SHOPMADE DOVETAIL RECESS TOOL • BANDSAWING ROUND OBJECTS • CONCEPT DEVELOPMENT

AMERICAN WOODTURNER

Journal of the American Association of Woodturners

February 2016 vol 31, no 1 • woodturner.org

CURT THEOBALD
ELEMENTS OF A BALANCED LIFE

TEN PRINCIPLES OF CLEAN CUTTING

TURN A SIMPLE TRAY

SHOCK OF THE TIMELESS

MaxBrosi

Ireland

My work is in a constant state of evolution toward a more raw, honest, and calm aesthetic. Everything is in a state of transience: wood warps, metal corrodes. The result of these natural processes is a heightened aesthetic character in the material. The static becomes dynamic, the perfect becomes imperfect.

Many years of working with wood has taught me to design movement into my work by utilizing the natural tendency of wet oak to warp as it dries. Sandblasting reveals the hidden three-dimensional texture of the grain and rays.

I use simple geometric forms like cylinders and spheres, frequently turned on several axes, to explore a visual concept and tell a story. This story can be a social or political commentary or often just a simple exploration of form.

The distortion and texture of the warped wood breathes life into the starkness of geometric form and softens the brutality of cold, rusty steel. This tension between materials excites me.

For more, visit facebook.com/maxbrosiwoodturning.

Photos by Steve Rodgers.

Split Tube Form, 2015, Green oak,
9½" × 5½" × 4⅛" (24cm × 14cm × 10cm)

(Top left) Irish Water 2, 2015, Green oak, mild steel, 7¼" × 11¾" × 12⅛" (18cm × 30cm × 31cm)

(Top right) Melting Pot, 2014, Green oak, 3¾" × 8¾" × 8½" (10cm × 22cm × 22cm)

(Middle left) Rise of the Machines, 2013, Spruce, stainless steel cable, mild steel, 12" × 12" × 12" (30cm × 30cm × 30cm)

(Middle right) Spout Form, 2014, Green oak, 9" × 6⅜" × 4½" (23cm × 16cm × 11cm)

(Bottom) Turbo Form, 2015, Green oak, 7¾" × 6½" × 5⅜" (20cm × 17cm × 14cm)

AAW | AMERICAN ASSOCIATION OF WOODTURNERS

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

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Cover – Curt Theobald, *My Mothers,* 2009, Dyed wood, largest piece is 6" (15cm) tall, Collection of Richard and Elizabeth Hogue

Back Cover – Merete Larsen, Photos by Jacob Lærche.

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A NOTE ABOUT SAFETY

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

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

*Web address is case sensitive.

Editor's Note

Years ago, I took a class with renowned production turner Richard Raffan, and I was not disappointed. Richard demonstrated several projects, but one really made an impression on me: the tray. Within a half hour, he transformed a 1"- (25mm-) thick board into a well-proportioned, usable tray. I was so excited that over the next several weeks, I turned nothing but trays using Richard's methods. Now I am pleased to bring this project to you, in an article by Richard that can be found on page 22.

I'm also happy to include Kip Christensen's checklist of woodturning truths ("Ten Principles of Clean Cutting," page 14) and former *AW* editor Betty J. Scarpino's take on a bandsaw jig for cutting round objects safely (page 20). Enjoy!

Joshua Friend

—Joshua Friend

From the President

Thirty years of promoting and supporting woodturning—this is AAW. The American Association of Woodturners, incorporated in April 1986, has evolved into an organization now serving 15,000 members in the United States, Canada, and other countries. Our annual symposium is the "go to" event for woodturners the world over.

Today, AAW members enjoy the fruits of this success. Our founders recognized the need for an organization that represented turners of all skill levels: hobbyists, professionals, manufacturers and suppliers, vendors, collectors, and educators and schools. Professional turners give us ideas that stretch our imagination and influence our turnings. Some AAW members have helped design lathes and tools that allow today's turners to increase their skill level quicker and better than ever before. AAW has played a role in helping schools develop programs appropriate for all age groups and experience levels. The expanding market for equipment and knowledge, driven by our increasing membership, has prompted vendors to grow, offering everything from tools to learning materials to easily available wood.

The AAW owes its success to our tireless volunteers. Our board of directors, advisory board, and twenty-three committees represent hundreds of volunteers, who bring career skills that make AAW the envy of many large companies. The army of volunteers allows us to have only a small staff handling duties at headquarters. These outstanding professionals go far beyond their stated job descriptions, volunteering their time well beyond the board's expectations.

The terms of three board members, Kurt Hertzog, Lou Williams, and Rob Wallace, ended in December, but they will continue as members of the board of advisors. New board members Wayne Furr, Joe Dickey, and John Ellis bring unique skills that will ensure continued, solid leadership.

Each of our 350 chapters has similar organizations manned by equally able volunteers, providing local exposure to woodturning, hands-on classes, and demonstrations, as well as boosting local charities with their products and abilities.

I strongly encourage all members to get more involved with the AAW and its local chapters. Run for the AAW board, be a committee member, or be a leader in your local chapter.

What is AAW today?

We have 15,000 members. Eighty percent are 55 or older. We lose about 2,000 members annually because of age, loss of interest, health, and other issues. Our efforts in recruitment have resulted in a similar number of new members. Think of this: every three years, forty percent of our members are new to AAW. Some have been members since 1986, but the average member has been with us for just eight years.

Last summer, the board and staff initiated a number of focus groups to find out how our membership views AAW. These focus groups indicated a need for more services aimed at newer turners. More than seventy percent of respondents view themselves as beginner or intermediate turners, and they tend to be more internet oriented. Given our aging demographic, it is important that we respond to the needs of these newer members.

The focus groups also indicated that to grow our membership—and correspondingly increase revenue to pay for additional services—we should reach out to groups that historically were not exposed to woodturning. To successfully grow, we must support Turners Without Borders, Women in Turning, Woodturners Without Barriers, and possibly even AARP. Not to take away from our successful youth program, but focusing on women, Hispanics, and other minorities, as well as young people in old, wrinkled birthday suits, will grow our membership and ensure AAW remains healthy and vibrant into the future. There is something very simple that any member can do: "adopt" someone ten years younger than you and get him or her into turning. From my own experience, I know this is truly the gift that keeps on giving.

If you have not done so already, now is the time to visit AAW's "continually improving" website—at woodturner.org. We haven't finished yet, but we have introduced changes that make it easier to access the wealth of information available to you. You can also update your personal profile when you login. Chapter presidents can keep their chapter information current—it's really easy: click on "Chapters," then "Officers Page."

On behalf of the board of directors, the staff, and all our volunteers, I thank you for the opportunity to lead our organization into its next generation. We all look forward to the exciting opportunities available to AAW members during 2016, our thirtieth year.

Looking forward,

Greg Schramek

Greg Schramek

JOIN US IN ATLANTA, GEORGIA, FOR AAW'S 30TH INTERNATIONAL SYMPOSIUM

ATLANTA CONVENTION CENTER AT AMERICASMART
JUNE 9–12

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 HOST HOTEL

The Westin Peachtree Plaza
210 Peachtree St NW
Atlanta, GA 30303
General Information: 404-659-1400
Reservations: 800-937-8461

Group Room Rates:
Rooms are filled on a first-come, first-served basis. Make your reservation early to lock in your preferred room rate.
- Traditional Double: $125
- Deluxe Double: $135
- Premium Double: $145

(Rates do not include 16% state and local taxes.)

Reservations
A deposit of one night, plus tax, is required at the time of the reservation. The code for the AAW group rate is: "American Association of Woodturners."

To make a reservation online, visit tiny.cc/AtlantaHotel (case sensitive)

INVITED DEMONSTRATORS

Sally Ault, California
- Wooden jewelry
- Making lids more interesting

2014, Spalted maple, cocobolo, copper, disk is 1¼" (32mm) diameter

Benoît Averly, France
- Quick boxes with skew
- Textured "Hut" boxes
- Flat Box

White Shell, 2015, Ash, 16" (41cm) diameter

Jason Breach, England
- Box with flowing curves
- Pagoda box
- Orbital arc, the beginning

Bubinga pierced arc on stand, 2015, Bubinga, ebony, 12" × 9" × 1¾" (30cm × 23cm × 4cm)

Photo: Richard Heddington

Cynthia Carden Gibson, South Carolina
- Embellish your world!
- Inspiration and embellishment

Binh Pho & Cynthia Carden Gibson, *Garden of Hope,* 2015, Box elder, 5½" × 3" (14cm × 8cm)

Photo: Binh Pho

Seamus Cassidy, Ireland
- Cone-shaped trinket box with finial lid
- Tall four-piece table lamp
- Contemporary ladle with steam-bent handle

Jugular, 2013, Bleached ash, burr elm, ebonized ash, ebony, sandblasted glass, rare earth, 14" × 4¾" (36cm × 12cm)

Photo: Roland Paschhoff

Robin Costelle, Kentucky
- Segmented feature-ring design
- More segmented designs and add-ons

The Gift, 2006, Cherry, curly maple, ambrosia maple, walnut, bloodwood, yellowheart, 21" (53cm) tall

continued

AAW 30TH INTERNATIONAL SYMPOSIUM IN ATLANTA

Jean-François Escoulen

- How to turn a trembleur
- How to use an eccentric chuck
- Multiaxis turning

Pieces of Chess Set: the Bishop, 2005, Boxwood, 7" (18cm) tall

Richard Findley, England

- Spindle turning with routed flutes
- Spindle turning with hand-cut barley twist
- Walking cane with offset handle

Oak spindles with hand cut twist, Oak, and one walnut, part of restoration of a listed building in the U.K.

Liam Flynn, Ireland

- Footed vessel
- Inner rimmed vessel
- Barrel form

Barrel Form, 2014, Ash, 14½" (37cm) diameter

Michael Hosaluk, Canada

- Using hook tools for endgrain hollowing
- Addition/subtraction for vessels
- Surface design

Expedition, 2013, Madrone, birch, horsehair, acrylic paint, brass, 4" × 16" × 3½" (10cm × 41cm × 9cm)

Beth Ireland, Massachusetts

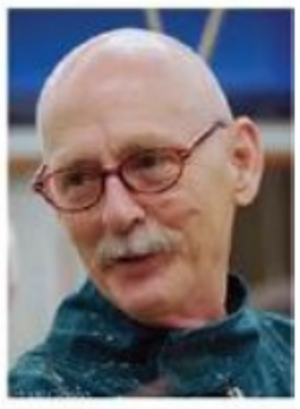
- Turning outside the box
- Sculptural stringed instructions from the lathe
- Turning with your mind

Instruments, 2015, Recycled materials, mixed media

Photo: Brian McAlpine

John Jordan, Tennessee

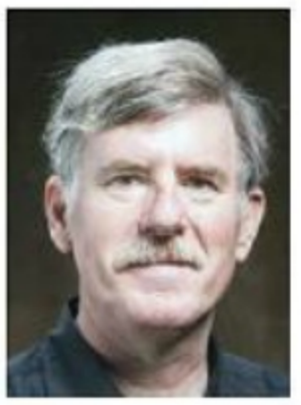
- Hollow turning
- The aesthetics and properties of wood



Black Vessel, 2014, Dyed ash, 5" × 6" (13cm × 15cm)

Dale Larson, Oregon

- Dry and finish-turn roughed-out bowls
- Cutting the best bowl blanks out of a tree



Pacific Madrone Bowl, 2014, Pacific madrone, 5¼" × 10¼" (13cm × 26cm)

Photo: Dan Kvitka

David Marks, California

- Gilding vessels
- Creating unique patinas on vessels

Dragonfly Vessel, 2013, Pernambuco, poplar, 12" × 7" (30cm × 18cm)

Photo: Joe McDonald

Yann Marot, France

- Roped bowl
- Raindrop box
- The slicing angle

Black Emotion, 2015, Evergreen oak, 7" × 4¾" (18cm × 12cm)

Photo: Laure Pradeau

Jason Schneider, New Jersey
- Turning a corrugated cardboard bowl
- Turning out cardboard furniture

Corrugated Sphere, 2007, Corrugated cardboard, 14" (36cm) diameter

Mark Sfirri, Pennsylvania
- Multiaxis baseball bat
- Multiaxis abstracted figure
- Spindle-turning basics

Sfirri-Turned Figures, 2015, Ivorywood, cypress, paint, 17" × 3" × 3" (43cm × 8cm × 8cm)

Curt Theobald, Wyoming
- Segmented bowl construction
- Thinking outside of the box
- Open segmented turning

Blood Brothers, 2004, Ebony, holly, 1¾" × 2" (4cm × 5cm)

AAW Women in Turning

Women In Turning (WIT) began with a casual meeting of a group of women at the Phoenix symposium in 2014. Acting on a shared belief that more women would become involved in woodturning if there were a concerted effort of recruitment and support, they created a group, decided on a name, and began planning.

WIT's first project was *Egg Crate*, a collection of eggs turned by women throughout the turning community. This collaboration sold at the Pittsburgh symposium's EOG auction for $9,000. WIT's collaborative project for the EOG auction at the upcoming Atlanta symposium is *Fruits of Our Labor.* For information on how you can participate, visit WIT's webpage on AAW's website (tiny.cc/AAWWIT).

WIT formally became a committee of the AAW in September 2015, with Kathleen Duncan, AAW board member, as its chair. Committee members are Suzanne Kahn, Betty Scarpino, Jean LeGwin, Dixie Biggs, and Linda Ferber. As a committee, WIT is now an integral part of AAW's programs and fundraising activities.

A Regional Ambassador Program (RAP), sponsored by WIT, is well underway. At local symposia, women turners meet to find support and establish connections. Regional ambassadors will coordinate activities within their respective areas. Linda Ferber, AAW's Program Director, and Daryl March Grey coordinate the RAP.

At the Atlanta symposium, WIT will host a hands-on room, staffed by experienced women woodturners. Suzanne Kahn is organizing the activities in the room, arranging lead turners, and acquiring donated lathes and equipment. This hands-on experience at an AAW symposium will help attendees solve problems with woodturning, learn new skills, and make connections with likeminded turners. Dawn Petrie George will be the volunteer coordinator on the ground in Atlanta.

Contributing sponsors to the WIT room so far are as follows: Nova (Teknatool) for lathes, Crown Tools, Peachtree Woodworking Supply, Ellsworth Tools, Sorby Tools, and Honeywell Safety Products. ■

—Betty Scarpino

Dixie Biggs, *Grape-fruit,* 2015, Cherry, pigment, 2" × 4¼" (5cm × 11cm)

Grape-fruit is Dixie's contribution to WIT's "Fruits of Our Labor" collaboration, to be sold at the EOG auction during the 2016 AAW symposium in Atlanta.

Sponsor a Demonstration Room in Atlanta

We are offering the opportunity to express your support of AAW by sponsoring a demonstration room during the Atlanta 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 have sponsored rooms over the past two years. 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. ■

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 at the AAW international symposium, with a follow-up announcement in *American Woodturner*.

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 viewed at tiny.cc/ChapterNewsWeb (case sensitive). This is a members-only page.

For the newsletter contest, 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

For the website contest, the judges will be looking for:

- Layout/graphic design: visually appealing, easy to access
- Ease of navigation: easy to traverse pages, intuitive menu, links work
- Use of technology: appropriate use of scripting, styles, databases, and search engines
- Up-to-date/current content: new information up front, archived material available
- Website content: contains useful woodturning technical and news-related information
- Uniqueness/personality: good blend of design with appropriate appeal to woodturning audience
- Cross browser compatibility: site works with different browsers
- Content that pertains to woodturning
- Content that contributes to AAW's mission
- Useful woodturning news-related information

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 2017.

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, 2016:

- A statement of intent, including qualifications and reasons for applying
- Letters of recommendation from two individuals who can attest to your organizational and leadership abilities
- 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 and on the AAW website, ballots will be sent out in the fall, and election results will be announced in late 2016.

CALLING YOUNG TURNERS: 2016 Turning to the Future Competition

AAW | AMERICAN ASSOCIATION OF WOODTURNERS

Turning to the Future

The AAW is pleased to announce the 2nd-annual Turning to the Future competition, an opportunity for woodturning students and schools to show off their best work. There are two divisions, High School and Post-Secondary, with three categories each: Functional, Small Turnings, and Open. Five finalists in each division category will be chosen to have their work displayed at the 2016 AAW international symposium in Atlanta, where expert judges in each category will select the winners. Work will be evaluated on craftsmanship, aesthetic appeal, creativity and/or utility, and process documentation.

