck on a screw chuck

After rough turning a 5" (13cm) bowl that I had mounted onto a screw chuck, I could not unscrew the bowl from the screw, no matter how hard I tried, even using the lever. I needed leverage on the workpiece, but did not want to mar the tenon or the rim of the bowl using wrenches.

As I contemplated the situation, the solution came to me: Attach a chuck to the tenon I had just turned! With the bowl still mounted on the lathe, I attached a four-jaw chuck to the tenon. Now I could use the chuck base and a wrench to apply leverage to break the friction. Took about two seconds.

My chuck has wrench flats, but a chuck key should provide sufficient leverage.

—Jon Murphy, New Jersey

Sanding small discs

Recently, I made some pendants and earrings. After parting off the small discs from their mounting sticks, I wanted to clean off glue from the backside. Holding the small pieces with my fingers was not feasible. I came up with the idea of using a fat dowel with a slightly concave end covered with double-stick tape, which would hold the small discs. A Jacobs chuck in the headstock held the arbor of my sanding disc.

—Jim Meizelis, Illinois

Remove pitch

I was turning monkey-puzzle wood (Chilean pine) recently and got pitch all over my hands and forearms. Removal is pretty easy with the help of peanut butter. Rub the area with peanut butter—smooth works better than chunky—and wash with warm soapy water. Previously I would have used acetone or lacquer thinner, but this works well, smells better, and is nontoxic for those of us without a peanut allergy. I learned this trick from my grandson, Owen.

—Vern Tator, Washington

The Old Country Guild of Woodturners, Schenectady, New York

What do a replica of a Dutch sailing ship and wheelchairs have in common? Both have received the concentrated efforts of this fledgling woodturning club to help with fundraising. The Old Country Guild Of Woodturners (OCGW) was formed in 2007 at an informal dinner of likeminded woodturners and scrollsaw woodworkers who wanted to learn woodturning. We elected Jack Teffenhart as president. The OCGW now has between 10 and 15 members who attend monthly meetings.

Two of the founding members, Don Orr and Dave Nilson, were involved in building a replica of a 17th century Dutch sailing vessel, the *Onrust*, (theonrust.com), so it seemed natural to aid their effort by making turned pens to help spur donors for the shipbuilding. Later, Schenectady County Historian Don Rittner visited a club meeting to give us background information about the original ship and the replica project.

At another meeting, club member George Guadiane introduced us to Charlie Croteau, a woodworker who uses a wheelchair. Charlie presented information about the Free Wheelchair Mission (freewheelchairmission.org), an international foundation that raises funds to build inexpensive, durable wheelchairs from bicycle wheels, tires, and plastic-resin chairs. These wheelchairs bring mobility to those who cannot afford a conventional wheelchair. To raise funds for the purchase of raw materials, the foundation auctions off handmade craft items. Club members sprang into action to produce turned bottle stoppers. Many club members, including George Guadiane, also made other items. George acted as intermediary to make sure our projects reached the foundation's auction venue.

Members have since turned other items to support fundraising efforts close to their hearts. All someone has to do is let the group know about the need and the support is there. We are a small but determined group of woodturners, trying to make a difference one turned project at a time. ■

—Mike Kross

Bottle stoppers turned by club members for the Mission fundraiser.

Replica of New York's first ship of 1614, the *Onrust*.

Each club member received a Free Wheelchair Mission T-shirt.

Turned pens made from scrap-wood leftovers from the ship's construction.

OCGW members. Back row from left: Lou Carusone, Dave Nilson, George Guadiane, and Bill Cherry; seated from left: Lou DeMola, Brandon Feder, Mike Kross, and Patrick Cummings; kneeling from left: Chris Stolicky and Don Orr

Lathe SAFETY SHIELD

Wes Jones

The Georgia Association of Woodturners' 19th Annual Turning Southern Style Symposium had one noticeable addition—lathe safety shields. With the heightened focus on safety, our board of directors voted to build shields to help prevent missiles from flying into the crowd. I built a prototype and constructed four more shields for the symposium. The cost per shield was about $300; if I had not made some of the simpler parts, the cost would have been $100 more.

Design criteria

We borrow the lathes from club members, so I did not want to modify their lathes; however, I did want the shields to clamp to the lathe to provide stability and rigidity while not interfering with movement of the headstock, tailstock, or banjo. Our goal was to provide reasonable safety to stop any piece that might fly loose in a typical demonstration.

I wanted to design the shields with structural material that was readily available, versatile, easy to assemble, strong, and attractive. I selected model #1010 extruded aluminum struts from 80/20, Inc. The struts are 1" square in cross-section and have continuous ¼" wide T-slots on all four sides. The T-slots are perfect for holding a sheet of clear polycarbonate plastic.

Construction

The aluminum struts form a rectangle that holds the polycarbonate sheet *(Figure 1)*. Two additional struts serve as stabilizing legs and support the weight. The legs are adjusted for height with knobs and T-studs sliding in the T-slots. Two support arms attach the assembly to the lathe. These arms slide under the lathe and clamp to the back side of the lathe bed with bolts threaded into small angle brackets.

The brackets are made from 1½" × 1½" × ¼" aluminum angle, cut into 1" pieces *(Figure 2)*. To save on costs, make the brackets yourself. They are bolted to the arms and have a threaded hole for a 5/16" bolt that clamps the shield assembly to the lathe *(Photo 1)*. An external-tooth star washer between the angle brackets and the arms keeps the brackets from inadvertently sliding out of place *(Figure 3)*.

Cindy Drozda demonstrated at a Georgia symposium behind a sturdy shield.

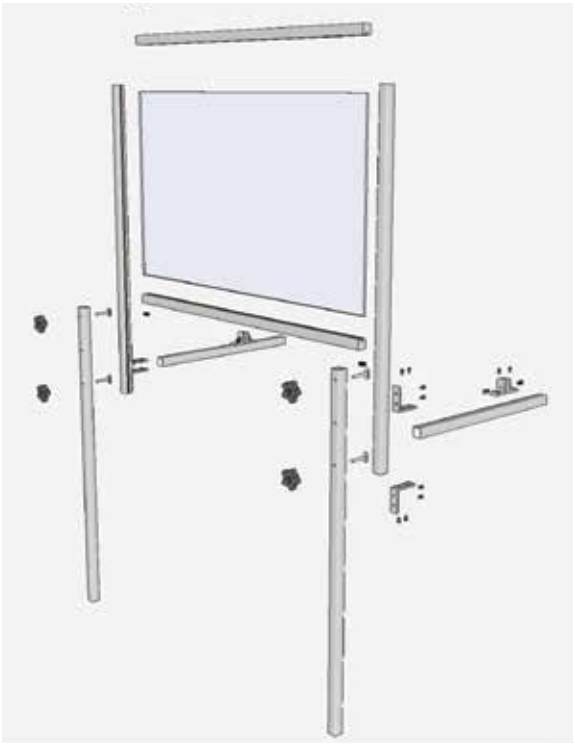


Figure 1. The shield consists of eight lengths of aluminum extrusion, a sheet of polycarbonate, and a collection of connectors and mounting hardware.

T-studs and knobs allow the legs to attach to the vertical sides of the rectangle and slide up and down *(Photo 2)*. I made the T-studs from 1/4-20 × 1¾" studs and 1/4-20 T-nuts threaded together and locked with thin cyanoacrylate (CA) adhesive. Knobs are widely available.

Tools and assembly

Only two tools are needed: A ½" hex closed-end wrench to tighten the bolts against the lathe and a 5/32" ball-end T-handle Allen wrench (available from Home Depot) for screws in the slots of the aluminum struts. One person can assemble the shields, but it is easier with two. A flat worktable makes the assembly easier.

Assembly

Attach arms to lathe first

Lay the arms on the table. Thread the bolts into the angle brackets so the end of the bolt is flush with the surface of the angle bracket. Slide the angle brackets into position on the arms and attach them with the 1/4 -20 × ½ screws, star washers, and T-nuts, but don't tighten them yet. Position the angle brackets so the arm is flush with the front of the lathe bed with the angle brackets inside and outside the back wall of the lathe.

For the Powermatic 3520-type lathe, the angle bracket outside the lathe bed will be 10" from the end of the arm, which is flush with the front of the lathe. The space between each pair of angle brackets is just wide enough to slide the angle brackets up onto the lathe bed wall. The arms need to be spaced 37" apart, outside to outside. Tighten the angle brackets securely to the arms. Then tighten the bolts against the lathe.

Use the #3356 hardware package to attach the #4101 corner brackets to the top and bottom surfaces of the support arms; position corner brackets flush with the ends of the ▸

Parts List

Qty.	Part	Comments
2	80/20 #1010 extrusion	35" length. Ordered with #7042 counterbore in both ends of one slot
2	80/20 #1010 extrusion	36" length
2	80/20 #1010 extrusion	36" length. Drill three ¼" holes spaced 1", 5", and 9" from one end through the extrusion.
2	80/20 #1010 extrusion	20" length
4	80/20 #3321 1/4-20 × ½" FBHSCS and T-nut hardware set	
4	80/20 #3395 anchor fastener assembly	
4	80/20 #4101 4-hole inside corner bracket	
8	80/20 #3356 double 1/4-20 × ½" FBHSCS and T-nut hardware set	
4	80/20 #3382 economy T-nut	
1	¼" thick clear polycarbonate	20½" × 35½"
4	Angle bracket	1½" × 1½" × ¼" thick × 1" wide with ¼" hole and 5/16-18 threaded hole
4	5/16-18 × ½" hex bolts	
4	5/16" external-tooth star washer	
4	1/4-20 × 1¾" threaded stud	McMaster Carr #98750A017
4	1/4-20 star knob (female)	Peachtree Woodworking #977
4	Endcaps (optional)	Caplugs #VSC-1000-8

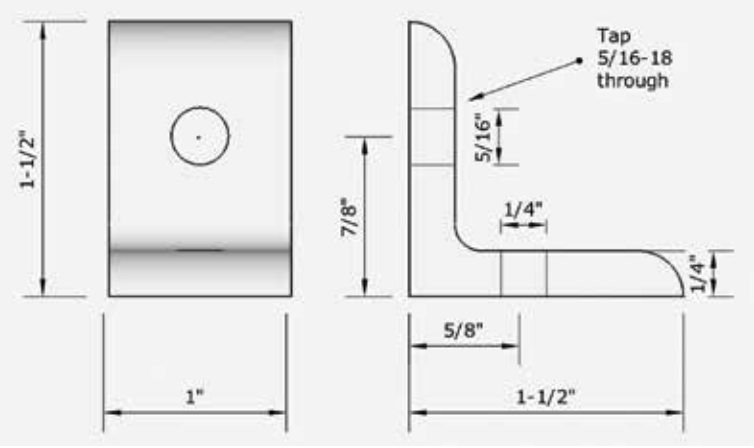


Figure 2. Dimensions for the aluminum angle brackets that clamp the shield to the lathe bed

Arms on the frame have angle brackets that hold the shield in place against the lathe bed.

Vertical support legs can be adjusted for height.

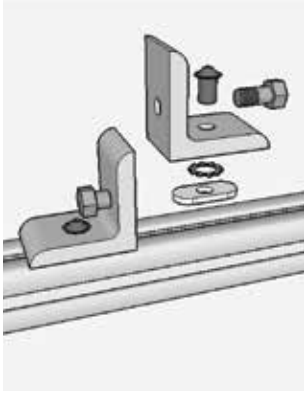


Figure 3. The oval T-nut rides in the channel of the aluminum arm. A star washer keeps the bracket from shifting.

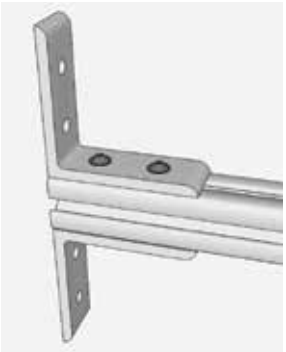


Figure 4. Be sure the angle brackets holding the support arms are flush with the ends of the arms.

arms *(Figure 4)*. Tighten the brackets securely. Also assemble the #3356 hardware on the vertical legs of the corner brackets, but leave the hardware loose so you can slide the T-nuts into their T-slots in the next step.

Assemble polycarbonate in frame

Lay the two 36" struts without holes and the two 35" struts on the table. Fasten one end of a 36" strut to one end of a 35" strut using a #3395 anchor assembly. Be sure the counterbored hole in the 35" strut faces the outside. Slide the longer end of the T-nut into the T-slot of the 36" strut and put the round section of the fastener into the counterbored hole *(Photo 3)*. Make sure the struts meet flush at the corner. Use the ball-end Allen wrench to tighten the fastener securely. Fasten the other 36" strut to the end of the 35" strut in the same manner.

Special anchors join the four pieces of the frame. Order the horizontal pieces counterbored for the round part of the anchor.

Jerry Kermode draped paper towels across the shield to protect it from splashes of finish.

Use polycarbonate for the shield—not Plexiglas acrylic or other plastic. Slide the sheet into the T-slots. Capture the polycarbonate with the other 35" strut, making sure the counterbored holes are opposite the polycarbonate. Secure with the remaining anchor assemblies. Check that corners are flush, the sheet is secure, the anchors are seated in their counterbored holes, and all the hardware is tightened securely.

Attach framed polycarbonate to arms

Stand the framed polycarbonate upright and prepare to attach it to the end of the arms. (This is where you really need two people.) Make sure the T-nuts on the corner brackets are loose so they can slide into the T-slots. Slowly slide the vertical struts into position. Be sure the struts are flush with the lower edge of the corner brackets. Tighten one of the screws on each side to hold it in place. Step back and make sure the position is right. The shield should be level and at a height the banjo can slide underneath. If everything looks good, securely tighten all screws in the corner brackets.

