MAKE A DECORATIVE INLAY PEN • JEWELRY MADE EASY • SQUARE HOLLOW BOTTLE FROM ONE DISK

AMERICAN WOODTURNER

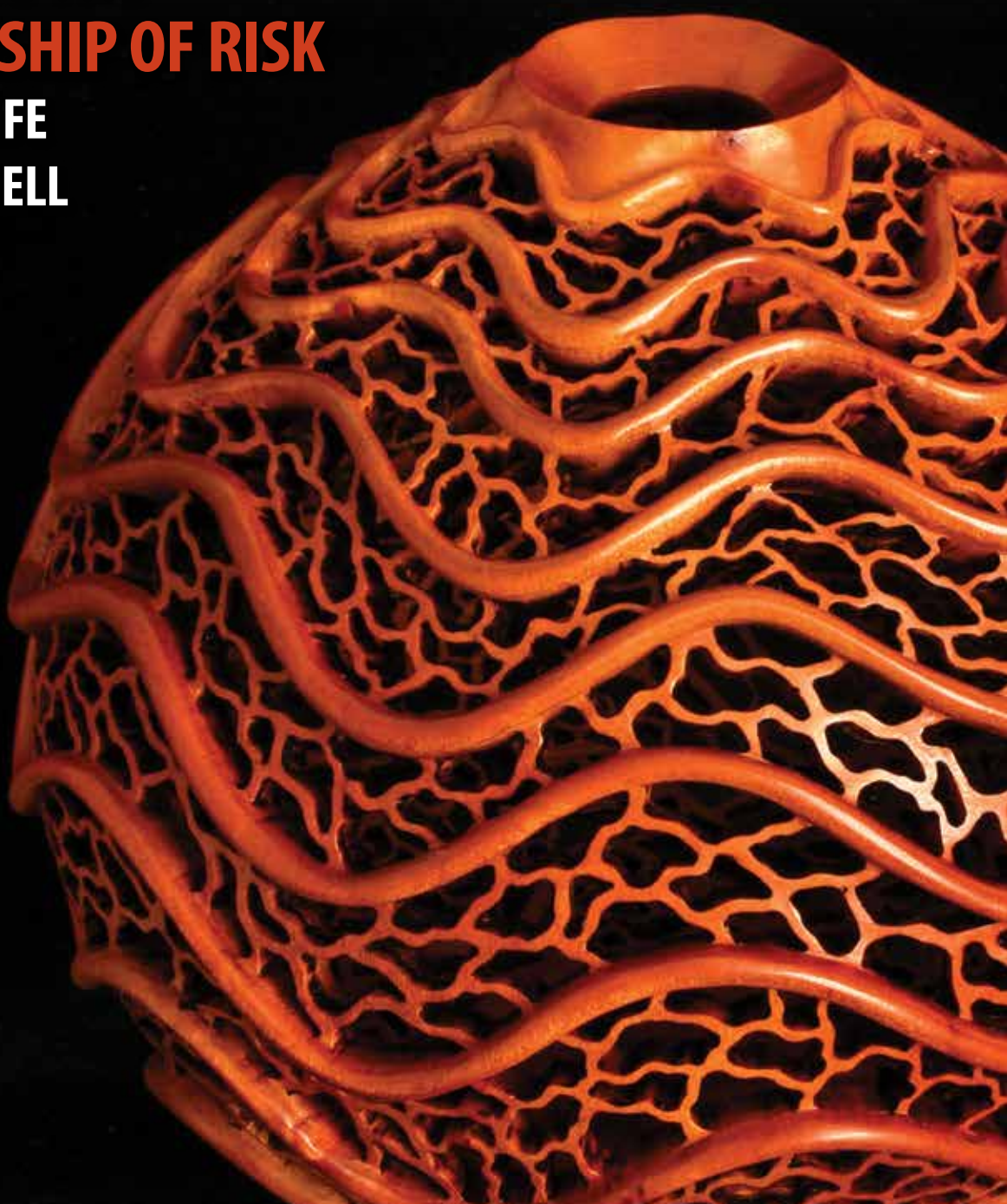
Journal of the American Association of Woodturners
February 2015 vol 30, no 1 • woodturner.org

ENGINEERING THE CRAFTSMANSHIP OF RISK

THE CREATIVE LIFE OF J. PAUL FENNELL

TURNING AND CARVING A WAVE-RIM BOWL

TURN THE KNOB



Kristin LeVier

Idaho

In my sculpture, I work to transform the rigid fibers of wood into organic shapes that embody a sense of motion. I create curves in wood through sawing, turning, carving, and bending. I design some pieces with precision down to the last detail, while others evolve as I let the wood's flexibility determine the final form. All of my work is inspired by nature: plants, sea creatures, microbes, insects, seeds, horns—no doubt a vestige from the twenty years I spent in my former career as a molecular biologist.

Even if my final sculpture appears to be untouched by a lathe, I have often used woodturning in the early stages as a part of the joinery or shaping process. I think of woodturning and carving as drawing in three dimensions, and both appeal to me immensely because they are so well suited to making curves.

For more, visit kristinlevier.com.

Aloe Vessel (for Paul LeVier, in memorium), 2009, Cherry, compressed cherry, acrylic paint, 7½" × 3½" (19cm × 9cm)

Photo: Jonathan Billing, Archer Photography

Horn I, 2012, Maple, aluminum, 5½" × 16" × 4" (14cm × 41cm × 10cm)

Photo: Mark LaMoreaux

Undulata, 2014, Maple, compressed maple, magnets, acrylic paint, 7" × 9" × 6" (18cm × 23cm × 15cm)

Photo: Jonathan Billing, Archer Photography

Samaroid Study #1 (created using German ring-turning technique), 2010, Maple, aluminum, dye, 21" × 5¼" × 4" (53cm × 13cm × 10cm)

Photo: Jonathan Billing, Archer Photography

Symbiosis, 2013, Compressed cherry, maple, padauk, aluminum, acrylic paint, 4" × 8" × 4" (10cm × 20cm × 10cm)

Photo: Tib Shaw/AAW

Ominousa Burl Bowl, 2012, Compressed beech, mallee burl, 7" × 11½" × 10" (18cm × 29cm × 25cm)

Photo: Mark LaMoreaux

AAW | AMERICAN ASSOCIATION OF WOODTURNERS

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

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Inside This Issue

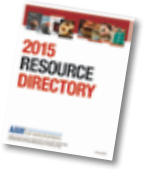
February 2015 vol 30, no 1

FEATURES

AMERICAN WOODTURNER

Journal of the American Association of Woodturners

ASSOCIATION NEWS



WOODTURNERS CHATTER

GALLERY

COVER

Cover – J. Paul Fennell, *Cycles*, 2014, African sumac, 6" × 6½" (15cm × 16.5cm)

Back Cover – Ashley Harwood

woodturner.org

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editor@woodturner.org

For tips on article submission and photography requirements, visit tiny.cc/AWsubmissions*.

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Index to previous articles:
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The AAW does not endorse any product featured or advertised in this journal.

A NOTE ABOUT SAFETY

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

Take appropriate precautions when you turn. Safety guidelines are published online at tiny.cc/turnsafe*. Following them will help you continue to enjoy woodturning.

*Web address is case sensitive.

Editor's Note

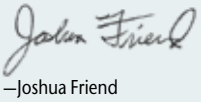
When studying English in graduate school, I was awestruck by what the great writers had accomplished. The literary canon stood mountainous before me. And in literary criticism, what could I possibly add to the ongoing conversation? The answer turned out to be simple: my own perspective. When I considered where I had come from and what excited me about literature, I found worthwhile topics. Soon I began to ask more confidently, What *will* I add to the conversation? These days, I ask myself that question about woodturning.

What aspects of woodturning excite you the most? What makes it interesting? For me, it is the wood itself. Seeing the vast possibilities of the lathe made it hard to imagine the limits of a single piece of wood. I fell in love with trees all over again and became fascinated with wood in all its varieties. I am not a hoarder in other areas of my life, but I began milling and drying a wide variety of wood species. I became a collector of blanks, billets, and rounds, ready for whatever inspiration came along. When I teach woodturning, I bring a variety of wood species so my students will have the pleasure of selecting their own stock—and hopefully form a connection with the material.

Our personal histories also play a role in shaping our perspective on woodturning. Many accomplished turners led full and interesting lives before picking up a gouge, and it is fascinating to see how they have applied their life experiences to our craft. For example, after a twenty-year career as a molecular biologist, Kristin LeVier (inside front cover) seeks to bring a sense of motion to her work. Ashley Harwood (back cover) applies her conceptual fine arts background to the making of useful lathe-turned items in surprising ways. J. Paul Fennell (expertly profiled by Terry Martin on page 46) applies the precision of his aeronautical engineering background to high craftsmanship at the lathe. J. Paul's creations could only have come from his unique life experiences, his own perspective.

What excites you about woodturning? What life experiences inform your perspective on lathe work? What will you add to the conversation? I think it is worthwhile to ask these questions of ourselves.

On another note, I am pleased to continue offering articles paired with online video. In his article on page 35, Dave Mueller outlines the making and use of a shopmade offset chuck used for adding interest to pendants and other small turnings. In the video, Dave *shows* how it is used. If a picture is worth a thousand words, this video is worth a million. You can find a link to the video on page 40.



—Joshua Friend

From the President

On behalf of the entire membership, I want to thank our outgoing board members for their many years of service to the AAW. Dale Larson, Sandi Speier, and Binh Pho have dedicated countless hours over their six years of serving our organization as board members. I have had the pleasure of serving with them for the past five years on the board and know their contributions to the AAW, individually and collectively, will be felt for many years into the future.

A large part of our membership is interested not only in woodturning but also in giving back. Service as an officer or volunteer in a local chapter is one way of giving back, as is mentoring, making pens for our troops, and teaching youth at a local school. Whether it is the Boy Scouts or Girl Scouts, entertaining those in nursing homes, or raising money for Make-A-Wish or other charitable organizations, a large part of the satisfaction of woodturning is giving to others.

We are beginning our search for candidates for the upcoming Board of Directors election. Think about those who are contributing at your local level who might be great candidates to serve and give back to their fellow woodturners at the national and international level. Being a great turner or artist isn't necessary—being able and willing to serve in the capacity needed as one of the nine directors is the only requirement. Leadership skills in many areas are needed, from working with chapters to finance and everywhere in between. If you know of someone you think is willing and able to serve at the director level, please encourage him or her to follow the self-nomination link at tiny.cc/Board. If you are interested, please do the same. Self-nomination is encouraged. Other areas where members are welcome to contribute are the many committees of the AAW. This organization is volunteer driven. From the local level to the national and international level, it can't be done without volunteers.

You might be seeing the upcoming symposium in Pittsburgh as still a long way off. I'd suggest it is just around the corner. The planning of the annual symposium is a year-round task, and in fact the symposia for the next few years are being worked on as well. The Pittsburgh plans for rooms, rotations, galleries, auctions, meals, accommodations, and other symposium needs are well underway with the support of the local symposium team headed by Dave Dudney. We are back to the topic of volunteers. The local team is a huge part of the equation, as is the national team headed by John Ellis. Our symposium is not possible without our local and travel-in volunteer groups. In my experience, there is no such thing as too many volunteers. Whether you are capable of running the video camera during a demo or helping unload the AAW materials being shipped in, we need your assistance.

The number of members who have repeated their service at the symposium each year is heartwarming. They travel to our event and promptly go to work to help make the event run smoothly for the other attendees. Many are seen in the "front of house," yet there are many more who serve behind the scenes before, during, and after the event. You can be one of those who give something back to the world of woodturning by volunteering at the annual symposium. The amount of time you donate is flexible, as are the tasks. If you have not volunteered at a symposium, I highly recommend you do. Be part of the team that gives back to your fellow members. The rewards are largely internal. It is the satisfaction that you helped make the AAW's annual symposium a success.

We expect the Pittsburgh event to set records in attendance. Not only are our demonstrators among the finest in the world, but our venue is as well. The David L. Lawrence Convention Center will be a great facility for our event. More than sixty percent of our entire membership is within a 600-mile radius of this year's symposium. The AAW website, woodturner.org, has all the details for registration, hotel accommodations, local connections, and more. With the expected attendance, make your plans early. As we embark on our 29th annual international symposium, we look forward to putting on a safe, enjoyable, and educational event for the entire worldwide woodturning community. Get ready for a great event. See you there!

Best,

Kurt

JOIN US IN PITTSBURGH, PENNSYLVANIA, FOR AAW'S 29TH INTERNATIONAL SYMPOSIUM JUNE 25–28

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 to 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.

SYMPOSIUM HOTELS

When you make a reservation, mention that you're with the American Association of Woodturners to ensure you receive the special group rate.

- Our host hotel is the **Westin Convention Center Hotel**, Pittsburgh (attached to the David L. Lawrence Convention Center, site of the AAW symposium). The AAW group rate is $145 for a standard king or two double beds. Complimentary wireless Internet is provided in all guest rooms and early registration begins December 1, 2014.
- AAW group rates are also available at the **Omni William Penn Hotel** (a ten-minute walk to the David L. Lawrence Convention Center). The AAW group rate is $145 for a standard king or two double beds. Complimentary wireless Internet is provided in all guest rooms.

INVITED DEMONSTRATORS

Mark Baker, England

- Lidded vessels—repeated in each rotation with changes in surface enhancement for each
- Turned and surface-enhanced bowls
- Classical tazza
- Contemporary tazza

Classically Inspired Tazza, 2014, Figured sycamore, spalted beech, 12" × 15" (30cm × 38cm)

Contemporary Style Tazza, 2014, Burr poplar, ebonized sycamore, 11" × 15" × 15" (28cm × 38cm × 38cm)

Stuart Batty, Colorado

- Perfecting the Art of Cutting
- Bowl Turning with the 40/40 Grind
- The Seven Setup Fundamentals

Double Wing Bowl

Jerry Bennett, Texas

- Segmentology: taking the guesswork out of cutting accurate segments
- Wood sculpture techniques in large scale
- Open-aligned vessels

Twist and Shout, 2013, Mahogany, ebony, maple, steel, brass, nickel, 54" × 39" × 25" (137cm × 99cm × 64cm)

Michael Brolly, Pennsylvania

- Sandblasting for dramatic effect
- Sandblasting to tell stories

Let's Dance, 2014, Douglas fir, bronze, 12" × 11" × 11" (30cm × 28cm × 28cm)

Christian Burchard, Oregon

- 30 years of wrestling with wood: talk and slide presentation
- Turning spheres freehand, with simple surface decoration, centered and off-center
- Green-turned hollow vessels, with roots and root burls

3 White Pots, 2014, Bleached madrone root, 11" × 15" × 12" (28cm × 38cm × 30cm)

Nick Cook, Georgia

- Light up your life with turned table lamps
- Turned for use: production items for the marketplace
- Turning pepper mills and salt shakers

Pepper mills and salt shakers

continued

AAW 29TH INTERNATIONAL SYMPOSIUM IN PITTSBURGH

David Ellsworth, Pennsylvania

- Hollow form from a log using Ellsworth Signature gouge and hollowing tools of his own design
- Open bowl from half log using Ellsworth Signature gouge
- Natural edge open bowl from half log using Ellsworth Signature gouge

Sphere, 2013, Spalted maple, 9" × 9" (23cm × 23cm)

Lyle Jamieson, Michigan

- Foundations of bowl turning
- Foundations of hollow form turning
- Thin-walled goblet
- Advanced hollow form techniques

Mantle of Power, 2005, Elm, 10" × 7" × 7" (25cm × 18cm × 18cm)

Photo: Don Rutt

Steve Kennard, Canada

- Making a "teardrop" box from African blackwood
- Making a cylindrical box with decorative rings—Part 1 of 2: preparation and assembly of decorative inlaid rings
- Making a cylindrical box with decorative rings—Part 2 of 2: turning box blank, sizing and fitting lid, and hollowing to accept a burl lining
- Looking at surface embellishment using texturing techniques

Tower II, 2008, African Blackwood, cocobolo, thuya root burl, 5" × 3" (13cm × 8cm)

Craig Kirks, Minnesota

- Curved design elements for segmented woodturnings
- Methods and jigs for accurate segmented work
- Making a torus (doughnut shaped) segmented vessel

Wings, 2012, Macassar ebony, bloodwood, curly maple, 6½" × 8¼" × 1⅝" (17cm × 21cm × 4cm)

Alain Mailland, France

- Turning and carving a carnivore flower, including use of Escoulen chuck, steam bending, hollowing, and carving
- Turning and carving a tree and flower from a French root burl
- Turning a coral nest using Escoulen chuck
- How I realize: a slideshow story of my inspirations and process
- Overview of French contemporary woodturning, slideshow

The Birth of the Viking Ships, 2014, Cherry graft, airbrush colors, 9" × 17¼" (23cm × 44cm)

JoHannes Michelsen, Vermont

- Full-sized wearable hats, different styles for each rotation
- Miniature hats
- Ancillary hat items: mirror frames from waste rings, wall racks, and stands for hats

Slouch Hat, 2003, Bastogne walnut, 18" × 14" × 15" on stand (46cm × 36cm × 38cm)

Pascal Oudet, France

- French dentelle (French lace) from green wood, with sandblasting
- Combining turning and carving: making of a teapot
- What's going on in France: slideshow of recent work by French woodturners
- Making an original box

Bowls, 2014, Turned and sandblasted oak, largest: 4¾" (12cm) diameter

Joey Richardson, England

- Thin-walled turning, piercing, and texturing from green wood
- Floral form design, texturing, and carving
- Airbrushing and color to capture the mood and story of each piece

My Habitat, 2014, Sycamore, cast glass, 9" × 5" × 6" (23cm × 13cm × 15cm)

Avelino Samuel, St. John, Virgin Islands

- Turning and layout of spiral-carved side-lying vessel
- Carving, sanding, and texturing a spiral-carved side-lying vessel
- Turning and layout of spiral-carved vessel with convex and concave segments
- Carving the spiral-carved vessel with convex and concave segments
- Turning finials, collars, and feet

Untitled, 2014, Mahogany, 7" × 5½" (18cm × 14cm)

Mark St. Leger, Virginia

- Rock-A-Bye box
- Square lidded box

Hanging in the Balance, 2008, Maple, 4" × 9" × 3½" (10cm × 23cm × 9cm)

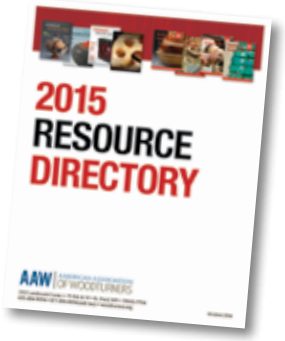
Jacques Vesery, Maine

- The need for beauty in bowls; good form attracts good function
- Concepts in design and form; form trumps pretty wood
- Inspiration, challenge, and evolution; works by J. Vesery, image presentation and discussion

Une Triade de Mon Moi Intérieur (a triad of my inner self), 2008, Cherry, acrylics, dyed silver leaf, blackwood, bronze, 13" × 6" × 6" (33cm × 15cm × 15cm)

Seaspoon, Teaspoon... Same Difference, 2010, Cherry, dyed silver leaf, acrylics, 8" × 3" × 3" (20cm × 8cm × 8cm)

AAW's *2015 Resource Directory*: Printed Copy



AAW's *Resource Directory* is a valuable tool that enables members of the AAW community to connect with each other. The *Directory* is available online 24/7 at woodturner.org. Changes you make electronically to your member profile are "live" for all to see immediately. A hardcopy of the *Resource Directory* is printed every two years, and the next printing is scheduled for early 2015.

Update your information

To ensure your member information will be up to date in the printed *Directory*, please log in to your AAW member account at woodturner.org and review your profile data. For changes to be reflected in the printed *Directory*, **updates must be made by February 28, 2015**. All members current as of this date will be included in the directory (unless they have elected not to be included).

How to get your copy

The printed *2015 Resource Directory* is available to members for a fee of $5 to cover shipping and handling. Members may purchase multiple copies. Order yours at AAW's online store (tiny.cc/Store) by **February 28, 2015**. The *Directory* will be mailed to members in April.

Features of the *2015 Resource Directory*:

- Member contact information
- Chapter contact information
- Woodturning business resources
- Woodturning demonstrator information

Sponsor a Demonstration Room in Pittsburgh

We are offering the opportunity to express your support of AAW by sponsoring a demonstration room during the Pittsburgh symposium. Whether as an individual member, an AAW vendor, or as a local chapter, this is a way to visibly display your support of the AAW and our programs. We especially want to thank all the individuals and organizations that sponsored rooms last year in Phoenix. Opportunities to participate in this fundraising program still remain. For more information, please contact Phil McDonald, Executive Director, at 877-595-9094 or phil@woodturner.org.

Newly Elected Board Member

Per AAW bylaws, the board of directors has elected a replacement for Philip Hauser, who has tendered his resignation for health reasons. Greg Schramek will fill the balance of Philip's term on the board and will assume Philip's role as treasurer. Please join us in welcoming Greg as a new board member.

Calling all AAW Chapter Newsletter Editors and Webmasters

Each year, the AAW holds the Best Chapter Newsletter and Best Chapter Website contests. Closing date for applications is April 1. Winners will be announced in mid-May on AAW's website and at the AAW international symposium; there will be a follow-up announcement in the *American Woodturner* journal.

How to Apply

Applications for both contests must be submitted online. Links to rules and guidelines, as well as to all past winners' newsletters and websites, can be accessed via the "Chapter Officers" page of the AAW website, woodturner.org. This is a members-only page. Once there, links to these contests can be found under "Opportunities."

For both contests, the judges will be looking for:

- Visually appealing layout
- Current content
- Content that pertains to woodturning
- Content that contributes to AAW's mission
- Useful woodturning and news-related information
- Sound writing skills

Hall of Fame

Past first-place winners of the chapter newsletter and website contests have been inducted into AAW's Hall of Fame, prominently honored on our website. Visit tiny.cc/chapterwinners to view all past winners. To recognize the excellent work of the full range of AAW chapters, first-place winners in either category must wait three years before entering the competition again.

Above all, newsletters and websites should be fun to read and provide useful information for the chapter they serve. ■

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 2016.

For information on the duties of board members, call any current board member or visit the AAW website at tiny.cc/Board 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, 2015:

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 2015.