Grand prize

A Rikon 70-220VSR midi-lathe will be awarded to the top piece in the High School and Post-Secondary divisions. Additional cash prizes will be awarded to winners in each category.

Contest rules and information

- Deadline for submissions is May 1, 2016
- All work must be at least partially created on the lathe
- Category definitions:
  - Open: creative or conceptual pieces not meant for use
  - Small Turnings: pens, small treen items, toys, small boxes, etc.
  - Functional: work created for use
- All forms of woodturning are eligible: traditional, multiaxis, segmented, rose engine/ornamental, sculptural, etc.
- Work must be no larger than 20" (51cm) in diameter
- All high school students are eligible; post-secondary students are required to be enrolled full-time in a design, woodworking, or art program
- Work must have been completed between January 2015 and May 2016
- Process and materials must be documented in accompanying material
- Full entry information is available on the AAW website: tiny.cc/TurnFuture (case sensitive)

Miguel Ingles, Honorable Mention winner of the 2015 Turning to the Future competition, High School level, for his *Triple Helix* candlesticks.

Ashley Harwood DVD Sources

In the December 2015 issue of *AW*, we ran a review of Ashley Harwood's DVD, *Sea Urchin Ornaments and Fine Spindle Turning*, but neglected to include sources for purchasing it. The DVD can be ordered directly from Ashley's website, ashleyharwood.net, or from Woodworkers Emporium, woodworkersemporium.com.

Call for Demonstrators AAW Symposium 2017

The AAW's 31st annual international symposium will be held in Kansas City, Missouri, June 22–25, 2017. To apply to be a demonstrator, visit tiny.cc/CallsforEntry (case sensitive) between May 1 and August 1, 2016. For more information, call the AAW office in Saint Paul, 877-595-9094 or 651-484-9094, or email inquiries@woodturner.org.

2016 POP Fellowship Grants Call for Applications

The Professional Outreach Program (POP) is accepting applications for its 2016 Fellowship Grants. The purpose of the POP Fellowship Grant is to encourage creative growth through research or to provide inspiration for new directions in turned wood art. For example, applicants might be interested in pushing their work in a new direction, working in collaboration with other artists, or exploring new materials or using existing materials in a new way. POP Fellowship Grants are funded by proceeds from the annual POP auction at the annual symposium.

Applicants must be AAW members in good standing. The Fellowship Grants are open to turners of all levels and abilities. For more information and to apply online, visit tiny.cc/POPGrant.

Applications will be accepted online through May 1, 2016.

Retreat Offers Hands-On Learning

My wife was setting up her annual quilting retreat when it hit me—why not host a weekend woodturning retreat? With the OK of my wife Lana and the Grand River Woodturners Guild (GRWG), I started planning the three-day event, which would take place on my own property in Michigan. The premise was to bring turners together for as much hands-on experience as possible.

I advertised the event, and many people showed interest. The response was bigger than I had anticipated, so I set a limit of fifty participants, even though we had only sixteen lathes available. For people not using one of the lathes, we would include demos that were off-lathe but still hands-on.

I hired Lyle Jamieson, a professional demonstrator and turner, to teach two classes on the basics of the bowl gouge. Jim Beaman, another professional turner, taught box turning. We also had a presentation by Alumilite, a manufacturer of molding and casting supplies, as many turners there were interested in casting their own blanks. Classes were taught in hollow forms, bowl work, carving, patinas, pen turning, platters, spheres, and boxes.

Being on forty wooded acres, I had room for people to camp out. There were four motorhomes, one fifth-wheel, and one pop-up camper. Plus, a local motel offered a special rate. Several volunteers helped with food and beverage service. Each day, coffee and rolls were served in the morning and lunch was also provided. All the wood for turning was furnished for the event, and to cover costs (not to make a profit) I asked for a donation of $50.

This was a great way to bring woodturners together for a fun weekend. For this year's event, June 23–26, 2016, I hope to have more lathes available to handle more attendees and demonstrators. ■

—Ron Campbell (campbelnye@gmail.com)

In 2015, Michigan turner Ron Campbell hosted a weekend retreat for woodturners. People arrived from several states with campers and motorhomes, turning Ron's property into a makeshift campground.

Lyle Jamieson, second from left, teaches the basics of the bowl gouge.

Harvard University Hosts Area Woodturners

In October 2015, the Arnold Arboretum of Harvard University hosted a unique exhibition of turned wood art. Fatigued with their usual display of paintings at the Hunnewell Building, Stephen Schneider, Director of Operations, and Sheryl White, Coordinator of Visitor Engagement, approached three Massachusetts-area woodturning clubs to explore the possibility of a display of turned objects. The Association of Revolutionary Turners (ART), the Central New England Woodturners (CNEW), and the Massachusetts South Shore Woodturners (MSSW) were happy to oblige. John Flynn, Joe McGill, and Nigel Howe worked closely with Stephen and Sheryl to make the show memorable. The result was a display of more than 100 turned objects by more than fifty turners.

The exhibition included live woodturning demonstrations, set up on the Hunnewell Building lawn, to attract casual visitors to the Arboretum. A lathe was also set up in the main display area to educate and inform visitors on the skill and art of woodturning. Approximately 500 people visited the event.

As a thank you to the Arboretum, the clubs donated a number of turnings, which were silently auctioned, the proceeds supporting the Arboretum's Artist in Residence program. Current plans include repeating this event each year over the next two years. ■

—John Flynn, President of ART

Attendees enjoy a display of turned wood at Harvard's Arnold Arboretum, October 2015. Three area woodturning clubs contributed to the event.

EOG Recipient CWT Boosts Community Outreach

One of the joys of woodturning is seeing the inevitable smiles when young people turn their first object. The Chicago Woodturners (CWT) was able to provide that experience for hundreds of kids in 2015, due in part to an Educational Opportunity Grant (EOG) from the AAW, used to purchase mini lathes and other tools. Our chapter has been reaching out to community schools and organizations, offering to put on woodturning demonstrations or hands-on events where students can walk away with an object of their own making.

The trick was to find a project a non-turner could make in less than fifteen minutes with the aid of an experienced turner. CWT members found that pen turning is very popular with students, who are excited about the opportunity to leave with something tangible. Students with no previous turning experience can make a simple one-piece pen in about twelve minutes if the blanks are prepared ahead of time.

Focus on the Arts

One of the two largest events CWT participated in during 2015 was Focus on the Arts, a three-day event sponsored by a local high school where students were exposed to hundreds of local artists. We set up four mini lathes and sponsored an all-day pen-turning event. To our surprise, our sessions were the first ones to fill up, and within an hour, many students had made their own pens and were showing their friends. The pen turning went viral and kids who were not registered started showing up, wanting a chance to try out this thing called woodturning.

The Chicago Woodturners used EOG funds to purchase mini lathes and turning tools. Shown here, scouts making turned compass holders, aided by CWT members.

Boy Scout Jamborall

In October 2015, we completed another major event, a Boy Scout "Jamborall" with over 4,000 scouts. CWT set up five mini lathes, and 160 scouts aged 10 to 18 turned a wooden disk to hold a small compass that the club donated. Again, it was a challenge to control the crowd and manage the three-hour waiting list to get on a lathe.

The benefits of our receiving an EOG from the AAW have been better than expected. In 2015, CWT members were able to expose hundreds of youth and parents to our craft. But the kids are not the only ones who benefited: our members were there to see the smiles and feel the accomplishment when new turners held an object they just finished making. It's a special treat when it's a child.

—Al Miotke, President, CWT

South Coast Woodturners Gives Back

The South Coast Woodturners (SCW) of Oregon has been holding its monthly meetings and workshops in Marshfield High School's Harding Center for many years. Over the past year, the club took steps to expose high school students to woodturning. Due to the diverse interests of our club members, we have been able to promote woodturning as both a hobby and a career.

Recently, the school approached club leadership about conducting a hands-on workshop for students. Using AAW's *Woodturning FUNdamentals* materials as a guide, we have taught safety, technique, and finishing to eight students. By the end of the workshop, each student had successfully turned a small bowl.

The mini lathes and accessories used to teach students were purchased with funds from an AAW Educational Opportunity Grant (EOG). This grant allowed all the students to have dedicated equipment, which helped to keep them engaged throughout the workshop. With the success of this workshop, SCW hopes to expand its number of mini lathes. By increasing the available equipment, we can increase the size of future classes, allowing more students to experience the art of woodturning.

—Tristan Holland

Marshfield High School students proudly display their myrtlewood bowls while standing next to their mentors from South Coast Woodturners.

TIPS

Tips

Jig for mounting small finials

I liked Ted Rasmussen's *AW* article, "Turning a Five-Sided Box" (vol 30, no 6) and decided to use his method for turning the finial. I found a couple of scrap pieces of wenge that would be perfect, except they were too small to be held in the jaws of my chuck. I solved this problem by making a sacrificial mounting jig.

I cut off a 3" (8cm) length of scrap dowel large enough in diameter to be held in my chuck. Then I drilled a ½" (13mm) diameter hole in one end. After roughing the wenge finial stock to a cylinder between centers, I turned a ½" tenon on one end and glued it into the scrap dowel. I could then easily utilize the entire length of wenge for the finial and cut it free from the scrap dowel when complete.

—Bill Wells, Washington

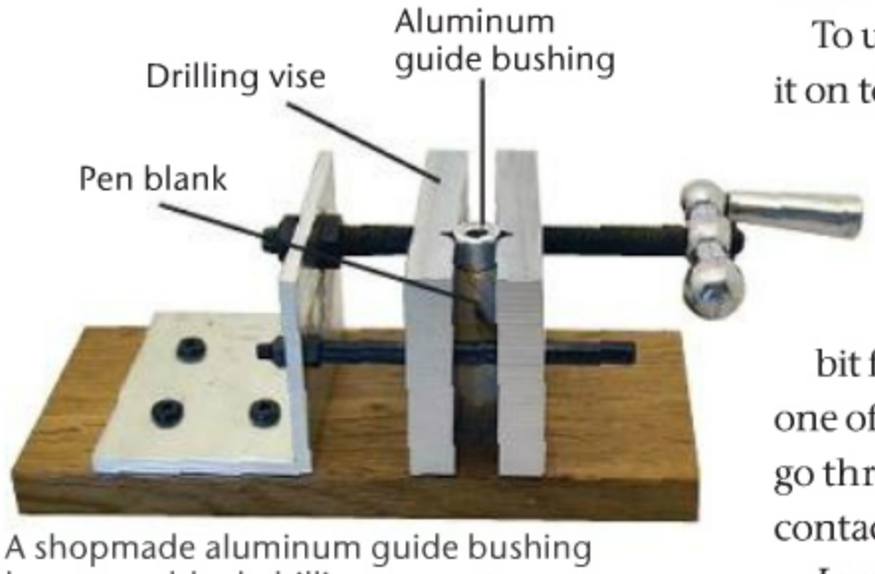
Drill-bit guide bushing

Drilling the center of a pen blank for a brass tube can be challenging when the drill bit wanders off center. I have ruined pen blanks this way. To facilitate drilling *centered* holes in pen blanks, I use a drill-bit guide bushing in conjunction with my pen vise. This setup makes centering the hole easy and prevents bit wandering when starting the hole.

To make one, start with round aluminum stock about three inches long, with a diameter that matches the size of the pen blanks you intend to drill. Secure this aluminum blank in your lathe in a scroll chuck (preferably pin jaws) and center-drill about 1" (25mm) deep using a drill chuck in your tailstock. The drill bit should be of the same diameter as the hole you wish to drill in your pen blanks, but use a metal-cutting bit (not the self-centering bradpoint variety). Drill the aluminum at a low speed. Chamfer the hole with a larger bit about 1/16" (1.5mm) deep, then saw off about 5/8" (16mm) of this drilled stock for the bushing.

To use the aluminum bushing, position it on top of the pen blank while holding both it and the blank in a drilling vise. This will automatically center the bushing's hole on the pen blank and keep the drill bit from wandering. If you would like one of these bushings but don't want to go through the trouble of making one, contact me at jandep@centurytel.net.

—James Pruitt, Arkansas



A shopmade aluminum guide bushing keeps pen blank drilling on center.

Shopmade drying stand

Instead of using store-bought "finishing pyramids" to hold a piece while the finish is drying, I decided to make my own version of a drying stand. Mine is made from a 6" × 6" square of ¼"- (6mm-) thick MDF. On this piece, I marked out thirty-six ¾" (19mm) squares. Then, using a 23-gauge pneumatic pin nailer, I fired ⅜" (10mm) pins into the squares. I like the thinness of the pins from a 23-gauge nailer, but you could probably use thicker pins.

The drying stand allows me to finish all sides of a workpiece at once. The thin pins have almost no visible effect on the finish. I now have six of these stands, which can be slid together to hold almost any project during finishing. For storage, I drilled a hole in a corner and hang the stands from a hook.

—Angelo Denofrio, Illinois

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

Calendar of Events

April issue deadline: February 15

Send information to editor@woodturner.org. For a more complete listing, see the AAW's Woodturning Calendar online at tiny.cc/AAWCalendar.

Australia

March 18–20, 2016, Turnfest Australia, SeaWorld Resort, Gold Coast, Queensland. An Australian international woodturning symposium, featuring demonstrators Mike Lee, John Jordan, Cynthia Gibson, John Wessels, Tom Wirsing, Chris Pytlik, Guilio Marcolongo, Vaughn Richmond, Richard Raffan, Neil and Liz Scobie, Neil Turner, Marilyn Kunde, and Helen Toms. For more, visit turnfest.com.au.

Canada

March 19, 20, 2016, The 11th Annual Matisho Memorial Woodturning for Cancer Research Benefit, Menno Industries, Waldheim, Saskatchewan. Share woodturning skills while raising money to support the Canadian Cancer Society. We encourage other turning clubs to host an event that supports your local or national cancer agency. For more, visit turnersforcancerresearch.org or contact Glen Friesen at glenfriesen@sasktel.net.

July 22–24, 2016, Saskatchewan Woodturning Symposium, Regina Trades and Skills Centre, Regina. Hosted by South Saskatchewan Woodturning Guild, featured demonstrators to include David Ellsworth, J. Paul Fennell, Jacques Vesery, Cam Merkle, Bernie Bober, and other regional turners. Registration includes all workshops, wine and cheese, two lunches, and one dinner. There will also be vendors, an auction on Sunday, and an instant gallery. For more, visit southsaskwoodturners.ca.

Arizona

February 26–28, 2016, The 7th Biennial Desert Woodturning Roundup, Mesa Convention Center, Mesa. Symposium will have a large vendor area, instant gallery, and banquet with live and silent auctions. Vendor area and instant gallery open to the public. Lead demonstrators to include Glenn Lucas, Curt Theobald, John Beaver, Betty Scarpino, Rex Burningham, Andi Wolfe, Art Liestman, and Jason Clark. For more, visit desertwoodturningroundup.com.

Florida

February 5–7, 2016, Florida Woodturning Symposium, Lake Yale Baptist Conference Center, Leesburg. Featured demonstrators to include John Beaver, Jimmy Clewes, Ashley Harwood, Joe Ruminski, Andy Cole, Al Hockenbery, Rudolph Lopez, and Walt Wager. For more, visit floridawoodturningsymposium.com.

Hawaii

March 12, 13, 2016, Honolulu Woodturners' 7th Annual Symposium, MRC Woodturning Center, Honolulu. Featured demonstrators will be Cynthia Gibson and Cliff Johns. For more, visit honoluluwoodturners.org.

Idaho

February 27, 28, 2016, Idaho Artistry in Wood Show, Wyndham Garden Boise Airport Hotel and Conference Center, Boise. Competitors from all skill levels, novice to expert, can submit their carving, turning, scroll work, fine woodworking, marquetry, intarsia, and gourd art for competition and public display. For more, visit idahoartistryinwood.org.