Attach legs

Lay the two legs onto the table and attach the knobs with the 1/4-20 T-studs. I drilled ¼" holes through the leg struts at 1", 5", and 9" from one end. The extra hole allows you to adjust the shield height for tall lathes or lathes on raised bases. For most applications, install the T-studs and knobs in the 1" and 9" locations.

Thread the knobs onto the T-studs just enough to get them started. Holding the legs vertically with the knob end up, slide the longer end of the T-studs down into the T-slots on the vertical struts. With the legs resting on the floor, lift up slightly on the shield and tighten the knobs. This will ensure that the legs, while on the floor, support the weight of the shield.

Additional details

The polycarbonate is only 0.224" thick, which allows vibration from the lathe to rattle the sheet. To prevent that, put short lengths of soft, closed-cell foam in the bottom and top T-slots. When you reinstall the top strut, push it down tightly to compress the foam. If you do not plan to disassemble the shield, you could run a bead of clear caulk into the slots during assembly.

A cap on the end of the aluminum struts is a nice addition. A 1" square vinyl cap from Caplugs works nicely, but the company only sells them by the carton.

This design is versatile and flexible and can be adapted to many lathes. The angle brackets can be slid along the T-slots to fit your needs and the legs can be easily adjusted. The angle brackets can also be mounted on the sides of the arms, instead of on the top surfaces to fit a different type of lathe.

The polycarbonate can be easily replaced. To make it last longer, when applying finishes or CA, lay several sheets of paper towel over the shield to catch any spray *(Photo 4)*.

The first day of our symposium, the shields got a real-world test when one of the demonstrators blew up a piece of mesquite. Half the piece hit the shield and bounced onto the floor; the other half hit the shield and landed behind the lathe. The shield successfully protected the crowd and no one was injured. Consider building a safety shield for your club to keep woodturning safe and fun for everyone. Send me an email with questions or suggestions at wwjones@comcast.net. ■

Drawings by David Heim.

Wes Jones is a lifelong woodturner and is known for large hollow forms. He is a past president of the Georgia Association of Woodturners and the Chattahoochee Woodturners, and a past vice president of the Peach State Woodturners. Wes demonstrates and teaches woodturning.

HAT AND WIG STANDS

John Kelsey

Hat and wig stands ranging from 7" to 14" tall, with 6" bases and 5" tops.

Rummaging through the library at the Center for Art in Wood in Philadelphia, I stumbled across several 100-year-old woodturning textbooks. They were filled with turning exercises and projects. Wanting to improve my skills with a gouge and skew chisel, I tried some of the traditional spindle exercises *(Photo 1)*.

Not wanting to blow through expensive hardwood, and to follow the advice of those old shop teachers, I worked in softwood *(Photo 2)*. After a few evenings wrestling the low-density stuff, I wondered what to do with all the practice pieces I had generated. I had no need for more candle stands, but what about stands for hats? I turned a pair of discs to assemble a test piece and my wife pointed out the stands would also work for wigs. Additionally, making the smoothly curved discs for the stand, base, and top would add faceplate-turning skills to the exercises *(Photo 2)*.

Hat stand design

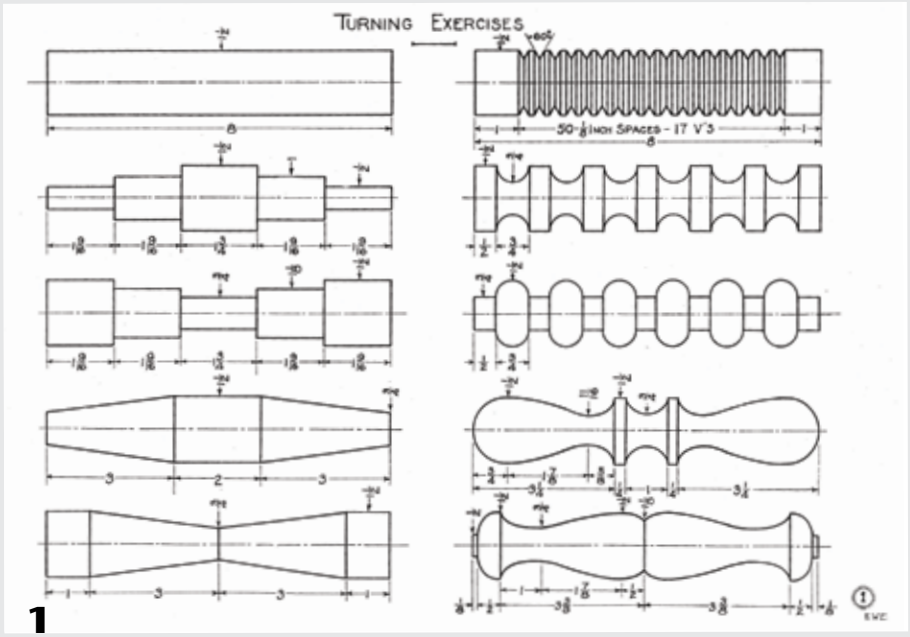
I made test pieces to refine the design. It turns out stability doesn't require thick wood or a large base—a full inch × 6" (25mm × 152mm) base with a full inch × 5" (25mm × 127mm) top is fine, even under a cowboy hat. A thicket of hats can overlap at different heights to use less space. Floppy hat brims on stands shorter than about 7" (18cm) will drag, and stands taller than about 14" (36cm) need a larger base.

I turned the discs smooth and free of ornamentation to avoid creating dust crevices. Tops with the underside left rough will catch wig hairs, although a rough underside poses no problems for hats.

Turning lessons

The old spindle-turning exercises were challenging and they highlighted a number of skills:

- *Turning to dimension and turning tenons to fit a drilled hole.* I found ▸



1

2

Pine is inexpensive softwood well suited for turning practice and design experiments.

Traditional introductory exercises from Earl Ensinger's 1926 book *Problems in Artistic Woodturning*. Ensinger writes, "No sanding should ever be done on any exercise. The student has not properly learned the process, who cannot turn soft wood smooth with the tools alone."

it best to establish a slightly oversized tenon using a vernier caliper *(Photo 3)*, define the tenon length by reducing the surrounding wood to match the established diameter, and use light shearing cuts with a skew chisel to establish the final tenon diameter *(Photo 4)*.

- *Sanding tenons to fit usually removes too much wood and knocks the tenon out-of-round.* However, loose tenons can be wedged. Saw a kerf into the bottom of the tenon and tap in a wooden wedge *(Photo 5)*.
- *Turning clean beads and coves that match.* I found it best to first establish the transitions and fillet diameters using a skew chisel, parting tool, and vernier caliper, and then turn the features between these points. While I could form all of the shapes with a spindle gouge, the ½" (13mm) skew chisel produced the cleanest finish.
- *Building skill with turning tools.* In softwood, it is possible to sand any surface into a flowing shape, but with sharp tools it is also possible to cut a smooth, crisp surface. Scraping tools used on the face-turned discs can produce a surface that needs minimal sanding *(Photo 6)*.
- *Turning harmonious shapes and proportions.* How large is the bead compared to the adjacent cove? The old books suggested small, whole-number relationships (for example 2:1) to create successful designs. Thus, a bead would be twice the width of the cove. How do the beads, coves

3

Part the tenon shoulders down to a slightly oversized diameter.

4

Trim the tenon with a skew chisel. Practice and patience combine for a perfect fit.

5

If the tenon is loose, add a narrow saw kerf and tap in a slender wooden wedge.

6

A freshly sharpened scraper produces paper-thin shavings and a smooth surface on the face-turned discs.

and fillets connect? They suggested the spindle would look best if each transition formed a 90-degree angle, which I found to be a useful guideline but not an unwavering truth *(Photo 7)*.

Mounting the work

Mount the blank between centers and true the blank using a spindle-roughing gouge. Establish the tenon *(Photos 3, 4)* and work from the tailstock toward the headstock to minimize vibration *(Photo 8)*. Adding ¼" (6mm) to the tenon's length permits parting off the piece and paring the end grain to remove the center marks.

For the discs, the old books recommend gluing the blank onto a waste block with a layer of paper in the joint, and screwing the block to a faceplate. A lot of bother, but they didn't have four-jaw scroll chucks. I turned a jam chuck, using the drilled mortise in the blank as the attachment point. I aimed for a tight friction fit with the disc seated against the shoulder of the jam chuck, and learned a slightly undersized tenon could be salvaged with a wedge tapped into a kerf cut in the tenon *(Photo 9)*.

Joints

The joint that holds the pieces together is a 1"- (25mm-) diameter tenon inserted into a 1" drilled mortise. It helps to have a tight fit, but an undersized tenon can be salvaged with a kerf and thin wedge if the mortise extends through the disc to allow access to the tenon. If you don't want to see the tenon on the top of the stand, drill only part way into the disc and size your tenon accordingly. Snug-fitting components seem like they should hold together without glue. We'll see about that after a few turns of season. ■

John Kelsey is a retired journalist living in Lancaster, Pennsylvania. In summer 2013, he was a resident fellow with the International Turning Exchange, sponsored by The Center for Art in Wood.

Shaker pegs

Make the mounting board from ¾ × 4" (3cm × 10cm) stock. Use your available space and the number of hats you would like to hang to determine the rack's length. The pegs, also made from ¾ pine, protrude 3½" (9cm), are spaced 6" (15cm) apart, and have ¾"- (19mm-) diameter tenons.

For turning practice:

- Mount a peg blank between centers and round it with a roughing gouge. Establish the tenon and shape the peg details with a gouge and skew chisel. Each peg is an opportunity to practice parting off cleanly. If you use a scroll chuck, add about 2" (5cm) to the blank length to provide material for the jaws to grip, and clearance to avoid those spinning jaws. Use the tailstock for support.

A hat rack featuring Shaker-style pegs is a practical turning exercise and another good place to park hats.

- Try to turn identical pegs. Which is more important, matching diameters or matching lengths? You might also make each peg different. Give them all a shoulder where the peg meets the tenon for a positive fit and to conceal any tearout from drilling the mortises.
- Challenge yourself to make the tenons a perfect fit using a vernier caliper and a parting tool.

7 The vase shape at the top has a nice tension and turns its lip at 90 degrees, but the V transition to the ball is too sharp. The top half of the ball is rounder than the bottom half; it would look more spherical if the height matched its diameter. Okay, turn another spindle and keep practicing.

8 Working from the tailstock toward the headstock, shape the spindle elements with a gouge and skew chisel.

9 An undersized tenon on the jam chuck can be tightened with a wedge driven into a saw kerf.

Bill Ooms,
Ceremonial Goblet, 2013, Bloodwood, African blackwood, sterling silver, 7½" × 3" dia (19cm × 8cm dia)

EVOLUTION OF A GOBLET DESIGN

Bill Ooms

The quest for the perfect goblet became a lesson in how to critique my own work. Often, I have not been pleased with transitions between the various parts of the goblets I have turned, so I designed a pleasing bulb, and then made multiple stems and bases to explore combinations. At each stage, I took photos and discussed the results with my brother and my wife. I soon realized there are no specific rules and others will make different choices. Experiment, make numerous goblets, and develop your own style.

Learn from others

My brother and I spent more than an hour looking at and discussing the merits of wood-turned goblets pictured on the Internet. We both agreed that Don Leyden's goblet with its two small beads at the top of the stem was well designed. We noted details such as the curve of the bead as it joined the stem, mirroring the curve at the bottom of the bulb to create a pleasing flow from the bulb into the top portion of the stem.

The bulb

I started with an image of a glass goblet and tweaked it using Photoshop. Satisfied with the design, I printed a full-scale copy of the final version and used it as a template to turn the bulb of the goblet.

I selected a piece of bloodwood and headed to the lathe to turn the bulb's exterior shape. I added a band of silver around the rim. The band is W-shaped, like an accordion bellows, and is half-annealed to be springy, allowing expansion and contraction with the wood. The band is held in place by a retaining ring of wood of matching grain.

I hollowed the interior, re-mounted the piece onto a jam chuck, turned the exterior to its final shape, and cut a pattern using an ornamental lathe. I was happy with the bulb, so I proceeded to the design considerations for the stem and base. To allow trial assembly with various stems, the bottom of the bulb has a ⅜" tenon that will mate with a hole in the top of the stems.

Stem: Decorated or plain?

I am an ornamental turner, so there is always a temptation to decorate every part of a piece. That can, however, make the piece look too busy. I started with maple and cut a number of blanks, rough turned them, and drilled a hole in the top to match the bulb's tenon.

I tried three different stem designs: straight fluted, spiral fluted, and plain turned *(Photo 1)*. The straight flutes did not seem to fit with the pattern on the bulb and the spiral flutes did not blend well with the bulb's facets. For this bulb, an unadorned stem worked best.

For the first two fluted stems, I turned their profiles separate from

the bulb and applied the ornamentation. When paired with the bulb, I realized the flow did not work well with the shape of the bulb. It would be best to design the stem while it was attached to the bulb. Rather than risk ruining the bloodwood bulb, I turned another bulb of the same shape out of scrap wood, and turned the third stem while it was attached to the bulb. It was much easier to achieve a pleasing transition *(Photo 2)*.

Bulb-to-stem transition

I tried a number of different options for the top of the stem *(Photo 3)*. The first has a 1"-diameter top. I did not like the bulk at the top; it was crowding too close to the ornamentation. The second stem was 0.9" at the top, which allowed room between the ornamentation and the beginning of the stem.