Chapter Collaborative Challenge (C3) 2015

For AAW's 29th international symposium in Pittsburgh, Pennsylvania, the chapters and membership committee will again sponsor a Chapter Collaborative Challenge (C3).

Each AAW chapter is invited to submit one collaborative work created by as many chapter members as possible, with a minimum of six participants. Complete rules for entry can be found at tiny.cc/C3.

The pieces will be prominently displayed during the symposium in an area near the Instant Gallery. During the symposium, attendees will be invited to select, by ballot, their choice for Best of Show and their favorite piece in each of three categories: Artistic, Mechanical/Technical, and Fantasy. Votes will be tallied prior to the banquet, during which the winners will be recognized. In addition to plaques awarded for the winner in each category, the AAW will provide one free symposium registration to each chapter that wins an award. ■

Calendar of Events

April issue deadline: February 15

Send information to editor@woodturner.org

New Zealand

March 13–21, 2015, "CollaboratioNZ 2015," Whangarei. Held biennially, this collaborative event gives seventy participating artists a chance to explore new mediums and connect with other artists. For more, visit collaborationz.co.nz.

California

September 14, 2014–March 15, 2015, "In the Realm of Nature: Bob Stocksdale & Kay Sekimachi," exhibit at Mingei International Museum, San Diego.

Colorado

September 18–20, 2015, 19th annual Rocky Mountain Woodturning Symposium, The Ranch Larimer County Events Center, Loveland. The event offers forty-nine rotations; demonstrators include Glenn Lucas, David Ellsworth, Sam Angelo, Michael Roper, Doug Schneiter, Vince Wilson, and more. For the most recent demonstrator list and registration information, visit rmwoodturningsymposium.com.

Hawaii

March 14, 15, 2015, 6th annual Honolulu Woodturners Symposium. Jerry Kermode will be the featured demonstrator. For more, visit honoluluwoodturners.org.

March 7–27 (except Sundays), 2015, Big Island Woodturners 17th Annual Exhibit, Wailoa Center, Hilo. Meet the Artist reception, March 6th, 5:00–7:00 p.m. Woodturning demonstrations will be held Saturday March 7, 14, and 21, 10:00 a.m.–2:00 p.m. The event also includes an online auction. Visit bigislandwoodturners.org for information or to place a bid.

Idaho

February 21, 22, 2015, Idaho Artistry in Wood Show, Boise Hotel and Conference Center, Boise. Show will include competitors from all skill levels in wood carving, turning, scroll work, fine woodworking, gourd art, and pyrography and will feature demonstrations, vendors, raffles, an auction, and banquet. For full details, visit idahoartistryinwood.org.

Massachusetts

February 21–June 21, 2015, "Audacious: The Fine Art of Wood from the Montalto Bohlen Collection," exhibit at the Peabody Essex Museum (PEM), Salem. Showcasing one of the world's finest contemporary wood art collections with more than 100 pieces, the exhibit coincides with Bob and Lillian Montalto Bohlen's donation of forty-seven works to PEM. Opening day activities to include a special presentation and artist demonstrations by Binh Pho, Ron Gerton, and Stuart Mortimer. For more, visit pem.org.

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

October 17, 18, 2015, Yellowstone Woodturners Symposium, Billings. Featured demonstrator/teacher will be Douglas J. Fisher, who will provide a demonstration and workshop. He will demonstrate wood sculptures using off-center turning, adhesive designs, dyes, and enhancements. For more, visit yellowstoneturners.org or call Ron Velin at 406-679-0902.

New Hampshire

May 8, 9, 2015, 8th Annual New England Woodturning Symposium, Pinkerton Academy, Derry. Hosted by the Guild of New Hampshire Woodworkers and the Granite State Woodturners, the symposium will include woodturning demonstrations, a gallery of work by demonstrators and attendees, and a trade show. There will also be a Youth Turning Day, Friday, May 8. For more, visit gnhw.org.

New York

March 28, 29, 2015, Totally Turning Symposium, Saratoga Springs. Presented by The Adirondack Woodturners Association. Featured presenters include David Ellsworth, Nick Cook, Dixie Biggs, Doug Fisher, John Beaver, Kurt Hertzog, Derek Weidman, Dick Gerard, Steve Mushinski, Steve Pritchard, Willie Simmons, Ralph Mosher, and Bill Meier. For more, visit totallyturning.com.

North Dakota

April 17–19, 2015, Hands-on Annual Spring Symposium, Career Center at Bismarck State College. Three demonstrators will offer the hands-on learning experience. For more, visit dakotawoodturners.com.

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, Molly Winton, Eric Lofstrom, Nick Stagg, and Sara Robinson. For more, email gerrost@yahoo.com or visit oregonwoodturningsymposium.com.

Utah

May 14–16, 2015, Utah Woodturning Symposium, Utah Valley University, UCCU Events Center, Orem. Engage with today's top professionals and up-and-coming woodturners in a friendly, informal learning environment. More than ninety-five demonstrations and a full schedule of special events. For more, visit utahwoodturners.org.

Washington

March 21, 2015, Northwest Washington Woodturners' 6th annual All Day Demo, Anacortes First Baptist Church, Anacortes. Featured demonstrator will be Michael Hosaluk. For more, visit nwwwt.org/HosalukDemo.pdf or contact Rick Anderson at registration@nwwwt.org. ■

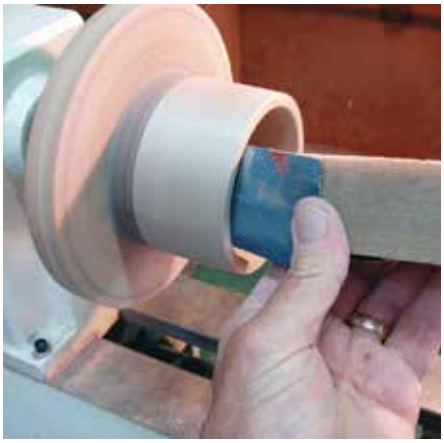
Tips

Safe sanding aid

I have seen many woodturners use their fingers to hold sandpaper when sanding the interior of small bowls at the lathe. I used this method for a while, each time thinking of the potential consequences. I have seen too many industrial accidents involving rotating equipment and a worker's hands.

I tried using sandpaper wrapped around the end of a belt sander cleaner (giant gum eraser). It worked perfectly: the gum rubber keeps the sandpaper in place without slipping off; the sponginess of the rubber allows uniform sanding of interior curves; and it keeps my hand and fingers out of harm's way.

—Bill Wells, Washington



Share your turning ideas!

If we publish your tip, we'll pay you $35. Email your tips along with relevant photos or illustrations to editor@woodturner.org.

—Joshua Friend, Editor

Deeper Powermatic shelf

I was inspired by Ken Rizza's tip in the August 2014 issue of the journal (*AW* vol 29, no 4) about making a shelf that attaches to a Powermatic lathe. I have long had a small wooden tray on top of my lathe, and since I bought my Powermatic, I have been meaning to make a larger one. Using Ken's basic idea for mounting the unit to the lathe, I made the outer piece using 2" × 6" dimensional lumber so the shelves could be deeper. (The inner piece still has to be made of 2" × 4" material.)

I made the lathe-top tray from ¾" (19mm) plywood and the shelves from ½" (13mm), all cut into the 2" × 6" frame. The tray is framed with ½" hardwood on edge so small parts stay put, and I drilled ¼" (6.4mm) holes into the tops of the edging to hold small tools and accessories.

—Dan Marler, Washington

Anti-seize lubricant

I recently rough-turned a good quantity of wet cherry. Midway through the work, when changing my chuck jaws to a larger set, I found that the screws that secure the jaws were very difficult to loosen. Moisture from the wood contributes to the screws locking in place. Another cause is the tendency to over-tighten the screws.

Now, every time I switch chuck jaws, I apply an anti-seize lubricant to the screws to make it easier to back them out the next time. The jaw screws came with anti-seize compound on them from the manufacturer, but the lubricant needs to be replenished over time. It is commonly available at automotive supply stores.

Chucks are not the only turning equipment that need anti-seize lubricant. The screws that secure carbide cutter inserts to a tool shaft can also be difficult to loosen.

—Leon Olson, Minnesota

Magnetic chip deflector

When I turn seasoned hardwood, especially roughing, the chips that come over the tip of the tool hurt the side of my hand. I tried wearing a protective glove on the hand that holds the tool to the toolrest but found that I don't like the feeling of wearing a glove. Then I came up with the idea of placing a rare earth magnet the diameter of my gouge's flute into the flute about 1" (25mm) forward of the heel of my hand. It works great; the chips hit the magnet instead of my hand.

—Mickey Goodman, Massachusetts

Outboard toolrest for JET 1642

I decided to make a shopmade toolrest holder for outboard turning on my JET 1642. I used commonly available 1" (25mm) black steel gas pipe and associated fittings, which are strong enough to withstand the pressure of woodturning and didn't require welding. I can reposition the assembly by swiveling it and sliding it through a 1¼" (32mm) tee fitting.

To allow for easy adjustability, the 1¼" tee fitting is joined at all three inputs with short lengths of 1¼" pipe. These larger diameter pieces just slip over the 1" pipe so I can easily swivel and slide the assembly. I drilled and tapped into the side of the 1¼" pipe for short ⅜"-16 (10mm) bolts, which lock everything in place.

I made a platform, or foot, for the assembly to rest on the floor, and this support gives the setup its strength. Measure and cut a piece of 1" pipe up to the height of your current lathe banjo and install a 1" tee at the appropriate height for the horizontal pipe to slide through the 1¼" tee. To ensure your outboard-mounted workpiece has ample clearance, set the position of the horizontal pipe lower than the largest diameter piece you might turn.

To secure the outboard toolrest to the lathe, I bolted a length of 1" pipe into the end of the lathe, which already had tapped holes for me to use.

—Jeffrey A. Knichel, New Jersey

Mobilize your log platform

In the June 2010 issue of the journal (vol 25, no 3), Emmett S. Manley, Jr., offered a great tip on how to build a log processing platform. I finally built one and love it. I no longer struggle with securing logs for chainsawing and don't have to worry about ruining my chain on my concrete driveway. The platform is stored in my garage when not in use, and I devised a simple way to mobilize it when needed.

I fastened a handle on the end where the shorter uprights are attached. On the other end, I attached two wheels at an angle. The wheel angle must be such that when the platform is laid flat, the wheels are not touching the ground. This is critical, as it ensures the platform won't move when in use. ■

—Bob Patros, Wisconsin

Photos: Paul Fisch

Nutmeg Woodturners Partners with Waterbury Youth Services

Sakwon Mitchell (foreground) and Moises Hernandez (background) learn to sand on a lathe while making battle tops.

Buster Shaw demonstrates how to finish a project to Moises Hernandez.

Juan Rivas, Sakwon Mitchell, and Eric Asarisi urge on their battle tops during the spin-off. The challenge was eventually won by Sakwon.

Waterbury Youth Services (WYS), of Waterbury, Connecticut, works to promote the overall well-being of at-risk youth, who benefit from a structured program of hope, encouragement, caring, and opportunities. How can a local AAW chapter be part of this worthwhile effort? Easy, we offered to demonstrate woodturning to the kids in the program and then watched their eyes light up. That was just the beginning of the Nutmeg Woodturners' partnership with WYS.

When I met with Kelly Cronin, then Executive Director of WYS, to show examples of woodturnings and explain what can be turned on a mini lathe, she immediately went through the WYS facility gathering students and teachers to gauge their interest. And boy were they interested! Kelly not only asked us to demonstrate, but also asked if I would consider a longer-term commitment to bring woodturning to WYS.

At the next Nutmeg meeting, I discussed the opportunity with club members. If enough interest was raised among the youth, we could have an opportunity to partner with WYS to bring encouragement and positive adult supervision to teens who really could use it. As expected, the club was eager to participate.

A partnership develops

After two demos utilizing three mini lathes and four demonstrators, it was time to make a commitment. We learned that WYS was planning a summer program in conjunction with the Connecticut Department of Children and Families where they would provide supervised instruction for twenty hours per week for six weeks. Kelly Cronin asked if Nutmeg would participate in this effort by providing eight hours of woodturning instruction per week and offered to establish a woodturning shop for us with the hope of continuing involvement after the summer program was completed.

Nutmeg Woodturners responded tremendously with eight members signing up to teach in the summer program and several others assisting with project ideas and models. A shopping list was developed by Nutmeg, approved by WYS, and supplied by our friend John Matchak of the Norwalk, Connecticut, Woodcraft store. A conference room at WYS was converted into a woodturning shop with three mini lathes, supporting tools, and equipment, including a sharpening station, drill press, and storage cubicles for the students' projects.

The Nutmeg team developed a schedule of projects for the kids to complete. We then assigned ourselves to the six-week schedule with one person identified as lead instructor for the day and two assistants. This pre-selection of projects allowed for the identification of prep work required, and individuals volunteered to complete the tasks.

We had nine teenage boys in the program and, with a limited number of lathes, had to do some creative scheduling. But by the second session it was obvious that both teacher and student were having a good time.

AAW's Young Turners Program a help

We used AAW's Young Turners Program for project ideas and requirements for students to qualify for a Woodturning Student

Certificate. The first project was a bead and cove stick, followed by a honey dipper. Although most of the kids didn't have a clue what a honey dipper was, you could see their pride in completing a nicely finished project that contained beads, coves, and tapers. The goal was to give the kids an opportunity to build their confidence and develop pride by creating useful items. After the honey dipper, we progressed to turning a pen, and then a small mahogany bowl. The final project was to turn a "battle top," which may seem like a less challenging project than what they had done before, but we used it as a fun way to close out the program. After all the boys turned and decorated their battle tops, they spent the off-lathe time completing the hand launcher and ensuring the top spun freely in preparation for our final battle top challenge. *(See sidebar by Joe Larese on how to make this simple, fun toy.)*

The class was divided and assigned to two conference tables. On signal, all the tops were spun and the last top spinning on each table had a spin-off to identify the student winner. The student winner then had a spin-off with two of the instructors. The results of the challenge proved that we did a good job of teaching them how to turn a top.

Regardless of whether the boys will continue woodturning, they know they have the ability to learn new skills. And as I write this article, we are starting an afterschool program at WYS. One day a week the Nutmeg Woodturners will be teaching WYS students to produce marketable items. ■

—Jay Hockenberry

Battle Tops Joe Larese

Jay Hockenberry, a fellow member of the Nutmeg Woodturners, was looking for a turning project that would interest the kids involved with the Waterbury Youth Services. I remembered how much fun my kids had with string-propelled tops and realized calling them "battle tops" would add some competitive fun. The construction is relatively easy with adult supervision. Be sure to make at least two handles and two tops so you can have a spin-off!

The handle

1. Start with a ¾"- (19mm-) thick board, 2¾" wide × 7½" long (70mm × 191mm).
2. Using a drill press and a 1½" (38mm) hole saw, drill a hole centered to the width and 1½" in from one end.
3. Draw on the handle shape and cut out with a jigsaw or band saw.
4. Turn the handle on edge and drill a 5/16" hole 2⅜" deep, being sure to intersect the 1½" inch hole at the center. Drill through one edge of the handle, but only part way into the opposite edge (*Photo a*).
5. Sand to round the edges and make the handle comfortable to hold.

The top

1. Use a 2½" (64mm) hole saw with a ¼" (6mm) pilot drill to create a disk from a ¾"-thick pine or poplar board.
2. Cut a ¼"-diameter wooden dowel 5" (127mm) long.
3. Glue the dowel into the disk with 1¼" (32mm) protruding from one end.
4. To turn, sand, and paint the disk, you can mount the longer end of the dowel in a pen mandrel whose ¼"-diameter shaft has been removed. You can also hold the top in a Jacobs chuck mounted in the headstock spindle of your lathe. With either method, bring up the tailstock for support (*Photo b*).
5. Turn, paint, and decorate the top (*Photos c, d*).
6. Drill a 7/64"- (3mm-) diameter hole in the shaft of the top (*photo e*).
7. Attach a 2" (51mm) length of dowel to a piece of string about 24" (61cm) long.

Wind and go!

Slip the shaft of the finished top into the handle and thread the string through the small hole. Grip the top and turn, winding the string around the shaft. Pulling the string quickly allows these tops to spin much faster than finger-spun tops. Create a battle top arena by cordoning off a section of a table (better yet, turn a large platter with a rim) and challenge a friend to see who has the top top.

Journal Archive Connection

For another take on battle tops, including an arena design and rules of the game, check out Robert Shafer's article from *AW* vol 28, no 1 (page 24). AAW members can access the journal archives at woodturner.org. Under the "American Woodturner" tab, click on "AW Journal Archives."

Book Review: *Across the Grain: Turned and Carved Wood*, Fuller Craft Museum, 2013, 48 pages

Of the roughly 200 American art museums with collections of fine craft, only a small percentage focus exclusively on contemporary artwork in craft media, including wood. Ten years ago, the Fuller Art Museum, located outside of Boston, joined this select group after adopting a new charter as the Fuller Craft Museum. Since then, the Fuller has developed into the only institution of its kind in New England, generating up to fifteen exhibitions per year. Woodturning has played prominently in the mix of shows, thanks to museum director Jonathan Fairbanks—an artist and avid collector himself—and board members like Binh Pho and noted woodturning patron Fleur Bresler. Featured makers have included Rude Osolnik, Bob Stocksdale, Christian Burchard, William Hunter, and the South Shore Woodturners. The museum also offers popular woodturning classes.

In 2013, the Fuller mounted "Across the Grain" to spotlight its growing collection of wood objects, especially turnings from both marquee artists and lesser-known talents. The exhibition also presented furniture and carvings from notable innovators Wendell Castle, Kristina Madsen, Michelle Holzapfel, and Norm Sartorius. All together, the show encompassed ninety-one makers and 121 pieces.

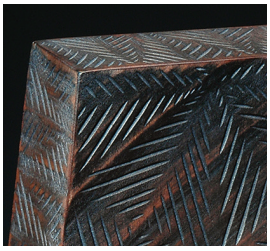
The museum produced a small catalog displaying sixty-two selected works from the exhibition, now closed. Among the gems inside are Tom Rauschke's delicate cat-tailed *Pond Bowl*, Mark Gardner's monumental tablet, *Offering*, and Ed Zucca's clever hall table, *Coneheads in the Bay Window*. Striking works by Betty Scarpino, Earl Powell, and Chris Ramsey appear here as well, and in fact resurface in the "Recent Acquisitions" show currently at the Fuller.

Across the Grain does not attempt to compete with the weighty coffee table tomes on major private collections. It stops short of covering all the exhibited artists or providing lengthy introductory essays and commentary. Occasionally, the modest photographic frame and lighting do not allow the scale and detail of works to be fully appreciated. Yet the catalog succeeds admirably overall as an effective teaser for those woodturning enthusiasts unacquainted with the caliber and frequency of shows at the Fuller. There is indeed much to enjoy among these varied pages. Given its discounted price, the book easily qualifies as an affordable addition to a personal or AAW chapter library. It might also serve as an enticing reminder to put this museum on the itinerary of your next visit to New England.

Special catalog pricing of $5, including shipping, is available until Sunday, March 15th. To order, visit fullercraft.org/shop-fuller-craft.

—David M. Fry

Mark Gardner, *Offering,* 2004, Maple, milk paint, 33" × 26" × 3" (84cm × 66cm × 8cm)
Photo: Dean Powell



Betty Scarpino, *Rendezvous Revealed,* 2007, Bleached oak, ebony, walnut, lacquer, 14" × 18" × 13" (36cm × 46cm × 33cm)


Photo: Alex Hochstrasser


Photo: Jeffrey Brown

Tom Rauschke, *Pond Bowl,* 1992, Hickory, black walnut, 5½" × 9½" (14cm × 24cm)

Service Personnel Honored With "Purpleheart" Pens

One of the most prestigious medals that can be awarded to any man or woman in uniform is the Purple Heart, a distinguished combat decoration. Members of the Southeast Indiana Woodturners (SIW), an AAW chapter, started a unique outreach while sharing their talents as woodturners: to turn pens from purpleheart wood and donate them to injured soldiers.

The outreach initiative came about after Jack Richmond, a talented woodturner who passed away at the end of last year, donated some purpleheart wood to our chapter. Another of our club members met a nurse at Walter Reed National Military Medical Center in Bethesda, Maryland, and formed a connection that led to this project. Each soldier receives a handcrafted wooden pen in a velvet bag, along with a card indicating who made the pen and contact information.

The Holton, Indiana-based woodturners started making pens and sending them to Walter Reed and Fort Bragg and giving them to local soldiers and veterans with Purple Heart medals. The program has since expanded to include any soldier. SIW has worked with local legions, the Veterans Administration, and local senior living communities. More than 1,500 "purpleheart" pens have been distributed thus far. ■

—Don Barnes

A selection of "purpleheart" pens turned by members of the Southeast Indiana Woodturners and given to injured military personnel.

Turners for Cancer Research Announces 10th Anniversary Event

Planning is well underway for the 10th annual Matisho Memorial event, hosted by Turners for Cancer Research in Waldheim, Saskatchewan, Canada, March 21, 22, 2015. The annual event, sponsored by the Saskatchewan Woodworkers' Guild, brings turners together to enjoy the comradery inherent in our craft and to raise donations and awareness to support the fight against cancer. Money raised by the event is donated to the Canadian Cancer Society.

Over the years, attendance has grown. The event began with about fifteen turners attending as a way to remember Larry Matisho, a woodturning friend. This number has grown significantly over the years and currently we attract about fifty woodturners each year.

Steve Penn (left) and David Guenther discuss David's first turning.

Photo: Cal Isaacson

Local support

We have set up as many as forty lathes to facilitate a complete hands-on experience. An excellent relationship with the Lee Valley store in Saskatoon ensures that we have a supply of lathes and tools to entice newcomers to the craft. One of our goals, aside from raising donations for cancer research, is to introduce woodturning to the next generation. Over the years, we have hosted a dedicated Youth Session, where kids are introduced to the craft by an experienced woodturner.

Harry Harder (left) and Cal Isaacson (right) take a break from turning to visit.

Photo: Richard Zwarch

This year's event marks the third year that Menno Industries, a local organization that provides vocational opportunities for intellectually disabled adults, will be our host. We feel privileged that Menno allows us to make use of its expansive shop.