Illinois

July 22–24, 2016, Turn-On! Chicago 2016 Symposium, sponsored by the Chicago Woodturners, The Conference Center at the University of Saint Mary of the Lake, Mundelein. Featured demonstrators will include Nick Agar, Rex Burningham, Robin Costelle, Steven Hatcher, Clay Foster, Frank Kobilsek, Rob Nelson, Graeme Priddle, Mark Sfirri, Mark St. Leger, Rob Wallace, and Molly Winton. Also featuring hands-on pen turning, a tradeshow, meals, a banquet, and an auction. For more, visit turnonchicago.com. Online registration opens January 1, 2016.

Massachusetts

March 12–June 12, 2016, *Visions from the Lathe: Selections from the Massachusetts South Shore Woodturners (SSW)*, Fuller Craft Museum, Brockton. Exhibition featuring more than thirty-five works from SSW, an AAW chapter. The Museum will also host workshops, demos, and events in conjunction with the exhibition. For more, visit fullercraft.org.

October 27–30, 2016, 5th Segmenting Symposium, Boston Marriott Quincy, Quincy. Demonstrators to include John Beaver, Bob Benke, Jerry Bennett, Bruce Berger, Andy Chen, Robin Costelle, Ray Feltz, Tom Lohman, Mike McMillan, Wayne Miller, Al Miotke, Jim Rodgers, Malcolm Tibbetts, and Gary Woods. There will be an instant gallery, banquet, raffle, turning exchange, vendor area, and activities for partners. For more, visit segmentedwoodturners.org.

Minnesota

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

New York

April 2, 3, 2016, 13th Annual Totally Turning Symposium, hosted by the Adirondack Woodturners Association (AWA), Saratoga Springs City Center, Saratoga Springs. Featured demonstrators will be Glenn Lucas, Hans Weissflog, Jimmy Clewes, Binh Pho, Stuart Batty, Steve Sinner, Derek Weidman, Kurt Hertzog, and Linda Ferber. For more, visit totallyturning.com.

North Dakota

April 22–24, 2016, Dakota Woodturners Spring Symposium, Dakota Bismarck School Career Academy, Bismarck State College Campus, Bismarck. Hands-on turning symposium led by professional turners, open to forty participants. Demonstrators to include Duey Marthaller, Michael Roper, and Doug Schneider. Instant gallery open to public. For more, email momdolly@bis.midco.net.

Pennsylvania

September 24, 25, 2016, Mid Atlantic Woodturning Symposium, Lancaster Marriott/Convention Center, Lancaster. Demonstrations by Mike Mahoney, Al Stirt, Binh Pho, Cindy Drozda, Eric Lofstrom, Mark Sfirri, Dennis Fuge, and Kurt Hertzog. Vendor tradeshow, banquet, auction, and instant gallery. Visit mawts.com. Vendors contact Lsherman120@gmail.com or call 717-478-1845.

South Carolina

April 29–May 18, 2016, Exhibition of wood art, Mary Martin Gallery, Charleston. In addition to offering representative works, wood artists were asked to create pieces directly in response to the tragic shooting at Mother Emanuel Church in Charleston, 2015. Artists will include Andy DiPietro, Ashley Harwood, Christian Burchard, Cindy Drozda, Cynthia Gibson, David Ellsworth, Derek Weidman, Dixie Biggs, John Beaver, Keith Holt, Marilyn Campbell, Stephen Hatcher, and Warren Carpenter. For more, visit marymartinart.com.

Texas

August 26–28, 2016, 25th Anniversary of the Southwest Association of Turners (SWAT) Symposium, Waco Convention Center, Waco. Featured demonstrators to include Cindy Drozda, Mike Mahoney, Clay Foster, Stuart Batty, Mary Lacer, John Beaver, John Jordan, and Dick Sing. Event to also feature eleven regional demonstrators, vendor area, art gallery, hands-on area, lunches, Saturday night banquet, and raffle drawings. For more, visit swaturners.org.

Virginia

November 5, 6, 2016, Virginia Woodturning Symposium, presented by the Virginia Woodturners (a group of ten Virginia clubs), EXPOland, Fishersville. Featuring international and regional demonstrators. For more, visit virginiawoodturners.com.

Washington

March 19, 2016, Northwest Washington Woodturners' 7th annual All Day Demo, Anacortes First Baptist Church, Anacortes. Featured demonstrator will be Jimmy Clewes. For more, visit nwwwt.org/ClewesDemo.pdf or email Donna Holmquist at registration@nwwwt.org.

TEN PRINCIPLES OF CLEAN CUTTING

A WOODTURNER'S CHECKLIST ☑

Kip Christensen

Thirty-five years ago, while I was a student at Brigham Young University (BYU), I attended a woodturning demo in which Del Stubbs covered the underlying principles of clean cutting. Del explained there are universal principles that always apply to cutting material, including wood, and that we can usually trace poor results in woodturning back to the violation of one or more of these principles.

I was only able to attend the first few minutes of Del's presentation, but over the years I compiled my own list of principles involved in getting a clean cut when woodturning. What follows is a discussion of these principles with guidance for applying them. Throughout this article, the applications are discussed mostly in relation to spindle turning but can be applied to bowl turning, as well.

The fine "angel hair" shavings from a skew's shearing cut indicate a clean cut along the wood's sidegrain.

PRINCIPLE 1: TOOL SHARPNESS

Principle

Sharp tools give clean cuts; dull tools do not. None of the other principles matter much if your tool isn't sharp, so check your tool sharpness first.

Application

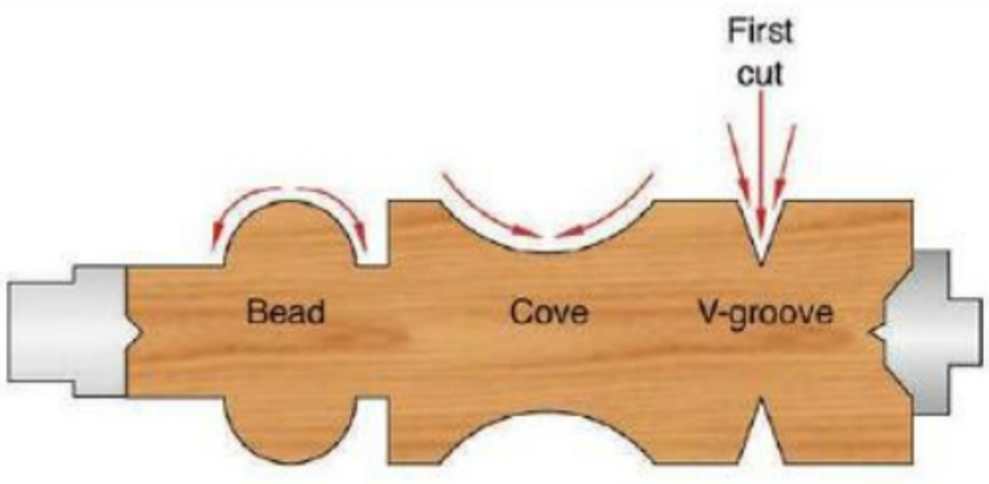
While I was a student at BYU, I watched Richard Raffan give a presentation on how to turn a bowl. It was an excellent demo, but what made the biggest impression on me was what he modeled about the importance of keeping a sharp tool.

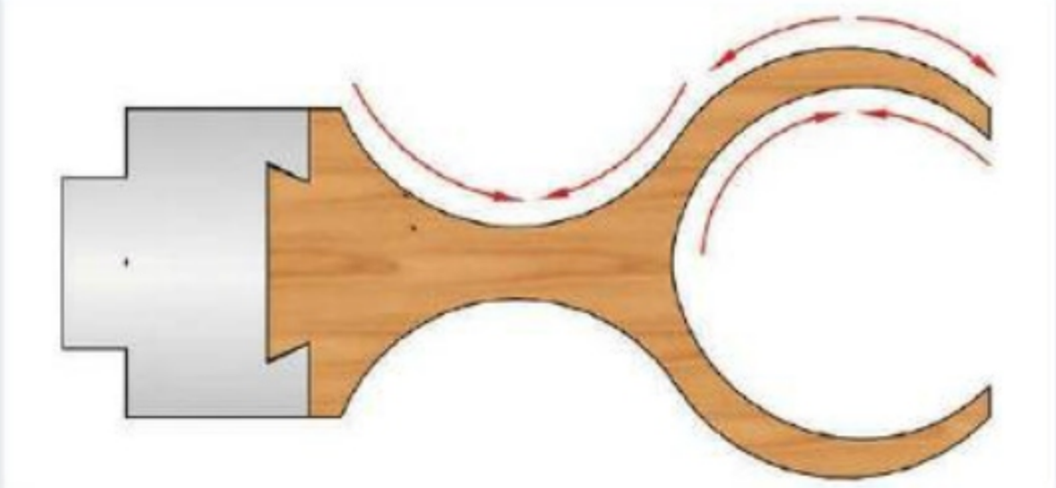
Richard was a production turner at the time and knew that every wasted second impacted his efficiency. He had us position a grinder near the lathe and to his left, not even a full step away from where he stood to turn. A few minutes into the demonstration, he noticed that his cutting tool had lost its keen edge, so he turned the grinder on, sharpened his tool with a quick free-hand stroke, and went back to turning without switching the grinder off. Richard left the grinder running during his entire demo and sharpened frequently. He was not content to work for even a few seconds with a dull tool.

In teaching classes and workshops, I have noticed that many people avoid sharpening their tools. They may doubt their ability to sharpen properly or may be afraid of making the tool worse. They may also be concerned with wasting precious tool steel or are simply reluctant to take time away from turning. To encourage yourself to make sharpening a priority, strive to eliminate any obstacles that make it less likely for you to sharpen your tools. Get good sharpening equipment and position it very near your lathe. Keep it free of clutter; learn how to use it.

Do not allow yourself to work with tools that have lost their keen edge. A sharp tool is a pleasure to work with and

Direction of spindle cuts





Figures 1, 2. Arrows show optimal direction of cut for turning in spindle, or parallel grain, orientation. The goblet form, at *right*, is a study in coves. Note that by cutting from large diameter to small on the outside and from small to large on the inside, you will avoid cutting directly into endgrain.

Figures: David Heim

will give clean, efficient cuts. Turning with a dull tool gives poor results and can be an exercise in frustration.

PRINCIPLE 2: GRAIN DIRECTION

Principle

The orientation of wood grain in relation to the direction of the cut significantly impacts how wood responds to being cut. There are two key concepts here: one, wood fibers being cut should be supported by adjacent fibers, and two, sidegrain cutting should be maximized and endgrain, minimized.

Applications

It doesn't take long for new woodworkers to discover that wood fibers unsupported by other wood fibers (or not supported in some other way) tear when being cut, leaving a rough surface. Common examples of this include tearout on the bottom side of drilled holes and "blowout" at the end of a board when planing, jointing, or routing.

Parallel orientation

In spindle turning, with the grain running parallel to the lathe bed, it is best to cut "downhill" (from large diameter to small). You can understand this lesson by trying two contrasting approaches to cutting a cove. If a cove were cut from both sides downward toward the middle, the wood fibers being cut would be supported by fibers underneath them, resulting in a smooth surface. Conversely, if a cove were cut in one sweep, going down one side and up the other, the upward cut, from small diameter to large, would be going *into* endgrain fibers, which are more apt to tear when cut head-on. Also, the unsupported fibers at the very end of the cut (at the top of the cove) would tear out as the tool exits. Thus, when cutting coves, V-grooves, beads, shoulders, and tapers while spindle turning, the best results will come from cutting from large diameter to small (*Figures 1, 2*).

Perpendicular orientation

Beginning turners understandably have difficulty applying this concept to workpieces mounted with the grain running perpendicular to the lathe bed. When turning a sphere, for example, the wood initially is mounted with the grain parallel to the lathe bed, allowing for clean cutting from large diameter to small. But once the sphere is roughed into shape, it is then remounted between cup chucks so the grain is perpendicular to the lathe bed. With the wood in this position, cutting from large diameter to small would violate the principle of working with the grain. To avoid cutting into endgrain, it is better to cut into sidegrain by using a shear-scraping cut and turn "uphill," from small diameter to large (*Photos 1, 2*). ▶

The lesson of the sphere

Direction of cut depends on grain orientation. *At left,* shear-cutting "downhill," from large diameter to small, on a sphere with the grain parallel to lathe bed. At right, shear-scraping "uphill," from small diameter to large, with sphere repositioned and its grain perpendicular to the lathe bed.

PRINCIPLE 3: BEVEL ANGLE AND LENGTH

Principle

A more acute bevel angle on your cutting tool (with a longer bevel) will produce a finer cut than tools with a more obtuse bevel angle (with a shorter bevel). Unfortunately, longer bevels are more difficult to sharpen and require more skill to use. They are also less durable and don't hold an edge as long. As a result, when we apply this principle, we make compromises to find a balance that will give a good cut but be practical in use.

Applications

Spindle gouges are used for general wood removal as well as detail work when spindle turning. The bevels on spindle gouges are generally ground between 35° and 45°, with 40° being a good happy medium. A detail gouge is basically a spindle gouge ground with a more acute bevel angle (30° to 35°). The longer bevel of the detail gouge allows for finer detail, but it is more difficult to control.

Bowl gouges are used to make heavier cuts than spindle gouges and are typically ground to an angle between 45° and 60°, depending on the curvature of the inside of the bowl.

Scraping tools, which are generally known for producing rougher cuts with more torn grain, are usually ground to between 45° and 80°. Sixty degrees is a common angle of a bevel on a scraping tool.

Photo 3 shows typical bevel angles for these three commonly used tools.

Bevel contact is important, but it should be light. Start the cut safely by gently touching the heel of the bevel on the wood and then lift and/or rotate the cutting edge into the wood to pick up a shaving. As you advance the tool, pay attention to what happens if you pivot the bevel away from the wood and too far toward the cutting edge: the tool will dig into the wood and make a nasty backward spiral. If the tool is pivoted too far away from the cutting edge (toward the heel of the bevel), you will lose the shaving and get no cut.

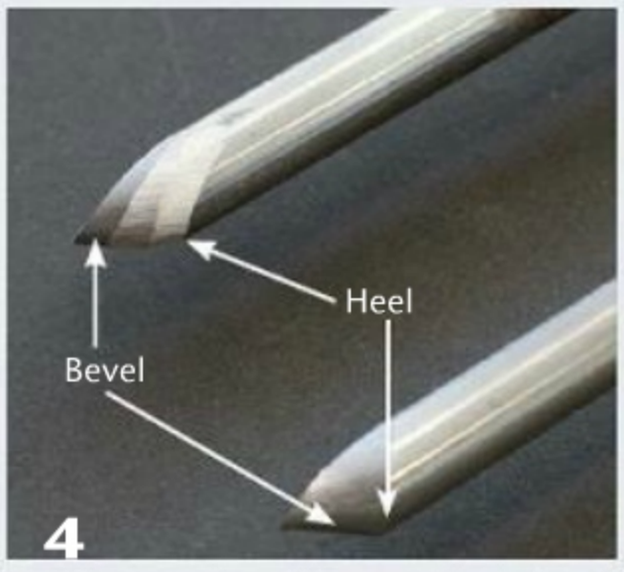
Keep in mind that the last part of the tool to contact the wood as the cut is made is the bevel. A long bevel with an abrupt transition between the bevel and the shaft of the tool will easily bruise the wood while making concave cuts. This can be remedied by grinding additional bevels to round over the heel and soften this transition (*Photo 4*).

Typical bevel angles

3

From top to bottom: round-nose scraper with 70° bevel; ½" (13mm) bowl gouge with 55° bevel; and ⅜" (10mm) spindle gouge with 40° bevel. Deciding on the right bevel angle and length is a compromise between quality of cut, edge durability, tool control, and access to tight spaces.

Multiple bevels reduce scarring



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Bevel comparison. Bottom: single bevel with an abrupt heel; top: three bevels with smoother heel transition. A longer, more abrupt bevel is more apt to bruise or burnish the wood.

PRINCIPLE 4: BEVEL CONTACT

Principle

The depth of cut is controlled by gliding the tool's bevel on the wood just behind the cutting edge.

Application

One way to observe the application of this principle is to clamp a piece of wood in a vice and try making a controlled cut with a carving gouge without the bevel contacting the wood. In carving and in turning, the cut is controlled by positioning the bevel. We often hear the phrases "rubbing the bevel" or "riding the bevel," but those references can be misleading because they imply the use of a lot of pressure. Excess pressure of the tool's bevel can burnish, bruise, or even crush the wood. It is better to imagine the bevel "gliding" or "skating" on the surface.