The third stem had the same shape as the second, plus the addition of ring features. I thought the features were too subtle, so I made them more pronounced on the fourth stem. Taking it one step further, the fifth stem had a 0.8" top and even more pronounced ring features. This last one also had a delicate appearance I was aiming for.

Note that on the fourth and fifth stems, the bottom edges of the ring features follow the shape of the bottom of the bulb. Relatively minor details like this help achieve an attractive design.

Dark or light?

It was easy to blacken one stem using a marker *(Photo 4)*. I thought either would be a good choice, but I decided to stay with my original concept of African blackwood. Black is also elegant.

Getting down to the base

Again, I used maple for the three examples *(Photo 5)*. In the photo, the joint between the stem and base is visible, but on the final design the joint will not show. All of the bases have the same diameter, which is approximately the same diameter as the silver on the rim. I liked the size of the base, so I did not experiment with diameter.

The first base (left in photo) has a pleasing curve between the stem and the base. The second is a bit shorter.

Inspiration for the goblet design came from a photo I stretched out using Photoshop.

The third base has the same profile as the second, with the addition of a feature to mirror the features at the top of the stem. Adding the feature, however, made the base too flat.

At this point, looking at the overall goblet, it appeared to be a blend of two different goblets. The plain base did not work well with the ornate ▸

(1) Three options for surface design on the stem: straight flutes, spiral flutes, and plain.

(2) Matching the curvature of the stem to that of the bulb was easier with the bulb and stem attached.

(3) Options for the stem as it meets the bulb

I compared lighter wood versus darker wood for the stem.

Options for the base

I added ornamentation to the base and two touches of silver to the stem.

bulb. To make the parts compatible, I added ornamentation onto the base that echoed the pattern on the bulb *(Photo 6)*.

I wanted a few more touches of silver, but I did not want to include too much sparkly ornamentation to the stem or base and cause a distraction. Two small bright touches would sufficiently complement the silver on the rim. I wrapped a bit of twisted silver wire around the stem at two points. The silver at the top of the stem, however, made it look like I was trying to hide the joint. In the end, I moved the silver down to the next groove.

At this point, it became apparent that having the narrow part of the stem at the lowest point of the stem did not look right, so I had the narrowest point about one-third of the way up on the final stem.

The final design

It was time to make the final stem and base out of blackwood, and I tweaked the design slightly, based on the prototypes. On the stem, I made the groove near the base a bit deeper so the silver would be recessed. That silver ring is at the joint between the stem and the base. In order to get the top silver ring in place, I added a small feature above it, which is a separate piece like a washer.

Usually, we proceed through options that present themselves as our work evolves. Sometimes, however, it can help to see the options side by side in a series of pictures. A similar approach will work for designing finials for boxes and hollow forms and bases for bowls and vases.

Often, we see a final piece of work and think the artist just happened to have it all come together on the first try. This might be the case for a few exceptional people, but not for me. Most of my work is an evolution that includes many prototypes. Once you take the time to explore the possible variations on a design, those options become part of your toolbox to apply to the next piece of work. ■

Bill Ooms learned woodworking from his father. After a career as an engineer, Bill became a full-time woodworker. He works with rose engine and ornamental turning, which combines his woodturning skills with his math and engineering background. billooms.com.

Bill will be a demonstrator at the Phoenix symposium in June. His goblet will be in the POP invitational exhibit, "Ceremony," and will be auctioned off during the POP auction on Saturday, June 14.

Don Leydens, *Buckeye Goblet,* 2012, Buckeye burl, walnut, dye, 13½" × 4½" dia (34cm × 11cm)

Shopmade Truck Crane

An Easy Way to Raise the Grain

Bill Rosener

Truck crane easily lifts a 440 lb (200 kg) log.

The primary receiver hitch is on the left and the new secondary receiver hitch is on the right.

When driving around town or visiting the local green-waste dump, I frequently come across logs too heavy to lift. I looked for a safe, easy way to haul them back to my shop. A commercial truck crane, bolted onto a truck bed, is about $500; however, I did not want to lug an extra 170 lbs (77 kg) everywhere I drove. Also, a bolted-down truck crane would interfere with hauling other items. I decided to make my own crane.

Design goals included a crane that could: (1) be easily removed, (2) provide full access to the truck bed, (3) be easily folded for stowing, (4) allow the truck's ball hitch to be used, even with the crane installed, and (5) require little or no modification to my vehicle. I had the metal and chain hoist on hand, but the cost to buy everything would have been about $50 for metal and $50 for a chain hoist.

When lifting extremely large logs, I use a support stand on the bottom of the crane (not shown in photos) because the maximum tongue load on my truck's bumper is only 500 lbs (225 kg).

Fabrication

To fabricate the secondary receiver hitch, I used a few short pieces of square tubing and utilized pre-existing holes in the truck's bumper and frame to determine its location. This receiver hitch provided strength and stability, allowed the weight of the entire crane to be reduced, and was positioned to the side of the truck so the crane did not interfere with truck-bed access.

For the bottom unit of the crane, I used 2" (5cm) square tubing and round pipe *(Figure 1)*. This unit slides into the secondary receiver hitch and has a square opening at the other end that aligns with the primary ball hitch, which is already on the truck. I removed the primary ball mount, installed the new unit, and reinserted the ball mount into its receiver, sliding it through the square opening. This configuration secures the bottom portion of the crane. With the hitch pin secured with a lock, both the ball mount and the bottom unit of the crane become theft resistant.

The top part of the crane is made from 1" and 2" (2.5cm and 5cm) square tubing *(Figure 2)*. When the crane is assembled, I use a chain hoist to lift logs.

Advantages

I can now load longer and wider logs and delay cutting them until I am home. This allows me to more carefully study grain patterns to decide on bowl orientation before committing to final cuts. With longer logs, I can also cut more wood off the ends to avoid end-grain checking and cracking, an important procedure because many cracks in bowls result from not removing enough initial endgrain from harvested logs. Best of all, I can now turn larger bowls.

I can load a log into my truck in about five minutes. Overall, this shopmade truck crane has allowed me to haul home beautiful logs, while also saving my back. A video of the crane being installed and used can be viewed at billrosener.com/woodturning/truck-crane/. ■

Bill Rosener is a professor at Northeastern State University in Tahlequah, Oklahoma, where he teaches courses in computer information systems. He is a member of the Northeastern Oklahoma Woodturners Association. Visit billrosener.com/woodturning for examples of Bill's work and contact information.

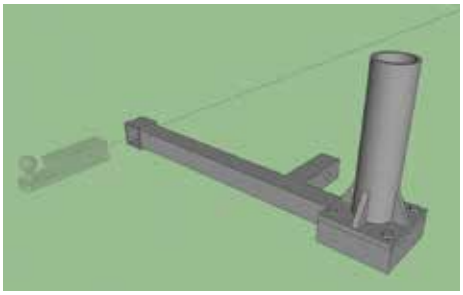


Figure 1. The bottom unit of the truck crane slides into the secondary hitch and is additionally secured by the primary hitch.

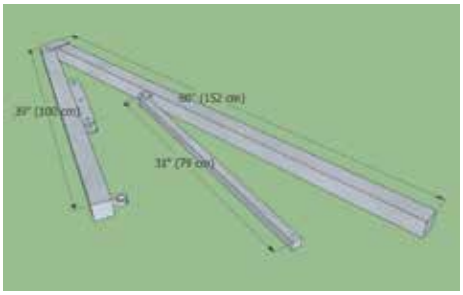


Figure 2. Top unit of truck crane.

The Art of the Dry-Bud Vase

Joshua Friend

A simple and elegant way to bring nature into your home is to display dried flowers in vases. What we generally consider weeds often produce beautiful flowers that can be found growing wild. A dry-bud vase is also known as a weed pot.

At first glance, these vases may look like small-scale hollow turnings, but this project employs a hole drilled from the tailstock into the wood. As the name implies, the dry-bud vase is not intended to hold water, although it is possible to purchase a glass tube to fit into the vase for that purpose.

This straightforward project is ideal for practicing basic skills: rough turning from square to round, forming a tenon, using a four-jaw chuck, drilling with the tailstock, and shaping a design.

Getting started

Just about any species of wood can be used, so long as it is sufficiently dried. Using green (unseasoned) wood for this project is not ideal; the wood might crack as it dries. To choose the size of your blank, imagine how tall you want the vase to be and how wide at its widest point. Cut your blank slightly larger than these dimensions and add about 3" (8cm) to its length so you won't be working uncomfortably close to the chuck when you part the vase off the lathe.

Mount the wood onto the lathe between centers and rough it to round *(Photo 1)*. Form a tenon on the tailstock end, sized to fit your chuck *(Photo 2)*. The shoulder of the tenon should rest on the top of the jaws and its length short enough not to bottom out in the chuck.

Using the tailstock for support, cut across the endgrain at the tailstock end to achieve a clean cut *(Photo 3)*. A small bowl gouge works well because it offers easy bevel support for the cut, but you may prefer a spindle gouge or skew chisel. With the tailstock in place, you will not be able to cut all the way to the center. Cut as far as you can, remove the tailstock, and gently finish cleaning up the endgrain *(Photo 4)*. Working this far away from the chuck without tailstock support is likely to produce vibration, and a catch could pull the piece out of the chuck. It is essential to use a sharp tool and only take light cuts. Using a skew chisel, make a small indentation in the center of the cylinder.

Drilling with the tailstock

It is useful to have a Jacobs chuck that fits into your lathe's tailstock, which will ensure the hole is on center

and parallel with the workpiece. If you purchase a chuck, make sure its Morse taper fits into the quill of your tailstock. See sidebar for instructions on how to safely secure a Jacobs chuck in the quill.

Slide the Jacobs chuck into the quill and chuck a ⅜" (10mm) drill bit. Bring the tailstock up so the drill bit is almost touching the wood and lock the tailstock. The same general rules apply for drilling here as in other drilling situations, except the wood is spinning and the drill bit is not. The larger the bit, the slower the wood should be spinning. Back the drill bit out often to clear the chips, being sure to hold onto the Jacobs chuck if it has not been secured in the quill.

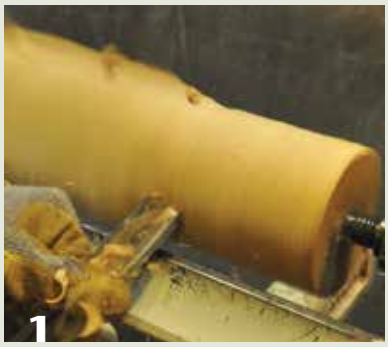
Turn the quill wheel to advance the drill bit into the spinning wood *(Photo 5)*. The depth of your hole will depend on the height of your bud vase, but leave about 1" (25mm) thickness at the bottom so you don't end up with a hole in the vase after parting it off the lathe.

Shaping your bud vase

At the entry point of the hole, cut a gentle slope so the curve flows into the drilled hole. With the Jacobs chuck removed and the tailstock out of the way, use a small bowl gouge to take gentle, light cuts toward and into the hole *(Photo 6)*. You will be cutting against the grain; if the wood does not cut cleanly, switch to a small round-nose scraper and lightly cut from the center toward the rim, with the grain. Use a small piece of rolled-up abrasive to clean up any frayed fibers around the hole *(Photo 7)*.

The overall proportions of your vase are a matter of preference. I favor a narrow neck that flares at the top. Before starting to shape your vase, use the tailstock with a cone center for support.

To remove a lot of wood quickly from a cylinder, make a peeling cut with a skew chisel *(Photo 8)*. It is easier to learn this cut using a small ▶


1 Rough the bud vase into a cylinder.


2 Form a tenon, sized to fit your chuck.


3 Cut across the endgrain to achieve a clean cut.


4 Remove the tailstock support and clean up the remaining area, taking light cuts. Establish a center point using a skew chisel.


5 A Jacobs chuck in the tailstock is an easy and accurate way to drill on the lathe (see sidebar for safety note).


6 Refine the mouth of the vase using a sharp bowl gouge with light cuts.


7 Sand the opening to soften the opening of the hole.


8 A peeling cut is useful for removing material quickly.

Form a bead at the top of the vase. A revolving cone center makes turning and blending the bead into the hole easy.

Add a distinct transition between the bead and the neck of the vase.

Temporarily remove the cone center and finish refining the opening of the vase using light cuts.

A small spindle-roughing gouge works well for shaping long curves. Cut in a downhill direction to go with the grain of the wood.

A spindle or detail gouge is best for getting into tight spaces and clearing away excess wood to give yourself room to work.

Sand the vase. Apply finish next if finishing on the lathe.

Make final cuts on the foot giving it a concave surface. Use a small handsaw to cut the vase off the lathe. Hand-finish the bottom.

skew chisel than a wide one, which requires a heavier cut. The peeling cut is similar to that of a parting tool. With the handle down and just the bevel lightly touching the cylinder, ease the cutting edge into the wood by simultaneously lifting the handle up while pushing the cutting edge toward the center axis. This motion helps to keep the cutting action just under the surface of the wood as the diameter is being reduced. It may help to imagine peeling the skin off an apple with a knife to visualize the dynamics of this cut.

When the flare of the neck is at a pleasing length and diameter, add a bead at the top of the vase. Visualize where the center of the bead will be and start your spindle gouge in that location with the flute wide open (facing you). Lift the handle slowly until the cutting edge engages and the bevel is rubbing. Twist the tool clockwise to begin forming the bead. To form the left side of the bead, make the same cut, but twist the tool counterclockwise *(Photos 9, 10, 11)*. It may be necessary to make repeated cuts to refine the smoothness of the bead.