The Hub City Turners and the Saskatchewan Woodworkers' Guild have also rallied to support this cause over the years. The "Matisho Memorial" benefits from the sponsorship of the Guild, which has provided the necessary insurance to cover the event, free of charge.

Special recognition also is extended to the Prince Albert Woodturners Guild, a neighboring AAW chapter that also hosts an event to support cancer research. We would like to encourage more woodturning clubs to consider hosting an event to raise donations in support of their local or national cancer agencies.

For more information, visit turnersforcancerresearch.org or contact Glen Friesen at glenfriesen@sasktel.net. ■

—Glen Friesen

Chapel Hill Woodturners Partners with Cedar Ridge High School

Cecil Sparrow (left), of the Chapel Hill Woodturners, assists Cedar Ridge High School student Hunter Thompson in making tops for pediatric oncology patients at UNC Children's Hospital.

Photo: C. Prioli

Cedar Ridge High School students with their winning state fair entries (from left): Hunter Thompson, 2nd place; Ian Surman, 1st place and Best of Show; and Cody Gainey, 3rd place.

Photo: C. Prioli

When the county commissioners of Orange County, North Carolina, assembled for a public meeting in September 2014, they were in for a pleasant surprise. Students and teachers from Cedar Ridge High School in Hillsborough, North Carolina, and members of the Chapel Hill Woodturners were in attendance to be recognized for receiving an Orange County Arts Commission grant—written by Chapel Hill Woodturners—supporting the high school's new course in creative woodturning.

The students' first public service project for the fall term was to turn a collection of stainless steel ice cream scoops with cherry handles, which they presented to each of the county commissioners. "Like the Chapel Hill Woodturners," said club member and woodturning instructor Carmine Prioli, "part of our mission at Cedar Ridge is to use the art and craft of woodturning to help make the world a better place. And what better way to begin than to make the lives of our political leaders just a little bit sweeter?"

As part of its outreach and community service mission, Chapel Hill Woodturners accepted an invitation to provide funds, equipment, grant writing, instruction, and course development in woodturning to Cedar Ridge. The Arts Commission award was used to buy woodturning equipment and new lathes to build upon the school's prominent furniture and cabinetmaking program.

Several members of the Chapel Hill Woodturners began the partnership informally in the spring of 2014, working with Keith Yow, Furniture and Cabinetmaking Director at Cedar Ridge, and about a half-dozen students. By the fall of 2014, they had won additional support from the Department of Career and Technical Education, J & G Machinery, Inc. (Sanford, North Carolina), Woodcraft (Raleigh, North Carolina), and Hunter Tools (Madison, Wisconsin). The result was a completely reorganized woodturning shop, four new JET midi-lathes, and a class of eager students ready to turn wood.

In October 2014, woodturning students at Cedar Ridge distinguished themselves with top awards for lathe work (youth category) at the North Carolina state fair. Plans are underway for more competitions and future service projects.

Chapel Hill Woodturners seeks to promote the craft and art of creative woodturning. Its workshop, located in Carrboro, North Carolina, features a gallery of turned artifacts, a library of publications and woodturning instruction manuals, twelve lathes, and a range of machinery, tools, and materials available to members. These resources are also offered at no charge on a weekly basis to non-members from the local community wishing to learn the craft of turning or improve their turning skills.

In addition to partnering with Cedar Ridge High School, Chapel Hill Woodturners has an ongoing program of public service that includes material and personnel support of other nonprofit organizations. ■

—Carmine Prioli

Update on Shopmade Sanding Disks

In the Summer 2005 issue of *American Woodturner* (vol 20 no 2, page 19), I wrote a detailed article about shopmade sanding disks. The key part of the article was the specific need to use four-pound ester foam. As reported in the article, this material has the right combination of flexibility and ability to withstand the torque force of power sanding. However, after several years' experience, I now offer a word of caution: This foam is unstable over time.

After being stored for a couple of years, the ester foam degrades to a gummy, sticky mess and becomes useless. Once the foam is made into sanding disks, it seems to be a little more stable, although the disks do wear out with time and use. If you intend to make your own sanding disks per my article's instructions, purchase only enough ester foam to make one set of disks, and do not expect to store the unused foam for more than a year or so. I also repeat the caution of spraying contact cement onto the foam very lightly.

—Larry Genender

Make a Decorative INLAY PEN

Charles Mak

For a lot of woodturners, myself included, pen turning was the first joyful encounter with the art of the lathe. But after a while, making pens, regardless of their style or materials, can become less interesting. Inlay kits do make for unique pens but are not economical for some, while other methods (making a Celtic knot, for instance) may be too complicated. I would like to offer an easy process for creating eye-catching inlay pens without the use of kits. This process also offers a wealth of design opportunities.

This simple method involves drilling holes and/or mortises into a pen blank and filling those voids with contrasting materials prior to drilling the blank and gluing in the brass tubes supplied with your pen kit. The blank is then mounted on the lathe, turned, and finished in the usual manner, and the result is a one-of-a-kind inlay pen with interesting patterns. By changing the combination of voids, their shapes, the filler materials, the layout, and the final size of the pen barrels, you can create an almost infinite number of patterns for your pens (or other spindle projects).

1

Chuck a ¼" plug cutter in the drill press to make plugs of a contrasting wood.

Tools and materials

In addition to the usual pen-making tools (spindle gouge, pen mandrel, drill press, for example) and supplies (pen blanks, pen kits), I use a ¼" (6mm) brad point bit to drill holes and a ¼" plug cutter to make round plugs from scrap wood (*Photo 1*). I use a mortising machine to cut the square holes (mortises), but you could also use a mortising attachment on the drill press. I cut ¼" square filler stock on the tablesaw. Alternatively, you can use pre-cut ¼" dowels and square rods.

Design the pattern

Explore possible designs by pondering questions like these:

- What kind of layout do I want for the dots and/or squares on the pen?
- Will they follow a certain pattern—straight line, spiral, evenly spaced, or will they be randomly placed?
- How many voids and which shapes/sizes do I want?
- What will be the effect of the wood or other material I choose for the pen blank and plugs?

To help me visualize and examine my design choices, I usually sketch them on paper (*Figure 1*). As you gain more experience with the technique, you can explore many other design options and choices of materials (*see sidebar*).

Applying your design

Once you have a design blueprint, use a fine-point felt pen to mark the hole locations on the pen blank. I also draw two straight lines on the blanks to indicate the rough size of the finished pen. ▸

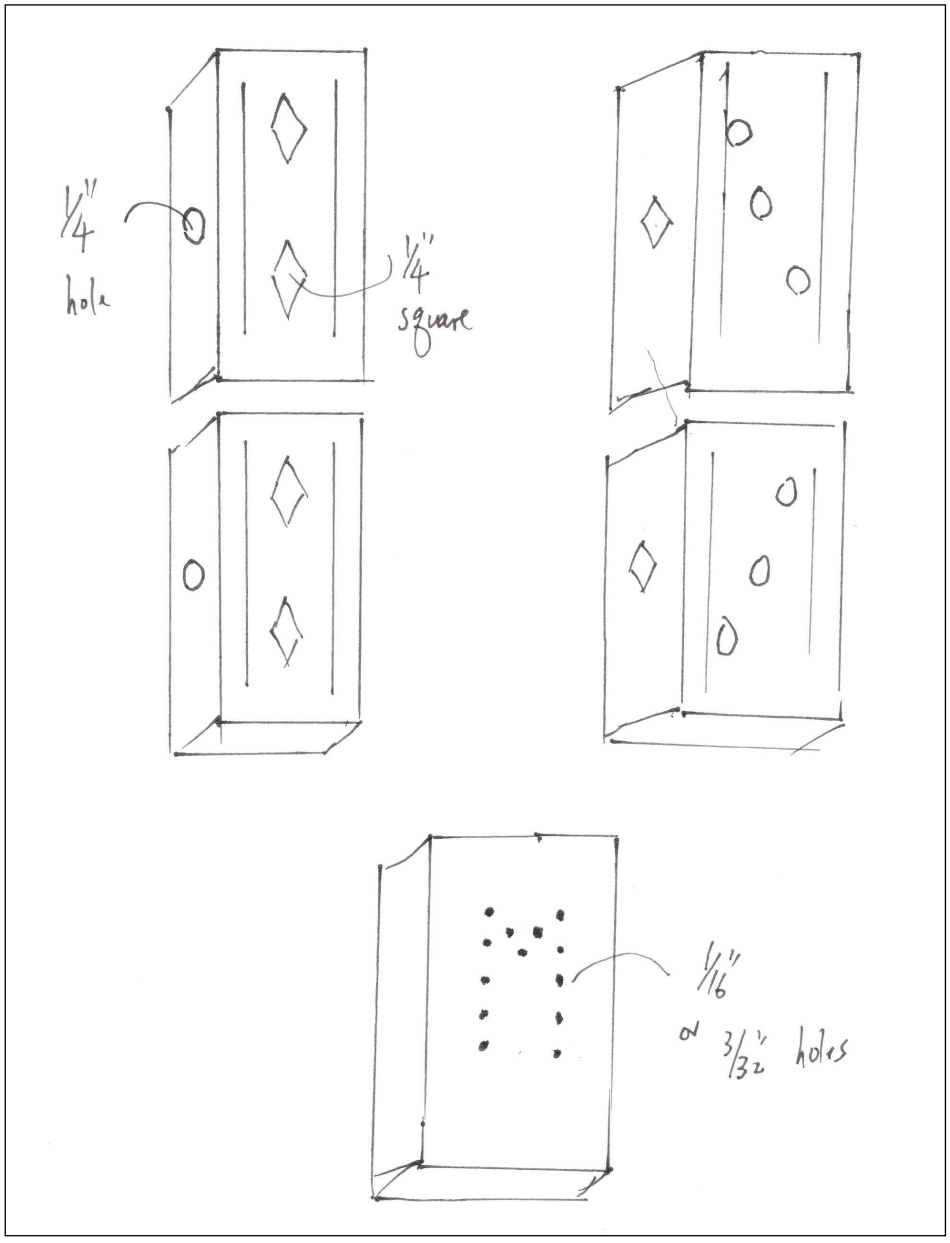


Figure 1. Sketch out your inlay designs to help visualize the patterns.

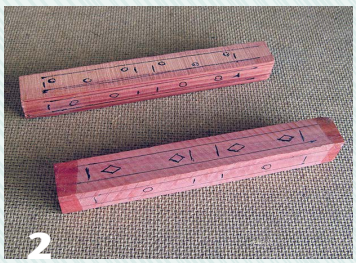
Make sure your pattern is placed well within the boundary lines (*Photo 2*).

Place the blank on the drill press and chuck a ¼" brad point bit to drill through holes for the dots you have marked on the blank (*Photo 3*). Use a mortising machine or (drill press attachment) to cut the squares or diamonds (*Photo 4*). If you don't have a mortising machine or mortising attachment and plan to make only a few squares, you have a third, cheaper option: cut them by hand. To do this, drill a 7⁄32" (6mm) center hole in each square or diamond mark. Then cut to the square corners using a ¼" bench chisel or mortise chisel (sold as a chisel and bit set, but the auger bit is not used) with a mallet. At this stage, if the squares are not perfectly cut, don't worry—I'll show you a quick fix later.

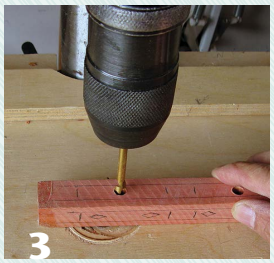
After the holes and squares are drilled, fill them with plugs and square rods using cyanoacrylate (CA) glue or epoxy (*Photo 5*).

Prepare and turn the pen blanks

Before cross-cutting your pen blank to size based on the brass tubes supplied with your pen kit, mark the blank to indicate the grain orientation. This will help you mount the two pen barrels on the mandrel in the correct order and ensure the wood grain is running continuously from one barrel to the next

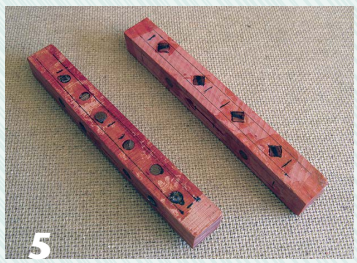


Use a dark pen to lay out your design and boundary lines based on the finished diameter of the pen.



Drill all the ¼" holes in the blanks using a drill press.

Use a mortising machine or drill press attachment to cut the square holes. You can also cut them by hand with a chisel and mallet after drilling a smaller hole within the square.



Glue the plugs and square pieces into the drilled voids.

Square the ends of the pen barrels to the brass tubes.

Turn the pen barrels to the desired profile and size.

Apply and buff coats of wax on the pen barrels.

Press fit the pen parts together.

after assembly. At the drill press, chuck a brad point bit sized to your pen kit and drill a hole through the length of the blank. Clean out any debris left in the hole and then glue the brass tubes into the pen barrels using thick CA glue or epoxy. Once the glue is cured, square the ends of the pen barrels to the brass tubes. I use a pen mill for this task (*Photo 6*).

Insert the barrels between the appropriate sized bushings on a pen mandrel, using the mark you previously made to ensure correct mounting order and orientation. Once secured, mount the mandrel between centers and turn the pen barrels with the tool of your choice (*Photo 7*). Use sharp tools and take lighter cuts when the blank's diameter nears the size of the bushings.

Lower the speed of the lathe for sanding. Move the sandpaper along the axis and keep it from contacting the bushings. After sanding, finish the pen with your preferred method. I like to apply two coats of polish (a shellac-based lacquer) with a paper towel to bring out the grain. I then inspect the whole pen, looking for any tearout on the inlay pattern. Here's my trick for repairing rough inlay transitions or tearout. Choose a wax stick that is close in color to the inlaid material (dot or square/diamond) and rub some wax into any voids created by tearout. With the lathe turning at a high speed, buff the waxed spots with a lint-free cloth to blend in the repairs. Apply and buff a coat or two of a lighter tone wax on the whole pen (*Photo 8*).

Assembly

Lay out the pen kit hardware and the turned barrels in their proper order. Follow the kit's assembly instructions to press fit the parts together (*Photo 9*).

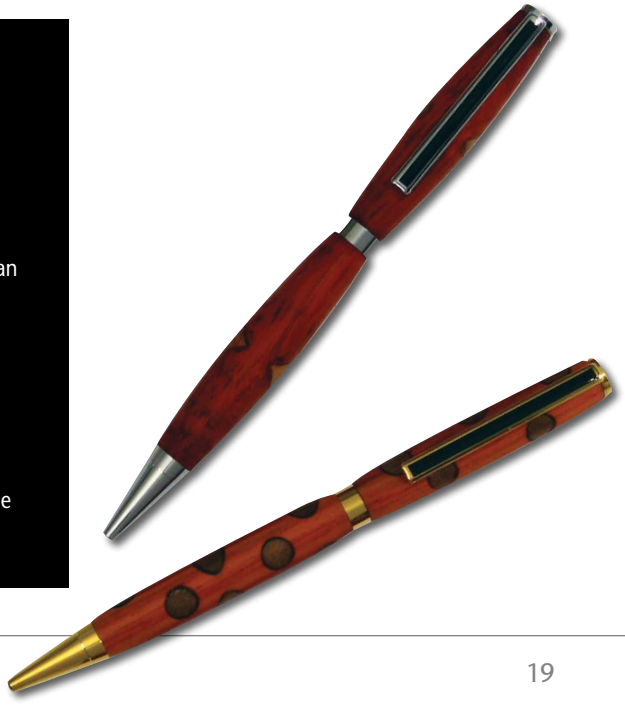
Whether or not you believe the pen is "the tongue of the mind," as Horace asserted, you can express your creative side with your own pen inlay designs. ■

Charles Mak runs a small business in Alberta, Canada. He has developed a variety of woodworking classes and teaches in his spare time. Charles is a frequent writer, sharing his work in various magazines in Australia, Britain, and North America. He can be contacted at spindleturning@gmail.com.

Inlay design ideas

Experimenting is part of the fun with this inlay technique. Consider these alternatives and others when you plan your next inlay pen:

- The holes/squares can be overlapping to create a unique look. Or, with small holes drilled and plugged, you can create initials or a distinctive image on the pen.
- By using colored markers and light-toned dowel rods like maple as the filler materials, you can color your pattern the way you want (after the pen is sanded). Simply seal and protect the color with a coat or two of suitable finish.
- Try non-wood filler materials or a combination of materials for your patterns such as plastics (clear or colored), acrylics, Corian®, sawdust, and even soft metals.
- Holes can be left unfilled or partially filled (for a dimpled look). If holes are not plugged, consider hiding the exposed brass tube by painting it with a black felt pen or one that is close to the wood blank in color.



Turning and Carving
A WAVE-RIM BOWL

Wave-Rim Bowl, 2012,
Purple gidgee, 3½" × 7"
(90mm × 180mm)

Neil Scobie

I first made a wave-rim bowl back in 1985, and it is still one of my favorite designs. At the time, there were no rotary carving tools available, so most of the carving was done with hand carving gouges and a chainsaw to cut the end slots. Today, with so many power carving tools to choose from, the task is much easier. If you are one who likes to carve by hand, you can still make this project—it will just take longer. I call it a "wave rim," taking my inspiration from surfing and trying to get up under the lip of a curling wave.

For this bowl, I chose purple gidgee wood, which is very hard and close grained. Gidgee only grows in the drier outback regions of Australia and is not readily available in larger sizes. The bowl blank was roughed out with a thick wall and allowed to dry for about six years. Leaving the walls extra thick gives you more options for carved designs when the timber is dry (*Photo 1*). Most stable timbers available in the U.S., such as walnut, rock maple, and oak, would also be suitable.

If you are roughing an unseasoned blank for this project, leave the walls extra thick for carving designs in the rim when dry.

Turning the bowl

1. Hold the bowl blank on the lathe by using a scroll chuck in expansion mode in the hollowed bowl section (*Photo 2*). If this is not possible, hold it by the foot spigot and turn a recess in the top to accept the chuck jaws. Sometimes in the drying process, bowls warp too much for

The author's deep-fluted "trimmer" gouge, used for making smooth finishing cuts on both the outside and inside of bowls.

them to be mounted safely in a chuck, so you may need another holding method for initial turning. This could include holding between centers or placing the inside of the bowl over a mandrel with the tailstock brought up for support (as illustrated in *Photo 20*).

2. Shape the outside of the bowl using a deep-fluted bowl gouge. Roll the gouge on its side with the flute facing the outside of the bowl and cut with the bottom half of the cutting edge (*Photo 3*). *Figure 1* illustrates the shape I try to achieve for this design.
3. For a smooth surface, take final shearing cuts with what I call a trimmer gouge—a deep-fluted ¼" (6mm) gouge with the front edge sharpened perpendicular to the axis of the gouge. The tool's bevel angle is about 60 degrees, with the back edge rounded to avoid making pressure marks when rubbing the bevel (*Photo 4*). For finishing cuts on the outside of a bowl, use the vertical cutting edge on the right side of the gouge. If you imagine a clock face, I have the tool rotated slightly to the left of vertical—so the flute is pointing to about 11 o'clock. When presented properly, this tool saves a lot of sanding (*Photo 5*).
4. Shape a spigot, or tenon, for remounting the bowl in the scroll chuck. I use the long point of a round-shafted skew chisel for this task (*Photo 6*). This spigot will be removed later.
5. Using the long point of the skew, mark the center of the spigot with a small "v" (*Photo 7*). This will be helpful in centering the bowl later when reverse mounting it to remove the temporary spigot.
6. Sand the bottom section of the outside of the bowl to about 320 grit. Finer sanding can be done after the carving process.
7. Mount the bowl in the chuck using the temporary spigot. Using a bowl gouge, remove the inside waste with the opening of the flute ▸

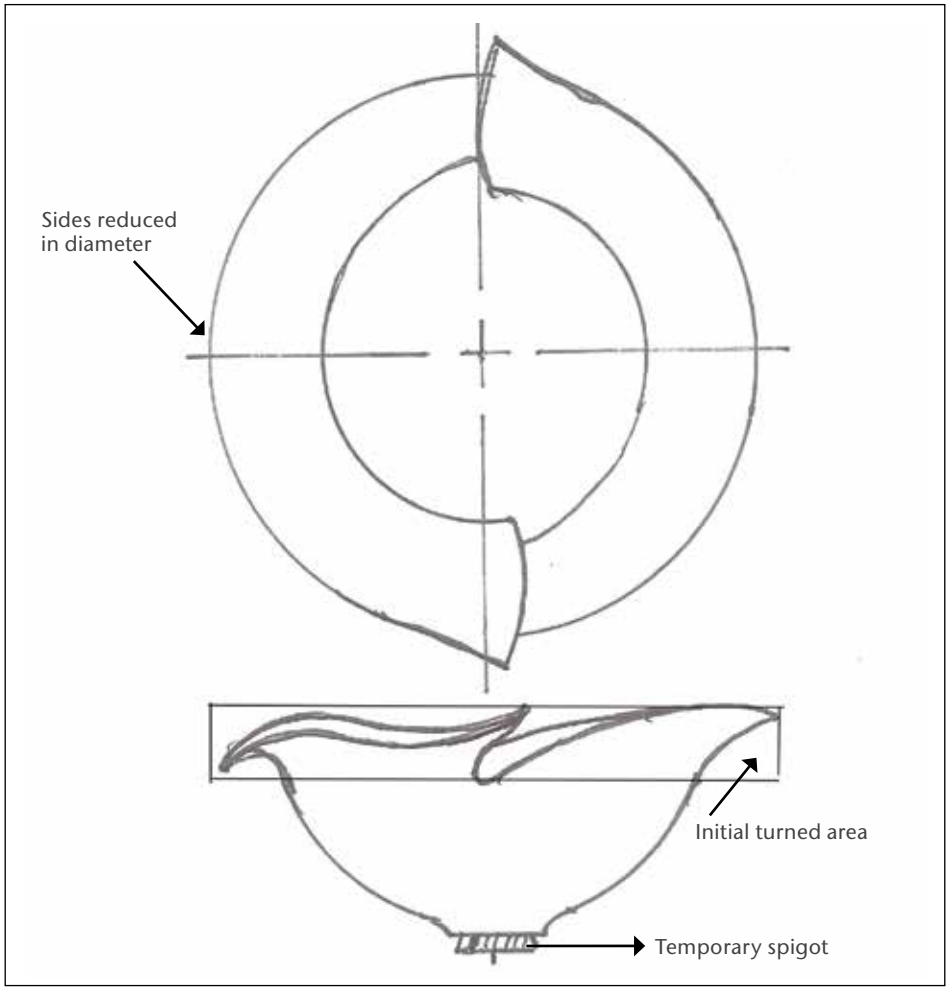
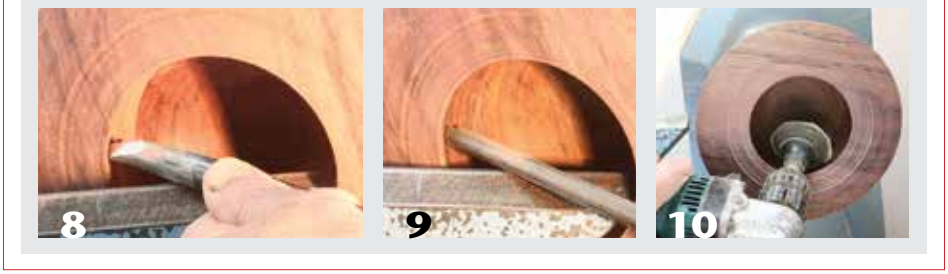


Figure 1.

pointing just above the center of the bowl—in about the 2 o'clock position (*Photo 8*). The rim at the top should be left quite wide but will be undercut on the inside (*Figure 2*). Wall thickness under the carved part of the rim should be about 3⁄16" (5mm). Make sure you leave enough thickness in the base for a small hollow, or undercut, of the foot when the spigot is removed. This will ensure the bowl sits on the outermost edges of the foot and will prevent the bowl from rocking when placed on a flat surface.