PRINCIPLE 5: CUTTING ARCS

Principle

When making curved cuts such as beads and coves, it is necessary to move the tool in three controlled and coordinated arcs to maintain bevel support, control the depth of cut, and create a smooth curve. These three arcs, which determine the approach angle of the tool, are discussed below.

Applications

Vertical arc

When cutting a bead, the tool handle will begin low and will be raised as the cutting edge approaches the end of the cut. When cutting a cove, this principle is applied in reverse: the tool handle will be higher at the beginning of the cut and will be lowered toward the end of the cut. So vertical arc refers to lifting

or lowering the tool handle, depending on the type of cut you are making.

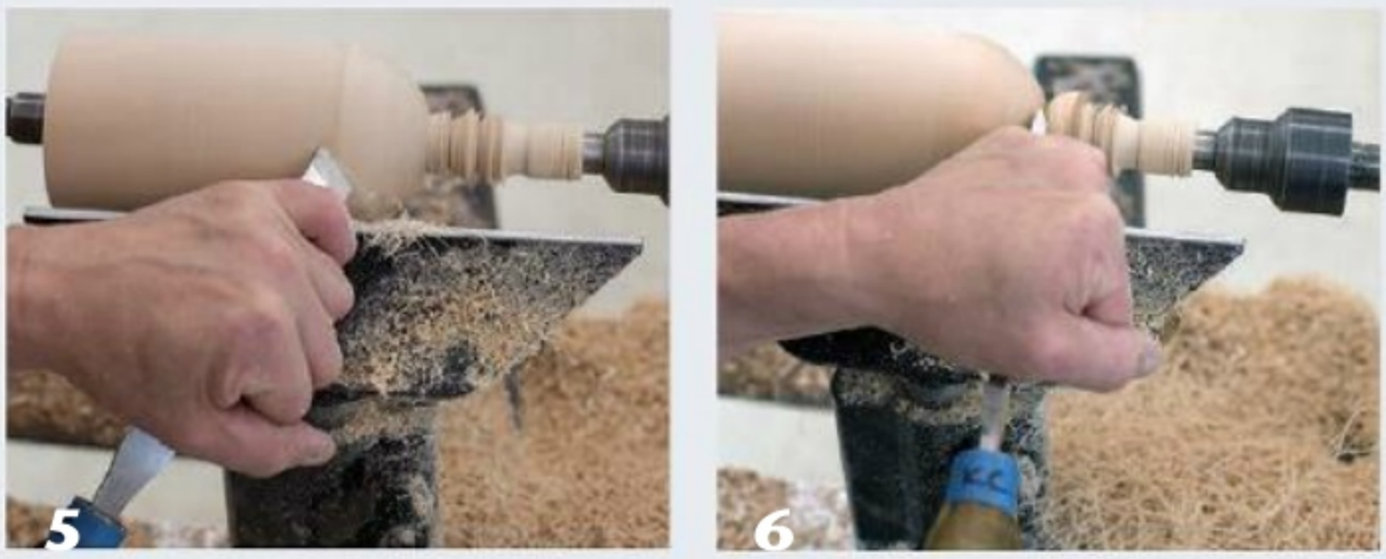
Horizontal/lateral arc

Horizontal, or lateral, arc refers to the movement of the tool handle from right to left or from left to right. When cutting a bead with a skew, the tool handle will begin at an angel of 45° to 60° to the wood and at the end of the cut will be closer to 90°. When cutting the right half of a bead, the tool swings from left to right (*Photos 5, 6*). The same lateral motion is at play when cutting the right half of a cove.

Rotational/rolling arc

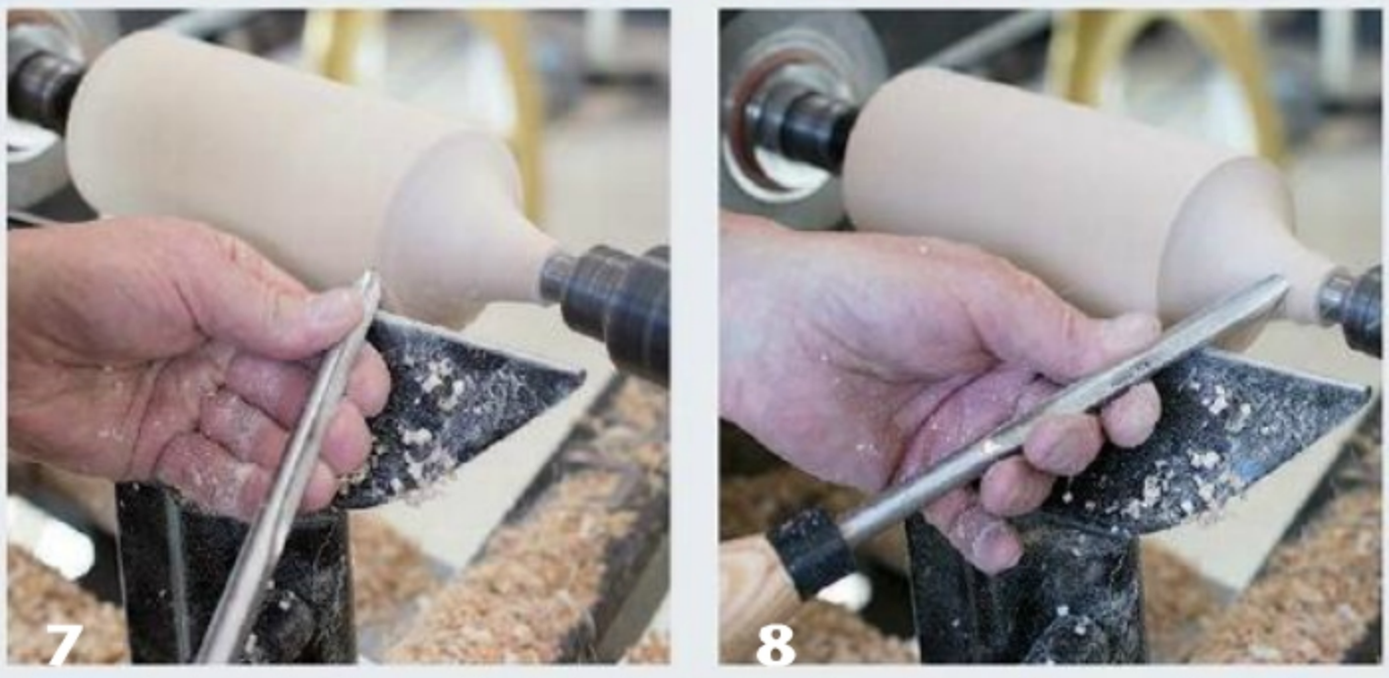
When cutting the right half of a bead with a spindle gouge, the flute starts near the 12 o'clock, or fully open position, and is rotated nearly to the 3 o'clock position by the end of the cut. For the left side of a bead the flute will end near the 9 o'clock position. When cutting a cove, the same principle is applied but in reverse. The flute will start facing the 9 or 3 o'clock position at the top of the cove and be rotated toward the 12 o'clock position at the end of the cut in the bottom of the cove. The rotation of the flute position is achieved by twisting the tool handle either clockwise or counterclockwise.

The three arcs of tool movement: bead



Cutting the right side of a bead with a skew. Note the three components of tool movement during the cut: vertically, upward; horizontally, from left to right; and rotationally, clockwise.

The three arcs of tool movement, cove



Cutting the left side of a cove illustrates the combination of the cutting arcs. Vertically, the tool handle moves upward; laterally, to the left; and rotationally, counterclockwise, with the flute twisting from 3 o'clock to 12 o'clock.

The tool movement shown in the progression from *Photo 7* to *Photo 8* shows all three cutting arcs: vertical, lateral, and rotational. The real challenge here is to control all three arcs simultaneously while turning beads and coves. This takes a lot of practice. While you are working on developing this skill, try to be aware of the motion needed to make the three arcs first independently and then coordinated into one smooth motion.

Note that moving the tool in these arcs is also required when sharpening spindle and bowl gouges. Each of these three arcs can be seen readily by watching the tool handle while grinding a gouge with the assistance of a sharpening jig.

PRINCIPLE 6: SHAVINGS

Principles

There are two related principles pertaining to the shavings that come off the wood:

1. **The quality of the cut is directly related to how little the shavings have to change direction as they leave the workpiece.** Notice the difference in the path of the shavings when making a shearing cut as opposed to a scraping cut. With a scraping cut, the shavings have to change direction about 90 degrees as they are separated from the wood. This typically results in shavings that are crushed and broken and a surface that is somewhat torn. With a shearing cut, the angle at which the shavings leave the wood is reduced dramatically. These shavings usually come off the wood as long curls, leaving a cleaner cut with little or no torn grain. ▸

Pathway of shavings


9


10


11

Three skew cuts, from left: scraping, peeling, and shearing. Each has its own angle of tool presentation and resulting pathway of shavings. The smoothest surface will result from the shearing cut, but each has its purpose.

2. **Shavings must have a clear exit path.** Examples of how common tools are designed to facilitate the removal of shavings include gullets in front of saw teeth, flutes in drill bits, and the window in a hollow-chisel mortising bit.

Applications

Direction of exit path

Experiment to see how changing the tool's approach angle from 90° to 30° or 45° impacts both the quality of the shaving and the cut. This concept is illustrated well in *Photos 9–11*.

Clearance of shavings

Clearing the shavings is particularly important when forming V-grooves with a skew. A V-groove *can* be made with one pass of a skew, but this results only in the wood fibers being severed and pushed to the side, with no wood being removed. The fibers on the shoulders of the cut will be crushed and will not take a finish properly. A minimum of three cuts is required to produce a clean V-groove. The first pass cuts the fibers and pushes them aside, making room for the shavings to exit on subsequent cuts, which deepen and widen the V-groove. Also, cutting V-grooves before cutting a bead allows for removal of shavings and clearance for the tool as the bead cuts are made.

PRINCIPLE 7: TOOL CLEARANCE

Principle

There must be clearance for the cutting tool to prevent friction and binding. This clearance (also called "set") is designed into a saw blade by making the teeth cut wider than the body of the blade so the saw doesn't bind in the cut.

Application

In woodturning, tool clearance is particularly important when making deep cuts with a parting tool. Most parting tools are not designed with a tip that cuts wider than the body of the tool. As a result, deep parting-tool cuts require that successive cuts be made to keep the cut wider than the tool itself. When making deep parting-tool cuts, cut only until you feel some extra resistance, then back the tool out and begin a new pass to slightly widen the cut (*Photo 12*). Continue repeating this process until the desired depth of cut is reached. This principle comes into play in obvious fashion when coring out nested bowls.

PRINCIPLE 8: AMOUNT OF CUTTING EDGE APPLIED

Principle

Cuts that produce narrow shavings, with less of the cutting edge contacting the wood, produce finer surfaces. Smaller cuts put less stress on both the wood and on the tool. Examples of this can be seen in scissors and paper cutters. By not having the full cutting edge contact the material at one time, there is less pressure being applied, resulting in a cleaner cut. In woodworking, consider the cleaner surface produced by a helical-head planer than by a planer or jointer with straight knives, the length of which contacts the wood all at the same time.

Application

The application of this principle is straightforward. Consider the width of shaving when making scraping cuts. If you apply only a small part of a round-nose scraper, a cleaner cut will result. Conversely, if you apply the full width of a square-nose scraper, the resulting surface will be rougher and the tool may even dig into the wood. Experiment with changing the width of the shaving.

PRINCIPLE 9: FEED RATE

Principle

The faster the feed rate, the rougher the cut will be. In general woodworking, "feed rate" refers to the speed at which the wood is passed through a cutter (or series of cutters). In woodturning, "feed rate" refers to the speed at which you advance the cutting tool. This principle applies to tool feed both on the X axis (parallel with the lathe bed) and on the Y axis (perpendicular to the lathe bed).

Application

A fast feed rate along the X axis impacts the spacing of the tool marks. When the edge of a board is passed too quickly over jointer knives, a series of peaks and valleys is produced, rather than a smooth, continuous cut. This is true in woodturning, as well. Moving the tool quickly along the X axis produces a shallow, spiral groove. This is not a problem when roughing, but a slower feed rate is needed to make a finishing cut that produces a smooth surface.

A fast feed rate on the Y axis impacts the thickness (and width) of the shavings. A fast cut toward the center of a spindle equates to a heavy cut, leaving a rougher surface than would a slower, lighter cut. This principle is closely related to Principle 8. Watch an experienced turner and notice how both aggressive and slow feed rates are used to the turner's advantage. Roughing cuts can be made with aggressive feed rates, but finishing cuts are best made with slower, lighter cuts with a freshly sharpened tool. This approach can save a lot of time sanding.

It should be noted that the quality of cut is a factor not only of the feed rate, but also of the surface speed of the material. The surface speed, or the rate at which the wood is moving past the tool, is determined by your lathe's rpm setting in relation to the diameter of the stock where the cut is being made. If the lathe is running quickly, say 3000 rpm, you can feed the tool more quickly than if the lathe is running at only 500 rpm. The key is to strive for the right feed rate (done by feel, since woodturning is controlled by hand) based on lathe speed, the diameter of the stock, and the nature of the cut (roughing or finishing).

PRINCIPLE 10: TOOL STABILITY

Principle

Holding a cutting tool stable during a cut will produce finer results with less vibration.

Application

There are two factors that commonly impact the stability of the tool. One is the amount of metal in the tool (thickness), and the other is the distance of the toolrest from the tip of the tool (amount of overhang). You will notice a big difference between the stability of a ¼" (6mm) spindle gouge and a ½" (13mm) spindle gouge (*Photo 13*). The smaller tool is good for cutting fine detail but must have toolrest support very near the cutting edge to prevent vibration. The larger tool has a greater capability to cut cleanly when there is more overhang over the toolrest. However, the ½" gouge may be too large to cut small beads and coves. A ⅜" (10mm) spindle gouge is a good compromise and consequently is the most commonly used spindle gouge.

I feel fortunate to have been introduced by Del Stubbs to the concept of basic principles that apply to cutting material. I have found that when I am getting poor results in turning, I can usually improve the quality of my cuts—and have a more satisfying experience—by reviewing these principles. I hope that they will be as useful for you as they have been for me. ■

All photos by Stephanie Staples.

Kip Christensen teaches wood prototyping, furniture design, and manufacturing at Brigham Young University. He has particular interest in woodturning education and has authored several articles and DVDs to help others learn the techniques of turning.

Tool clearance

12 Parting tool cut showing some clearance on the left side of the tool after widening the cut.

Tool stability

13 With relatively little mass, a ¼" (6mm) spindle gouge (at left) requires support from the toolrest close to the cutting tip. The heavier ½" (13mm) gouge is more stable and can be extended farther beyond the toolrest. Greater tool stability equates to a smoother cut.

Round forms should be held securely in a jig during bandsawing to prevent the workpiece from rolling into the blade. Position your hands at the outer edges of the jig, away from the intended cutline.

A JIG for Bandsawing ROUND OBJECTS

Betty J. Scarpino

Cutting a round workpiece on the bandsaw without proper support is a dangerous proposition. Woodturners often want to cut apart or trim a tenon off of turned spindles, cylinders, cones, and pod-shaped forms. Using a handsaw is always safe, but that can be slow and sometimes not even possible. It's tempting, therefore, to use a bandsaw. But without the aid of a jig or other holding method, fingers can be lost.

I often turn pods using green wood, cut them apart, and then carve out the wood inside or use the two sections to make art objects. Years ago, Chris Weiland, a furniture maker from Pennsylvania, showed me an easy-to-make jig that safely holds a round, cone-shaped, or oval object in order to cut it apart using the bandsaw. Unlike multi-use V-jigs or wooden clamps, this jig is a customized, one-use affair, made from inexpensive materials.

Physics and fingers

The reason it is dangerous to cut round forms on the bandsaw is that the blade will enter the wood at a point above the surface of the bandsaw table—it is always safest to have the wood resting flat on the table, right where the blade starts to cut. If not, the blade will pull the wood down, round objects will spin forward, and a finger could be dragged into the blade.