To make a distinct transition between the bead and the lower part of the vase, add an angular cut leading to the base of the bead *(Photo 12)*. One final step before shaping the neck and lower body of the vase is to refine the top of the bead so it blends smoothly into the slope at the top of the vase. With the tailstock out of the way, make light cuts *(Photo 13)*. Or, you may even want to use abrasives.

Using the cone center for support, begin to shape and refine the neck and body of the vase. A small spindle-roughing gouge offers plenty of control on long gradual curves. Cut from larger to smaller diameter *(Photos 14, 15)*. There is a hole drilled into the neck, so leave enough wall

Safety Note

Jacobs Chuck in the Tailstock Quill

Recently, I was drilling a hole into the end of a cylinder using a Jacobs chuck mounted in the tailstock. Normally, I hold onto the Jacobs chuck when I drill so its Morse taper will not pull out of the tailstock. Morse tapers are not designed to pull, they push.

As I backed the drill bit out of the wood, my failure to hold onto the Jacobs chuck caused the Morse taper to come out of the tailstock quill. The drill bit caught the turning and threw it to the floor, bending and ruining the drill bit in the process. It could have been much worse if I had been using a large Forstner-style drill bit, drilling into endgrain. I might have personally suffered the consequences.

I posted a photo of the bent drill on the WoodCentral online forum and received several good suggestions; the best was Lyle Jamieson's. He drilled the quill on his tailstock and then drilled a matching shallow hole in the Jacobs chuck's Morse taper into which he inserted a pin so the drill chuck does not come loose or spin. It was a great idea that I took one step further.

I drilled a hole into the quill and tapped it with a 1/4x 28 tap. I cleaned up the burr on the inside with 220-grit abrasive wrapped around a pencil. I inserted the Jacobs chuck into the quill and marked the location of the hole. Using a Dremel with a cutoff wheel, I ground a rectangular flat onto the Jacobs chuck's Morse taper and threaded a short setscrew into the hole. (The setscrew needs to be shorter than the wall thickness of the quill.) Now all I have to do is insert the Jacobs chuck and tighten the setscrew and the chuck does not spin or pull out.

—John Lucas

(Left) *Bent drill bit*

(Below) *While drilling holes, a setscrew safely keeps the Morse taper of a Jacobs chuck in the quill of the tailstock.*

thickness for its final diameter—in this case, no smaller than ¾" (20mm). Use calipers to check your progress.

When you begin shaping the bottom of the vase, it may be helpful to remove some material. Take a peeling cut using a parting tool or skew chisel to provide more room to work. Leave extra wood between the bottom of the vase and the chuck to act as a buffer between your tool, your hand, and the chuck. In this tight space, use a small spindle or detail gouge *(Photo 16)*.

Sanding and parting off

Sand the vase *(Photo 17)*. If you are going to apply a finish on the lathe, do so now; however, I typically apply a spray varnish or lacquer after the vase is off the lathe.

Use a parting tool to reduce the waste wood. Slightly undercut the foot to ensure the vase will sit flat on a table, which can be accomplished by lightly angling a parting tool to the right and using its top edge to cut the wood *(Photo 18)*. With the lathe off, use a fine-tooth saw to cut the vase off the lathe. Carve the nub off by hand and sand the bottom smooth. Apply finish to the unfinished area.

All that is left to do now is find some attention-grabbing flowers to display and surprise that special person with your handmade bud vase. ■

Joshua Friend, woodturner and writer, is a member of the Nutmeg Woodturners League in Connecticut. See jfriendwoodworks.com for examples of his work and contact information.

Almost MAKING A LIVING TURNING

Paul Kaplowitz

Paul and Phyllis Kaplowitz, partners, Artistry in Wood

With the collapse of the housing industry, my 40-year career as a residential homebuilder was over. At age 65, I had Social Security and my wife's part-time salary. I needed additional income and something to do.

I started turning in 1993 when my son, Nate, asked me to make a baseball bat. I made many bats and began to turn bowls. I joined the AAW. My wife gave me an anniversary present of a weekend with David Ellsworth.

I now had the skill and knowledge to become a competent turner. Perhaps I could sell bowls and make money while doing what I loved. From having run a business, I knew the questions I needed to answer: What was I going to sell and for how much? Who would be my customers? Where would I sell? It took three years to answer the questions. Here's what I learned.

Acquiring wood

In our area of South Carolina, the best turning woods have been planted as ornamentals in the city and the old neighborhoods of surrounding towns. A city permit is required to remove a hardwood tree 16"-diameter or larger. I gave the city's permit officials a list of tree sizes, mostly 20" or greater, and offered to make each landowner a bowl from their tree.

I received numerous emails with the address, species of tree, and diameter. In most cases, property owners were happy to give me the wood rather than see it go to a landfill. I would show up the day the tree was cut and have the tree cutters help load the wood onto a trailer.

Because Charleston has been a major port for the last 300 years, we have trees from all over the world, especially Asia. I have turned chinaberry, Chinese tallow, camphor, and mimosa. Plentiful are pecan, black cherry, hackberry, bald cypress, hickory, red and silver maple, poplar and American elm. The best seller is Southern magnolia.

Galleries

My first attempt was to try art galleries, but I knew nothing about how they operated. I loaded two cartons with an assortment of work and headed out to investigate. The first two galleries wouldn't even look at my work. They told me to submit pictures online, and they would contact me if they were interested. The third gallery took ten pieces on consignment, the split fifty/fifty. Six months passed with no sales. It was time for plan B.

Farmers' markets

I applied for a vendor spot at the Charleston Farmers' Market, but faced a long waiting list. I tried smaller markets in surrounding towns. My average sales were $200 to $300 with similar results at local craft shows. The best show was a two-day Christmas event that netted $650 in sales. At the end of the year, I'd earned $12,200—a lot of work for not a lot of income. My wife and I were discouraged and we talked about abandoning the idea.

In January, though, we received a notice from the Charleston Farmers' Market that we had been juried into the event. Perhaps this was the break we needed! We would attend the market two Saturdays a month. For our first day, gross sales were $2,140—we realized our price point was too low. We increased prices and had our best day around Thanksgiving with sales of $2,845. Net sales for 2012 were $25,500.

The booth

One of the keys to good sales is layout of the booth. Bowls needed space around them so they can be seen. A card in front of each bowl lists the type of wood and price so customers can immediately determine if a bowl is in their price range. Three shelves, covered with cloth, allow more room on the tables. Smaller items are on the shelves.

Market your work by standing up and offering a greeting when someone comes into the booth or even passes close by. I tell the story behind bowls that catch a buyer's interest—where the tree grew and why was it taken down. I cannot emphasize enough the power of story. I have made many important connections that resulted in increased sales.

When a potential customer offers a lower price or asks for a discount, some vendors react as if the offer is an insult. We are all invested in our art, but the offer is usually someone just trying to get the most for their money. I do not give discounts unless it is a multiple-bowl sale. Ninety percent of our customers are tourists—Charleston is a tourist city. The remaining 10 percent are local; many are repeat customers.

What sold?

- Salad bowls: 8" to 10" ($40 to $50), 12" to 15" ($70 to $125), 18" to 20" ($175 to $ 250), 22" to 24" ($350 to $450)
- Two 30" bowls, walnut-oil finish, $500 each
- One segmented vase, $750—it had more than $125 in wood and took 40 hours to make. I could have made ten bowls that sell for $2,000 with little material cost.
- Eighty-nine $30 ice cream scoops

Five years

David Ellsworth said it takes about five years to understand what you are doing in the craft world. This seems right. My advice is keep trying different venues, and if many people come into your booth but do not buy, reconsider what you are selling and your prices. We ask customers what other products might be of interest—the feedback is helpful. Most of all, don't give up. Keep adjusting venue, product, price-point, and marketing until it works for you.

When my son asked me to make a baseball bat 20 years ago, I thought I was doing something for him. In reality, he did something for me. Thank you, Nate. ■

Paul M. Kaplowitz retired in 2008 after 40 years as a homebuilder. He is now a full-time woodturner. He lives in Mt. Pleasant, South Carolina, with his wife, Phyllis.

Booth at the Charleston Farmers' Market


Lathe and winch with large bowl blank


Pecan bowl


Trailer with a 36"-diameter Southern magnolia

A Beautiful ADVENTURE

Alain Mailland

Pea Pod, 2013, Copper, enamel, iron, wood, paint, 9" × 6" × 3" (23cm × 15cm × 7cm)

When ideas circulate freely around the world, they inform people about what is happening in other countries, which helps generate even more new ideas. Artists carry these new ideas to their homes and places of work. In France, we call it *faire boule de neige* (making a snowball), and as the snowball rolls, it becomes larger and larger. Over the past few decades, this snowball effect has been at play in the world of woodturning with multiple opportunities to satisfy woodturners' desire to work together, exchange knowledge, and share innovative techniques.

Many French artists have participated in numerous collaborative events held in the U.S., Canada, New Zealand, and Australia in the past 15 years. In 2013, we decided to import this idea and invited fellow artists to meet in Aiguines, a small village perched near the entrance to the Gorges du Verdon. AFTAB (the French association for the Turning of Art in Wood) organized "Art and Material," which was sponsored by Ateliers d'Art de France (French Organization of Professional Arts and Crafts), and the AAW through the Turners Without Borders committee.

Why Aiguines? This village was once home to woodturners whose boxwood turnings, most notably their famous *pétanque* balls, could be found everywhere in France and many places beyond (see *AW*, vol 28, no 4). The history of these turners continues through Jean-François Escoulen's School of Turning, which opened in 2012 (*AW*, vol 28, no 4). In addition, a museum of turning is under construction. The past and present come together in Aiguines and we wanted the world to share this experience.

Jean-François invited us to his school, a magical place overlooking Lake Sainte-Croix. In turn, we invited well-known artists to drive the event: Graeme Priddle (New Zealand), Greg Wilbur (American metalsmith), Ulrike Israel (German wood sculptor), Isabelle Emmerique (French lacquer artist), Jean-Pierre Baquere (French glass artist), and many other French and European craft artists.

To prepare for the event, we installed tons of equipment and provided truckloads of materials: wood, metal, forges, hammers, vises, welding gases, and compressors. The lathes were already in the school for shaping wood and for non-turners to experience.

The event begins

Participants selected bits and pieces from the recycling center of salvaged objects: rejects, "workshop disasters," and an astonishing variety of items to nourish creativity. For five days and nights, bathed in a soft but intense energy, we participated in unequaled sharing, pieces appearing on workbenches, only to reappear later, transformed under flame or brush. Tables were brought to life, a curiosity cabinet materialized, and lamps, drawings, and cups emerged fully formed, uniquely stylized.

Surface-embellishment wizards worked their wonders. Smiths hammered and soldered, the plasma cutter never cooling off. Requests, more requests! Can you do this for me? And there...what would you put there? Can this be textured? Perhaps a copper base? What if we added some glass?

Smiles and cooperation abounded, generated by the pure pleasure of finding (or rediscovering) one's self among others, with others, and for others. The group produced 160 pieces in five days, which were photographed, cataloged, and sold during Saturday's memorable auction. The proceeds would balance the budget.

The future of arts and crafts lies in the free exchange of ideas, which drive our creativity. Members of AFTAB know what can be achieved; for 20 years, we have exchanged ideas without limits, shared our workshops, and valued each other's creations. Creativity spawns even more creativity. With "Art and Material," we opened another new window in the compartmentalized world of arts and crafts in France. We wanted everyone to share knowledge and ideas in this collective game of adventure, regardless of distance or personal stature.

Thank you to everyone who participated and supported this event. We hope to repeat this glorious experience. To view more images of our time at Aiguines, visit aftab-asso.com. ■

(Top to bottom, left to right) Isabelle, a painter, and Benoit, an artist who uses a plasma cutter, formed an image of a horse, one of the most successful collaborations of the event.

The Pea Pod project included six turners, an enameller, and a metalsmith. Emmanuelle designed the feet.

Graeme and Bernard discussed how to fit wooden spheres into the pod.

Fifty people pose in front of the Escoulen school, happy to be part of the sharing.

Jean-Yves and Aurelien considered how to assemble handmade paper with turned and carved wood to make a lamp.

Alain Mailland is a wood artist who lives in the south of France. He has long been involved with the French association of woodturners, organizing events and meetings. This event is the first crossing the barriers of crafts.

TRUMPET YELPER TURKEY CALL

Danny Wells

Star of Dan No. 4, 2012, Pink ivory, African blackwood, pre-ban ivory, 9" × 1½" (23cm × 4cm). Inspired by Eli Avisera's work.

Collection of Dave Cirincione

The first drawing of a trumpet yelper design is attributed to its inventor, Tom Turpin, and was published in *Field and Stream* magazine in 1917. For a period of time, Turpin and two other men mass-produced and marketed their calls. Today, almost all trumpet yelpers are individually custom made. Highly decorated trumpet yelpers with excellent note capabilities have risen to the status of collectables.

Game calls are musical instruments, of sorts, designed to mimic the sound of a particular bird or animal. A duck or goose call would be considered a reed instrument. A few duck calls are whistles, made with the same principles as flutes. The trumpet yelper is a wind instrument, or in the call-making world, an air-operated call with a tube and a bell that projects the sound. Unlike the conventional orchestral trumpet that produces sound by air being forced out from between the lips, however, the trumpet yelper produces sound when air is drawn in, between the lips. The "music" produced is intended to mimic the different voices of the hen turkey.