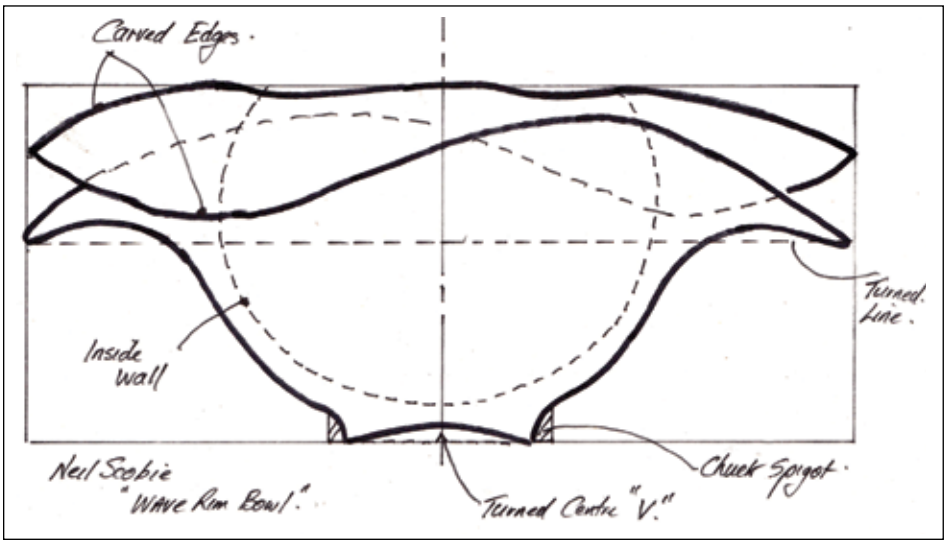
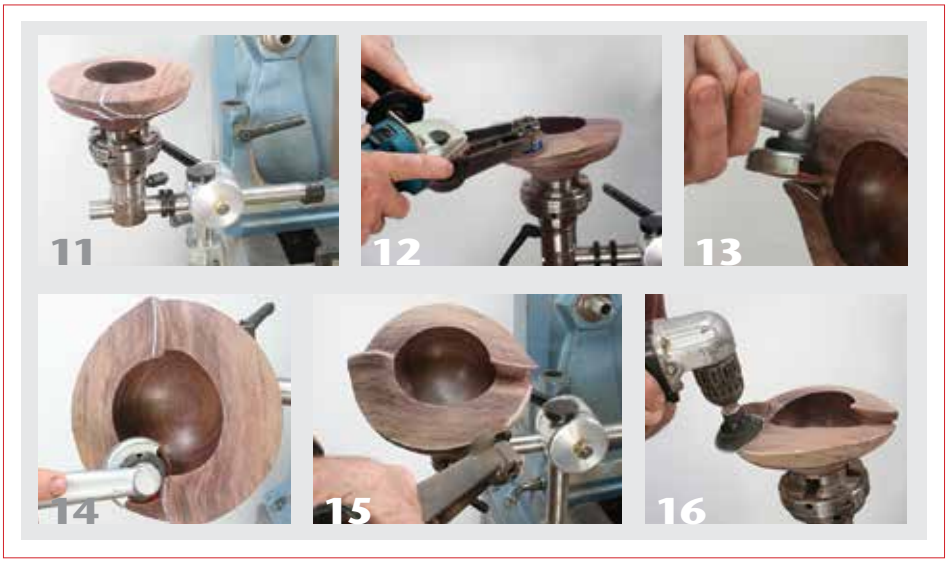


Figure 2.

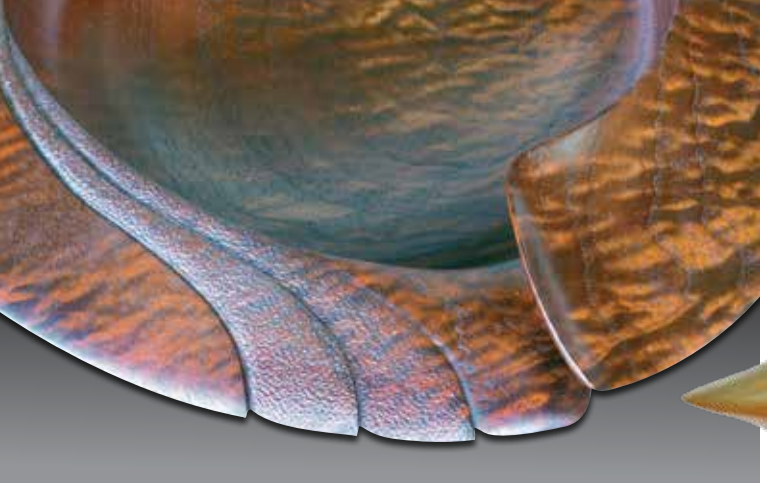


8. Using the trimmer gouge with the flute pointing just to the right of the 12 o'clock position, take a light finishing pass, cutting with the left vertical edge of the tool (*Photo 9*). As on the outside of the bowl, this cut will save a lot of sanding. With practice, you will be able to rub the bevel all the way through the cut—from rim to bottom.
9. Power sand the inside surface to 600 grit, as it is difficult to reach after the rim is carved (*Photo 10*). I usually start with 180 grit to remove any tool marks and then progress to 600 grit.

Carving the rim

To hold the bowl while carving, it is handy to have a carving mount to attach to the lathe (*Photo 11*). There are a number of different mounts on the market, but you could make a simple one yourself. It is helpful to be able to rotate, swivel, and turn the bowl upside down to make the carving process easier.

1. Use a pencil or chalk to draw on your rim shape before starting to carve. I used a white crayon pencil on this bowl so the lines stand out on the darker timber. Take the time to stand back and look at the lines all the way around to ensure they are where you want them. It is always best to double check your design before getting started with carving tools.
2. As there is a fair amount of timber to remove from the rim, I started with a power mini-carver with rotary rasp attachment (*Photo 12*). Since this rim has a symmetrical design, I like to carve the same section on both sides of the center to maintain uniformity. Shape the top evenly on both sides by rotating the chuck in the carving mount. Keep an eye on your lines so you do not remove more waste than intended.



An alternate rim design. Use these ideas to explore your own design concepts.

Wave-Rim Bowl, 2004, Huon pine, ebony, 7" × 12" × 9" (175mm × 300mm × 230mm)

3. Using a smaller power tool such as a long-neck angle grinder, shape under the end cutout sections using the tool on its flat (*Photo 13*). You will be restricted on how far under you can cut.
4. Using the same tool, undercut the folded area, again reaching in as far as the tool will let you cut (*Photo 14*).
5. Reduce the width of the rim on the sides so the top view is more oval shaped (*Photo 15*). I find the design more pleasing if the sides are pulled in a little, taking away the round look. You could also use a band saw for this step.
6. Using a soft sanding arbor, sand the top surface of the rim, working through the grits to 400 (*Photo 16*). Note how the sanding pad is flared out on the outer edge, making it hug the surface much better. Use a smaller-diameter sanding pad to get into the more hollow areas.
7. Reduce the amount of waste on the underside of the rim so the shape follows the top surface (*Photo 17*). This is where a carving mount that you can rotate upside down is really handy. With dense timber, it may be necessary to use a more heavy-duty tool. For the cutout areas, use a lighter-duty tool with a finer rotary rasp.
8. Use a rotary tool, such as a die grinder, with a tapered burr attachment to refine the shape in the folded area (*Photo 18*). Use the die grinder to shape the undercut on the inside of the rim (*Photo 19*). A smaller rotary tool will also do the job, but on harder timber like gidgee, you will need a more powerful tool.
9. Once all the sanding on the top is complete, reverse mount the piece over a mandrel with a soft piece of foam to protect the sanded inside surface (*Photo 20*). Turn away the chuck spigot and sand the base as far as you can with the tailstock in place. Hand carve off the small nubbin that is left.

Final thoughts

I enjoy making this wave-rim design, but remember you can change the shape to suit your own ideas. I encourage you to experiment with new designs, as time spent on researching new ideas is not wasted, even if an idea does not work out. You still have learned from the experience—just take your cues from each effort and modify the design or start again. ■

Formerly an industrial arts teacher, Neil Scobie now runs his own woodworking business and private woodworking school. He offers workshops in woodturning/carving and furniture making. Most of his time is spent making custom furniture for private clients. For more, visit neilandlizscobie.com.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TURN *the* KNOB

Mike Peace

Making your own turned door and drawer pulls can add a special element to handmade furniture or cabinet projects. Perhaps you want to replace a missing or damaged knob to an old piece of furniture. Sure, you can buy wooden knobs commercially, but where is the fun in that? And most store-bought wooden knobs are rather bland with limited wood choices. Turning your own knobs and pulls allows you to add unique character to a project by customizing shapes and using special woods, such as exotics.

Facegrain vs. endgrain

You can turn knobs and pulls in facegrain or endgrain orientation. Each has advantages and disadvantages. With facegrain, or sidegrain orientation, the grain of the wood is perpendicular to the lathe bed. Endgrain knobs are turned with the grain parallel to the lathe bed, as in typical spindle projects. Some important considerations:

- An advantage of a facegrain knob is that you can orient the grain to match the grain direction in the furniture. You also get a more consistent color match with facegrain since endgrain has a tendency to absorb more dye or finish, which can darken the appearance.
- Screw threads hold better in facegrain than in endgrain, so consider how you want to mount your finished knob to a furniture project when choosing a grain orientation.
- Endgrain knobs are a good choice when you need a smaller knob mounted with a tenon that fits into a hole. Be sure to size the tenon to fit its intended hole.
- Since screw threads do not hold as well in endgrain, you can hold ▸

Shopmade screw chucks

An easy way to mount knobs, pulls, and other small items on the lathe is with a screw chuck. There are commercially available screw chucks, as well as screws that can be held in a scroll chuck, but you can also make your own version (*Photo a*). It works simply by mounting a screw in one form or another to your lathe's spindle and then mounting your workpiece firmly onto that screw. Following are two kinds of screw chucks I have made and used successfully, but you can also make one from a scrap of wood with a tenon to fit in your scroll chuck.

Faceplate-mounted screw chuck

One method is to attach a piece of ¾" (19mm) plywood to a small faceplate. Mount it to your lathe and turn it round. Drill a hole using a Jacobs chuck mounted in the tailstock with a drill bit sized to accept the screw you will be using. I use a fully threaded #10 metal screw, which I screw in from the back to extend about ½" (13mm) beyond the front face. Use the same size screw you will use to mount the knob to the furniture.

Add a thin plywood disk or hardwood block onto your screw chuck and turn a taper sized to match the bottom of your project. This makes it easier to take final shaping cuts near the base of the knob. You can use this taper as a visual reference to size your project without the need for calipers. This is a great technique for small production-style projects like knobs.

Threaded block-mounted screw chuck

Another method of mounting a screw chuck is to use a hardwood block tapped to thread directly onto your lathe's spindle (*Photo b*). This way, you will not tie up a faceplate, and it leaves more room to get a gouge near the bottom of a knob. I make a lot of these wood-threaded screw chucks, as they come in handy for many small woodturning projects, such as boxes.

To make one, you'll need a spindle tap (available online and in most hardware stores) and a hardwood block. Tap the block with a thread-cutting tap to match your lathe spindle. For example, if your lathe spindle has threads that are 1" (26mm) × 8 tpi, use a spindle tap of that size so the block will thread on correctly.

Start with a piece of hardwood at least 1⅜" (35mm) thick and 2¼" (57mm) square with the grain running perpendicular to the lathe bed when mounted. Drill a pilot hole with a Forstner bit ⅛" (3mm) smaller than the tap size (⅞", or 22mm for a 1" lathe spindle). You can do this with a drill press but I find it easier to drill on the lathe with the block held in a scroll chuck (*Photo c*). Drill all the way through the block, but take care not to advance the drill bit too far and hit the inside of your chuck.

Keep the tap perpendicular to the face of the wood block when cutting the threads. I use the tailstock with a 60-degree cone—not to provide pressure, but to keep the tap aligned for the first few threads. You can use a wrench to turn the tap, but I find it easier to use the wooden tap handle I made by drilling a hole in a length of wood and cutting it square with a chisel to fit the square tang of the tap (*Photo d*). Turn the tap clockwise to cut the threads in the wood block. Back out the tap often to clear the wood shavings.

After cutting the threads, true the front surface of the block so it is flat. Use a square-end scraper or skew held flat to cut a slight recess about ⅜" (10mm) wider than your spindle and 3/16" (5mm) deep (*Photo e*). This recess allows your block to clear the unthreaded flat area on the spindle and register against the back of the spindle like a regular faceplate.

Remove the block from the chuck and drip thin cyanoacrylate (CA) glue on the wood threads. The glue, when cured, will strengthen the threads. After the glue has cured, thread the tap back through to clear any excess glue. Finally, apply a little paste wax to the threads.

Now screw your threaded block onto the lathe's spindle with your cut recess toward the headstock. True the other end of the block and glue on a piece of ¾"- (19mm-) thick sacrificial hardwood. I use carpenter's glue and apply pressure with the tailstock until the glue has dried. This piece will hold the screw for your screw chuck. After the glue has cured, turn the entire assembly round with a bowl gouge. As you would for a faceplate-mounted screw chuck, drill a hole using a Jacobs chuck mounted in the tailstock to accept the screw you will be using. Drilling this way ensures the screw, and ultimately your workpiece, will be centered.

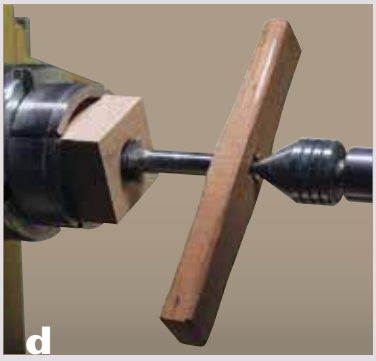
Mounting your workpiece

With these small shopmade screw chucks, you may need to secure the screw with a screwdriver from the back when mounting the work. Bring up the tailstock for support for as long as possible during the cutting. If you need a bit more support for the knob for cutting without the tailstock, add a couple drops of CA glue to the bottom of the blank. But be careful: too much CA and it may be difficult to remove the knob from the face of the screw chuck.

A faceplate-mounted screw chuck (left) and one mounted on a wood block threaded to fit the lathe's spindle. Notice the faceplate-mounted screw chuck has a plywood spacer that serves the same purpose as the raised taper on the threaded block version. It serves as a sizing reference (like a pen bushing on a mandrel) when turning the base of a knob and provides clearance for shaping the bottom section of a knob.

A shopmade screw chuck assembly threaded directly onto the lathe's spindle.

To make a threaded block, start by drilling a hole ⅛" smaller than your lathe's spindle diameter.



Cutting threads in a hardwood block with a spindle tap.

Cut a small recess at the face of the block so it will seat properly when screwed onto the lathe's spindle.

Proper direction of cut for the smoothest surface when the workpiece is mounted in facegrain orientation.

Take light cuts with a spindle gouge with the flute facing the 2 o'clock position, cutting from small to large diameter if the workpiece is mounted in facegrain orientation.

Shape the bottom of the knob with the flute facing about 10 o'clock, again taking light cuts from small to large diameter.

an endgrain knob in a chuck with small jaws. Use a screw chuck for mounting facegrain knobs *(see sidebar information on making your own screw chucks)*.

- With a facegrain knob, the short grain can make the shank vulnerable to splitting if turned too thin. Keep the shank at least ⅝" (16mm) in diameter at the thinnest part. An endgrain knob can be thinner at the base because of the strong grain running though it.

Turning facegrain knobs

Start with facegrain blanks about 1" (25mm) thick and 1⅜" (35mm) square. Mark the center and drill an appropriate-sized hole to fit your screw chuck using a drill press. After screwing the blank all the way onto the screw chuck, rough it round using a small bowl gouge, taking light cuts to keep from stripping the threads. Cut in from each end to avoid chipping. Because this is a small blank, you can safely turn at higher speeds, about 2,000 rpm and faster after the blank is round.

I typically bring up the tailstock for support when roughing. My live center can provide support without leaving an indentation. If using a cup live center, remove the center pin to prevent causing an indent that will take some effort to remove. Avoid over-tightening the tailstock, which will leave a deep ring indention. If it does, consider it a "design opportunity" and accentuate the ring by making it into a V-groove.

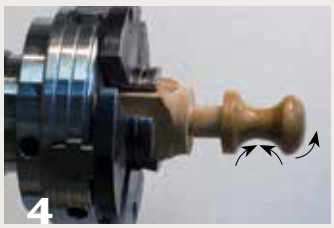
Photo 1 shows the correct direction of cut when the workpiece is mounted in facegrain orientation. On the face, or end of the knob, cut from the center out, similar to cutting the outside profile of a typical facegrain bowl. Cut from low to high when cutting the shank of the knob to slice along the fibers. This prevents the tearout you will likely get if you cut the wrong direction into endgrain. To cut the cove, take light cuts from small to large diameter *(Photo 2)*. To shape the left side of the cove and the knob's base, use a similar cut—from small to large diameter *(Photo 3)*.

Most commercial wooden knobs have a threaded insert for mounting on furniture. But you can easily fasten a facegrain-oriented knob with a screw from the back. You may need to hand sand away some of the fibers pulled up by the screw after removing the knob from the screw chuck. Mount the knob onto your furniture project using a screw the same size as the one used on your screw chuck.

Turning endgrain knobs

Photo 4 shows the correct cutting direction when turning a knob in endgrain orientation. Unlike the cutting direction of facegrain knobs, make your cuts with the grain by cutting from larger to smaller diameter.

Instead of turning one knob at a time, another option with endgrain knobs is to rough turn several at once between centers (*Photo 5*). To finish the face, you will need to mount the roughed blank in a chuck or collet (*Photo 6*).



You can mount a blank in a scroll chuck for turning an endgrain knob. Note the direction of cut for endgrain is from large to small diameter.

You can rough several endgrain knobs at once between centers.

You can hold an endgrain knob that you started between centers in a drill chuck. Finish shaping by taking light cuts from large to small diameter.

Use a shopmade V-block to safely cut a slot for a wedge at the bandsaw.

Traditional Shaker knobs frequently used a wedge in the tenon for mounting to furniture. To safely bandsaw a slot in the tenon or to separate multiple knobs roughed on one blank, hold the knob (or blank) securely in a V-block (*Photo 7*). This will reduce the chance of the workpiece rolling into the blade and causing an accident. To mount the knob onto a furniture door or drawer, insert the slotted tenon through the hole in the furniture, then drive a thin wedge into the slot from the back to tighten the fit.

Design considerations

Experiment with different shapes. Search the Internet to find pictures for inspiration. Add embellishments such as V-grooves, a tiny bead, a dished center, or a contrasting insert (*see sidebar*). If you have to make a large number of identical knobs, such as for a set of kitchen cabinets, a simpler design is easier to reproduce than a more complex one. But as long as you keep the diameter and height of the knobs the same, they will tend to look similar.

Finishing

Sand the knob carefully so as not to round over any crisp details. You may want to use the same finish as the furniture item to which you will attach the pull. With some exotic woods like ebony, buffing and a coat of wax might be all you need. ■

Mike Peace enjoys a wide variety of turning, from ornaments to hollow forms. He is active in several AAW chapters and enjoys teaching and demonstrating in the Atlanta area. You can see pictures of Mike's work and his previously published woodturning articles at MikePeacewoodturning.blogspot.com.

Adding decorative inserts

You might want to add a contrasting insert into the end of your knobs to add interest. Inserts can be of bone, vegetable ivory, or a contrasting wood species. You can easily use a plug cutter to create an insert of a contrasting wood (*Photo a*). The ⅜" (10mm) size works well for a typical-sized knob. Or simply turn a small dowel from an exotic wood and part off short sections for inserts.

After turning the knob, drill a hole the size of the planned insert about 3/32" (2mm) deep (*Photo b*). Turn the insert to the diameter of your hole with a very slight chamfer for a snug fit at the top when glued in. Part it off at least 1/32" (1mm) longer than your hole depth so you can do minor shaping and final sanding after it is glued into the knob. I use medium viscosity CA to glue in the insert (*Photo c*). Shape the final insert profile. I usually use a small square-end scraper for bone, vegetable ivory, and end-grain wood. Use a spindle gouge when shaping facegrain inserts made with a plug cutter.

Tagua palm nuts are very hard, resembling elephant ivory, and have been used as a source of vegetable ivory since the late 1800s. First, flatten one side of the nut on a belt sander and mount on a glue block with CA glue. Taking light cuts, turn to a cylinder to match the predrilled hole in your knob and carefully part off with a thin parting tool. *Photo d* shows a partially turned Tagua nut mounted on a threaded glue block.