A dowel as small as ¼" (6mm) diameter could even break a bandsaw blade. I experienced this firsthand years ago, when I was all-too-casually cutting a length off a dowel. It happened instantly, but fortunately my fingers were well to the side of the blade as it pulled the dowel forward, jammed the wood, then broke the blade. The dowel snapped in two and was not cut cleanly.

For cutting straightforward, small objects such as dowels, clamping them into a wooden hand clamp would work just fine, as would a V-jig, both of which should be kept handy near your bandsaw to help you avoid the temptation of making "just a quick cut." For other, more challenging-to-cut objects, the jig described in this article makes the process safer with customized support.

Materials

You will need a hot-melt glue gun, glue, scrap wood such as thin plywood, wedges, and masking tape (*Photo 1*). The size of the plywood and

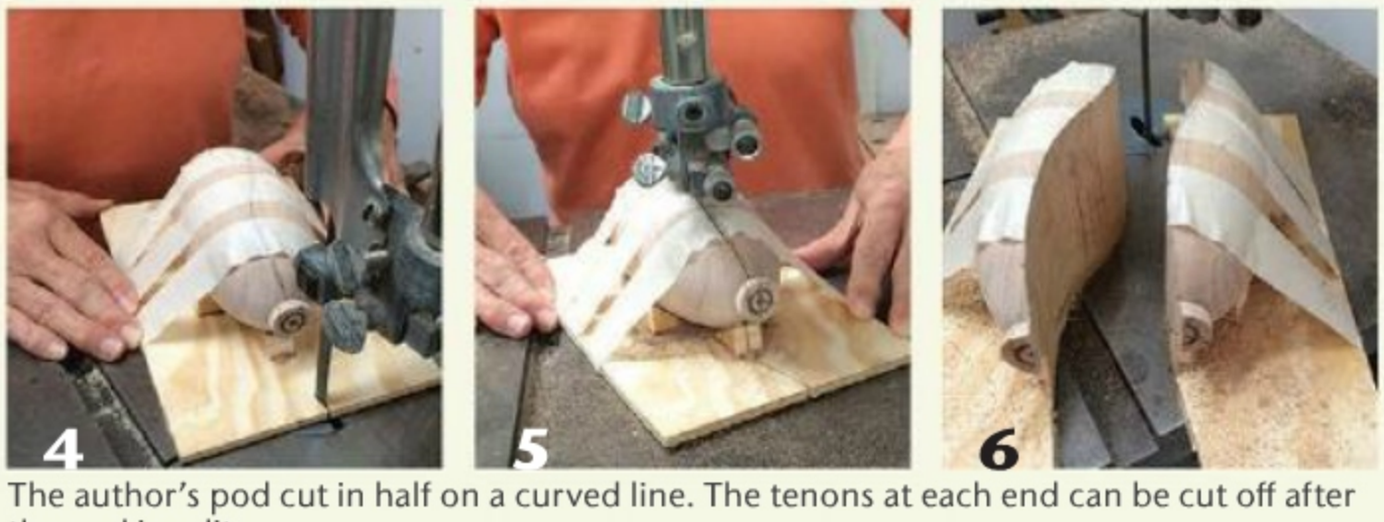
Bandsaw jig materials

Materials needed: scrap wood, wedges, hot-melt glue gun, glue, and masking tape.

Secure mounting

Workpiece is glued and taped to the wedges and carrier, ready to be cut apart on the bandsaw. Note the intended cut line for this pod form (along the sidegrain). The jig can also be used to cut across the grain to remove a tenon.

Round form safely cut



The author's pod cut in half on a curved line. The tenons at each end can be cut off after the pod is split.

wedges will depend on the size of the object you are cutting.

For your bandsaw, make sure the blade is sharp and is the correct width. For tight curves and small objects, a ¼"-wide blade will generally work. My bandsaw is usually fitted with a ⅜"- (10mm-) wide blade, which works well with most small and large pieces of wood.

Make the jig

Cut the scrap-wood base to just about the length of and slightly wider than the workpiece (in this case, a pod form). The base should be made large enough to accommodate support wedges for your workpiece and allow room for your fingers to safely guide and push the assembly through the cut. The base also should be able to rest flat on the bandsaw table at the start of the cut.

Cut at least six wedges, more for larger, rounder, or odd-shaped objects. At least one wedge will be placed at the front, back, and sides of the pod. The front and back wedges support the pod as the wood enters and exits the bandsaw blade. Support in these areas is essential.

Place the workpiece onto the plywood and determine where you will make the cut, adjusting the position as needed. Hot-melt glue the first wedge into place. I usually start with a wedge on one of the ends. Using plenty of glue, secure the rest of the wedges into place. You will be gluing the wedges to the scrap-wood base *and* to the object itself. Note that if the workpiece is exceptionally wet, hot-melt glue might not adhere to its surface well enough to hold.

For added safety, especially with larger objects, wrap the assembly with masking tape. But be aware the tape alone will not prevent a round workpiece from rolling during a bandsaw cut, so do not rely on it as the only hold-down method (*Photos 2, 3*).

The last step is to mark the cutline onto the workpiece.

Cut the pod

Always keep your hands and fingers well to the side of the bandsaw blade and do not push the jig with your fingers aimed toward the blade (see *opening image*). Let the blade cut at its own speed—there is no need to push the assembly aggressively. Depending on the size of the wood and jig, you might want to use push sticks. I start the cut at the center of the end of the workpiece, which will mean lining up the jig to the correct angle for the curve of the cutline.

With a sharp blade, the cut will be made easily and safely in any direction—whether you are cutting off a tenon or stub or splitting the workpiece in half (*Photos 4–6*). After the object is cut, break the jig away from the workpiece. If the glue stubbornly remains, it can be heated with a hairdryer to ease its removal.

I use these pods in a variety of creative ways. If they are turned from green wood, I carve out the interiors right away to avoid cracking as the wood dries. ■

Betty J. Scarpino lives, works, turns, carves, and writes in Indianapolis. For more, visit bettyscarpino.com.

Betty J. Scarpino, *Journey,* 2007, Maple, paint, 5" × 14" × 3" (13cm × 36cm × 8cm)
Photo: Shawn Spence
Private Collection

Betty J. Scarpino, *River Rocks,* 2007, Maple, rocks, particle board, paint, 4" × 11" × 14" (10cm × 28cm × 36cm)

TURN A SIMPLE TRAY

Richard Raffan

As utilitarian items, trays in a house are like mallets in a workshop: often useful, so always worth having a variety close by. Trays are generally used for corralling and/or transporting a clutch of objects—a few mugs of coffee too hot to hold or difficult to carry at one time, sushi, bread, keys, or drinks to share among friends. As a supporter of liquid-containing vessels, a tray needs to be flat, with a well-defined rim to the functional space. You need a rim you can get your fingers under and grasp, so you can lift the tray. And a tray needs to be light in weight and just thick enough to support any weight it is likely to carry. The rim needs to be at least ¼" (6mm) thick so it won't break when dropped, which is inevitable if you think in terms of decades rather than years.

The example shown in this article is similar to several small trays I have in daily use. This is a facework project with the grain running across the face of the blank and at 90 degrees to the lathe axis. You need a blank at least 1" (25mm) thick. Here, I've used an Australian red cedar offcut from a furniture maker's scrap bin. It is 11¾" (30cm) in diameter and as large as I can fit on my only lathe, now that I've downsized to a smaller model.

As with a bowl, I turn the outside profile and base first, then remount the half-turned tray for hollowing. First, the blank goes on a screw chuck so I can do the outside. Then dovetail jaws expand within a shallow recess in the base as the tray is completed. This latter method precludes the need to remount the tray to remove a tenon or finish the base after hollowing.

A tray is an appropriate turning project for any skill level. The main challenge is to turn a flat surface inside the tray and then keep it flat while sanding. This project is completed entirely on the lathe, though of course it can be embellished after turning. If you're wondering about production and costing, allow about forty-five minutes.

Chucking options

The quickest and easiest way to mount any facework blank with a flat face is on a screw chuck. For most facework, I use the dedicated Vicmarc 3-in-1 Screw Chuck, shown attached to the lathe in *Photo 1*, usually with spacers to reduce the length of the screw. You rarely need more than ½" (13mm) of the screw penetrating the wood, and on small blanks ¼" (6mm) can be sufficient. In preparation for mounting, drill a hole just deep enough to accommodate the screw. Screw the blank onto the chuck on the lathe, and ensure the blank is wound tight against the chuck face or jaws.

For blanks larger than 18" (46cm) diameter, I occasionally use a screw accessory with step jaws (*lower right, Photo 1*) for greater blank-to-chuck contact. If you have only a screw accessory mounted in standard 2" (50mm) or smaller jaws (*lower left, Photo 1*), it pays to turn a ring that fits over the jaws to contact the chuck body, thereby increasing the surface area against the blank. The wider the backing surface, the shorter the screw you can use safely; also, the blank will be less apt to pivot on a wider backing surface than if it were mounted only against the smaller-diameter jaws. With a blank screwed tight against the chuck, you won't need to use the tailcenter to keep the blank steady. That's important because usually you need unrestricted access right across the base. Also, many wood lathe tailstocks are not spot-on the lathe axis—which is a problem when supporting wood mounted in a chuck.

For many years before the advent of modern woodturning chucks, I made my own 7"- (18cm-) diameter screw chucks. They were among my first turning projects. A #14 wood screw penetrated the blanks slightly less than ½". On this, I turned hundreds of plates, trays, and platters up to 18" diameter from boards 1½" (38mm) thick. If the blank spun on the screw, courtesy of a catch or cutting too forcefully, it was remounted on another screw chuck with a slightly fatter screw. If the blank spun again, it was held on a standard faceplate with screws.

True the blank

First, true the blank, removing any splits or defects you don't want in the final piece. When turning any thin blank or ▸

JOURNAL ARCHIVE CONNECTION

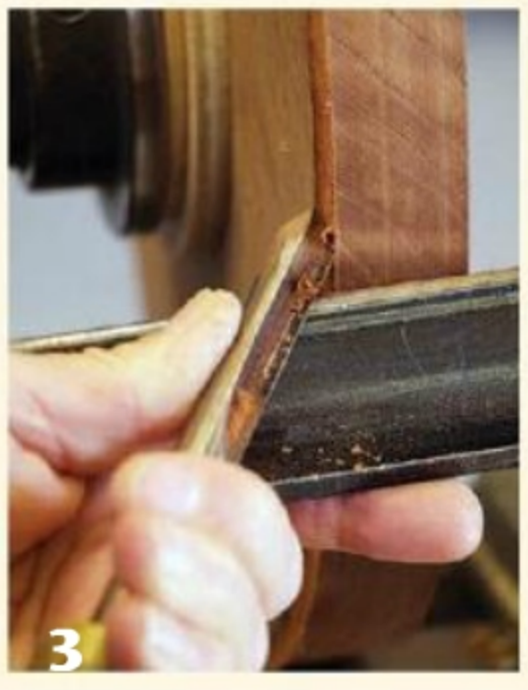
For more on chucks and their effective use, see Richard Raffan's 2010 *AW* article, "It's All in the Jaws" (vol 25, no 6, page 22). AAW members can access these and all past journal articles online at woodturner.org.

Screw chucks

1 The tray blank is first mounted on a screw chuck.

True the blank

2



3 With the blank mounted on a screw chuck, first true the side, cutting in from each face to prevent tearout at the corners. Then true the outer edges of each face.

planed board, begin with the side, using either a spindle or bowl gouge to shear cut in from both faces with the bevel against the wood *(Photo 2)*. This avoids splitting the endgrain on each edge. Then remove as little wood as possible to true the outer edges of each face *(Photo 3)*, easing the tool's edge into the cut with your thumb. Make sure the gouge is rolled on its side: if you have the flute up, a heavy catch is guaranteed.

To true the bottom surface, roll the gouge over to bring the bevel onto the wood and make a shear cut to the center *(Photo 4)*. To ensure the tray sits flat, the base needs to be very slightly concave: the barest hint of light beneath a straightedge is sufficient (*Photo 5*). Typically, I use a skewed scraper for a more controlled cut across the base (*Photo 6*), gently stroking the surface to remove only fluff or very small, curly shavings.

Turn a recess for expanding jaws

Into the barely concave bottom surface I cut a ⅛" (3mm) dovetailed rebate shaped to match the jaws on my chuck. The larger the diameter of the jaws, the better the support for the job when hollowing the inside, so for this tray, I used 5½"- (14cm-) diameter step jaws (*at right, Photo 1*) in a 6"- (15cm-) diameter recess. A ⅛"-deep groove might seem too shallow, but crisp dovetail jaws grip very effectively, and the wood is unlikely to split when there is plenty of wood surrounding the rebate. *(Editor's Note: A repeatable and convenient way to cut this rebate is with the shopmade tool described by Mike Peace in his article on page 27.)*

Chuck jaws with serrations or ridges damage the wood and need much deeper rebates, so they are not well suited to this situation. Apart from that, since they require a deeper rebate, serrated jaws severely restrict your design options—particularly the depth to which you can hollow the tray.

It pays to make the bottom of the rebate flat, so the ends of the chuck jaws sit flush against the bottom. If they don't, you will encounter one of two problems: either the jaws won't be able to fit into the corner of the rebate (in which case you could have turned a rebate half the depth) or if there is space between the jaws and the bottom of the rebate, the depth to which you can hollow the tray is reduced and this in turn makes the tray thicker than necessary. Consequently, confirm that the bottom of the recess is flat using a small straightedge (*Photo 7*).

Detailing the base

For decoration, I usually cut some wide beads within the area defined by the chucking recess. I do this using a ⅜" (10mm) spindle gouge with a fingernail grind and 35-degree bevel, first pivoting

True the bottom surface

A gouge or scraper can be used to true and create a slightly concave profile on the bottom surface, indicated by a small space between the straightedge and centermost wood.

Recess for expanding jaws

An angled rebate cut in the base will later accept dovetail jaws used in expansion mode as a holding method for hollowing. A straightedge confirms the bottom of the rebate is flat.

JOURNAL ARCHIVE CONNECTION

For more on the effective use of scrapers, including sharpening and effective cutting, see Richard Raffan's 2012 *AW* article, "Scrapers: a Eulogy" (vol 27, no 2, page 20).

the nose of the tool in from the left, then the right (*Photo 8*). You can also use the corners of a square-end scraper for such detail, but a shear cut is cleaner, requiring minimal sanding. Take care not to go deeper than the rebate for the chuck jaws, as that would compromise the depth to which you can hollow the inside and weaken the base, which can lead to vibration during hollowing.

Turn the rim profile

After you have detailed the base, form a cove about 1" wide under the outermost rim. This will enable you to grasp and lift the tray with ease. I hog out the bulk of the waste using the left wing of a spindle gouge (*Photo 9*), then use the same edge to shear-scrape the surface, easing the edge back and forth over just a small area at one time to remove only powder. Even more effective is to shear-scrape with a 1" asymmetric, round-nose scraper tilted on edge, as shown in *Photo 10*. Keep the nose of the tool clear of the wood to avoid catches.

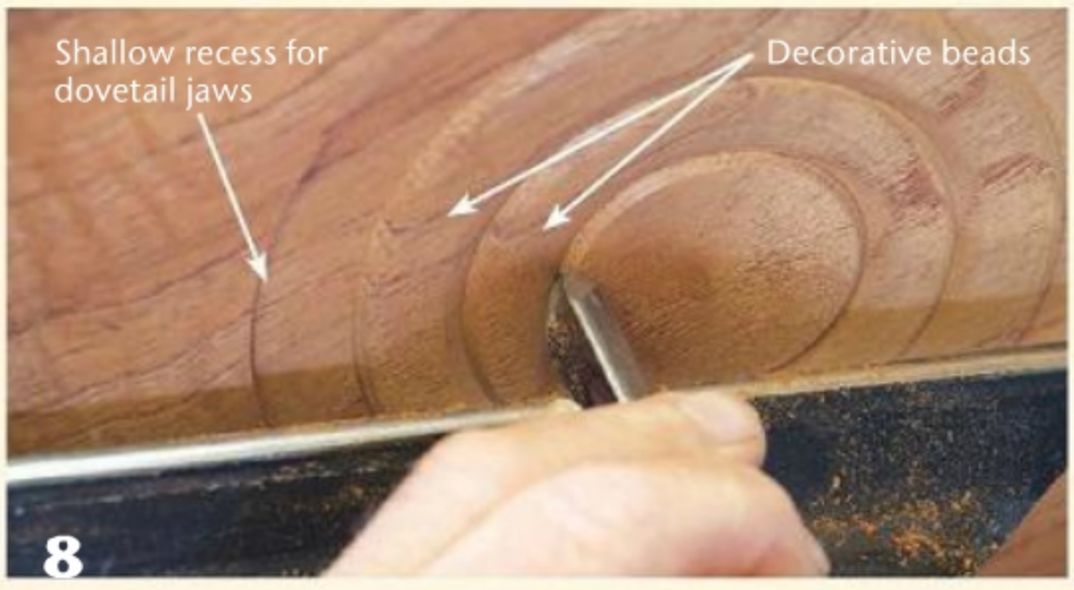
While the workpiece is still mounted on the screw chuck, sand and polish the profile. I sand to 400-grit abrasive and apply my usual finish of boiled linseed oil and beeswax.