Just as the sound of an orchestral trumpet is produced through a tube that begins with a small diameter and progressively gets larger, the internal diameter of the trumpet yelper tube also begins small and progressively increases in diameter. This progression of lengths of holes with successively increasing diameters is what call makers spend years adjusting and perfecting to achieve the imitation of the different voices of the hen turkey and some gobblers. The goal is to achieve the sound of many voices within one call, using a trumpet yelper that is easily played.

There are no standards for this progression of increasing tube size. Each call maker achieves the same voices using different progressions, individually developed with repeated trials and errors. Because call makers have spent countless hours developing their formula for this progression and have thrown many prototypes in the firewood pile to achieve that final sound as the trademark of their call, this information is a guarded secret. Call makers are competitive and the market is small. Rather than provide details of the progression of internal diameters of my calls (or other calls I am familiar with), I will provide parameters that will get you started on your own journey of creating a trumpet yelper that is uniquely your own.

Wood

Choose a blank about 1½" (38mm) square by 5" to 6" (13cm to 15cm) long for the barrel of the trumpet. Dense non-porous wood such as cocobolo, bocote, blackwood, Osage orange, mesquite, or lignum vitae work well. Mark the center on both ends. The pilot hole for the bell end of the trumpet can be from ¼" to ⅜" (6mm to 10mm) diameter. The hole on the mouthpiece end receives a tenon on the mouthpiece and is typically ¼" to 5⁄16" (6mm to 8mm) diameter. If a taper is desired on the inside of the bell, it can be created by using a tapered reamer or by hollowing on the lathe. Drill the holes on a drill-press or with the blank mounted on the lathe. I prefer to drill on the lathe.

Drilling the barrel

Drilling on the lathe requires turning the blank to a cylinder, chucking the


With spindle steady mounted, start with ⅜" (10mm) pilot hole.


Drilling using a gun drill

mouthpiece end into a four-jaw chuck, and mounting a spindle steady toward the bell end *(Photo 1)*. I start with a ⅜"- (10mm-) diameter pilot hole on the bell end, which is drilled to a depth of my design. In the beginning, I suggest using high-quality drill bits until you get settled on an internal design. Gun drills *(Photo 2)* are used by some who make a large number of calls. After drilling the first diameter hole to a depth of your design, choose a smaller diameter to receive the tenon of the mouthpiece and finish drilling the length of the blank. This will require a longer drill bit than a standard jobbers-length drill bit.

Turning the barrel, part one

Remove the blank from the chuck and spindle steady and mount it between centers. I use a cone center on the tailstock for the bell end and a dead center in the headstock for the mouthpiece end. True up the blank to round. Both ends do not need to be the same diameter. Mark a line 1½" (38mm) from the mouthpiece end and turn that section to ¾" (19mm) diameter.

Many call makers, myself included, attach a short metal ferrule at the mouthpiece end, partly for strengthening the joint with the tenon and partly as an appearance transition from the barrel to the mouthpiece. Brass, copper, stainless steel, and aluminum are all used, or you might have a source for something more exotic, such as titanium. Brass tubing is a favorite because it can be turned on a wood lathe. I prefer tubing with a wall at least a 1/32" (0.8mm) thick. The length of the ferrule can vary, typically from ⅜" to ⅝" (10mm to 16mm). The outside diameter of the tubing is usually ½" to ⅝" (13mm to 16mm). Length is a matter of appearance. I like an inside diameter for the tubing that will allow the tenon to fit in a standard collet. My preferred method for holding the barrel for the balance of the turning is with a collet chuck—it has holding power and will not crush the tenon. If you don't have a collet chuck, use a four-jaw chuck.

Once these decisions have been made, turn the tenon—to which the ferrule will be applied—to the length and diameter of the inside of the ferrule. With a pointed skew chisel, cut a slight bevel countersink on the surface of the wood where the end of the ferrule will mate with the wood. This will make a clean, no-gap joint between the metal and the wood.

Turn the balance of the area between the ferrule and the 1½" (38mm) line to a diameter that stands slightly proud of the outside diameter of the ferrule. Then, mark a line that divides this area in half. Using a thin parting tool, cut a flat-bottomed groove approximately ⅛" (3mm) deep and 3/32" to ⅛" (2mm to 3mm) wide. This groove will be used for attaching the lanyard *(Photo 3)*.

Hollowing the bell

Place the mouthpiece end into the collet chuck and with a cone center in the tailstock, center the blank and tighten the collet chuck. True the blank one more time. This is a good time to turn the outside diameter of the bell end close to its intended final diameter, usually somewhere between 1" and 1⅜" (25mm to 35mm). Remove the tailstock and toolrest and install the spindle steady. Replace the tailstock, and with the blank centered, apply the spindle steady *(Photo 4)*. Check that the blank runs true in the spindle steady.

If you are going to use a tapered reamer to hollow the bell, install the drill chuck and apply the reamer to a slowly turning barrel. If you are going to hollow with turning tools, remove the tailstock and replace the toolrest. I prefer to hollow because I can create a curve on the interior that closely matches the exterior curve of my bell. That also yields a more uniform wall thickness.

A Hunter ¼" (6mm) carbide cutter on a tapered holder works well for hollowing the barrel *(Photo 5)*. This step will require some trial and error the first time. The shape of the interior of the ▸


Tenon and lanyard groove


Blank in collet chuck, centered and spindle steady mounted


Begin hollowing the bell.

bell is your choice. It can be anywhere from a slightly tapered cone or a larger curved "trumpet bell" like that on an orchestral trumpet. Hollow the bell by beginning the cut as deep in the hole as the tool will allow and pulling the cutter out toward the face of the bell. Start successive cuts deeper in the hole.

When the shape of the interior of the bell meets with your satisfaction *(Photo 6)*, decide how to treat the end of the bell on the exterior. Maker's opinions vary from no treatment to brass rings. I like to incorporate a bead because it makes a nice transition in the exterior shape. Now is the time to create a bead; it's easier to blend the curve of the bead into the interior of the bell while the spindle steady is still mounted *(Photo 7)*. Blending the curve of the bead into the interior curve eliminates what would have been a sharp "corner."

Sand the interior and finish with a sanding sealer and a water-resistant finish. Use a dowel rod with abrasive wrapped around it for sanding. Dip a gun-cleaning swab and gun-cleaning patches in the finish and apply it to the interior of the bell. After the finish is applied, I use dry patches on the swab to remove excess. Then, I wrap a lint-free cloth around a dowel rod and burnish or polish the area from the end of the barrel to as deep as I can reach with the cloth-wrapped dowel.

Turning the barrel, part two

With the mouthpiece end still mounted in the collet chuck, remove the spindle steady. You will need to turn a wood or nylon cone that will fit on your revolving center, shaped to generally fit inside the bell end of the barrel to reduce scuffing of the finish. Install the toolrest and center the bell on the revolving center *(Photo 8)*. Lightly true up the bell end.

The shape of the bell varies from maker to maker, but the decision on the shape of the barrel needs to be finalized at this time, as well as how you will transition from that shape into the taper. Turn the bell to the shape of your choice. At the line that was marked 1½" (38mm) from the mouthpiece end, using a parting tool, cut a groove to a diameter of approximately ½" (13mm). Keep in mind the diameter of your internal hole at this location inside the trumpet.

Traditionally, the lanyard holding bands stand proud at this point. Begin shaping the outside of the barrel by creating a curved taper from the outside diameter of the bell to this ½"- (13mm-) diameter groove. This taper and included curve, with the combined shape of the bell, contribute a large part to the appeal of the finished call. A ½" spindle-roughing gouge works well for general shaping. I use a ⅝" (16mm) skew for the final cuts to produce a surface that needs minimal sanding. Decorative beads and coves can be made during this step. The shape I have used for the barrel is a Turpin design *(Photo 9)*, named after Tom Turpin. Today, call makers create all kinds of shapes that will work around their internal designs.

When you are pleased with the shape, sanding and finishing can be done in much the same manner used by pen turners, such as friction polishes and CA glue. As with any turning, the finish is paramount to the appeal of the final product.


6

Bell has been hollowed to satisfactory depth and shape.


7

A bead has been turned on the exterior of the bell while the spindle steady is still mounted, so the curve of the bead and the curve of interior of the bell can be blended together.


8

Ready to turn the exterior profile with a nylon cone mounted on the revolving center to protect the inside of the bell.


9

The exterior profile, known as the traditional "Turpin" design, is completed. Use any design that appeals to you.

Mouthpiece design

The first decision to make for the mouthpiece is which material to use. Because the mouthpiece will vary in outside diameter from ½" (13mm) from the barrel end to 3/16" (4.8mm) at the mouth end and have holes throughout ranging from 5/32" to 5/64" (4mm to 2mm), the material needs to be relatively easy to drill to small diameters, have breaking strength in small outside diameters, and be relatively easy to turn. In addition, since it will be placed in the mouth, it should be moisture proof without a finish applied. Several synthetic materials work well, such as Delrin (acetal resin), nylon, acrylic, and polyester resins. They are relatively inexpensive and are available in rod form. Natural materials include camel bone, giraffe bone, turkey and goose wing bones, water buffalo horn, and pre-ban elephant ivory, which is my favorite. Ivory

holds detail extremely well, turns easily, and has a high breaking strength.

The next decision is the length of the mouthpiece and finished diameter, which will be primarily determined by whether the inserted mouthpiece will be flush in diameter with the outside of the ferrule or stepped in from the outside diameter of the ferrule. The choice depends on preference in appearance and willingness to fuss with turning a precise diameter to mate with the ferrule. The length of the mouthpiece obviously determines the limits of the length of the hole(s) in the mouthpiece and thus becomes a factor in the internal design of the trumpet yelper. The length of the visible part of the mouthpiece varies from 1¾" to 3" (44mm to 76mm). The length is a part of the overall length of the trumpet yelper, but also determines the proportions of barrel length to overall length, barrel-to-mouthpiece proportion, and mouthpiece-to-overall-length proportion. Proportions contribute greatly to visual appeal.

Drilling the mouthpiece

With the decisions on length and diameter made, mark the centers on the ends of your blank. A ½" (13mm) Stebcenter works well to mount this small-diameter material to turn it to round. A collet chuck works well to hold the blank for drilling.

Start with a blank large enough that it can be turned to a consistent diameter to fit into a collet, yet larger than your finished diameter *(Photo 10)*. Small-diameter jobbers drill bits are usually not long enough to drill the full length of a 3"- (76mm-) long mouthpiece, so your mouthpiece maybe determined by the length of your drill bits. Aircraft drill bits are available from machine shop suppliers in small diameters and 4" to 6" (100mm to 150mm) lengths. Gun drills *(Photo 11)* are also available in small diameters, with longer lengths.

Use a standard jobber bit or a machinist's combined hole-and-countersink bit to start the hole. Turn the blank slowly and clear the shavings frequently. If you choose to drill holes of different diameters in the mouthpiece, drill the larger hole on the barrel end of the mouthpiece and continue with the smaller hole on through the mouth end. It is tempting to drill from both ends; however, the odds of the holes precisely meeting are slim.

Use the holes as your centers and true up the blank. Continue to use the Stebcenter as the drive center. Mount the mouth end onto the Stebcenter drive center and the barrel end onto the tailstock revolving center. True up the blank, but remember you need enough diameter on the barrel end to mate with the ferrule. It is okay for the mouth end to be considerably smaller in diameter than the barrel end when truing up the blank.

Turning the mouthpiece

The barrel end of the mouthpiece needs a tenon. The diameter of the tenon depends on the diameter you chose for the hole in the barrel. The length should be ⅜" (10mm) to ½" (13mm). Turn the tenon to a diameter slightly smaller than the final outside diameter of mouthpiece where it mates with the ferrule. This leaves enough mass in the tenon while completing the turning, sanding, and polishing of the outside. Mouthpieces usually have a general line of taper from the barrel end to the mouth end *(Photo 12)*.

Having decided if your mouthpiece will mate with the ferrule or be stepped in from the ferrule, begin by turning the mouthpiece to that finished diameter. Then, decide what transition to make to the final taper. Turn the transition with a decorative bead, and then turn the taper down to an approximate 3/16" (5mm) diameter at a point ⅛" (3mm) from the end. This leaves material for the Stebcenter to hold while the mouthpiece is turned to finished size *(Photo 13)*. Sand and polish the mouthpiece. Now the tenon can be turned to its final diameter. Remove and try the tenon in the receiving hole until you have a smooth but not snug fit.

Remove the almost-complete mouthpiece from the centers and mount the tenon into the collet chuck with the mouth end held by the revolving center in the tailstock *(Photo 14)*. Apply the revolving center just snug enough to ▸


10
Mouthpiece blank in a collet chuck with machinist's hole-and-countersink bit drilling a short pilot hole for the gun drill.


11
Drilling the mouthpiece with the gun drill


12
The beginning line of taper on the mouthpiece. Many call makers only go this far, or even less, in shaping the lower portion of the mouthpiece.


13
My signature mouthpiece design, which shows the material left for the Stebcenter to hold and the tenon before it is turned to final diameter.


14
A tenon has been turned to final diameter and mounted in collet chuck for turning the end of the mouthpiece to final diameter. Make very light cuts to remove this material.

support the end of the mouthpiece, but not enough pressure that would cause the end of the mouthpiece to split or crack once the rest of the material is removed. Turn the material down to the 3/16" (5mm) diameter with light cuts. Be careful—as this last bit is removed, any type of material could split from too much pressure from the revolving center or a heavy cut. Sand and polish this area.