I have also used "bovine ivory" (a soup bone boiled to remove the meat scraps) as a decorative insert. Use a hacksaw to cut the bone into short rectangular strips and glue into a snug hole in a block for turning (*Photo e*). I find a small, sharp scraper works better than a gouge to shape bone (*Photo f*). Wear dust protection, as bone dust can be hazardous.

A plug cutter is a simple way to make decorative insert material.

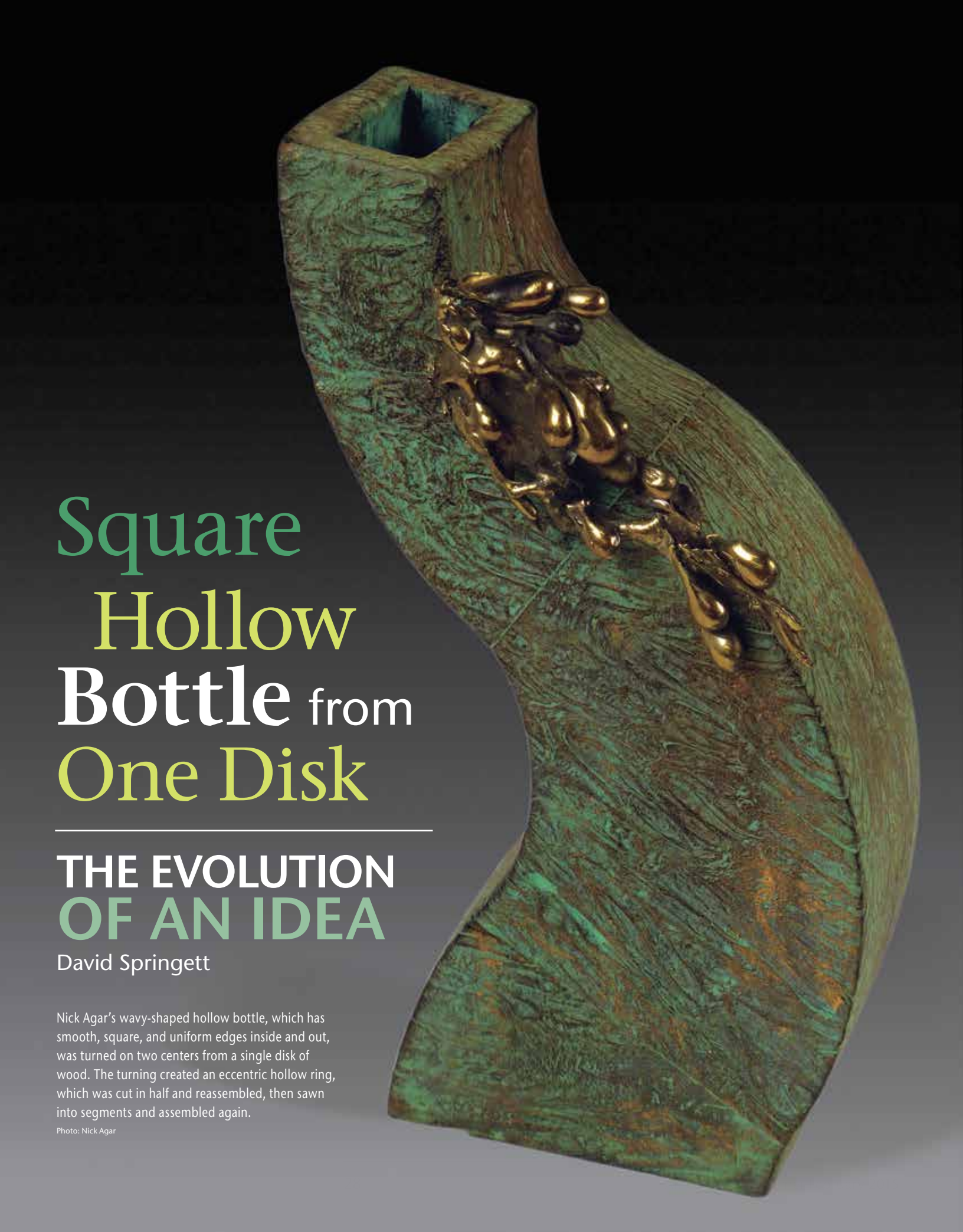
Using a Jacobs chuck in the tailstock, drill a recess in the end of the knob to accept the insert material.

The insert material should initially stand proud of the knob surface so it can be turned and sanded flush later.

A Tagua nut is a good source of vegetable ivory, suitable for a decorative insert.

Gluing a section of bone into a snug-fitting hole drilled into a scrap block is an easy way to mount the material on the lathe for turning.

Use a scraper when shaping bone on the lathe and protect your lungs from the dust.



Square Hollow Bottle from One Disk

THE EVOLUTION OF AN IDEA

David Springett

Nick Agar's wavy-shaped hollow bottle, which has smooth, square, and uniform edges inside and out, was turned on two centers from a single disk of wood. The turning created an eccentric hollow ring, which was cut in half and reassembled, then sawn into segments and assembled again.

Photo: Nick Agar

I am often asked where my woodturning ideas come from, as if I magically receive them. Usually I do not take note of the development of an idea, but when Nick Agar, my friend and fellow woodturner, and I decided to collaborate on a project, I became very aware of how this particular idea—which resulted in a square, hollow bottle form—evolved.

We began with a leftover from one of my books, *Woodturning Full Circle*, where I had turned square holes. That process derived from Stephen Hogbin's groundbreaking idea where he turned a bowl, cut it into two halves, then re-joined it on the uncut edges to create an unexpected form. I had turned a half of a hollow ring, then cut it and re-joined it to produce a square, hollow cross-section (*Photos 1, 2*). To this I added an idea taken from Mike Hosaluk when I saw him demonstrating at a woodturning seminar at Loughborough, England. He turned a hollow cone, sliced the cone at an angle, then twisted the parts and re-joined them to produce a more interesting contorted form.

I made a paper pattern to lay out and cut my square, hollow, half-ring into six careful segments, then carefully hand-sanded the cut ends. Each segment had a perfect square face so it could be rotated against the face of any other segment and glued there. This maneuver produced an interesting contorted hollow form (*Photos 3–5*). ▸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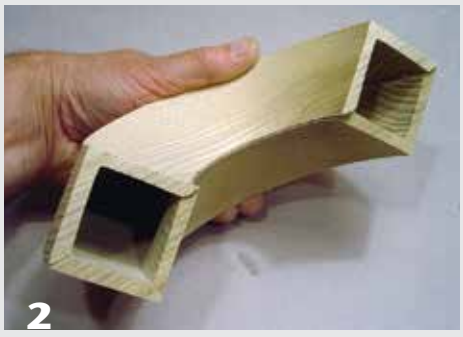
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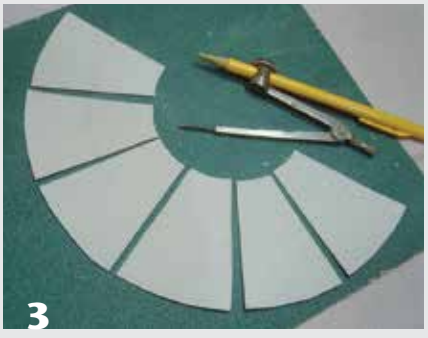
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(1, 2) The investigation began with a half-section hollow ring. Sawing it in half and gluing it face-to-face forms a semicircular hollow form with a square cross-section.

(3-5) To divide a half-ring into six 30° segments, draw and cut a paper pattern. Because the segments have perfectly matching faces, they can be reassembled into a variety of hollow forms.

Nick and I discussed how we could develop this form. If the cross-section were rectangular instead of square, would the shape be more interesting? Could that shape be cut into segments, twisted, and rejoined? We would experiment. We decided to turn a circular U-shaped trough that, when cut into two halves, could be glued to form a hollow rectangular cross-section. But how would we hold it on the lathe? We mounted the blank on a central bolt fixed to a captive nut on the back of a wooden faceplate. We also newspaper-glued the blank to the wooden faceplate so it would stay there when we parted through the inner edge to leave the circular trough that we wanted (*see Newspaper glue joints sidebar*).

Turning the square trough

I turned the top face of the blank flat and true, then turned the edge square to that top face. Next, I turned and sanded a deep, square-edged, U-shaped hollow with its base as thick as its side wall (*Photo 6*). I took care to keep the top surface flat and true, with all corners crisp. Because the workpiece was firmly held on the wood faceplate by the newspaper glue joint, I could turn through the inner edge of the U-shaped hollow (*Photo 7*) to free the U-shaped ring. With this circular piece removed from the faceplate and cut into two, I could join the halves edge-to-edge to create the hollow form with a rectangular cross-section (*Photo 8*).

But wait. The same rectangular cross-section could be turned in another way, as shown in *Photo 9*. It would be a shallow U-shaped hollow with the same length of side, also cut in half and glued. Interesting!

After we had turned and glued up two half-circle hollow forms with the same rectangular cross-section, we cut them both into 30-degree radial segments (see *Photos 10, 11, and the Segments sidebar*) and carefully hand-sanded the edges of each segment to prepare it for reassembly. Because each piece had the same rectangular cross-section, a segment of the first ring could be joined to a segment of the second ring, followed by another segment of the first ring, and so on. But there is a choice in how to attach each segment to the one before, with the curve pointing up or down, followed by the next segment, with the curve to the left or to the right. This procedure produced a contorted hollow form that was interesting but a bit of a dead end (*Photo 12*).

A new direction

It is surprising how sleep can deliver an answer or a new

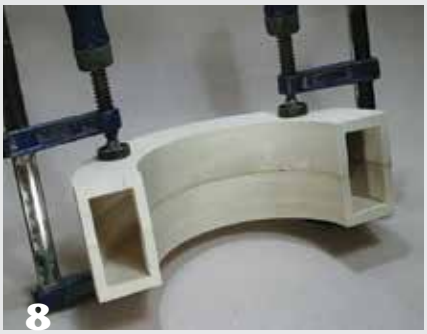
Newspaper glue joints

Using a newspaper glue joint to hold work on the lathe is a remarkably useful technique. It allows the work to be held, turned, and removed without leaving any holding marks.

It's like making a sandwich: plane the two wood surfaces smooth and butter them with glue. Then place a sheet of newspaper (the filling) between the two pieces of wood and clamp the sandwich firmly together. When the glue has dried, turn the workpiece and then separate the two pieces by splitting the joint apart. Tap a sharp knife into the joint to begin the split. Then press a blunt dinner knife, or wood wedges, into the small opening to shear the newspaper, leaving half of its thickness on each side. Then scrape and sand the surfaces clean. Important points:

- The two wood surfaces must be planed flat and true.
- White polyvinyl acetate (PVA) glue, the type kids use in school, is effective but it must be thick, not watery. Any watery glue is liable to soak through the newspaper and make the joint permanent.
- Newspaper or brown bag? I have always used ordinary newspaper and found that it works exceptionally well, but I know many turners prefer using slightly heavier brown-bag paper. Whatever works for you is fine, but thick paper is liable to be too weak and the joint might shear while turning.
- Clamp the work firmly and make sure the joint is tight. Leave the work in clamps for 24 hours to allow the glue to dry. If you live in a damp climate or your workshop is cold and damp, leave the work clamped longer to ensure the glue dries fully.
- If you are at all nervous about turning the piece, you might adopt the belt-and-suspenders approach by adding a weld of hot-melt glue around the outer circumference. It can easily be picked off after turning.

Spread white PVA glue on the wood faceplate and on the workpiece, and sandwich a piece of newspaper in between. Clamp it overnight to dry.



(6) A captive nut and bolt hold the workpiece on the wooden faceplate for turning a deep U-shaped hollow with walls that are square and uniform. The center disk is waste.

(7) The newspaper glue joint holds the workpiece on the faceplate so it can be parted through at the center.

(8) Sawing the U-shaped ring into two halves and gluing them together face-to-face creates a hollow half-donut with a rectangular cross-section.

(9) These two hollow forms have the same rectangular cross-section. On the left, a wide and shallow trough was cut in half and reassembled face to face. At right, a narrow but deep trough.

(10-11) Both forms have been sawn into six 30-degree segments.

(12) Joining the twelve segments makes a strangely contorted hollow form.

direction. So far I had turned the hollow rings in a straightforward way, each on a single center. I woke up with this idea: "Try turning using two centers."

I prepared the blank in the original manner, with the bolt at the center for security, but I also marked and drilled a secondary center. To lay out the centers, draw a line across the diameter of the wood with the grain. Align the two bolt holes on this line. With this arrangement I could turn the first shallow hollow with the bolt holding the blank on the primary center (*Photo 13*). With the square hollow turned, I removed the bolt and the blank from the faceplate and relocated the bolt in the secondary center. With white polyvinyl acetate (PVA) glue applied to both the underside of the blank and the surface of the wood faceplate, I placed a sheet of newspaper between the blank and faceplate, and then tightened the bolt to fix the two parts firmly together. The newspaper glue joint needed to dry overnight.

By rotating the lathe by hand I could mark the position of a same-size shallow cut that would intersect the previously turned hollow. Turning the new shallow, U-shaped hollow left a ▸

crescent-shaped section between the grooves (*Photo 14*). Next, I measured ¼" (6mm) from the inner edge of the new hollow toward the secondary center and turned in square to the face, on the center side of this line, until the cut broke through to the newspaper glue joint. The newspaper glue joint continued to hold the blank firmly on the faceplate.

The crescent-shaped waste could now be hand carved away (*Photo 15*); unfortunately, this waste area cannot be turned away. Withdrawing the holding bolt allowed me to remove the central plug. The blank could then be split from the faceplate by tapping a blunt dinner knife into the joint line, followed by wood wedges to shear the newspaper and ease the joint apart. I then sanded the underside of the blank to remove remnants of glued newspaper. The result of all that work was an apparently useless hollow platter with a hole through its center (*Photos 16, 17*).

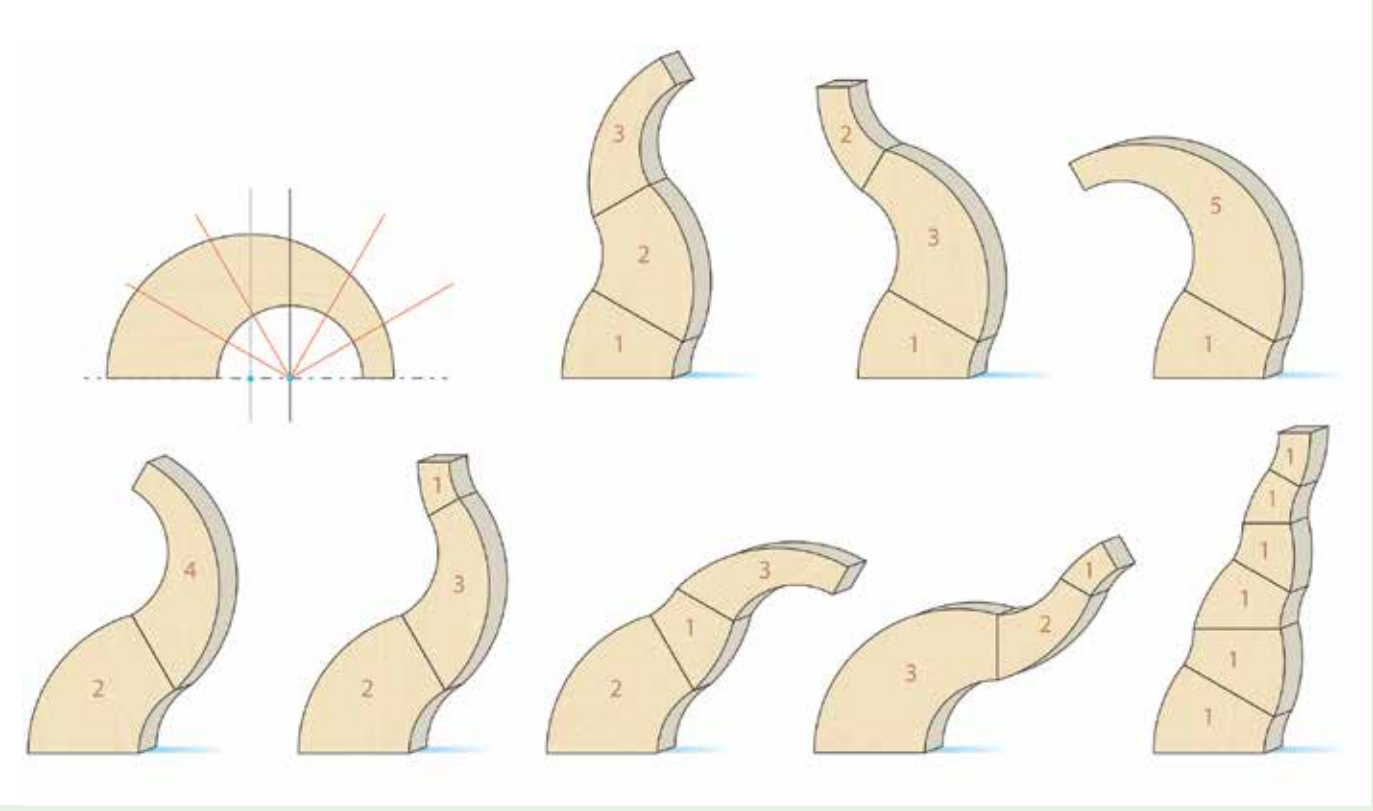
Segments

The basic horn shape from which the segments are cut can be varied by changing the distance between the primary and secondary centers. It is essential to draw the segments radially from their turning center, as shown in the below figure. This ensures that when you reassemble the cut parts, the curves will flow seamlessly from one segment to the other.

The shape of the finished form depends upon the number and size of the cut segments; some shapes are more interesting than others.

The segments can be marked out at any angle but that segment line must radiate from the turned center. In the illustration, the work has been turned on two centers. My experiments suggest that the best results come from using the secondary center as the radiating point.

Be sure to sand the cut faces by hand. A disc sander is likely to remove too much material, causing the two cut faces to differ slightly in size by enough to disrupt the flow of the curves.



Thirty-degree divisions marked from secondary turning center (top left). Numbers represent how many divisions in each segment.

Figure: Robin Springett

The pencil diameter remained visible on the underside of the blank (*Photo 18*). Cutting the blank along this diameter produced two mirrored halves. (In subsequent experiments, I found it simpler to glue up the blank with the joint on the diameter, so it is not essential to maintain the pencil line.) Gluing the two halves together hollow face to hollow face produced a horn shape with a small rectangular hollow at one end and a large rectangular hollow at the other end (*Photo 19*).

Small changes, big differences

Now this hollow horn shape was interesting! I found that by marking and cutting it into six 30-degree segments and hand-sanding the cut ends, same as we did with the square holes, the cross-section of the adjacent cut faces would match. Note that either of the two centers could be used to mount the radiating segments. Nick and I have found the best results by using the secondary center as the radiating point for those 30-degree segments.

After cutting all the segments, we laid them out in order and then flipped every other one end for end. Leave the first, flip the second, leave the third, flip the fourth, and so on. Because the adjacent cut faces matched, they could be glued and the curve would flow. The result was a hollow vessel with a rectangular base that tapered up to a small rectangular opening. The hollow in the base needed an in-fill to complete the vessel. The first version we made was not so interesting. But when we slightly increased the distance between the two turning centers, the resulting ▸

This workpiece has a primary center, with mounting bolt, and a secondary center drilled nearby on a drawn diameter line. A shallow, square-edged hollow has been turned into its face.

The workpiece was remounted on the secondary center to turn the second shallow hollow, secured by the mounting bolt plus the newspaper glue joint. Note how the two turned hollows intersect; the crescent shape at right is waste, as is the central circle.

Carve away the waste crescent between the two turned hollows and turn through the newspaper to free the workpiece from the central waste circle.

Tap a knife followed by wood wedges into the joint to split the newspaper and release the workpiece.

Saw on the diameter line of the two turning centers to divide the workpiece into two halves.

Glue and clamp the two halves together. The hollow interior is rectangular at the large end and almost square at the small end.


20


21


22

The shape of the zebrano experiment, left, is not very interesting. Increasing the distance between the turning centers produces a more dramatic form, center. A small difference in the distance between turning centers subtly alters the shapes. The prominent figure of the zebrano fights with its shape, whereas the bland maple emphasizes it. The tallest piece in the photographs is 15" (38cm) high with a 6" × 3" (15cm × 8cm) base.

form became quite stunning (*Photos 20–22*).

We continued to experiment and created another variation by cutting the segments using larger and smaller angles—for example, a two-segment block fitted to a three-segment block topped with one segment (*as shown in the Segments sidebar*). When the parts were glued and those joints lightly sanded to ease the flow of one curve to another, the result became sinuously intriguing. As we worked, Nick and I found the wood figure to be a distraction, so we used bland woods and sprayed the vessels white to emphasize the forms. Afterward, we could decide upon any decoration.

Forms made in this way do not need to be square edged. *Photo 23* shows one that is rounded inside and out. *Photo 24* shows two lidded boxes, each made from a single segment. *Photo 25* shows a shattered assembly of segments that were slightly offset for gluing.

The collaboration between Nick and me developed far more ideas than we could have hoped for. You can see many more pieces made in similar ways in our book *Woodturning Evolution*. Ideas do not necessarily have an end-point—they can be a starting point. Now start with our idea and see what you can do. ■

David Springett is a British woodturner known for ingenious and inventive creations. He is the author of Woodturning Wizardry, Woodturning Full Circle, *and, with Nick Agar,* Woodturning Evolution.


23

These forms need not be square-edged. This bottle, of sandblasted and blackened oak, has curved edges inside and out.


24

Two lidded boxes, each made from a single segment. It is not always necessary to rejoin cut segments to produce a pleasing form.