Remount and hollow

Remove the tray from the screw chuck and remount it for hollowing. The hole that was used for screw chucking can be drilled deeper and used to indicate hollowing depth. For accuracy, rather than drill a depth hole by hand, go to a drill press where you can set the depth precisely to leave a fraction over ½" thickness in the base—about ⅜" over the bottom of the chuck rebate. A couple of depth holes drilled away from the center will help you gauge a flat surface.

Turn the working area of the tray flat. You can remove the bulk of the waste using a gouge to shear-cut into the center, or use a square-end scraper working from the center outward (*Photos 11, 12*). Check for flatness as ▸

Base detail



Wide beads cut within but not deeper than the chucking rebate decorate the base.

Form the rim

An undercut rim makes it easier to grasp the tray during use.

Hollow the tray

Use a gouge or scraper to remove the bulk of material during hollowing.

you go. I find scraping faster and more accurate. For small diameters, I have a triangular, shopmade, plywood straightedge (*Photo 13*), but better is a steel rule that doesn't wear when burnishing the high spots, here highlighted with pencil (*Photo 14*). For accuracy when removing the high spots, I favor my skewed scraper, as shown in *Photo 6*, over a gouge. However, when the grain is severely torn, as is inevitable with some blanks, I'll take a very light cut across the flat surface using a ⅜" bowl gouge with a steep bevel on the nose.

Shape the rim

Form the topside of the rim using a spindle gouge with a fingernail grind to reduce the risk of a catch at the end of the cut (*Photo 15*). The gouge should finish on its side, with the flute facing toward the center of the tray. Then pivot the nose of the gouge in from the other direction to cut a small groove at the bottom of the rim (*Photo 16*). This defines the flat working area of the tray and makes sanding the flat area easier.

Sand and finish

Use a sanding block to remove any small ridges, while maintaining a flat surface (*Photo 17*). Check for flatness often using a straightedge because sanding is less aggressive near the center, where a bump tends to develop. To remove this bump, turn the lathe off and push the sanding block across the center, rotating the blank a few degrees with each push. When you've worked through the grits and the surface is still flat, you're ready to apply a finish and call the project completed. ■

Richard Raffan is a semi-retired professional turner living in Canberra, Australia. He is well known as an author of classic woodturning books and videos. For more, visit richardraffan.com.

Confirm flatness


13


14

Use a shopmade or steel straightedge to identify high spots.

Form the rim


15


16

Shape the rim using a spindle gouge, cutting from outside in, then define its edge, cutting with the nose of the gouge from inside out.

Sand the tray


17

A sanding block helps to eliminate ridges and maintain a flat surface.

SHOPMADE DOVETAIL RECESS TOOL

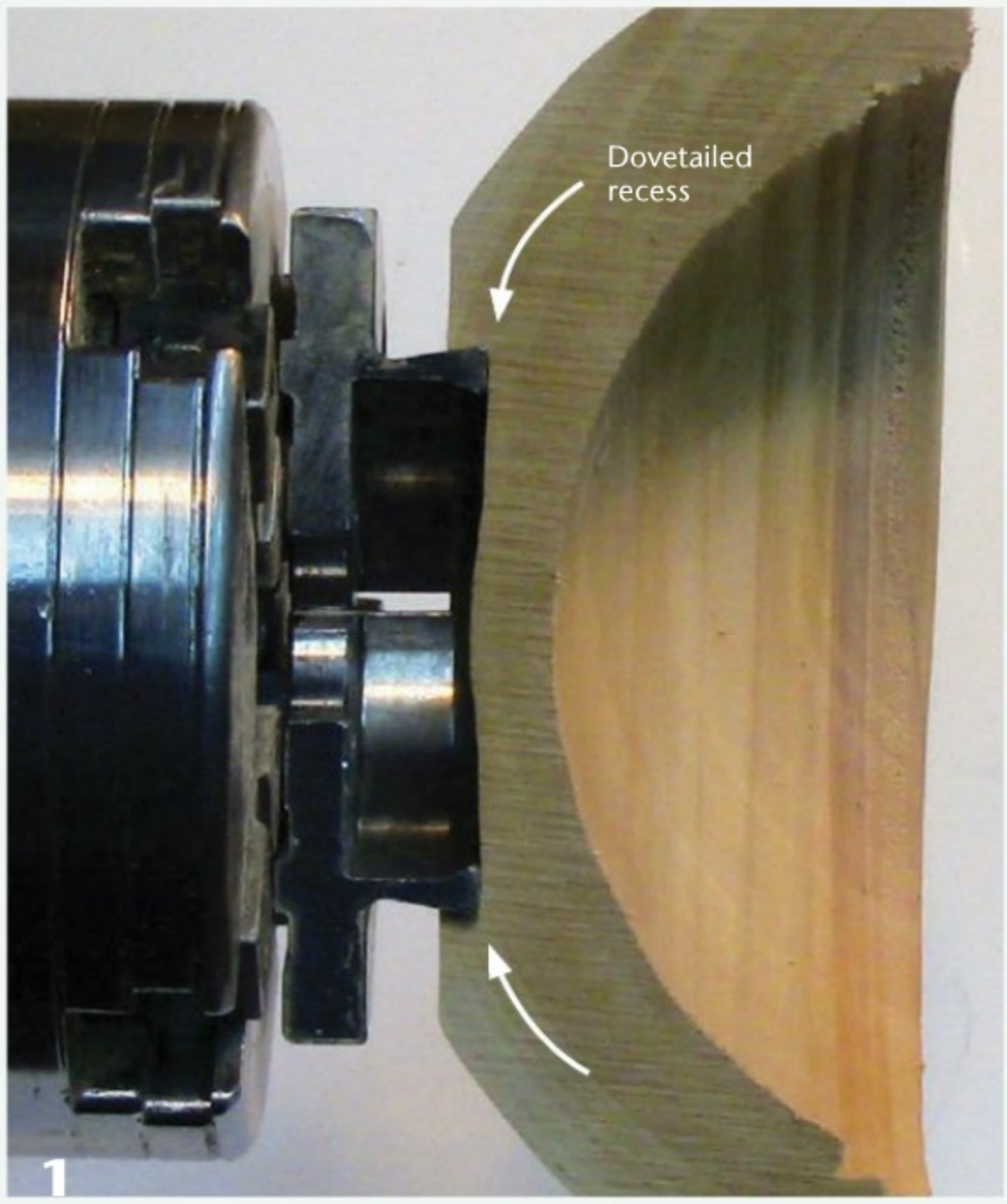
Mike Peace

If you use a four-jaw chuck in expansion mode to hold a bowl or platter, and your chuck has jaws that are angled like a dovetail, you need to create a recess with an angled outer wall to accommodate the jaws (*Photo 1*).

You can use a variety of tools to cut this recess, such as a bedan or skew or even a commercial dovetail scraper, though most of these tools are difficult to use with the tailstock in place. It can also be a challenge to consistently form the correct angle on the outside wall of your recess to match the dovetail jaws of your chuck. One solution is to make a customized scraper, ground so that the handle clears the tailstock's live center and the recess walls are automatically formed at the correct angle (*Photo 2*).

The dovetail angle on my chuck jaws is 10.5°, so I have ground the cutting surfaces on my recess tool to approximate that angle. Your chuck's dovetail angles may be different. Ideally, you would cut your dovetail recess to match the jaws exactly, but it doesn't have to be perfect. My tool cuts about an 8° recess. Too steep a dovetail, like 15°, is worse than one that is angled a bit less than ideal.

If you don't have a surplus tool to repurpose, you can buy a high-speed steel (HSS) tool blank and make your own.



Chucking in expansion mode. This cutaway shows an accurately formed recess whose outer wall is angled to match the splay of the chuck jaws. A simple shopmade tool will produce the correct angle every time. Two jaws removed for cutaway illustration only.

The author's shopmade dovetail recess tool, made from an old skew ½" (13mm) wide and a bit less than ¼" (6mm) thick. Edge 1 forms the bottom of the recess, and edge 2 forms the angled wall. The angle between these two edges should match the angle on the outside of your dovetail jaws (in my case, about 80°). Since edges 1 and 2 are being used as scrapers, their bevels should be ground at a 70° to 80° angle.

Using the tool

Holding the tool flat on the toolrest, guide the recess-bottom cutting edge (*surface 1 in Photo 2*) in first, then move the tool to the left to form the angled wall. With a little practice, you will be able to form flat-bottomed recesses with your desired wall angle every time (*Photo 3*). ■

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.

This picture shows the tool can be used even with a live center in the way.

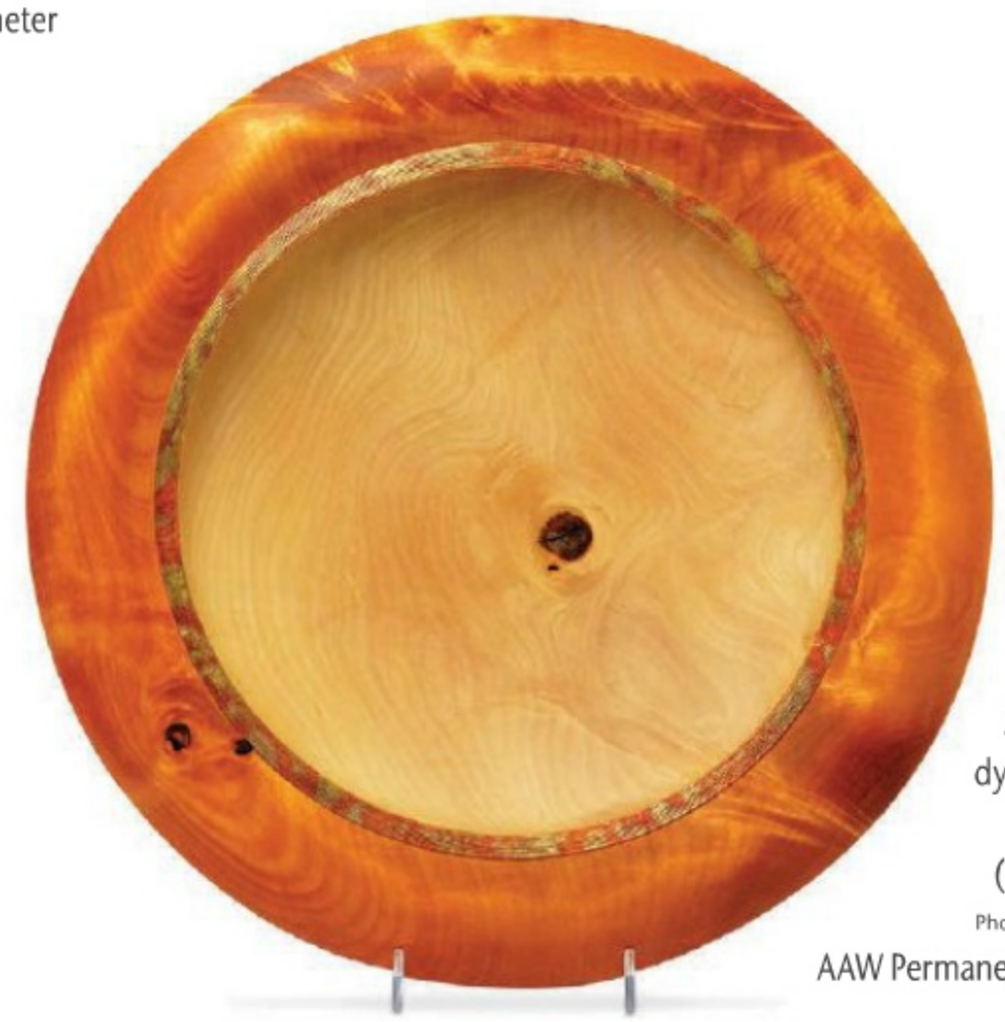
PLATES & PLATTERS

Janet Collins, 2015, Mahogany, ebony, holly, 1¾" × 10" (4cm × 25cm)

Harvey Meyer, 2014, Ambrosia maple, 18" (46cm) diameter

Glenn Lucas, 2015, Ash, 12" (30cm) diameter

Nick Cook, 2003, Ash, 1½" × 16" (4cm × 41cm)
Photo: Tib Shaw/AAW
AAW Permanent Collection



Irene Grafert, 2001, Poplar, dye, metal leaf, 2¾" × 14" (7cm × 36cm)
Photo: Tib Shaw/AAW
AAW Permanent Collection

Tom Wirsing and John Wessels Collaboration, 2015,
Big leaf maple, ostrich egg shells, pewter wire, 2" × 22½" (5cm × 57cm)

Photos: Melanie Mare Photography

A WORTHY STAND

You can add charm to a beautifully crafted platter by displaying it on a complementary stand, made of the same wood. If a platter blank is square, the four corner cutoffs are ideal for the turned wood components in the stand. Otherwise, a block of the same species can be used. Stainless-steel rod connecting the wood parts lends a sophisticated look.

The design is simple: two notched holders on which the platter sits, an upper supporting knob at the back, and a central base hub connecting the parts. Customize the size of the stand to your unique platter. ■

—John Wessels, South Africa

Simple turned components

Stainless-steel rod ¼" (6mm) in diameter connects the parts elegantly.

SEGMENTED BOWL - *WITH A* - BARK ACCENT RING

Rolland K. Stratton

Segmented cherry bowl with walnut splines between the segments and a bold accent ring of oak bark glued onto a solid-wood support strip.

I often harvest green wood, especially after a storm. I saw down the center of a log, remove the pith, and then seal the ends. After the wood has dried for a year or so in a shed, I bring a bowl blank into the shop. Sometimes the bark has begun to separate from the sapwood. I carefully drive thin maple shims into the edge of the bark to remove large chunks from the sapwood. Initially, I did this so the bark would not fly off during the beginning stages of turning. Now, I use the bark as accent rings in segmented woodturning (stack lamination). It is an exercise in playfulness—the patterns and combinations are endless.

I have always been drawn to using bark in wood designs. In my early stages of turning, I discovered how to make bark-edged bowls by harvesting the wood when the sap was not running so the bark would hold firmly. I now know that thin cyanoacrylate (CA) glue works well to secure loose bark. I've also learned how to take a light cut from the rim of a bowl to its base to minimize bark fragmentation.

In this article, I'll show how I added a bark accent ring to a segmented bowl. This design starts with a solid base and is built up with two rings of cherry segments and walnut splines, followed by the bark ring, and topped with a ring of cherry segments only.

The base

For the example project shown in the opening photo, I turned a bowl base of cherry wood with interesting grain. After cutting a circle, I mounted the wood onto the lathe, centered on a piece of fiberboard and held securely with the point of the tailstock. I turned it round with a tenon on the bottom and sanded the base (*Photo 1*).

With the tenon mounted in the four-jaw chuck, I turned a recess ⅛"

JOURNAL ARCHIVE CONNECTION

For further guidance on cutting segments and gluing them into rings for stack lamination, see Jim Rodgers article, "Turning Your First Segmented Bowl" (*AW* vol 30, no 5, page 18). AAW members can access all past journal articles online at woodturner.org.