Cutting the ferrule

Holding the tubing for your ferrule in a chuck, polish the tubing. Check for scratches and polish out with fine abrasives. Part off the ferrule to a length 1/32" (0.8mm) longer than the tenon on the barrel, which will allow for the mouthpiece to mate with the ferrule and not the face of the tenon. Chamfer the inside and outside ends of the ferrule to remove the burr left from parting. Soft metals can be chamfered with a sharp scraper. I prefer to use a chamfer tool for the mouths of cartridge cases.

Assembly

Two-part, five-minute epoxy seems to work best for gluing the parts together. Rough the inside of the ferrule with coarse abrasive. Using a toothpick, apply the epoxy sparingly to the inside of the ferrule. Slip the ferrule onto the tenon on the barrel. Apply the epoxy sparingly to the inside of the receiving hole for the tenon on the mouthpiece and slip the mouthpiece onto the barrel. Wipe off excess epoxy using acetone. After inserting the mouthpiece tenon into the barrel, blow through the mouthpiece to clear any epoxy trapped in the hole.

Turning the lipstop

The lipstop is the last item to turn. For ease of play, the position of a lipstop determines a consistent depth the mouthpiece enters between the lips. Traditional materials are rubber stoppers and high-grade cork. The length of the lipstop is a matter of visual preference. A #1 stopper will fit nicely into a #2 Morse taper and can be drilled with a bit slightly smaller than the mouthpiece diameter. After drilling the lipstop, cut it to the desired length.

Turn a simple mandrel with a peg, long enough to mount the lipstop onto *(Photo 15)*. Turn the lipstop to a desired shape using a sharp spindle gouge. Sand to 320 grit *(Photo 16)*. Place the lipstop onto the mouthpiece with the face (the larger diameter) 1/4" to 3/8" (6mm to 10mm) from the end of the mouthpiece. You may want to move it closer or farther away as you learn to play the instrument.

Learning to play

To begin learning how to play your lovely handcrafted musical instrument, encircle the area behind the bell with your left thumb and forefinger. Use your middle finger immediately in front of the bell to control the opening *(Photo 17)*. Curl your lips over your teeth and place the mouthpiece between your lips *(Photo 18)*. Draw air into your mouth through your lips similar to sucking on a soda straw. Your lips do not have to be pressed tightly together—the sound of your lips vibrating is amplified through the trumpet yelper.

Practice making long draws of air to get a long, consistent note. Once you can do that, begin making shorter draws of air and relaxing the tension between the lips at the end of the draw, which creates the cluck. Progress to shorter and quicker draws to create the roll over, which is a quick drop from a high note to a low note that creates the yelp. Considerably tightening your lips and making longer draws creates a high note that can mimic the keekee call. Find a turkey hunter who can help you know when you are getting the right sounds.

You now have a basic trumpet yelper and can adjust the dimensions to get the sound you want. When making subsequent calls, fashion any kind of external design that will fit around your internal design to create your own unique trumpet yelper. To learn more about call making, there are several active forums on the Internet. ■

Danny Wells is a consulting forester living in Louisiana. He has been turning turkey calls since 2003. He currently is enamored with the rose engine lathe and how he can use it to create unique trumpet yelpers and duck calls. Danny can be reached at wells.danny@gmail.com.

A rubber stopper is drilled and mounted onto a nylon mandrel. Turn the profile and the exposed end (the bottom of the lipstop).

Reverse the stopper on the mandrel and finish turning its profile and top. The turning and sanding is complete.

Encircle the area behind the bell with your left thumb and forefinger.

Place the mouthpiece between your lips and draw air into your mouth similar to sucking on a soda straw. Use your right hand to control the volume.

(Left to right)
Sabine River Classic, 2012, Mallee burl, blue pearl Amalgam-Mutt, pre-ban ivory, 9" × 1¼" (23cm × 3cm)

The Bell Tower, 2013, Afzelia burl, African blackwood, pre-ban ivory, 9" × 1½" (23cm × 4cm). Trumpet yelper was turned on rose engine lathe, inspired by the bell towers of Russian cathedrals.

Collection of Earl Duckett

The Vanderbilt, duck call, 2012, African blackwood, pre-ban ivory, scrimshaw technique, 5¾" × 1½" (15cm × 4cm). Turned on rose engine lathe.

Collection of Thomas Whittington

(Left to right)
Santa Fe No. 1, 2008, Holly, buffalo horn, paint, 9" × 1½" (23cm × 4cm). Inspired by David Nittmann's work.

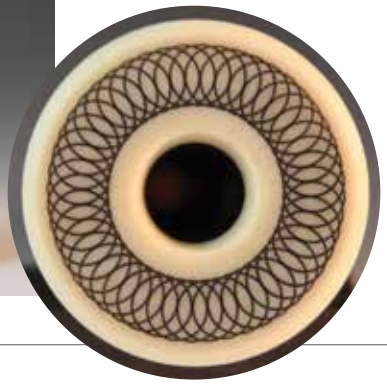
Sabine River Classic, 2010, English walnut, pre-ban ivory, 9" × 1¼" (23cm × 3cm)

Collection of Loyd Johnston

The Aristocrat, 2011, African blackwood, pre-ban ivory, faux ivory, 9" × 1½" (23cm × 4cm) turned on rose engine lathe

Bell of *The Aristocrat*, faux ivory, turned on rose engine, with scrimshaw technique

Collection of William Henkel



Thinking OUTSIDE the Hollow Form

Michael Foster

Costa Hoffman Meeks, 2010, Bubinga, bleach, maple, acrylic paint, 6" × 9" (15cm × 23cm)

Much of my recent work has been an exploration into a branch of mathematics known as minimal surfaces, and figuring out how to express these intriguing forms in wood. I found my first references when I was researching the intersection of art and math. Minimal surfaces join curved edges in three-dimensional (3D) space in the least amount of surface area possible. Mathematicians describe these forms with math and generate 3D images using computers. I do not profess to understand the math, but I found programs that allow me to manipulate the parameters and view the results in 3D. I simply had to attempt rendering them in wood.

None of these forms fit into what we classically consider work off the lathe—bowls, spindles, hollow forms—but the lathe is capable of much more, given some thought, play, and experimenting. I often brew on a form for months, trying to imagine how I might be able to turn it on the lathe, anticipating problems that need to be solved. Sometimes I design around a particular piece of wood; other times I design a piece and find the wood. I am not adept at drawing, so I start with crude sketches using the method Graeme Priddle describes as "the many lines technique," which means drawing a lot of lines, picking the best, and erasing the rest. I also use a material similar to sculptor's clay to form a maquette.

With an idea well formulated, I use the Layers Features in Adobe Illustrator to generate precise, to-scale drawings that will fit the wood I select. I generate side views and top views, which can be right on top of each other, and then each layer turned on or off, to avoid confusion. I import files from other programs, such as minimal-surface math programs, to serve as guides for laying out curves. The screenshots of *Distortion* illustrate how I planned the turning before going to the lathe.

Safety

Part of the process requires thinking about how to do things safely. Some of my jigs may look a bit wonky, but I use a lot of screws and hot melt glue to the point I feel confident in their ability to hold the wood securely onto the lathe. I also make use of counterbalances, which are essential to keeping the lathe from bucking and vibrating. I adjust the weights as I remove wood to keep things running true. My lathe is not bolted to the floor, nor have I added weight. I turn at a slower speed than many other turners, but with work like this, I am in no hurry and would rather keep things safe—and I stand out of the line of fire.

To the lathe

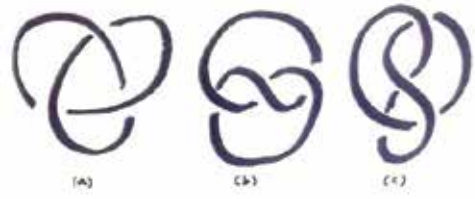
There are no cookbook recipes for turning these forms. Each piece requires a different approach—unique shapes require unique ways of turning. To achieve the final form, I think of the lathe as one of many tools available for carving wood. The final form becomes the driver, and I do what is needed to get there.

Figuring out how to mount and turn a chunk of wood is as much of a challenge as the turning itself. I enjoy imagining and planning, and am surprised at my success rate. Yes, I have had failures, but not many. I started with the same skills most turners have and even now, I consider myself just a little above average. With bit of thought, imagination, and the willingness to step out of your comfort zone, amazing forms are possible. Give it a try, but think through the process ahead of time and be safe.

Michael Foster practices dentistry full time. He initially learned basic skills using a friend's shop, and then started turning on a Shopsmith, his first woodworking machine. Slowly acquiring skills by trial and error, he moved on to a Woodfast lathe. He now turns on a Robust American Beauty. Throughout the years, Mike's focus shifted from segmented work to interpretations of math and science forms.

Infinite Loop

I found a program that would use a line that forms a 3D knot and joins this line in such a way as to form a minimal surface. I liked the form that resulted from a trefoil knot (three lobes to the knot). The trefoil can be twisted and represented in several ways. I chose the middle figure in the drawing. Translating this idea to turning required a lot of thinking, but finally decided I could indeed turn much of the form. The holes through the knot are not perpendicular to the face, so I had to figure out how to mount the form to be able to turn them. I could have done something similar using jigs and a drill press, but I am a turner.



Infinite Loop, 2011, Boxelder burl, epoxy, 8½" × 5½" × 2" (22cm × 14cm × 5cm)

Lawson

While perusing minimal surfaces online, I found a class of surfaces that were enclosed forms. The mathematicians who described these got inspired looking at microscopic images of protozoa and bacteria. Some of these organisms had tunnels through the body and the resulting outside of the form is a minimal surface. I knew instantly I could turn this almost entirely on the lathe. This one was really fun because it required several different lathe techniques: hollowing, multiaxis, and spindle. ▸

Lawson, 2011, Butternut, dye, 8½" × 5" × 5" (22cm × 13cm × 13cm)

Trefoil

Using one of the minimal surface programs, I designed what is known as a polar-Enneper form with three lobes. I imported the result from the minimal surface program into Illustrator and realized the whole form starts with an ellipse, and each of the lobes could be turned as well. I had to do some careful layout on the ellipse after turning it.

I had the initial idea to turn the elliptical form between centers, but the drive center would be at too steep an angle and would have required making flats to accept the drive into the turned area; that would ruin the surface. My solution was to devise my own drive center. I used the jig to turn all six lobes, just repositioning the blank carefully and using hot melt glue to fix it each time. I turned the hollows in the ends after turning the lobes. I included a few photos of the carving process to illustrate the division between lathe-carving and hand-carving.







Trefoil, 2012, Masur birch, maple, dye, 10" × 7" × 7" (25cm × 18cm × 18cm)

Tao of Geometry II

I envisioned a sculpture that referenced the yin-yang symbol, and ended up liking the completed form better than the 3D image. Mounting was similar to *Infinite Loop*, but I refined and beefed up the jig because the wood was larger.



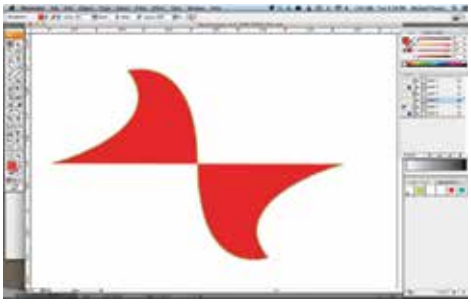

Tao of Geometry II, 2012, Boxelder burl, aniline dye, bleach, acrylics, Compwood, India ink, 12" × 14" × 4" (30cm × 36cm × 10cm)

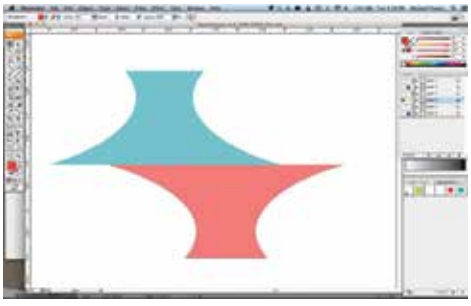
Distortion

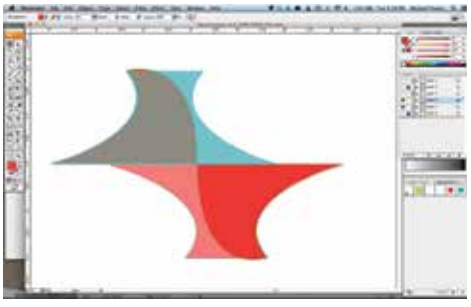
I started with the turning blank screwed onto a faceplate, making sure the screws would not penetrate so far into the wood that they would poke through into the small hollow form, which would be turned into that side. I turned the form to closely match the overall design, and then hollowed the tenon to create a small hollow form.