25

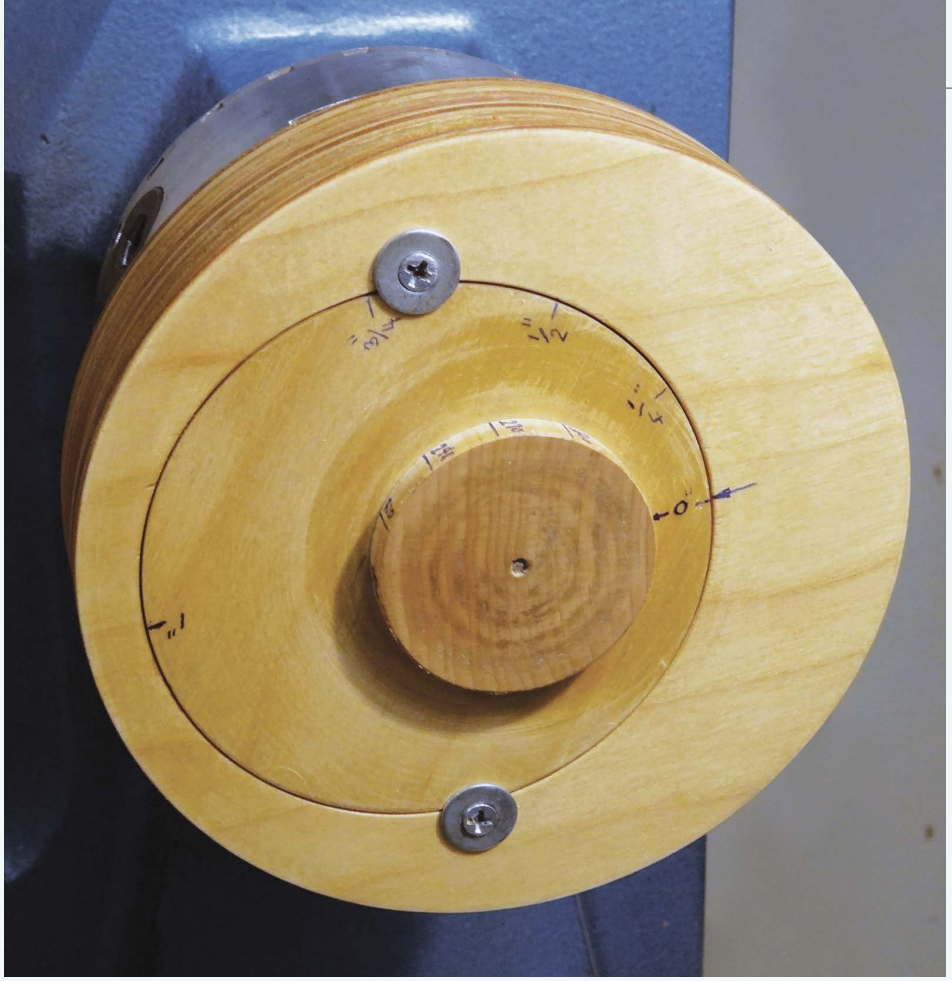
Offset segments produce a shattered form.

Nick Agar created a verdigris bronze finish enhanced by attached splashes of cast bronze.

Photo: Nick Agar

BUILD A SHOPMADE CHUCK FOR OFFSET TURNINGS

David Mueller



By using an eccentric chuck, you can add interest to turnings such as pendants and box lids. The workpiece is mounted out of alignment with the axis of your lathe (offset), producing interesting effects. However, I have found that commercially available metal off-center chucks have significant off-center mass, causing vibration and reducing maximum lathe speed. They also limit the possible degrees of offset and pendant rotation due to their fixed-hole design. To address these issues, I created my own off-center chuck using plywood. With my shopmade fixture, all the mass except the pendant blank and a lightweight pendant mount is centered and always balanced, enabling turning at higher lathe speeds with no vibration.

My chuck is also safer since the outer body is always on center and will not become a "knuckle buster" when turning or sanding. It also provides a continuously variable offset while keeping the whole chuck balanced. The dimensions offered here are for a chuck that has a maximum one-inch offset. Larger offsets are possible, but it will require a larger diameter body.

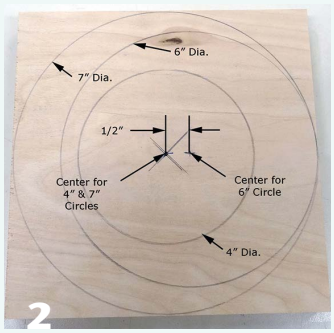
The chuck comprises three main components: the body, the inset circle, and the pendant mount. When assembled, the chuck will be mounted on the lathe either by a faceplate or glueblock with a tenon held in a chuck. I will focus on the tenon method in this article. Although this chuck can be used to turn pendants, box lids, and other items, I refer to the mounting component as a pendant mount for ease of description.

Build the chuck body

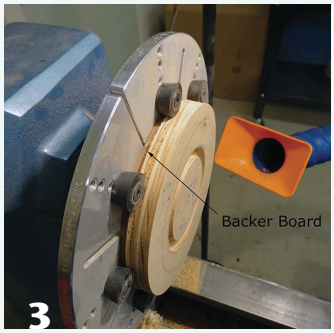
There are four pieces required—three cut from ¾" (20mm) plywood and one from ¾" hardwood. You will need a 7" (17.7cm) plywood square, 6" (15.3cm) plywood square (slightly oversized), 4" (10.2cm) plywood square (slightly oversized), and a hardwood glueblock square sized for making a tenon that will fit in your chuck *(Photo 1)*.

1. Draw a 7" diameter circle centered on the 7" plywood square. Draw a 4" circle using the same center as the 7" circle. Drill a small hole through the center to mark the center on both sides, making sure the hole is perpendicular so the piece will not wobble when mounted between centers. Mark a new center ½" (12mm) off the center of the 7" diameter circle and draw a 6" circle using this offset center *(Photo 2)*. ▸

You will need three plywood squares for the body of the chuck and a piece of hardwood for the tenon.



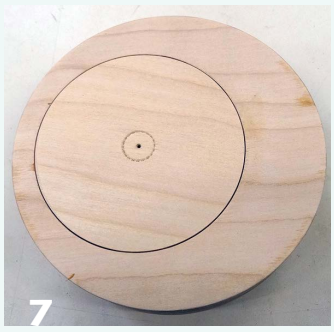
Draw all reference lines on the 7" plywood blank.



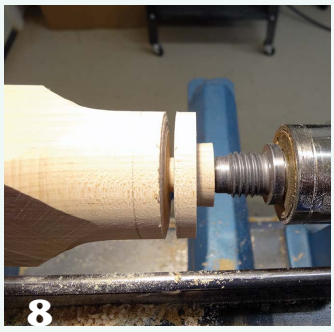
Use a backer board behind the 7" disk when cutting out the 4" circle.

The 6" ring has a 4" hole offset by ½".

The completed chuck body has a centered tenon on the back side and an offset recess on the front side.



The 4" circle fits into the offset recess on the front side of the chuck.



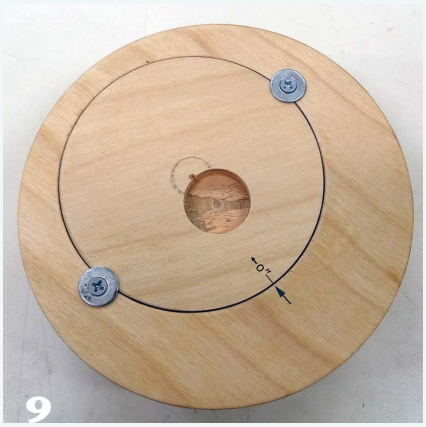
The pendant mount resembles a hat and has a hole drilled through it.

2. Cut out the 7" circle using a bandsaw or jigsaw. Mount the plywood blank between centers using the small hole for centering, and turn to the outer 7" diameter mark.
3. Mount the 7" round into jumbo jaws or a Longworth chuck with a thin plywood backer behind it so you do not cut into the chuck *(Photo 3)*. Cut out the 4" circle with a parting tool, being careful to keep inside the 4" diameter line. Clean up to the 4" line with a scraper or gouge. Make sure the final cut is perpendicular to the face. If you do not have jumbo jaws or a Longworth chuck, mount the 7" round onto a faceplate with a 7" waste block. Three screws inserted through the disk and into the waste block will hold the round while using a parting tool to cut through the plywood at the 4" mark.
4. Remove the 7" round from the chuck (or faceplate) and cut on the 6" circle line using a bandsaw or jigsaw. You should now have a 6" diameter disk with a 4" hole offset by ½" *(Photo 4)*.
5. Cut out a round glueblock and drill a small hole through the center, again making sure it is perpendicular to the face. Select hardwood for the glueblock so it will stand up to multiple mountings in your chuck. Mount the block between centers using the center hole and turn a tenon sized for your chuck.
6. Mount the tenon in the chuck, true the glue face, and mark jaw No. 1 so you can remount it the same way each time. Cut a 6" diameter circle from the second piece of ¾" plywood (the 6" square). With the glueblock mounted in the chuck, glue the 6" plywood circle to the glueblock. Line up the live center in the tailstock to the mark used to draw the circle and apply pressure.
7. After the glue dries and without removing it from the chuck, glue the previously prepared 6" disk (with the 4" offset hole) to the already mounted 6" circle, aligning the outside edges. Use a piece of scrap wood and the tailstock to hold it in place while the glue dries.
8. When the glue is dry, apply thin cyanoacrylate (CA) glue to the outer edges of both 6" circles to minimize tearout and true them up.

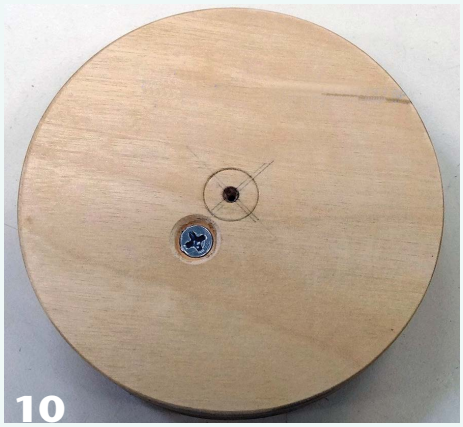
You should now have an assembly that is about 6" in diameter and 1.5" (3.9cm) thick with a tenon on one side and a 4" diameter hole ¾" deep, offset ½" on the other side *(Photos 5, 6)*.

Add the inset circle

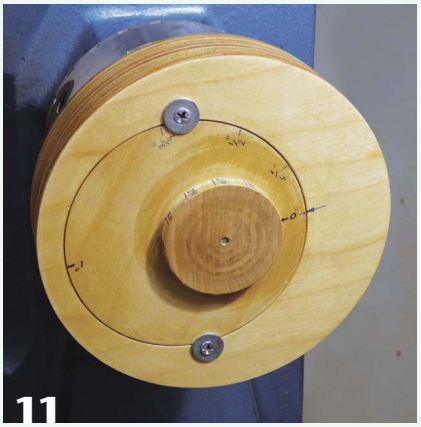
Using the third piece of ¾" plywood, cut out a slightly oversized 4" circle and drill a small perpendicular hole



Mark a zero reference line on both the body and the insert. Then use a Forstner bit to drill a 1" diameter hole ¼" deep into the inset circle.



Remove the 4" inset circle and countersink the screw hole on the side opposite the 1" hole.



A fully calibrated chuck includes pencil marks to aid in reproducing patterns.

through the center. Mount the piece between centers using the hole as a guide, and again saturate the edge of the plywood with thin CA glue. Turn the piece to closely fit into the 4" hole in the chuck body so it turns freely but is not a loose fit. You can sand and wax the edges of the 4" circle to make it turn more easily *(Photo 7)*.

Make the pendant mount

For the pendant mount, you will need a 2½"- (6.4cm-) square spindle blank 2"–3" (5cm–7.6cm) long. Chuck the blank and turn it to a 2" diameter cylinder. Drill a small hole slightly more than 1" (25mm) deep into the end of the blank. This hole will accept a 1" flathead screw and should be sized to accept the threads snugly. Turn a tenon on the tailstock end 1" in diameter and ¼" (6mm) long. Part off the pendant mount at ½" so you have a ½"-tall "hat" with a ¼"-thick, 2"-diameter brim and a ¼"-high, 1"-diameter crown with a hole through the center *(Photo 8)*.

After parting off, chuck the pendant mount by the 1" tenon and true the 2" face. If your lathe has an indexing capability, make equally spaced marks around the outer edge of the brim while the pendant mount is still in the chuck. The number of marks is not critical since they will only be used for accurate repositioning later. If your lathe does not have an indexer, a simple alternative is to wrap a strip of paper around the outer rim of the pendant mount and mark where the ends overlap. Cut the strip on the mark and fold in half three times. Unfold the strip, place a mark at each fold line, wrap it around the pendant mount, and mark the eight equally spaced lines on the pendant mount.

Assemble the fixture

Give all parts a coat of wipe-on polyurethane and sand lightly. Drill two small holes on the front face of the chuck body 180° apart about ⅛" (3mm) outside the 4" recess. These are for small flathead screws and washers that will lock the inset circle in place and keep it from moving during use. The screw holes should be close enough to the 4" recess so the washers will extend over the inset disk. Glue abrasive in the bottom of the 4" recess; the added friction will help prevent the inset disk from turning and also raises it slightly above the face of the chuck body so the locking screws and washers will hold it tightly in place. Place the inset circle in the 4" recess and lock in place with the two screws and washers.

Make sure the locking screws and washers are tight and mount the fixture in your chuck. Draw a short arrow to be used as a reference line at the circular joint between the inset circle and chuck body pointing toward the center of the 4" disk. Place a mark on the inset circle opposite the point of the arrow and label it zero *(Photo 9)*. This must be done before you move the inset circle because the marks establish an accurate zero offset position. Use a Forstner bit mounted in your tailstock to drill a 1"-diameter hole ¼" deep into the 4" disk. This hole will be located in the center of the chuck body (at the zero offset position in relation to your lathe's spindle) but offset from the center of the 4" inset circle. Without moving the inset circle, replace the Forstner bit with a drill bit sized to accept a 1" flathead screw and drill a clearance hole through the inset circle at the center point left by the Forstner bit.

Remove the 4" inset circle and countersink the 1" screw hole on its back side. Place the 1" tenon of the pendant mount into the 1" hole in the inset circle and hold in place with the flathead screw driven from the back *(Photo 10)*. You ▸

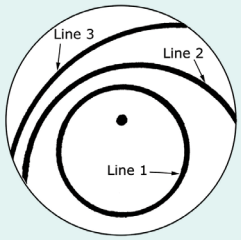
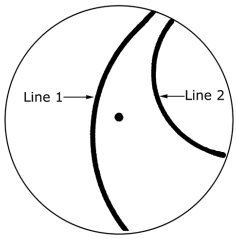
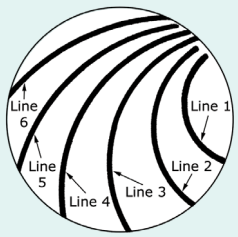
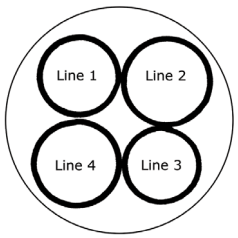
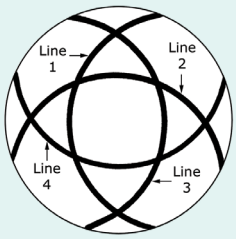
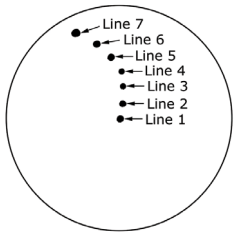
		Offset	Rotation	
Example 1	Line 1	¼" (6mm)	0°	
	Line 2	½" (12mm)	0°	
	Line 3	¾" (20mm)	0°	
Example 2	Line 1	1" (25mm)	0°	
	Line 2	1"	30°	
Example 3	Line 1	1"	0°	
	Line 2	1"	345°	
	Line 3	1"	330°	
	Line 4	1"	315°	
	Line 5	1"	300°	
	Line 6	1"	285°	
Example 4	Line 1	½"	0°	
	Line 2	½"	90°	
	Line 3	½"	180°	
	Line 4	½"	270°	
Example 5	Line 1	½"	0°	
	Line 2	½"	90°	
	Line 3	½"	180°	
	Line 4	½"	270°	
Example 6	Line 1 (Center of pendant)	0"	0°	
	Line 2	⅛" (3mm)	0°	
	Line 3	¼"	0°	
	Line 4	⅜" (10mm)	0°	
	Line 5	½"	0°	
	Line 6	⅝" (16mm)	0°	
	Line 7	¾"	0°	

Table 1. Examples 4 and 5 have identical offset and rotation settings but different tool placement relative to the center of rotation, showing the significant impact of tool placement. Example 6 shows how the center moves with different offsets. Tool placement changed for Examples 1–5, but not for 6.

may have to grind off the tip of the flathead screw so it does not protrude past the front surface of the pendant mount. The chuck assembly is now complete.

Calibrate your offset chuck

To calibrate the chuck, mount the inset circle/pendant mount assembly into the chuck body, set it to the zero mark, and tighten the two screws. Turn the chuck by hand and verify that the pendant mount is concentric with the lathe's spindle. If it is not centered, loosen the screws and adjust the inset circle until the pendant mount runs true. Retighten the screws and, if necessary, re-mark the zero offset on the chuck body.

Cover the face of the pendant mount with masking tape or an adhesive label. Place a dot at the center and draw circles with ¼", ½", ¾", and 1" radiuses on the tape by turning the chuck by hand. These circles should be concentric with the outer diameter of the pendant mount. Bring the tailstock with a live center up close to the face of the pendant mount. Loosen the locking screws and washers and rotate the inset circle until the point of your live center is lined up with the ¼"-diameter circle. Put a mark on the inset circle opposite the reference line on the chuck body and label it ¼". Repeat this process until you get to the 1" offset. In theory, this should be 180° from the zero mark *(Photo 11)*. Note that the offset marks are not evenly spaced. This is normal because the relationship between the rotation of the inset circle and the offset is not a linear function.

The accuracy of the calibration is not critical since the purpose of these marks is to allow you to reset the fixture to reproduce a given pattern.

Examples of offsets and rotations

The three factors affecting the patterns generated are the offset, the rotation of the pendant mount, and where the tool is placed on the toolrest when the cuts are made. Of the three, subtle changes in the tool placement will probably have the most profound effect, so experiment with a lot of different tool positions with the same offset and rotation. Practice with scrap wood until you achieve the desired effect, recording the offset and rotation settings as you go. After that you should be able to accurately reproduce that effect using the same settings.

As a learning aid, test your offset designs with a piece of adhesive label attached to the pendant mount. Adjust the offset and rotation and then turn the chuck by hand, using a pencil to lightly mark the center and tool path for various tool placements to see what effects the three settings have. You can get good tool placement reproducibility by measuring from the mark at the center of rotation. If you don't like the result, just erase the lines and start over. After you find an attractive offset pattern, the label is easily peeled off and pasted in a notebook with the settings used. When you are ready to turn a pendant, you can also use the pencil mark technique on the pendant blank to make it easier to see where to place the tool.

Table 1 shows examples of various offsets, rotations, and tool placements. They were created on labels stuck to the pendant mount while turning the chuck by hand. They were not chosen because they are especially attractive, but to provide an understanding of how each can change the appearance of the pattern.

Using the fixture

The amount of offset is controlled from the front face by loosening the two flathead screws and rotating the inset circle using the pendant mount as a handle. The rotation of the pendant mount is done by removing the inset circle and loosening the 1" flathead screw from the back.

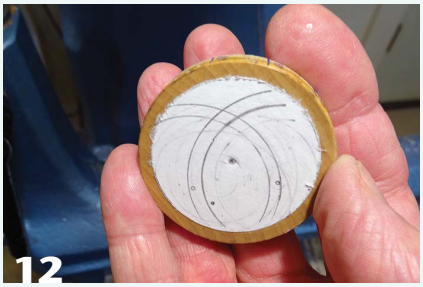
I typically make a pendant with a diameter slightly larger than the diameter of the pendant mount. With the edge of the pendant proud of the pendant mount, you can turn and finish the edges and front face without removing it from the mount. If you prefer smaller pendants, make a smaller diameter pendant mount.

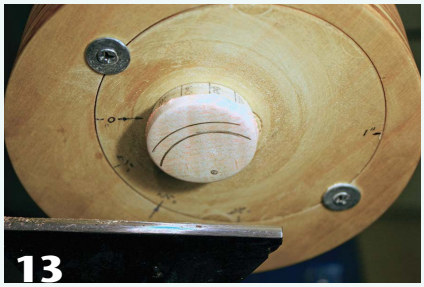
Pendant blanks are attached to the pendant mount with double-sided tape. I normally turn pendants from a 2"-square sidegrain blank approximately ¼" thick and finish with CA glue.

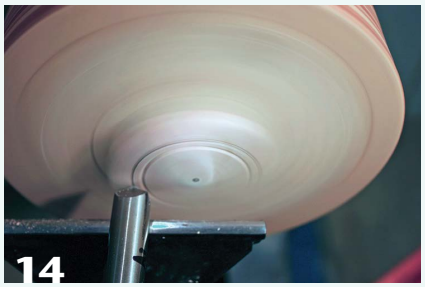
Make multiple pendant mounts so you can remove the mount and pendant from the offset chuck to apply creative enhancements like epoxy fill or other inlays, or to let a finish dry while turning other pendants. If the off-center work is complete, you can do the final sanding and finishing by holding the pendant mount and its attached pendant in a scroll chuck, eliminating the need to remove and remount the pendant itself.

The chuck settings to produce the pattern in *Photo 12* are ½" offset, rotation at 0° and 120°, and tool placements of ¾" and ⅞" (22mm) from the center of rotation for each rotation setting. To make this pattern, follow these steps:

1. Flatten one side of a pendant blank with abrasives and mount that side to the pendant mount with double-sided tape. Turn the exposed side flat, sand, and finish. This will be the back side of the pendant and should be flat so the tape will hold it firmly.
2. Remove the blank, turn it around, and mount the back to the pendant mount. Turn the front face to a gentle curve at the edges, sand, and finish. The curve adds interest and is necessary to keep the cut lines from going all the way to the edge.
3. Adjust the offset to ½" and the rotation to 0° and lightly draw a dot at the center of rotation. Measure the ¾" distance from that center for the first line and draw a pencil line on the blank by turning the chuck by hand. Repeat for the second line as shown in *Photo 13*. ▸


12
Use a pencil to confirm where the cut lines will be on a test blank.


13
With the pendant blank mounted onto the fixture, again use a pencil to confirm location of the cut lines.



14

When satisfied with the pattern, make the actual cuts.

15

After final cuts are made and finish has been applied, add jewelry findings and a neck cord.