Form the bowl's base

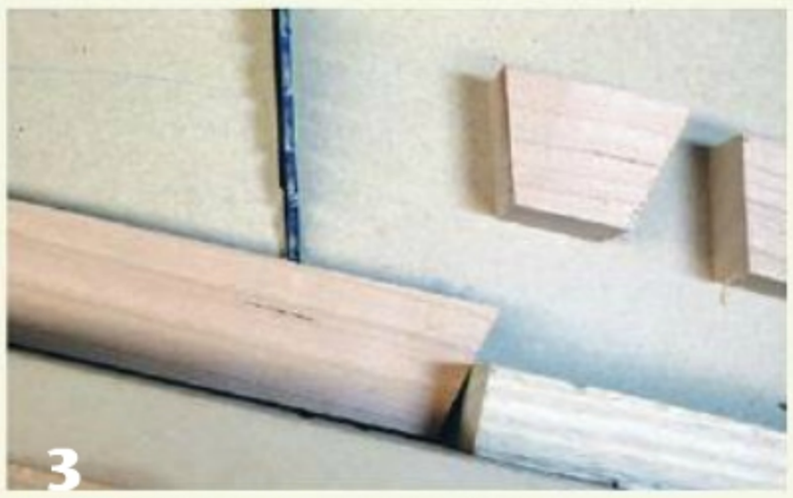
1

Begin by turning the base of the bowl, with a stub tenon for chucking.

2

Chuck the blank by the tenon and turn what will be the inside bottom surface. Flatten the rim using a sanding board to prepare it for gluing the first segmented ring.

First segment ring



The table saw cutting jig makes perfect 30° segments from strips of cherry wood.

Use two hose clamps in tandem to glue up the first segmented ring, with walnut splines between the cherry segments.

The lathe's tailstock applies clamping pressure for gluing the bowl base to the first segmented ring.

(3mm) deep in what would become the inside of the bowl, with an outer edge 1" (25mm) wide and perfectly flat. A sanding board can be a useful tool on this last step. This flat outer edge will become the foundation for the segmented bowl rings. I also totally sanded the inside center of the base of the bowl (*Photo 2*).

Cutting segments

I measured the bowl base diameter, in this example 7" (18cm), and calculated its circumference, 22" (56cm). Since my segment rings were to comprise twelve segments, each segment would have to be 1.83" (46.5mm) long: that's the circumference divided by the twelve segments.

The design I was making also calls for walnut splines between the segments and they are 0.2" (5mm) thick, so I needed to cut the actual segments 0.2" less than 1.83", or 1.63" (41.5mm) long. I used digital calipers to set the stop blocks on my table saw cutting jig and checked the pieces to ensure accurate measurements.

I set up my table saw cutting jig, which was pre-set for the 15°-angle needed; that's 15° on both ends of the segment, so the workpiece needed to be flipped after each cut. The result was twelve 30° pieces, which added up to the full circle's 360° (*Photo 3*). To protect my fingers and prevent kickback, I used the eraser end of a long pencil to hold the workpiece. To avoid problems during glue-up, I lightly hand-sanded any frayed edges.

To saw the twelve walnut splines, I used a square-cutting sliding table. Again, I used a long pencil with eraser to hold these down as while they were being cut.

Gluing segment rings

Even though my work surface is covered with heavy scrap cardboard, I always put wax paper on the cardboard when I glue segments. First, I assembled the cherry pieces and walnut splines without glue and placed an extended hose clamp (that's two ordinary clamps hooked in tandem) around the segments. I dry-fitted the pieces, clamped them, and made sure they fit the base of the bowl-in-process (*Photo 4*).

I spread wood glue on all mating surfaces, placed the clamp around the segment ring, and gently tightened them together. Using a damp rag, I wiped off the excess glue, then centered the hose clamp in the thickness of the wood and tightened it medium-secure. Next, I placed the ring on a flat surface and used a hammer to tap each piece and spline down perfectly flat. Finally, I tightened the ring clamp to full tightness (I use a 5⁄16", or 8mm, driver in a drill with preset torque) and wiped off the excess glue.

Assembling first two rings

After leaving the glue to set for twenty minutes, I sanded one side of the ring perfectly flat to prepare it for gluing to the bowl's base. I made sure it was perfectly centered and then used the lathe's tailstock to press the assembly against a disk mounted in a chuck on the lathe's headstock, and wiped off any excess glue. Now the first level of the bowl could dry in place with the clamp on (*Photo 5*).

After the glue dried, I removed the assembly from the lathe and the hose clamp from the first segment ring. I then remounted the base tenon in a chuck and used a sharp gouge to clean up the face of this first ring. To be sure the face was perfectly flat, I held a large board with an 80-grit sandpaper pad against the ring as it spun on the lathe.

Now I could remove this bowl-in-process from the lathe and determine the length of the segments needed to create the second ring. I do not engineer my segmented bowls by sketching a graph-paper design. I have the idea in my head and work out the math for ▸

Second segment ring

Eyeball the overlap between the first and second rings and measure the width of the segments needed.

Rotate the second segmented ring to position the walnut splines, then glue and clamp it as before.

Harvest and cut the bark

To harvest bark from an oak slab, drive narrow maple wedges between the bark and the wood.

Joint one edge of the bark, saw it into strips, and sand the inside surface lightly to flatten each strip.

Make a segmented ring with bark

(10) Clamp the bark accent strips to the cherry support strip. Keep everything in line by clamping one strip at a time.

(11) After cutting the glued-up bark strip into angled segments, glue the segments into an accent ring using hose clamps for pressure.

(12) As before, use the tailstock to apply gluing pressure when attaching the bark accent ring, as well as the rim ring.

each level as the project progresses, one ring at a time. For the second ring, I used a spare segment to visualize a step with a safe overlap to ensure ample wall thickness (*Photo 6*), and I determined that the next ring's cherry segments would have to be 2.03" (51.5mm) long, again with 0.2"-wide walnut splines between them.

After the second ring was assembled and glued like the first one, I sanded one side and glued it to the first segment ring, situating the walnut splines in the center of the cherry segments *(Photo 7)*. After the glue dried, I turned both of these segmented rings nearly to the wall thickness of the finished bowl. This step and the resulting dimensions are critical.

Bark accent ring

The third ring of this design carries the oak-bark accent and is what makes this project unique. The bark is too fragile to stand alone, so it must be glued to solid-wood segments (of cherry in this case). I consider whether this accent ring will have bark on the outside only, or whether there will be bark on both the inside and outside of the bowl. For this example, I decided to have bark on both sides, so I measured the bowl's wall thickness and cut a piece of cherry thin enough so that with bark glued on both sides, it would equal this wall thickness. If the bark accent ring is only for the outside of the bowl, the cherry strip would need to be correspondingly thicker.

To harvest good bark, I bring a long dried slab into the shop. I match the primary wood of the bowl to the bark I want to use in the accent ring—in this example, I chose oak for its dark color and interesting texture. I use maple splines a bit less than ⅛" thick and drive them between the bark and the sapwood to slowly lift off the bark without cracking it. The bark looks like a tortoise shell (*Photo 8*). I joint one edge, then set the table saw rip

fence slightly wider than the cherry support strip and saw the bark into strips (*Photo 9*).

Each strip must be carefully examined for major cracks, splits, and distortions. I cut off the ends that have curled in the drying process, sand the inside of each bark strip on a belt sander with 80-grit paper to flatten it and remove the softest inner layers, then square up the strip ends on the table saw. I coat both the cherry support strip and the back of the bark strips with wood glue, then line up the bark to the cherry and clamp the pieces together. To minimize slippage it is best to glue the bark on one side at a time (*Photo 10*).

After this glue dried, I lightly sanded both edges of the bark segment strip to remove any glue and also any bark ridges. The strip needs to sit square and flat in the table saw cutting sled, so I also lightly sand the bark faces to remove any major ridges. If you don't have a sliding table saw jig, you could cut these segments on a chop saw set at 15°, but watch your fingers.

Once again, I carefully checked the diameter of the bowl-in-process and cut the bark-faced segments so that the bark would extend slightly beyond the bowl's inner and outer surfaces. I clamped these pieces without glue for a final alignment check. I made the segments slightly larger than needed so I could trim to perfect alignment. Since this bowl was now 8¼" (210mm) in diameter and 25.9" (658mm) in circumference, I cut the bark segments 2.15" (54.5mm) long.

I use a generous amount of glue on bark-faced segments and, as with the solid-wood segments, clamp the bark-faced ring in stages. I began by clamping lightly with the connected hose clamps, then wiped off the excess glue and tightened to a medium level. I then placed the ring on a flat surface, hammered all the segments into perfect alignment, and tightened the ring clamp (*Photo 11*). After allowing the glue to dry for an hour, I sanded one face but left the clamp in place. I spread glue on the sanded face and matched it to the rim of the bowl-in-process.

Once the glue began to set, I transferred the clamped ring to the lathe and used the tailstock as a pressure clamp (*Photo 12*).

Top ring

While the glue was drying on the bark ring, I measured the size of the final, solid cherry ring, whose segments had to be 2.39" (60.5mm), and cut them using the sliding table saw jig. As always with this process, I clamped them without glue to confirm that they were the right size before gluing the segments into a ring. After this final ring has dried for an hour, I sanded one face flat. I reversed the bowl-in-process to true the bark-faced ring and sanded with the sanding block to prepare it for the final glue-up. With the final ring glued to the bark-faced ring, I made sure the joints were staggered and then moved the entire assembly to the lathe and used the tailstock for clamping pressure.

Turn and finish

It is best to leave the bowl-in-process overnight so the glue has time to dry thoroughly before turning the bowl to its final shape. Turn the bowl as you would any other segmented bowl.

To create a different pattern on the bark accent ring, you could carefully turn into the bark ring's lower half to reveal the cherry layer. This will produces a scalloped edge on the bark accent ring. As noted, another variation can be produced by gluing bark to only one side of the core strip (*Photos 13, 14*).

I usually sand through the grit sequence: 100, 150, 220, 400, and finish at 1000, which means a final sanding with the surface of a brown paper bag. When I get to the 220-grit abrasive, I begin sanding forward and backward and wipe the wood clean between grits.

For a finish, I like to apply a coat of natural Danish oil and wipe it dry with the lathe running. I then wet-sand in each direction with 220, 400, and 1000 grit (paper bag), apply more coats of oil, and buff to a satin finish. ■

Variations

13

Turning deeper into the bark ring's lower half will result in a scalloped pattern.

14

The bark accent ring on this bowl appears on the outside only.

Rolland Kipton (Kip) Stratton, of Otego, New York, is a retired pastor with the United Methodist Church. He has attended regional and national woodturning meetings and helped found a local woodturning group. During the winter months, Rolland teaches woodturning in Yuma, Arizona. Being playful in his woodshop helps Rolland keep balance in his life.

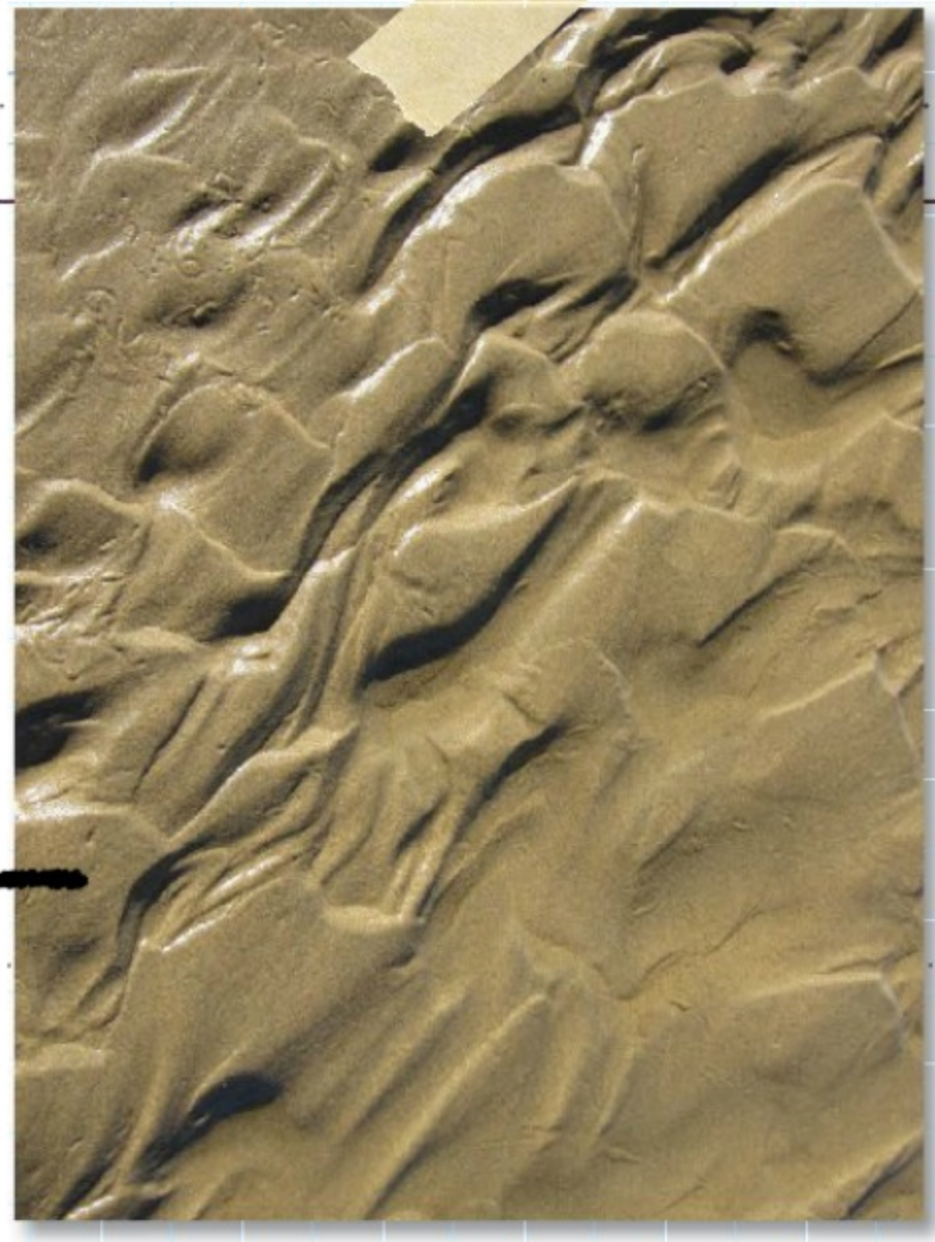
Bark accents Rolland's playful oak birds.

CONCEPT DEVELOPMENT

GOING FROM

Idea to FINISHED FORM

Neil Scobie



Above, a photograph of the author's inspiration: water-eroded texture in sand. *Below,* the resultant turned and carved work of art in sheoak, titled *Retreating Waters*.

Coming up with new ideas is not always easy. And even when a good one comes, you need to work out how to transfer it into a finished work. People are inspired by different things—possibly what you have seen in a magazine or book, online, or at a gallery. For me, it is mostly what I see in nature.

Here, I hope to offer guidance on making the design process easier. I spent twenty years teaching industrial arts and design and technology in high schools in NSW, Australia. I have also taught design to higher-education students studying furniture. I now make my living designing and making custom furniture, as well as turned and carved pieces. I always take the view that if I can visualize something, I can make it. Sometimes the making takes a lot of working out, and that's what this article is all about.

What works for you?

My enjoyment in working with wood is figuring out the best process to make the things I design. I think about design while I am walking on the beach, driving, or watching television, and I try to work out the design and construction process in my head before going to the sketchbook. I have a visual mind, meaning I can see things I am thinking about, or I think in pictures. Not everybody can do this and each person has to work out his or her own way of designing. For some, a sketch will help visualize the concept enough to go and make it, but for others, a sketch will look like a foreign language and a scale model or prototype might be needed.