Using the design turned on the first side as a guide, I made a jig that would allow me to turn the opposite side, its hollow form offset the correct distance. Using the tailstock for stability, I turned away most of the wood, leaving a small tenon. In order to hollow the tenon, hot melt glue held the work to the jam chuck. This piece was not so off-balance to require adding counterweight. To achieve the final form, I carved the wood. ▸

Distortion, 2012, Maple burl, mopane, 5" × 8" × 10" (13cm × 20cm × 25cm)



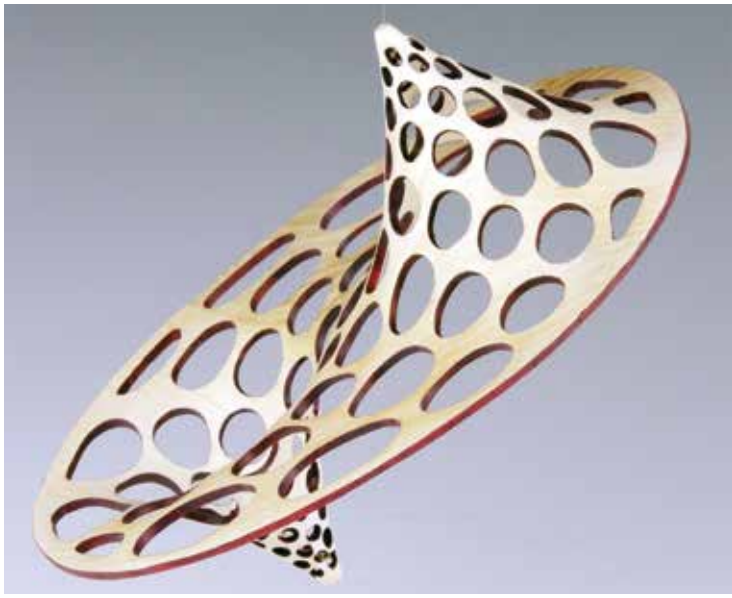




Conic Inversion

Conic Inversion is a form that joins a pair of inverted cones and a flat plane that bisects the two in a minimal surface. I was pretty sure there was a way I could turn the form on the lathe, but I had to think about it for quite a while before coming up with the solution. I started by turning the blank between centers, forming a small tenon in the center that would become the outer edge of the form, but more importantly allowing me to hold the blank after reversing the form. I turned off waste from one end until I reached the diameter that would be the horizontal separation of two turned cones. This lightened the blank for the next step.

Conic Inversion, 2012, Ash, bleach, acrylics, 5" × 7" (13cm × 18cm)



I used the live center to hold the work against a piece of MDF mounted onto a faceplate to mark where the blank should be mounted. I found the center of the outside and drilled a hole in the MDF that would accept a small tenon left on the headstock end. The small tenon fits close to the hole and orients the blank for turning one cone and hollowing the other. I screwed the blank to the MDF, taking care not to put screws into areas that would become the final form. With the tailstock in place for support, I turned the cone.

I rotated the blank 180 degrees and screwed it in place again to turn the recess of the opposite cone. After removing the form, I turned a hole in the MDF to allow the cone to protrude through it. I also turned a small recess, carefully fitting it to the tenon in the blank I first turned. This allowed me to mount the form using many screws with washers that captured the tenon. I could then remove the mass of waste left and form the opposite cone.

When turning the first cone, I formed a dovetail just large enough to hold it in a dovetail chuck to hollow the last recess and complete the turning. I could not have completed this turning without thinking through all the steps, planning how to mount and turn each step. It is a thrill when the steps easily flow from one to the next, using the lathe in unconventional ways. ■

Turning Bowls

Chris Enke

Imagine That, 2010, Maple burl, 3¼" × 5½" (8cm × 14cm)

Turning is a word that evokes many things, but always some aspect of change: Turning over a new leaf. Turning out all right. A turn for the worse. For me, turning wood is personally rewarding as I achieve rapport with tool, wood, and machine. Staying with that connection as shavings fly brings a sense of oneness with the process and an absorption into the action of the chisel on the wood. A chunk of wood turns into something that previously existed only in my mind.

All my senses are involved: The tactile sensation in my hands through the tool, body stance with arms braced against torso for stability and control. The sound of the wood fibers being separated, changing as different grains encounter the chisel, or ominous indications of ineffective or dangerous tool position. The aroma of the freshly cut wood, indicative of species and freshness. I turn bowls.

Giving a wood-turned bowl to a friend is a good thing. Or is it? What if he doesn't like it? Where is she going to put it? Does it always have to be on display? Perhaps those questions indicate why we turners have so many bowls around our own homes: three on the coffee table, four on the kitchen counter, ten on the bookshelf in the front hallway, and two on the back-hall bookshelf. Have I just about reached a bowl-saturation point?

No, I keep turning bowls. The joy of turning is not just about mastering the craft or even the satisfying feelings experienced when turning. Working with wood is a voyage of discovery. There is a beautiful object hidden in each chunk of rough lumber. It doesn't matter whether it is a fine piece of maple burl or piñon from the firewood pile. There is a shape that will make use of its volume and demonstrate the beauty of its grain to celebrate the life it had while growing. Finding that perfect form involves imagining an ideal size and shape and revealing what lies underneath rough-cut wood or bark. Often, this exploration will result in modification of plans: Bark inclusions, gaps, and spalted regions can either be avoided or incorporated, a collaboration between the wood and me, an ongoing relationship linking the wood to my evolving image of what the bowl will be. I turn and will re-turn. ■

—Chris Enke, New Mexico

Shawo Village

A Journey Into Woodturning History

Terry Martin
Chinese translation by Su Jinling and Andrew Chen

In the center of Shawo Village on the North China Plain, villagers press close to get a view of the first foreigners ever to visit. My wife and I find ourselves at the center of an eager swarm of friendly folk. We are rescued when our host, Li Xuemin, invites us into his home.

Li Xuemin urges us to sit around a table where we are served steaming dumplings and local beer. He beams with pride as he tells us about his village while Su Jinling, the general secretary of the International Wood Culture Society (IWCS), translates. Not for the first time, I think how much she has done to make this possible. Su Jinling and I met in 2012 when I was invited to China to represent the AAW at a symposium organized by IWCS. On that first trip, I was disappointed to find little evidence of turning, but Su Jinling has since helped me locate traditional turning in China and has become an enthusiastic co-researcher.

As we eat, Li Xuemin explains why he wanted us to come to his village. "Shawo was traditionally a woodturning village," he says. "The woodturning skills have been handed down from father to son for generations and are only preserved through oral tradition. We want to maintain these traditions for future generations, but the old turners are aging, the market for their products has disappeared, and young people show no interest. I feel a sense of responsibility, so even if we can't preserve the skills, I would like to put together a comprehensive record of what we used to do."

After my first visit to China, Su Jinling started to investigate where traditional turning might still be done. There are tantalizing echoes of a turning past, but it appears the traditional craft was swept away by the social and economic upheavals of the past 60 years. I decided to revisit China in April 2013. Jinling had contacted a man who claimed to come from a village where turning was still done in the traditional way. As we left Beijing, I had little idea of what our journey would bring.

We traveled southwest from Beijing across the North China Plain and the view changed from densely packed urban sprawl to fields of wheat, newly planted forests that extended to the horizon, and glimpses of new cities rising unexpectedly in the middle of nowhere.

We arrived late in bustling Handan City, Hebei Province. The next day, we took a taxi far into the countryside through increasingly smaller villages, eventually stopping by the side of the road to wait for someone to meet us. Soon a small van appeared and three men got out to greet us. We were introduced to the leader, Li Xuemin, and continued our journey into the past.

Shawo Village

Eventually we arrived at Shawo Village, a farming community of around 1,400. Superficially, it is a simple settlement with little obvious charm, but, as with many Chinese homes, the façade hides the rich life carried on behind high walls. That is how we found ourselves in the home of Li Xuemin, sharing a meal while he told us of his fear that the traditions of Shawo would disappear.

Once the meal was over, we moved outside to where even more villagers had gathered. As people pressed close to hear us talk, Su Jinling translated that we were going to visit 70-year-old Li Jiafang, who would show us some of his turning skills. A polite man of great dignity, Li Jiafang led us into a storeroom where, sitting on the floor in the center of the room, was a lathe unlike any I had ever seen.

Its spindly framework looked so fragile it was hard to imagine it could be stable enough for any purpose. It was an A-frame with a set of slats laid horizontally across the wide end to create the lathe bed. It was hard to determine what was holding it

together, apart from a few nails and two lengths of recently added fencing wire. Closer inspection showed that the whole structure was raised off the floor on legs held together by mortise and tenon joints, while the ways of the bed passed through mortises cut into the side frames.

In spite of appearances, when Li Jiafang sat on the narrow end of the frame, I started to see how the whole arrangement might work: Li Jiafang's weight stabilized the lathe and prevented it from moving. As he arranged his tools, I noticed how the two small metal centers for mounting the wood were bent and embedded into the frame. Fencing wire held the wide toolrest in place. He explained that this lathe was made in 1960. "Some parts were broken," he said, "but it's all been repaired."

Su Jinling asked Li Jiafang about the wood he uses and how he prepares it for turning, so he showed us a short length he had already rough-turned. With a small hatchet, he demonstrated how he shapes the blanks for turning. Then he picked up what looked like a walking stick, which he called a pulling bow. There was a kind of rubberized strap attached to the stick, a replacement for leather they no longer have. He wrapped the strap around the blank and placed it between centers. "We call these centers *eagle's beaks*," he explained. He pushed the tailstock up to hold the wood between centers, then hit the small wedge in the end of the tailstock a sharp blow with his turning tool to fix it in place—all faster than I could photograph. "The pulling belt can be different lengths," he said, "and it needs to be longer for larger diameters."

We left behind China's rapidly developing cities.

On the approach to Shawo Village, the newly planted forest on the right is part of a vigorous program of reforestation.

Li Jiafang showed us how a separate piece of wood on the handle end of the stick pivoted on a pin when he squeezed the two pieces of wood together. It tightened the drive strap around the spindle, increasing the grip and making it easier to operate. He said, "There is a correct distance from the handle for pulling the belt tight and it won't grip if it's not tight enough." In other countries, I have seen how a springy bow is used to create the tension in the drive strap, but this was an elegant and more controlled variation—a marvel of simple efficiency.

Li Jiafang picked up his roughing gouge and started pumping his arm back and forth, cutting clean shavings. As he worked, he explained, "This is the fulcrum," indicating the toolrest. "I use my left hand to steady the tool and I cut the wood on the pull stroke. I have to place the cutting edge at a proper angle to the wood to cut well. I push the tool when I am pulling the bow back, so my hands work together, but they each require different force. It takes a lot of practice to get the coordination right."

His left hand, which guided the gouge along the toolrest, was unsupported, but he seemed to have no difficulty maintaining control. As with all accomplished turners, there was an ▸

The bed of Li Jiafang's lathe has a sliding tailstock (on the right) with a wedge to fix it in place. The two small centers are the only substantial metal parts. The toolrest runs behind the bed, now fixed in place with fencing wire.

Li Jiafang shows how he uses a hatchet to chop out the spindle blanks.

The pivoting peg on the handle tightens the drive strap.

Roughing the piece with the gouge.

Crossing the gouge under the drive stick.

A planing cut with the skew.

Rolling the cut at the ends of the spindle.

effortless ease in the way he worked. I was just wondering how he was going to turn the end of the wood at the drive strap when the value of the tightening peg on the handle became clear. He simply relaxed his hand, which loosened the strap, slid the stick to his left, and tightened the strap again in the new position, all so fast he hardly missed a stroke. He was then able to turn the other end of the spindle with the tool angled under the pulling bow.

When Li Jiafang was happy with the shape of the spindle, slightly tapered toward each end, he switched to his chisel, which had a thin tapered blade, straight-ground at the end, and deftly wielded it with a planing cut to smooth the wood. His tool control was impressive. Even more impressive was when he rolled the tool to round each end of the spindle. This is a difficult cut and he was doing it one-handed while pumping away with his other hand. As I watched, I started to think the toolrest was probably not attached to the lathe in the past. His hand always ran along the back of the toolrest and it seemed it was pressed against the bed with sufficient force to hold it in place.

When he was finished, Li Jiafang took the piece off the lathe and presented it to me. The rolling pin, which was used for making skins for dumplings, had a smooth off-the-tool finish that any turner would be proud of. He also gave me a pestle and a handle for a flywhisk, both more complicated shapes than the rolling pin. "These things are for daily use," he said.

The rolling pin was made from a pagoda tree. "I use the large branches," Li Jiafang explained, "because the wood isn't hard enough if I use the smaller ones. It tends to crack if you use it too soon and it's still damp. Usually you harvest it at the end of the year and let it season for a while, but you can't let it dry too long. This one has been drying for around two months. You can't wait until summer because insects get under the bark and make worm holes." Li Jiafang also turns most local hardwoods, although not birch because of its unpleasant odor.

Spindle work by Li Jiafang. Left to right, pestle (to be used in a granite mortar), flywhisk handle, and two dumpling-skin rolling pins, all straight off the tool.

I was deeply impressed by seeing something that, as far as I could tell, no Westerner had ever seen before. It was all so strange and yet so familiar. Li Jiafang sat relaxed on his lathe and told us how he became a turner. "People have been turning in our village for 300 years that we know of," he said. "My father and grandfather were both turners. In the 1960s, our country was going through a difficult period and the standard of living was very low. Already at that time, a lot of the turners were old, so our village commission selected young people to learn." He paused and held up a rolling pin. "We turned things for daily use, as well as agricultural implements, and we traded them for necessities, so living standards improved. Eight people learned to turn in our village, but three have already passed away. At the Handan Central Cultural and Art Festival on May Day, we sold turned utensils. They were popular, but this craft was a trade secret and only our

village knows how to do it, so it will vanish after we die."

Saddened as I was by what Li Jiafang said, I was elated watching him turn in the same way his ancestors had for hundreds of years. As we left his house, I thought about where all this might have begun. Woodturning historians reference a wall painting depicting a bow lathe in the Egyptian tomb of Petosiris, dated to 320 BC, as the earliest image of turning. There is general agreement that the bow lathe probably was a development of the bow drill, which was depicted in an Egyptian tomb as early as 2650 BC, but the truth is we don't know where turning first developed. It may have been in Egypt or nearby in the Middle East. It may have originated anywhere across the band of arable land where early civilizations developed, from North Africa to the Middle East, into the Indian subcontinent and then on to China. Bow lathes were traditionally found in all of these places and turning may even have originated independently in more than one place. After I saw Li Jiafang turn, I asked myself if turning originated in China, as did so many other early technological innovations.