4. Cut the grooves as shown in *Photo 14* using a pointed scraping tool or the long point of a skew.
5. Remove the screws and the inset circle, adjust the rotation of the pendant chuck to 120° for the second set of cuts, and re-install the inset circle at ½" offset. Draw a new set of lines as in Step 3 and cut the grooves.
6. After making the desired cuts, you can spray the pendant with flat black paint to enhance the cuts. However, the pendant must be pre-finished before spraying or the black paint will penetrate the grain and become very difficult to remove. Immediately after spraying, wipe off most of the black paint and let it dry. Once dry, gently sand with fine grit abrasive to remove the remaining paint, being careful not to sand through the finish, and buff.
7. Finally, install the jewelry findings and neck cord *(Photo 15)*.

The use of various woods and other materials can create stunning results. Consider using colored epoxy or other fillers in the cut marks *(Photos 16, 17)*. This shopmade chuck provides a safe, vibration-free way to turn offset patterns and is easy and inexpensive to make. ■

Dave Mueller, a retired radiopharmaceutical executive, began traditional woodworking in 1962 but started turning just five years ago. He is an active member of the Brazos Valley Turners and the Gulf Coast Woodturners Association. He enjoys both turning and enhancement and makes many of his own tools and fixtures. Dave's formal training as a scientist has influenced his focus on wood spalting, epoxy enhancement, gilding, and patination of turned pieces. For more, visit aggieturner.com.

16

Exotic woods can create stunning results.

17

Colored epoxy adds interest to a Corian® pendant.

You read the article—now see the video!

This article has an accompanying online video in which Dave Mueller demonstrates the use of his shopmade offset pendant chuck. To view the video, visit tiny.cc/offsetchuck (case sensitive) or scan the QR code with your mobile device.

JEWELRY MADE EASY

Janice Levi

After twelve years of turning bowls, platters, boxes, and hollow forms, I collected boxfuls of scraps and nubbins. Some of the finial nubbins were beautiful exotic woods but too small for another finial. I began to experiment with using those scraps to make something different—jewelry. My first beads and disks needed a little refining, but over the past year or two, my techniques have changed and my designs have become more complex. While the skill required is within reach of beginning turners, the finished product can be quite stunning.

Selecting woods for the disks and beads is the easy part. You can use anything too small for any other project. Hardwoods, softwoods, acrylics, spalted wood with voids and cracks—all make beautiful jewelry.

A typical necklace of this design comprises the following elements:

- A feature pendant disk turned in crossgrain orientation, measuring about 2½" (64mm) in diameter
- Ten to twenty smaller disks turned in endgrain orientation, ranging in diameter from about ¾"–1½" (19mm–38mm)
- Ten to twenty beads with diameters varying from ⅜"–¾" (10mm–19mm)

Turning the crossgrain feature pendant

No special jigs or chucks are required to turn the feature pendant of your necklace, but you will need to turn two waste blocks to which the blank will be attached. Turn one of the waste blocks to a diameter of about 1½" with a flat end surface. Turn the second waste block to the same diameter but with an end ▸

Two waste blocks, one flat and the other slightly concave, hold the feature pendant blank with double-sided tape.

Mount crossgrain blanks onto a waste block and position a barrel washer between the tailstock and blank. Use a bowl gouge in shear scraping mode to shape the rounded front of the disk.

Remove the tailstock, make final light cuts, and sand to 1,000 grit.

surface that is slightly concave (*Photo 1*). The flat-ended waste block allows for the flat pendant blank to be safely adhered for initial turning, while the concave waste block securely holds the slightly convex-shaped pendant while turning the reverse side.

The feature pendant blank should be about ⅜"–½" (10mm–12mm) thick to start. Use a compass to outline the circumference of the circle; then remove most of the waste wood on a bandsaw.

Using double-sided tape (I prefer SpecTape brand, as it does not leave a gummy residue on the wood), adhere a flat pendant blank to the flat-ended waste block, which should be slightly smaller in diameter than the finished disk. Use the tape sparingly so you will be able to easily remove the disk after turning.

Before pressing the disk firmly into the tape, pull up the tailstock and align the center mark from the compass with the live center. To prevent the live center from puncturing the turning disk, place a barrel washer (or pen bushing) between the point and the disk, then tighten the tail stock to help hold the disk in place.

Using a bowl gouge, make shear scraping cuts to begin shaping the rounded front surface of the disk. Switch to a spindle gouge to turn the slightly rounded edge of the disk, which will end about half way through the blank's original thickness (*Photo 2*).

Remove the tailstock and barrel washer and use light cuts to smooth the rounded top surface. Hand sand or lightly power sand, going through all the grits (*Photo 3*).

Remove the disk and use a center finder to mark the center of the unturned side. Mount the turned side onto the concave waste block with double-sided tape. It can be a trial-and-error process to get the disk perfectly centered. Bring up the tailstock so the live center can aid in the centering process, and lightly press the disk into the tape. Again, use a barrel washer to protect the disk and apply very light pressure with the tailstock. Make light shear scraping cuts with the bowl gouge to achieve the final shape of the second side of your disk. The outer edge should be no thicker than ⅛" (2mm). You are aiming for a thin, graceful disk, not a clunky chunk of wood (*Photos 4, 5*). Remove the tailstock and make the final light cuts on the second side of the disk. Sand through the grits as you did with the first side.

Remove the turned disk and apply the finish of your choice. Although I sometimes apply lacquer, oil, wax, or water-based polyurethane, it is often sufficient to simply use a three-step buffing system on both the front and back sides of the disks.

Turning endgrain disks

Because of the smaller diameter of the endgrain disks, it is easier to

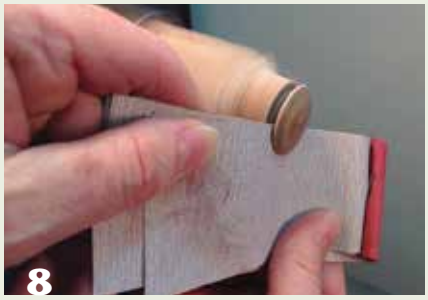
Switch to a concave waste block and mount the turned side of the disk onto it. The final disk should be rounded on both sides, curving to a graceful, thin (but not sharp) edge.

turn them by using a chuck rather than waste blocks. If using a pen blank, insert the blank into a chuck with small jaws as far as it will go to help avoid vibration. Turn only the very end of the blank round using a roughing gouge or spindle gouge. With a spindle gouge, slightly round over the end of the blank (*Photo 6*). Since the finished disk will be ⅛"–3⁄16" (2mm–4mm) thick, this is a quick process. Using a thin parting tool, angle the parting cut so that the back side of the disk is also somewhat rounded (*Photo 7*). Do not completely part off the disk, but leave about 3⁄16". Hand sand the front of the disk and as much of the back as possible, going through all the grits (*Photo 8*).

Finally, finish parting off the disk. A fine-tooth saw may also be used to part off the disk with the lathe off (*Photo 9*). Hand sand any roughness on the back of the disk and apply finish.

To turn smaller disks in endgrain orientation, mount a blank with the grain running parallel to the ways of the lathe into a chuck with small jaws. Round part of the blank into a cylinder and create a convex surface on the end.

Use a thin parting tool, aimed slightly toward the headstock, but do not completely part off the disk.



Sand the right side, the upper edge, and as much of the left side as possible.

Part off the disk with a thin parting tool or fine-toothed saw with the lathe off. Hand sand the nubbin.

A sanding option

After turning the endgrain disks, there is an area on the back side that must be sanded further. This can be done by hand but an option I prefer is to mount a small sanding disk in the drill press and sand the back side of the disks, going through all grits (*Photo 10*). I collect a number of disks in a small container, then sand all of them at one time.

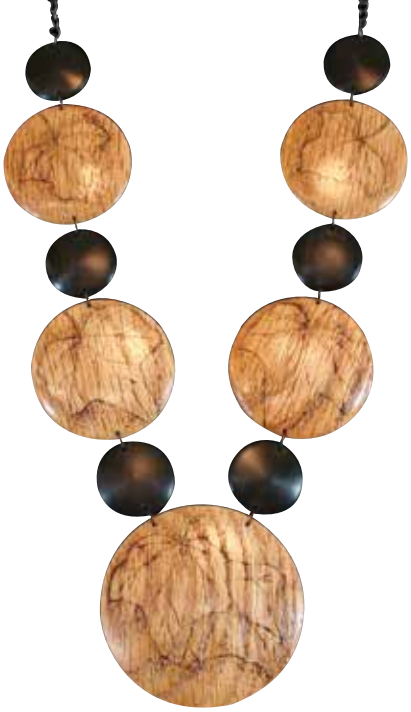
Turning endgrain beads

Pen blanks or even smaller end grain blanks prepared on the bandsaw can also be used to turn beads. Insert the square-edged blank into a chuck with small jaws so that only 2"–3" (5cm–8cm) of wood is exposed. This will help prevent vibration. Chuck a 1⁄16" (1mm) drill bit in a Jacobs chuck in the tailstock, and with the lathe running at about 600 rpm, drill the center hole of the bead slightly deeper than the finished diameter of the bead (*Photo 11*). Use a skew point to create a small recess in the blank so the drill bit will center properly. (Note: Larger holes can be drilled, but the advantage of using a smaller drill bit is to allow for the use of finer assembly materials.) ▸

As a sanding alternative, chuck a sanding disk in the drill press and sand the rough areas on the back side.

To turn endgrain beads, start by drilling a center hole.

Use a spindle gouge or skew to turn the bead. Sand and apply friction polish or wax before parting it completely off.



Oak disks with woodburned leaves are separated by ebony disks.

A metallic phoenix graces African ebony disks.

Native American-inspired necklace featuring pyrography and colored pencils on Chinese tallow and maple.

Using a spindle gouge, turn a cylinder to the desired diameter, leaving the bulk of the blank unturned. Depending on your comfort level, use a spindle or detail gouge or a skew chisel to shape the right side of the bead. Then shape the left-hand portion of the bead, but do not cut all the way through. Sand the bead through all grits and apply friction polish or wax (*Photos 12, 13*). Finally, use a skew, parting tool, or fine-toothed saw to part off the bead. A small nub may remain. Hand sand and dab the area with friction polish or wax.

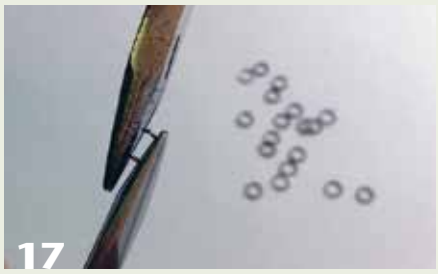
Assembling the necklace

A few tools are necessary to make the assembly process easier (*Photo 14*). I recommend anyone interested in jewelry-making spend some time in a local craft store looking at the many findings and tools that are available. At a minimum, you will need two sets of small needle-nose or jewelry pliers, round-nose pliers, small wire cutters, jump rings (not the spiral kind), pins with flat heads for attaching the beads, necklace chain, and a neck clasp. I have found that the gunmetal color of chain is most complementary to the wood; silver and gold often detract from the wood's beauty. A useful tool to have is a hand-held rotary tool (such as a Dremel) and Dremel drill press with bits smaller than 1/16". Although the small holes

14 Some of the tools and jewelry findings you will need.

15 Cut two lengths of necklace chain.

16
Drill a small hole (about ⅛", or 1mm) into one edge of each disk.


17
Use two sets of jewelry pliers to open the jump rings.


18
Slide the jump ring through a disk and a chain link. Close the jump ring. Repeat until all disks are attached.


19
Insert a flat-head pin into the bead and remove all but ⅜" of wire. Use round-nose pliers to create a small loop in the wire.


20
Insert an open jump ring through the loop and through a chain link. Repeat until all beads are attached.


An array of turned "buttons" and beads of maple, blackwood, and black palm are clustered tightly on multiple chains and cord.

in the disks can be hand drilled, the drill press makes the task easier.

Cut two lengths of chain, one 28" (70cm) and the other 23" (57cm) (*Photo 15*). The longer chain will hold the disks and the shorter chain will hold the beads. Do not attach the neck clasp at this time. Use the rotary tool to drill a hole about ⅛" from the edge of the feature pendant (*Photo 16*). Next, drill mounting holes into all the smaller disks. Depending on the thickness and density of the wood, the hole may be closer than ⅛" from the edge.

Using the two pairs of jewelry pliers, separate the jump rings (*Photo 17*). Do not pull the ends straight apart, but rather push one end of the ring away while pulling the other end toward you, creating a spiral shape. This makes it easier to maintain the ring's circular shape when closing the ring. Slide the open ring through the hole of the feature pendant; then slide the ring into the center link of the longer chain (*Photo 18*). Use the two sets of pliers to close the ring. Attach all the remaining disks in the same way, mixing and matching size and color on each side of the feature pendant.

To attach the beads, insert a flat-head pin into the bead and remove all but ⅜" of the wire. Use round-nose pliers to shape the wire into a small loop above the bead (*Photo 19*). Open a jump ring and insert the ring through the loop, then into a link in the necklace chain. Close the jump ring. Attach beads in various sizes and colors along the chain (*Photo 20*).

When all of the disks and beads have been attached, use jump rings to connect the two upper links of chain to each end of the neck clasp. The necklace is finished, but don't forget complementary earrings. Disks, beads, or a combination of each can be attached to ear wires using jump rings and pins in the same way as to the necklace chain.

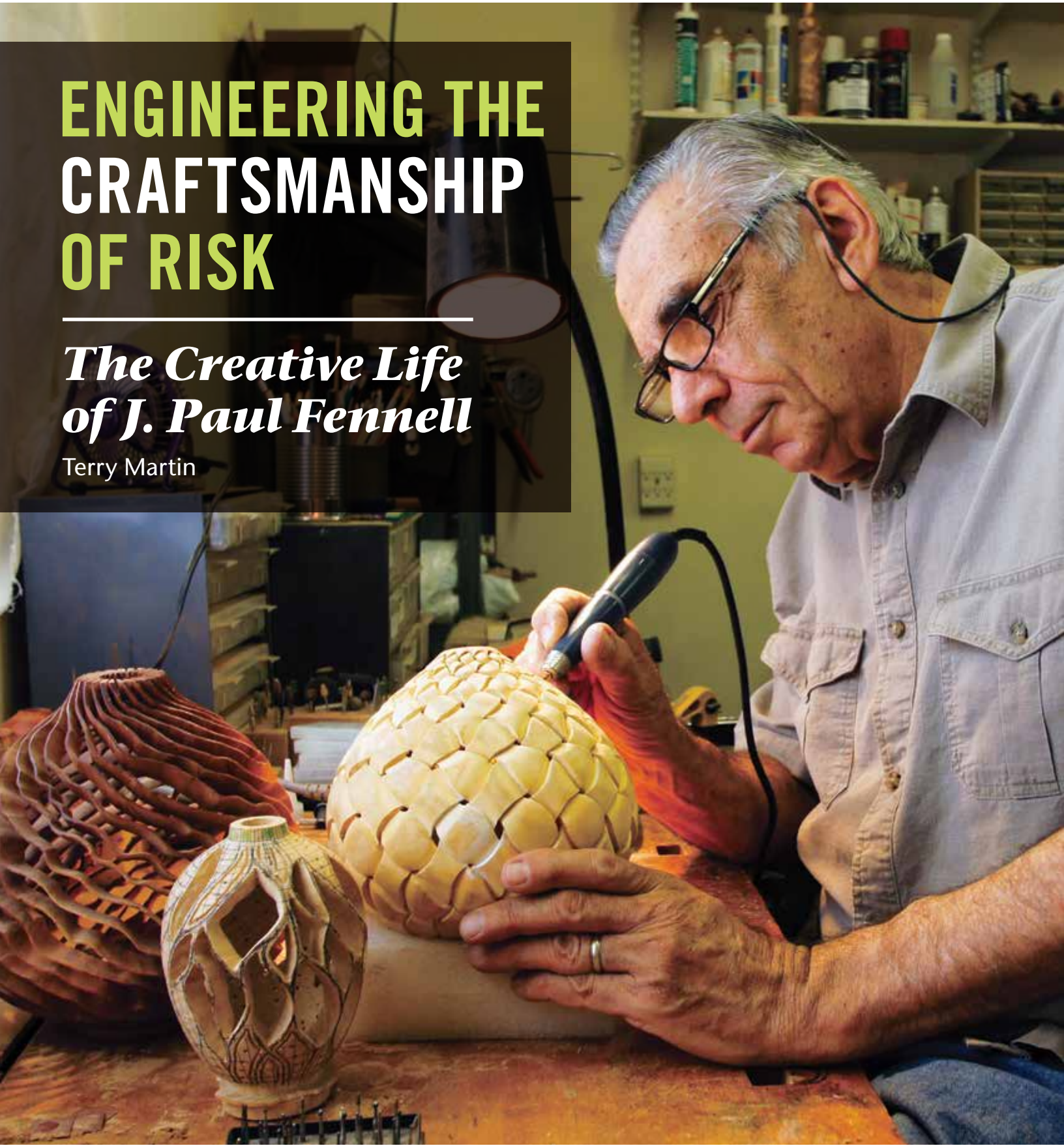
Now it is time for your imagination to take over. Use a skew to cut small "v" grooves or a chatter tool to enhance the disks and beads. Purchased metal bead separators add elegance, and pyrography and color can further embellish the end product. With jewelry, the rule of the day is, "It can never be too gaudy!" ■

Janice Levi is a past president of both the Brazos Valley Woodturners in Waco, Texas, and the Southwest Association of Turners (SWAT). Janice teaches hands-on classes and demonstrates at various clubs throughout the Southwest. To see more of her work, visit janicelevi.com.

ENGINEERING THE CRAFTSMANSHIP OF RISK

The Creative Life of J. Paul Fennell

Terry Martin



J. Paul Fennell in his Arizona studio, 2014.
Photo: Terry Martin

I have learned not to be fooled by the modest demeanor of new turning acquaintances because they have often led very successful lives as surgeons, farmers, military officers, CEOs, and almost anything else you can think of. It speaks volumes for our field that it attracts so many who have already led such rich lives. Now I always ask new woodturning acquaintances what they did before becoming a woodturner. Of all the answers I have heard, J. Paul Fennell's was the biggest showstopper: "Oh, I was a rocket scientist."

This answer may distract your attention from woodturning, but Paul also has had a remarkable career as a wood artist that began as far back as 1971. He has been an active and influential player in the development of the contemporary turning scene, and the story of how he became a respected elder in our field is one of the most fascinating I have recorded.

Family life

Paul's family history is the classic American immigrant tale. His grandfather migrated from Italy to America around 1910 and bought a small farm in Massachusetts, where the family grew vegetables and corn and raised chickens. Paul's father grew up on this farm but, with a hint of the restless ambition and willingness to take risks that his son would inherit, he decided farming was not for him. He started his own sign-painting business in Salem, Massachusetts, and Paul was born in the nearby town of Beverly.

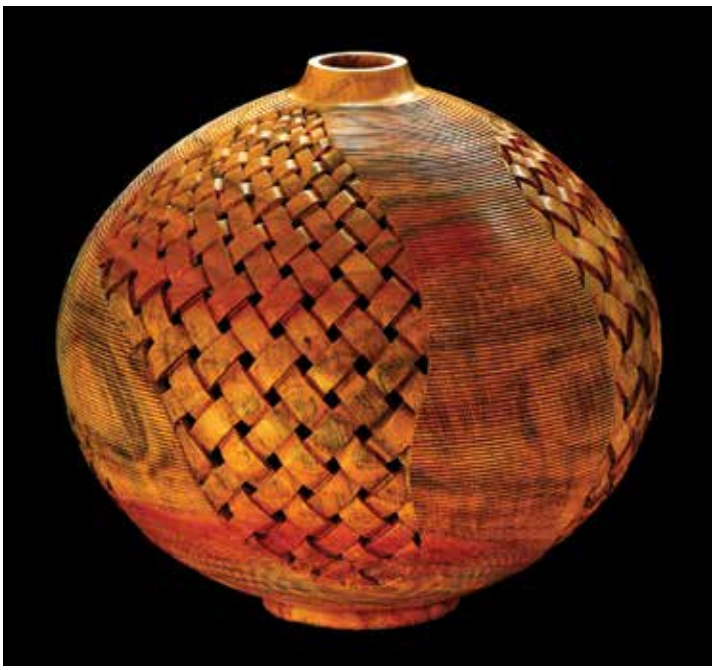
Every wood artist I have ever spoken to had a parent or grandparent who planted the seeds of woodwork in them at an early age. Paul's early influence came from his father: "He had a small workshop in the basement and could make just about anything that would be useful. The thing I remember most about the workshop is the aroma of white pine being cut. It was so sensuous."

The lure of wood was strong, but Paul's father had ambitions typical of immigrant families, and that included taking education very seriously. Paul was fortunate enough to go to a very progressive high school, which suited a boy of his potential. "The teachers were very demanding," he says. "For example, in my senior year we all had to do an enormous manuscript thesis. I wrote my heart out on it and when the teacher returned the papers my name wasn't called. I was wondering what had happened, when the teacher finally said, 'I want to talk about one particular thesis that I received. In my estimation, it is about as close to a master's thesis as you could get at this level of education.' I went home beaming and showed my parents, but all they said was, 'That's nice.'"

Throughout high school, Paul responded well to high expectations: "I took a lot of math and English. My parents always assumed I would go to college, so when I said I wanted to take up aeronautical engineering, they were pleased. I wanted to design airplanes and be involved in building them, so I chose The Ohio State University for its great engineering program."

Life as a rocket scientist

Paul's professional ambitions were well-timed, as the demand for aeronautical engineers surged just as he graduated. "This was during the Cold War, so it was a particularly exciting field," he explains. "My first job was in San Diego on the Atlas program, and I worked on the missile that launched John Glenn into orbit. I soon changed companies to work on the second stage of the Saturn 5 rocket that was going to launch the Apollo missions into orbit and eventually to the moon. We moved to Whittier, California, and I worked at the factory that built the P51 Mustangs during World War II." Paul was a mission, rocket performance, ▸



(Left) Curly Maple Hollow Form, 1991, Maple, 8¾" × 5½" (22cm × 14cm)

(Right) Discovery in Carob, 2003, Carob, 9" × 10" (24cm × 26cm)

Photo: R. Barrkman

and orbital mechanics analyst in the Apollo space program. "Everything was fresh," he says, "and I also had the opportunity to continue my education free at the University of Southern California to get a master's degree. It was so exciting, taking what you learned in college and applying it—and making money!"

After twelve years, Paul was offered the chance to move to Houston to work on the Shuttle program, but he must have surprised everyone when he declined. "I didn't want to live there," he explains, "so I got out of the engineering business. I started working as a rocket scientist in 1961 and finished in 1973. It wasn't a very long career, but it was an intense and exciting part of my life."

Early turning experiences

During this period, Paul also developed his interest in woodturning: "In 1971, I was making bookcases and toys for my two boys. There was a high school nearby that offered adult education classes, so I went there to make furniture. I noticed there were lathes that were never used, so I asked the instructor whether they were available for us. They were. He didn't know much about them but offered to help as much as he could. The tools were all beat up, and the teacher explained, 'You're going to need lots of sandpaper.' I just put a piece of wood on the lathe and started, and I thought it was pretty neat."

Once the classes were over, Paul wanted to turn more: "My work as an engineer was essentially a desk job, no use of the hands, no manual exertion, so I found woodturning very therapeutic." He soon bought an old Rockwell Delta lathe with cast iron legs and a bunch of tools for $150. Paul continued making things in his garage and learned from any books he could find on woodturning. With his typical sharp focus, Paul immediately found ways to make turning even more interesting: "After I learned the basic skills, I found I really liked solving woodturning problems. That's all engineering is—solving very technical problems. To be a good engineer, you have to have a sense of curiosity. What happens if I do this? Will changing something make it better? That's how I look at work."

A woodturning career emerges

Once Paul decided to leave the space program, he made a clean break: "In 1973, I decided to go back to Massachusetts. My father wanted to retire, so I took over his successful sign business and we stayed there till 1993." Paul continued to develop his interest in turning: "I bought Dale Nish's books, *Creative Woodturning* and *Master Woodturners*. He had a section on miniatures and I really got into that for a while."

In 1980, Paul became involved in the burgeoning woodturning movement after he saw an ad for a symposium in Philadelphia, where Bob Stocksdale was to demonstrate. "It was the first Albert LeCoff symposium I went to," he recalls. "The other demonstrators were Dale Nish, Dell Stubbs, Rudy Osolnik, Palmer Sharpless, and a couple of others. It just blew my mind."

Paul also attended the final LeCoff symposium in 1981. The demonstrators included David Ellsworth,

Richard Raffan, Ray Key, and Ed Moulthrop. Paul recalls the significant woodturning exhibit that accompanied the symposium: "It was the first exhibit of notables like Ellsworth, Raffan, Key, Moulthrop, Gilson, Hunter, Hosaluk, Stubbs, Brolly, Saylan, Hogbin, Holzapfel, and Stirt. It was really exciting, particularly at the end, when David [Ellsworth] did a critique of the work."

Inspired by all this exposure to the rising stars of turning, Paul continued to experiment in his garage. "I made many things in different woods," he says, "and gave most of them away. My very first exhibit was for a month in a tall bookcase at the entrance of the local public library. The pieces weren't for sale, but I got written up in the newspaper and became known in my area."

Paul joined the AAW as charter member #297, just after AAW's inaugural meeting at Arrowmont in 1985. When he attended the first AAW symposium in 1986, he started to make friends with people who were to be major players in the field and who shared his interests: "Bonnie Klein and I hit it off because we were both doing miniatures. At the instant gallery, I showed my miniature goblets and a tall vase with a glass insert that you could put cut flowers into." Paul remains a strong supporter of the AAW, explaining that he has missed only one AAW annual symposium since 1987. He was also a charter member of the Central New England Woodturners, one of the earliest AAW chapters, and has the enviable record of being an invited demonstrator at no less than ten AAW symposia. Paul is also the current chair of AAW's POP program.

Inspiration

Even as late as 1986, Paul did not have a real focus for his work, but at his first AAW event, when he was introduced to hollow forms, everything changed. "I just had to know how to do those things," he recalls. "I was on a quest to learn, but of course I had no teachers and no suitable tools. Even Ellsworth's tools were all homemade, so I decided I'd make my own. Everything fit together into my engineering psyche—I was trying something new, developing new skills, and making new tools. The aesthetics came later, but once I got into hollow forms, there was no going back."

Hints of Paul's future success as a professional turner soon appeared: "First, I was juried into the Society of Arts and Crafts gallery in a very high-end section of Boston, where I sold a few pieces, and then I sold some pieces at the AAW symposiums." Paul believes that his success as a turner really started in early 1988, when he began turning thin-walled hollow forms. "I just kept getting better and better," he says. "The pieces were mostly unembellished, but I did turn thin grooves in some and I sandblasted others. I felt the sandblasting process was a breakthrough—the effect of eroding the soft grain while leaving the harder grain intact was impressive and people just had to get their hands around them."

> "Developing new processes is what makes it fascinating for me."
>
> —J. Paul Fennell

Paul started making his hollow forms really thin in the early 1990s, borrowing Richard Raffan's idea of using light as a wall-thickness gauge. "He was using it on the outside," Paul explains, "but I bought a fiber-optics unit with a thin light cable you could put in a hollow form and when it was thin enough it would become translucent. I still do this during demonstrations and it amazes everyone."

Eventually, those who had inspired Paul began to recognize his work. At one symposium, where he was displaying a hollow form made from masur birch, Del Stubbs expressed his approval. "He came up to me and picked up the piece. He told me he couldn't get over how thin it was," says Paul. Stubbs was not the only famed woodworker who was to be impressed. "I met Sam Maloof at an exhibit in Boston and he asked which piece was mine. I pointed to my tiny piece that was $125, and he said, 'I'm going to buy this!' Being recognized by people who inspired you is a good feeling. Once David Ellsworth told me he really liked a piece of mine. Now when I show it to people, I say, 'David Ellsworth stuck his finger in this piece.' He was at the top of the pile and that meant something to me." An increasing number of collectors also began purchasing Paul's work during this period, which was, as Paul says, "a good time to be a woodturner." By 2014, his work was held in thirty-three permanent collections.

Moving south again

Paul and his wife Judy missed the California weather, so in 1993, when their children had grown, they moved to the warmer climate of Arizona, where Paul bought another sign ▸

company. "Working in a small garage where it could reach 106 degrees in the summer wasn't pleasant, and I had to adjust to the lack of good wood," explains Paul. "I joined the local AAW chapter, the Arizona Woodturners Association, and that helped a lot. It's a nice club and I'm still a member. During that time, I became increasingly fascinated with adding tactile qualities that you can't get on the lathe."

Finding a signature style

Paul and Judy's final move to their home in Arizona allowed Paul to have his dream workshop, where he was able to settle down to creating a body of signature work. His thoughts on this subject are the result of many years of analysis. Paul did not intentionally try to develop a signature style, but one day when someone told him he could always tell Paul's work in an exhibit, he realized it had happened. "The heavy carving, piercing, and texturing began around 1997, when I did things like basket-weave designs," Paul explains. "The design for the lattice patterns came from a small snippet of two-dimensional patterns from Buddhist temples in China. I was curious about how it could be applied to a three-dimensional surface." This was a real milestone for the development of Paul's distinctive style: "You have to figure out how many times a pattern will be repeated and then fit it so there's no discontinuity as you work your way around the piece. Sometimes the number of divisions is not one that is commonly used. For example, if the pattern repeats itself after seven spaces, when you fit the design to a vessel, you may end up with a multiple of seven, say fifty-six. So how do you divide a vessel into fifty-six divisions? I needed an indexing system, and I had to make it myself. Developing new processes is what makes it fascinating for me."

Paul has had a lifelong interest in improvisational jazz, which he believes is similar to what he does with the patterns he creates: "You're improvising," he says. "Even though you're working with patterns that could be found in other people's work, no one has ever done it like that before. Just like jazz, you can recognize the person by his style."

Paul insists that the development of creativity is a never-ending process: "You have to really look at the idea and practice it like a musical instrument. 'If I change this a little bit, would it be better or different? How would it look?' It becomes a dialog, a series of expressive designs that come together into a body of work that nobody else has done. I believe you also need an element of risk in your work, the challenge of doing something that takes a lot of effort and concentration."

An evolving body of work

A review of Paul's work since he first had success with hollow forms illustrates this process of incremental development very well. There is no doubt that as early as 1991, when he made *Curly Maple Hollow Form*, he had already mastered the shape of such pieces, and this becomes especially apparent when you hold the vessel yourself. It is so light, you can almost imagine it will float out of your hand. Careful sounding by tapping with a fingernail proves it is eggshell-thin, all the way to the bottom. This is the work of a hollowing master.

Never one to rest on his laurels, Paul soon began to explore the third dimension of the vessel surface. This transition is graphically shown in *Discovery in Carob* from 2003. After leaving a lightly grooved part of the turned surface to emphasize that it came from the lathe, he then juxtaposed this treatment with a deeply carved basket-weave pattern. This piece clearly states: "I won't be restrained by the lathe!"

Paul continued to create both solid and pierced pieces and the effect of these different approaches is clearly illustrated by comparing *La Passion de Mon Père* and *Les Marguerites*, from 2003 and 2004. They are superficially similar, but the former is built on solid deep relief, while the latter, with its fragile, pierced background, allows the light to wash around the flowers. I believe this effect takes this work to an entirely different level.

Red Cord from 2005 is a good example of how Paul imbues his pieces with personal content. He explains, "*Red Cord* was inspired by my eldest son's marriage in 2004. It is based on the Chinese legend of a red silk cord connected at birth to couples who are destined for each other. As they grow up, the cord ▸

(Top row, left to right)
La Passion de Mon Père, 2003, Carob, 9" × 6¼" (24cm × 16cm)

Les Marguerites, 2004, Carob, 10" × 6¼" (26cm × 16cm)

Red Cord, 2005, Mesquite, acrylic ink, 8¼" × 6" (21cm × 15cm)

(Middle row, left to right)
Leaf Form, 2005, African sumac, 8¾" × 7" (22cm × 18cm)

View from the Garden, 2006, African sumac, 7½" × 6¼" (19cm × 16cm)

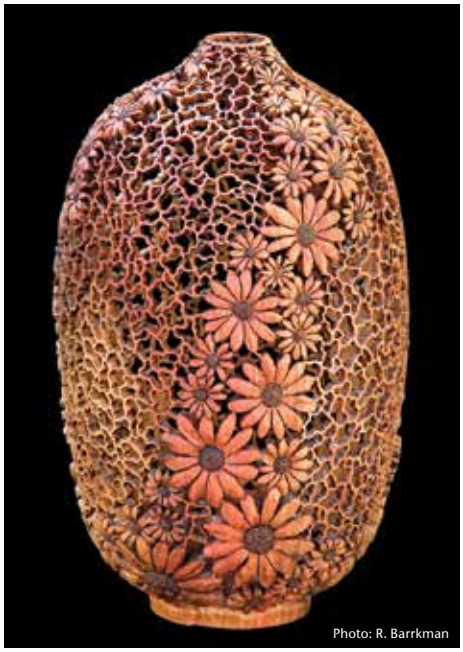
Sumac Ribbons, 2008, African sumac, 6" × 6" (15cm × 15cm)

(Bottom row, left to right)
Perturbations II, 2008, African sumac, 6" × 5½" (15cm × 14cm)

Swirls, 2008, African sumac, 7" × 7" (18cm × 18cm)

Wave Patterns, 2013, African sumac, 8" × 6" (20cm × 15cm)


Photo: R. Barrkman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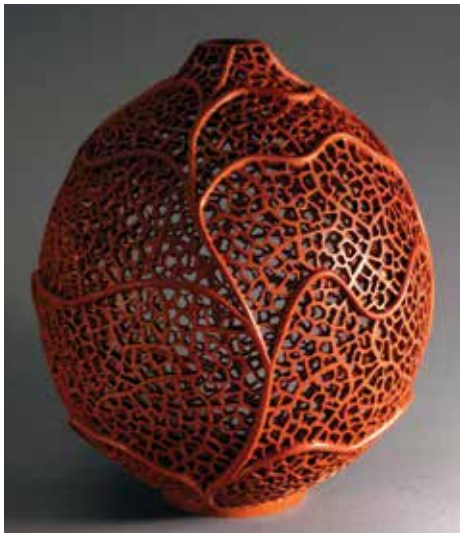
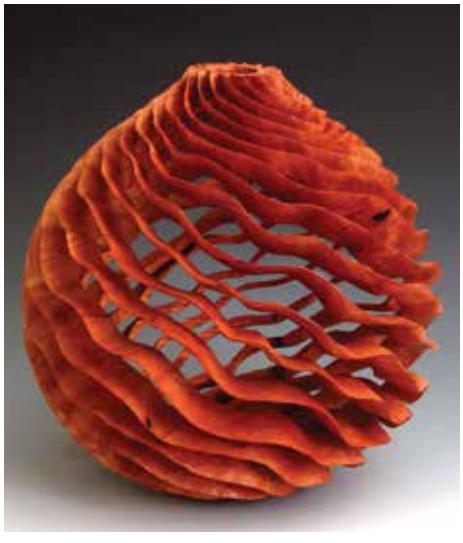
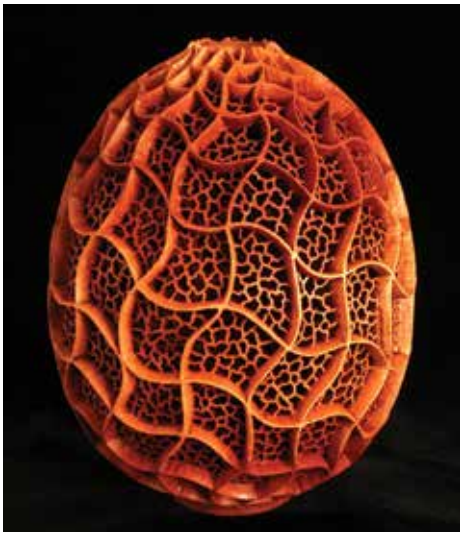






Cycles, 2014, African sumac, 6" × 6½" (15cm × 16.5cm)

becomes shorter and shorter, until they find each other and are united forever. The undulating basket-weave pattern shows that when two lives are inextricably woven together in marriage, it is not always smooth and predictable."

Even though *Leaf Form*, also made in 2005, was the result of painstaking incremental development, it has all the hallmarks of a leap forward in both fragility and style. The design is amazing enough, but the execution of such fine work requires remarkable patience and dexterity. Such pieces were milestones not only for Paul, but for the entire field.

The challenge of wrapping a design around a hollow vessel is particularly well illustrated in *View from the Garden* (2006). The flat patterns Paul obtained from Chinese temples have to taper toward the top and bottom of the vessel, requiring a clever combination of creative vision and technical virtuosity.

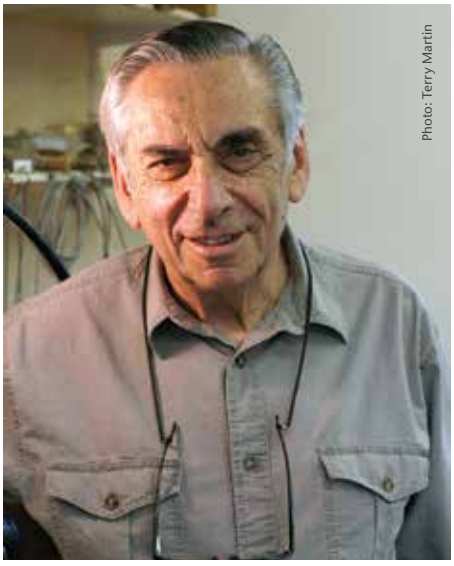
Paul's improvisational evolution is exemplified by three pieces he made in 2008. In *Sumac Ribbons,* Paul cut deep vertical fissures, but they do not pierce the wall of the vessel so there is little sense of the inner volume. In *Perturbations II,* he has pierced through to leave thin vertical pieces like blades of grass to both enclose and reveal the space within. In *Swirls,* he has taken the craftsmanship of risk a large step further by cutting in swirling lines right across the grain, risking all, but succeeding in cre ating a piece that defies predict ability—and the fear of breakage. You can almost hear him asking himself the questions: "What if...? Would it be better...? How would it look...?" In retrospect, the evolution of his work seems obvious, inevitable, but in reality it took a lot of experimentation, backtracking, and broken wood to arrive at this level of craftsmanship.

Wave Patterns, made in 2013, beautifully echoes *Leaf Form* from 2005. Now fully in control of his medium, Paul continued to push the limits of this design and in 2014 produced *Cycles,* arguably his best piece to date.

Paul has unselfishly supported other artists and is deeply committed to the wood world we share. Like the evolved state of his turned work, his successes in life resulted from a willingness to face risk, a precedent set by his immigrant grandfather and entrepreneurial father. That Paul has embraced this attitude is evidenced by his rich and varied life and by the ambitious nature of his art.

For more on J. Paul Fennell, visit jpaulfennell.com. ■

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.



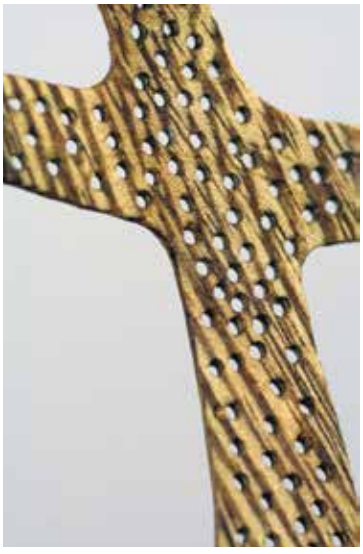
J. Paul Fennell

Members' Gallery

Ernie Newman, Australia

These pieces ask questions about vulnerability, suffering, and the possibility of redemption. Mark Sfirri's early two-centered figures inspired me to try three-centered female forms. *Susannah* is named after the biblical Susannah, who was a victim of attempted rape by religious leaders. It honors those who have experienced sexual assault by ministers of religion, so she carries a cross.

Will the Circle Be Unbroken? alludes to our desire to reconnect with those we have lost. Is there any way in which this is possible? And what is the fate of the hatched and unhatched eggs in *Second Last Home?* Will they survive?



Will the Circle Be Unbroken?, 2012, Morton Bay Fig, 12" × 2" (30cm × 5cm)

Second Last Home, 2014, Eucalypt burl, Moreton Bay fig, 7" × 15" × 12" (18cm × 38cm × 30cm)

Susannah, 2014, Douglas fir, copper, acrylics, 22" × 3" (56cm × 8cm)

Members' Gallery

Sharon Ayres, Texas

To create the rusted and aged verdigris on *Rust in Piece*, I used four VerDay reactive metal paints: iron, copper, bronze, and brass. An old paintbrush works well for the initial application. After the paint dried for about half an hour, I blotted on several different colors using a sea sponge. While the blotting was still wet, I used a spray bottle to apply a special solution designed to react with the paint. The solution reacts to make the genuine metal particles bloom into amazing colors... Iron turns a rusty orange, brass to green, bronze to blue, and copper to verdigris in only a few minutes.

I was inspired to try this kind of embellishment after reading the book, *Rust and Patina Style: Creating Fashionable Finishes with Reactive Metal Paints,* by Suzanne McNeill (Design Originals, 2014).

Rust in Piece, 2014, Maple, driftwood, 5" × 20" × 6" (13cm × 51cm × 15cm)

Photos: Carmen Slagle

Richard Preston, South Carolina

The form and color of the squash my wife brought home impressed me so much I confiscated them for several days and made my own winter squash forms.

Winter Squash, 2012–2013, Dogwood, oak, hickory, tallest is 6" (15cm)

Andy Chen, Texas

My primary interest in woodturning is the segmented variety. When I initially got serious about turning more than twenty years ago, I had a lightweight lathe that was only able to handle balanced blanks. Once I got started, I became obsessed with segmenting because it offered so many possibilities of pattern and did not limit me to the natural patterns of wood grain. I also like that when making segmented vessels you are not wasting upwards of ninety percent of the beautiful wood, as you would turning a hollow form from a single piece of burl, for example. I also enjoy using alternative materials such as Corian®.

Sake Set with Oval Tray, 2011, Corian®, flower petals, sawdust, 6" × 8" × 10" (15cm × 20cm × 25cm)

Spartan Vase, 2011, Holly, 7" × 6" (18cm × 15cm) (Pyrography inspired by Wally Dickerman)

(Left) Die Ersten und Letzten (The First and Last), 2012, Corian®, calcite, malachite, 5¾" × 7¼" (15cm × 18cm)

(Right) Die Ersten nach den Letzten (The First After the Last), 2014, Bloodwood, maple, walnut, red coral, mesquite, lapis lazuli, 6⅝" × 8" (17cm × 20cm)

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ASHLEY HARWOOD
SOUTH CAROLINA

I have always been driven to make things with my hands. In 2004, I received a BFA from Carnegie Mellon University with a focus on sculpture and installation. Throughout college, I worked with a wide variety of traditional and non-traditional media, including neon, glass, video, synthetic hair, and plastic wrap. It was not until 2009 that my father and I attended a woodturning class. I found many parallels between my conceptual work and woodturning: a strong sense of attachment to materials and procedures, tactility, repetition, and the physicality of something that engages your entire body. While my fine arts education was the pursuit of concept over utility, woodturning has become a way to embrace utility while maintaining a strong sense of aesthetics.

My woodturning started with traditional forms—bowls and finials—largely due to demand at the Charleston Farmer's Market, where I sell my work. However, part of me yearns to explore the possibilities of what woodturning can be and the different ways it can engage with people's lives. I am also excited by the idea of collaborating with other artists to push creative boundaries.

The pedestals were created for Charleston Supported Art (charlestonsupportedart.com), which is modeled after the popular community supported agriculture (CSA) movement. Buyers purchase a "season," which includes six works from six different artists without knowing what pieces they will receive. In keeping with the interactive themes that run through all of my work, these pedestals have the ability to elevate—literally and figuratively—whatever someone decides to place on them.

For more, visit ashleyharwood.net.

Glass-Domed Pedestals, 2014, All with ebony center, variations of oak, walnut, mahogany, each measures 8" × 5" (20cm × 13cm)

Ring (collaboration with Derek Weidman), 2014, Tulipwood, gold, sterling silver

Necklace and Earrings, 2014, Ebony, sterling silver, leather