I was already thinking of an exciting story to write about traditional Chinese turning, unaware I was about to see something else that would make me further question its origins.

Li Jiadong

From Li Jiafang's house, we walked to the home of another member of the Li clan, Li Jiadong, whose life of hard work is etched into his 67-year-old face. He led us to a storeroom beside his house and, as my eyes adapted to the light, I saw the most beautiful lathe and knew I was looking far back into the history of turning. Seeing the amazement on my face, Su Jinling asked, "Is this what you have been looking for?" Yes! What a delight!

As we gathered around the lathe, Li Jiadong explained how he became a turner. "I started turning when I was 16," he said. "My family had been turners for many generations, my father, grandfather, and great grandfather. I don't know how far back it goes. Everyone used wooden bowls in those days." He laughed and said, "Wooden bowls don't break when children drop them! I only turned for a year, but I stopped because of the arrival of plastic bowls. Every family in our village used to turn, but they all stopped then." Li Jiadong looked at the lathe behind him and thoughtfully added, "I started turning again last year, but the quality of my turning is not as good as it was."

Li Jiadong's bowl lathe is driven by two long "pedals" made from rough-hewn branches that pull a strap wound around the drive shaft. To allow the turner to work the pedals, the lathe is raised high off the floor on four legs so he can sit inside the frame. The turner faces the headstock front-on and turns the bowl blank, which is held in a jam-fit chuck. Many of these characteristics are found in different combinations in other lathes around the world, but this lathe was *different*. Li Jiadong said, "This type of lathe has been used in Shawo for more than 300 years and is unique to the village. You won't find it any place else," he said with pride, "and we have never shown it to outsiders before."

I moved closer to examine the lathe. The pedals were simply lightly trimmed ▸

Simple pedals drive Li Jiadong's lathe.

The strap from the pedals wraps around the main shaft.

The main shaft passes through the headstock. The only substantial piece of metal is the ring with bolts for fixing the wood that is turned into a jam-fit chuck. Note the holes in the right side of the headstock that the toolrest will fit into.

Li Jiadong

Li Jiadong's bowl lathe

Li Jiadong shows how he sits in the lathe and operates the pedals.

Li Jiadong leans his stomach against the arch of wood at one end of the toolrest, which presses it into the holes in the headstock, fixing it in place.

The toolrest fixed in a hole in the headstock. The various holes are for bowls of different diameters.

straight branches. The rear ends where they pivoted rested in notches cut into the frame and the front ends were attached with rope to a long strap. The strap was wound twice around the main shaft of the lathe, which passed through the headstock. The headstock was an intriguing framework with two main upright components set in a heavy base, both joined by cross-members that also supported the shaft. Li Jiadong said the shaft is the hardest part of the lathe to make. "It's made of jujube wood. You cut the wood to length, then rough-turn it on a small lathe and wax it. The groove where it is held by the headstock is not cut out, but burned. You mount the shaft on a large lathe and more than ten young men pull on ropes to spin it. One man adds beeswax in the middle. The speed is so fast that the friction where it is rubbed burns the beeswax." I could see the burn mark and imagined that burning also case hardened the wood, making it more resistant to wear.

A heavy metal ring with bolts on the end of the shaft was a modern addition to firmly hold the wood for the jam-fit chuck. The whole machine had been made from parts of different ages, as Li Jiadong explained: "To preserve this heritage, a few of our enthusiastic young people and old turners pieced together this lathe. The shaft is from one family, the bed is from another, and the turning tools are from yet another family. It's hard for the old turners to see this happen," he added. "We had a hard time parting with the shaft, which is the turner's lifeline. There are still quite a few of these shafts in the village, but there are only six or seven beds left in fairly good condition. There is a fair supply of parts among the owners and you can find a couple of these turning tools in just about every household." He laughed and said, "We're far from modern and these things are very rustic."

To show us how he turns, he nimbly climbed into the frame, adjusted a cross-bar to sit on, lifted an arched piece of wood into place against his stomach, and then set a stick that acted as the toolrest between the headstock and his stomach-bar. It seemed ungainly, but he soon had everything settled to his satisfaction and was pumping the pedals vigorously. The whole lathe swayed as he pedaled, but he seemed in complete control. The way the toolrest was trapped between his body and the headstock provided a stable fulcrum. The headstock had many holes for the toolrest to sit in and he explained that it allowed for repositioning the tool-rest for bowls of different diameters. The largest bowl he had ever turned was seven inches in diameter.

Li Jiadong offered to turn a bowl from start to finish, so he cut a jam-fit chuck and hammered a cone of willow root into the recess. He quickly turned the outside of the rim with his hook tool, then with a few rapid cuts, hollowed the bowl. He knocked off the bowl blank and used the same tool to reshape the jam chuck to receive the hollowed bowl. He also showed us how he varies his grip on the long tool handle to allow different cutting angles, one with the handle resting along his forearm and the other with it high on his shoulder. Finally, he tapped the bowl firmly onto the chuck and deftly shaped its foot. All of these actions would seem familiar to any bowl turner, but I felt I was looking down a long tunnel into turning history.

Every time he pumped a pedal, there was a soft creaking sound and when I looked more closely, I could see the whole machine was joined together by wooden pegs. It flexed, but was strong. The hook tool was old and rusty, but there was no arguing with the long shavings Li Jiadong was producing. As he turned, he explained about the pedals: "You apply different pressure with your foot when you are turning the inside and outside of a bowl. You put more force on your left foot while turning the inside, whereas you use the right foot while turning the outside." He also had a gouge, which he did not ▸

With a cone of wood hammered into the jam-fit chuck, Li Jiadong uses the hook tool to hollow the bowl.

Reshaping the chuck to fit inside the bowl.

Two different grips to create different cutting angles.

Li Jiadong turns the outside of the bowl.

Two of Li Jiadong's bowls.

Li Jiadong's lathe was mostly held together by wooden pegs.

Li Jiadong's hook tool.

Li Jiadong's gouge with the bevel on the inside of the flute.

A bucket of Li Zhimin's partly finished bowls.

demonstrate. It surprised me to see the bevel inside the flute, but I suppose I should not have been surprised by anything at this stage.

Li Jiadong's bowl nestled perfectly in one cupped hand, the simplicity of the form pleasing. I imagined it being used and washed every day for years, eventually developing a rich patina.

When Li Jiadong was young, he would turn about 100 bowls a day. At five or six minutes per bowl, that meant ten hours turning per day! Most bowls were sold to the provinces of Henan, Shanxi, and Shandong and would be picked up about 2,000 at a time.

Another member of the Li clan, Li Jiazhong, interjected: "Selling bowls in the village used to be a big event. When the bowl merchants arrived, they used to shout out as they approached from the south. Everyone tried to waylay them to sell their bucket loads of bowls. The merchants would buy all the bowls and load up their wagons. It was exciting."

Young Li Xuemin, who had brought us to his village, put his hand affectionately on the lathe. He spoke with moving sincerity about his dreams. "Last year, some of the old turners got together and talked about reviving these skills. They don't want to see their work just gather dust and then be thrown away," he said. "But some of the young people would like to combine the traditional craft with modern techniques to make more creative pieces or art work. In that way, we think we can improve people's lives. It will take time and hard work, but we are not afraid of hardship." I was pleased to hear him add, "Still, preservation is the top priority. I am organizing people to learn this traditional craft in our spare time. Some even traveled far to see others turn, only to realize we have our own rich history in our village. Now we want to let the world know about our past."

Li Zhimin

It was getting late, but Li Xuemin insisted we visit one last bowl turner, Li Zhimin, of the ubiquitous Li clan. His workshop was almost dark inside and by the fading light of a tiny window above his lathe, he showed us how he turns bowls. It was a picturesque moment as the shavings hissed off the tool and the bowl took shape faster than I could imagine. "How do you know when you are done turning a bowl?" Su Jinling asked. "Oh, you know when it's done," he replied. "Some of them are translucent."

He showed us a number of recently turned bowls. "How much did a bowl sell for when you were young?" I asked. "Thirteen cents," he said. It seemed very little, but Su Jinling explained he was speaking of old Chinese currency. However little the price, this is how the villagers survived for hundreds of years.

As we left Li Zhimin's house, I wondered about the plan to modernize turning in Shawo Village. The villagers will decide what is best for their future, but I think they know the old ways are what distinguish them from the rest of the turning world. As Li Xuemin said, preservation of the old skills is a priority.

We gathered outside the house for a group photo and I felt privileged to stand as a turner among these dignified men who carry the heritage of a grand history. As we walked back to the van, we were followed by many of the village women, who carried young children. One boy was holding three village bowls and his mother allowed me to take a photograph. I thought about Li Xuemin's plan to train young turners. Maybe 20 years from now this boy will be one of the famous turners of Shawo Village, inheritor of a unique turning history. ■

Terry Martin is a wood artist, writer and curator who lives and works in Brisbane, Australia. He can be contacted at eltel@optusnet.com.au.

Photos by Terry Martin or courtesy of IWCS.

Li Xuemin speaks passionately about the village's heritage.

Li Zhimin turns a bowl in the fading light.

The customary Chinese group photo. From left to right, front row: Su Jinling, Li Jiafang (spindle turner), Yuriko Martin, Li Jiadong (bowl turner). Immediately behind Terry Martin is Li Zhimin (bowl turner). At the back in the center is Li Xuemin.

Perhaps a Shawo turner of the future.

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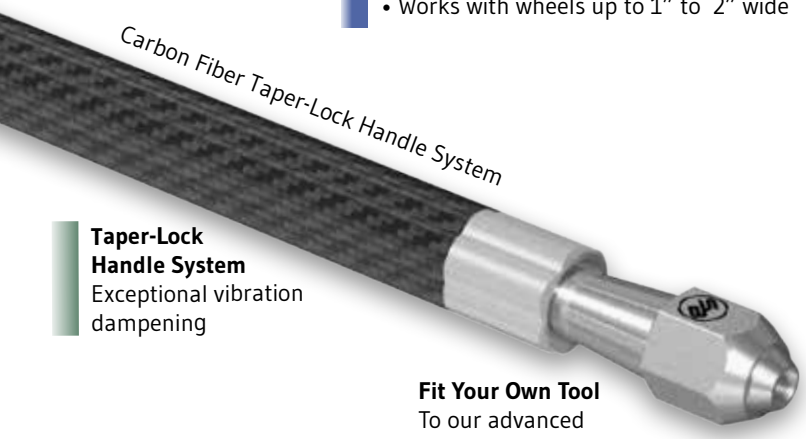

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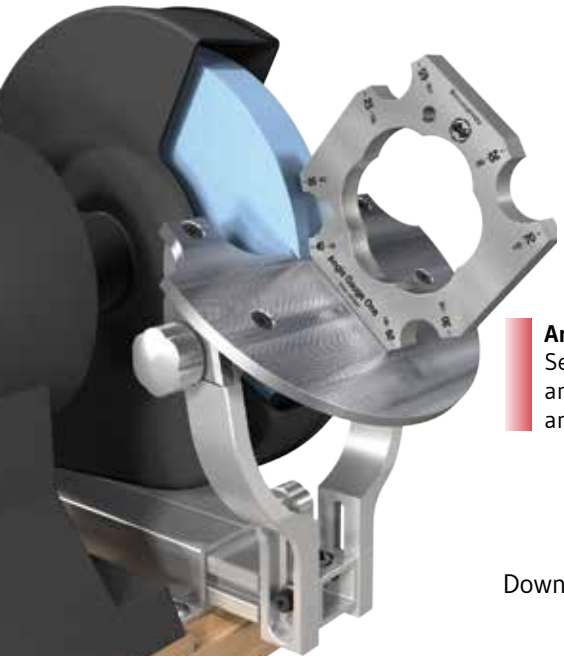

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The game is Craps. Hard maple, quartz crystal within, balanced on a stand of paela. The left-handed, loaded die is turned, burned, and colored with acrylic paint and archival ink. The pips are circa 1966, hippie style.

Baby Needs New Shoes will be exhibited in the Professional Outreach Program (POP) exhibit, “Ceremony,” to be held at AAW’s 28th International Symposium, Phoenix, June 13, 14, and 15. All artwork will be sold at auction.

Baby Needs New Shoes, 2014, Hard maple, quartz crystal, paela, acrylic paint, archival inks, 6" (15cm) cube

Photo: Tim Benko

REGISTRATION FORM • PAGE 1

☐ **YES**, I am traveling to Phoenix for the 2014 AAW International Symposium June 13–15 at the Phoenix Convention Center
Demonstrations end at 3:30 p.m. on Sunday, June 15

Full registration fee includes demonstrations, Instant Gallery, and tradeshow. Award ceremony ticket must be purchased separately.

Register online by June 8 at woodturner.org

Or mail by June 1 to:

AAW International Symposium
222 Landmark Center, 75 5th St W
St. Paul, MN 55102-7704

Phone: 651-484-9094 Toll free: 877-595-9094
Fax: 651-484-1724
Email: inquiries@woodturner.org

☐ **I would like to volunteer to help at the symposium.**

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☐ Friday ☐ Saturday ☐ Sunday

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After June 9, on-site	☐ $49

Check the AAW website (woodturner.org) for updates.

☐ **I would like to volunteer to help at the symposium.**

For cancellation through May 15, 2014, a $75 processing fee will be deducted. After that date the registration fee is non-refundable except for medical emergency.

see you in PHOENIX

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- Light food and hors d' oeuvres
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POP Auction will return to Symposium

- Time and day to be announced

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