There is an old saying that people remember ten percent of what they

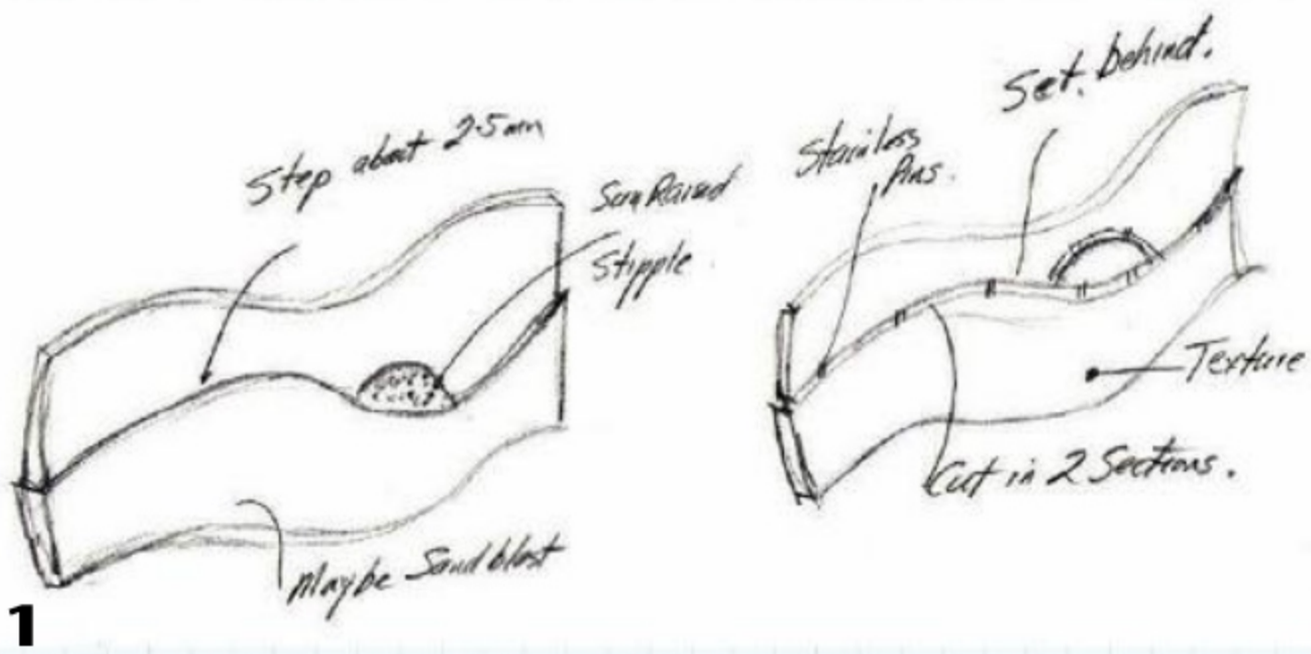
hear, twenty percent of what they see, and seventy percent of what they do. I think the same works for concept visualization. If you see what is being explained with a model, you'll have a better chance of getting the concept than if you had just talked about it. Once you have made the model yourself, the process will be more easily remembered.

Sketching

I like to draw in sketchbooks so I will always have a record of my concepts. Loose sheets of paper always seem to get lost. Rough sketches do not have to be of great quality—all they are doing is recording what you have visualized. Don't get too fussy about thumbnail sketching because you might end up drawing five or ten different variations of the same theme before your idea looks better. I also like to make notes on some of the sketches, such as "too fat here," "make a tighter curve in this part," or "cut in two sections" (*Photo 1*).

Once you have sketched a few possibilities, select the best one and ask yourself why it is the best. Then draw it a bit more neatly. If you are designing a small piece, make a full-sized sketch so you can check that the proportions are balanced. If you have tried making a sketch but are still having trouble getting a handle on the concept, it might be helpful to make a mock-up or prototype.

Sketch and annotate



1 Sketching ideas with notes is useful for exploring possibilities.

Prototypes

Use materials with which you can work up a design quickly. Plasticine is a good product to use. You can purchase industrial plasticine from businesses that use fiberglass products and it comes in blocks about the size of a brick. It can be cut with a knife, sawn, or just pulled apart, rolled up, and pushed into shape (*Photo 2*). If it is really cold, the plasticine is harder to work; you can soften it with a short burst in a microwave oven or, for small pieces, just by rolling it around in your hands. If you need to support a prototype shape that will not stand up by itself, you could place some barbecue skewers or thin wire inside it or as a rest.

Hard foam is another good material for prototypes. It is cut and sanded easily. I have used two different types satisfactorily: closed cell polystyrene, used in home insulation, and closed cell polyurethane, used in surfboard manufacture. Both of these products are easily worked but do not have much tensile strength, so making thin sections that are not supported is difficult. Both types can be filed with a rasp or shaped with rotary tools like a small sander (*Photos 3, 4*). Cutting hard foam with a bandsaw is a good way to start, but make sure you wear suitable dust protection when shaping the foam. ▶

Prototype materials

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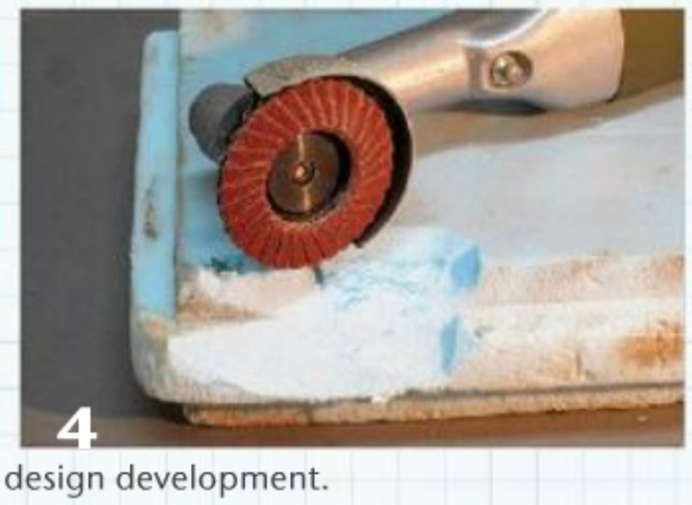

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Plasticine and hard foam can be cut and shaped easily and are useful for making prototypes for design development.

Inexpensive timber or wood with defects or borer holes is also good for prototyping.

A design prototype should be either full-sized or made to scale to confirm proportions, as in the drawing stage. You may not need to make a scale model of the whole design—only the part you are having trouble visualizing (*Photos 5, 6*).

A point to remember is that if the scale model does not look right, your finished piece will probably not look right either, so make sure the model is well-proportioned before you start the actual piece. There is no need to have the prototype fully sanded—just shaped to the design you think looks right.

Partial prototype

Inset: a crossed-over prototype section of a *Wave Rim Bowl*, made only to show how that part would look in the finished piece. I already knew what the rest of the bowl would look like and so did not make a complete prototype.


5


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Design progression


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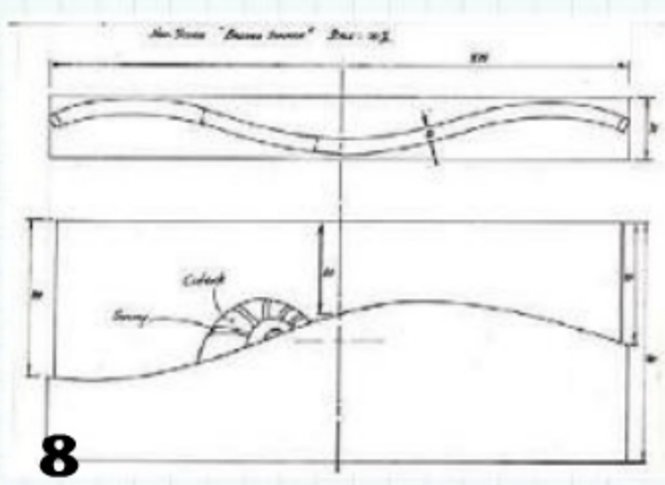
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10

Moving from original inspiration to sketch to prototype to finished form, titled *Emerald Sunrise*.

Evaluation

The next step is probably the most important part of designing—evaluating your design. Step back from the prototype, walk around it, and consider what you like about it, what you don't like, and how you wish to improve it.

Two examples

Emerald Sunrise

I live about ten minutes' drive from the beach on the East Coast of Australia, where I walk on the beach most mornings, sometimes seeing the sun come up over the horizon. While walking, I have lots of time to think, so I tend to use this as design time while my mind is fresh and uncluttered from all the workshop pressures that arrive each day. I started thinking about what I could make that would depict what I was seeing: the beach, the sun, the waves, and the horizon. It needed to have some turning element and some simple carving so it would be achievable to make by most woodturners. After considerable thought, I made some sketches (*Photos 7, 8*).

Now it was time to make a prototype. I chose a piece of Australian red cedar with prominent grain (*Photo 9*). I cut out a rectangle and turned the piece on the lathe front and back to break up the board's flat plane. I drew a horizon in a curved line slightly higher than the center of the front. Then I drew the sun in place off to one side of the center with about two-thirds of it above the horizon. To set the beach and sun proud of the rest of the composition, I decided to lower the top section about 2 or 3mm and sandblast the bottom section to give the piece depth and textural contrast.

Next was the evaluation step. Two factors stood out: one, the prototype wood's dark color obscured my composition; and two, my carved design,

in tandem with the prominent wood grain, was too "busy." From this prototype, I learned I would need to select timber that was more of a blank canvas, meaning no strong grain character and lighter in color, like the beach. I decided on white beech, which is very good for turning and carving and has little or no prominent grain. I also thought that making the sun more prominent with piercing and texturing would make it more of a focal point (*Photo 10*).

Retreating Waters

Still inspired by the same beach, I noticed the great textures left in the sand from the outgoing tide and took some photos (see *opening image*). On that day's walk, my mind was taken up with designing something to make the most of what had just inspired me. I was thinking about the water running back out to sea and what it left behind. I made some sketches and selected a piece of timber for the project.

I traced the size of the timber onto some thick drawing paper, and then added the design concept with a soft pencil. I find it important to revisit a design over a number of days to refine the lines until I am happy with it. I like to hang the drawing in my workshop, where I will see it easily and am prompted to think about it. If you just draw one design and then make the piece straight away, you may have missed some important improvements that could have been made on paper. If the design does not look right on paper, it will probably not look right on the wood.

I decided to turn the blank before carving. It started off as one piece of 2"- (5cm-) thick timber, 5½" (14cm) wide and 20" (51cm) long. I cut the wood into three pieces on curved lines, based on my full-scale sketch. Each piece was mounted on the lathe and turned on the front side, then the back (*Photo 11*).

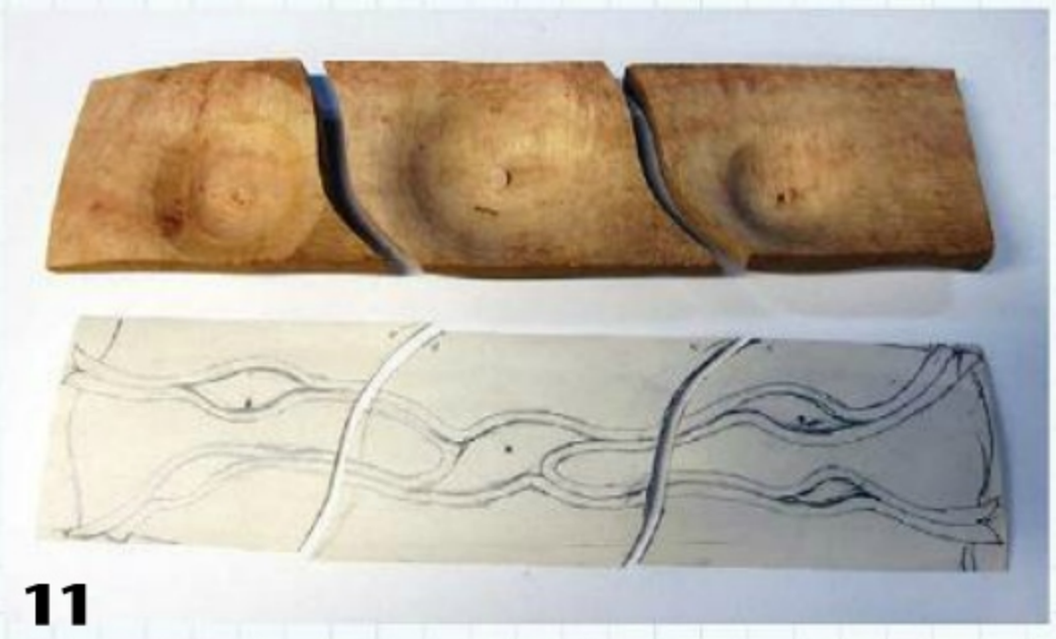
I then revised and cut into the sketch to help me visualize the carving (*Photo 12*). Then I transferred my sketch to the wood. The carving was done through the use of hand and power tools, with lots of sanding. The three sections were then joined back together with aluminum pins. The finished piece, titled *Retreating Waters*, can be knocked down for transport packaging (see *opening image*).

Give it a go

These two examples reveal what has worked for me in moving ideas from my head to finished form. I encourage you to have a go at various designs. If something in a design doesn't work just right, take it as a learning experience: you will know what not to do and what you need to change. The design could end up a winner after going through some revisions. If you have gained some woodturning proficiency but keep making the same pieces, you may become bored and stale. Try exploring new designs based on something that has inspired you—you may just surprise yourself. ■

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

From paper to wood



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A full-sized sketch-turned-prototype. The drawn concept is eventually transferred to the turned workpieces of *Retreating Waters*.

Jon Magill will be a demonstrator at the 2016 AAW international symposium in Atlanta, Georgia, June 9-12, 2016. For more, visit woodturner.org.

Turned Ivory by Johann Eisenberg, 1624, 16¼" (41cm) tall

Photo by Jon Magill, printed with permission, Museo degli Argenti, Florence, Italy

WHAT IS OLD IS NEW AGAIN

A History of Contemporary Ornamental Turning

Jon Magill

There seem to be two types of people, those who look at something and say, "That's pretty," and those who ask, "How did they do that?" Most woodturners, myself included, seem to fall into the latter category. That explains in a nutshell how I became fascinated with the relatively obscure realm of ornamental turning, or OT for short.

OT is a specialized subcategory of woodturning, much the way segmented turning can be thought of. Generally speaking, OT is a collection of techniques used to add decoration, or "ornamentation," to turned objects. In some senses, it might be considered geometric carving that is typically accomplished with a rotating cutter of some sort. The departure from normal woodturning techniques becomes obvious when we look at the specifics of the lathes used, how the workpiece is manipulated, and the cutters that are employed. Those constitute the root of OT and the nearly infinite patterns that are possible, once mastered.

What is OT?

OT is all about geometry, the enablers of that geometry being the specialized lathes, the ingenious chucks, and the multitude of various cutters. Starting with the lathes, we encounter the first major division of the OT realm into its two main subcategories: index work and engine turning.

As its name implies, index work is carried out when the spindle on the lathe is indexed to a new fixed position, using an indexing wheel and a pin detent. Once the spindle is positioned, a cut is made, then the lathe is indexed again to another position

JOURNAL ARCHIVE CONNECTION

Jon Magill has written extensively for *American Woodturner* on ornamental turning. His past articles are referenced more specifically throughout this article. AAW members can access these and all past journal articles online at woodturner.org.

to repeat the process. Carried out in repeating sequences, the indexing and cutting develops a pattern. Complex sequences create ever more intricate patterns. Many contemporary lathes have a rudimentary division plate that allows simple index work, like fluting, but is typically limited to twenty-four or forty-eight positions. Traditional OT lathes have multiple concentric rings of holes of various counts, allowing very precise positions to be located. The number of holes in each ring is carefully selected to provide numerous factors for a wide variety of desirable divisions—for example, hole counts of 66, 72, 84, 96, 120, 144, and 192 yield a dizzying array of possibilities, given all their factors.

Engine turning is the over-arching term used for the other subdivision of OT, mainly to refer to the work carried out using a rose engine lathe. There are numerous ingenious machines used for decorating in this vein, but for purposes of brevity we will limit discussion to the rose engine lathe. Unique to most rose engines is a headstock mounted in the bed using pivots, allowing the headstock to rock freely back and forth. The rocking motion of the headstock is controlled by mechanical means of a cam and follower. The cams, known as "rosettes," often produce a floral pattern, hence the name given to the lathe. Traditional lathes arranged an assortment of rosettes in a stack, called a "barrel," onto the spindle of the lathe. The barrel provides the user with a choice of patterns readily at their fingertips. Most rose engine lathes also incorporate the features of an ornamental lathe, hence adding significantly to their cost.

In addition to indexing and rocking, many OT lathes also incorporate a provision for the spindle to traverse, or slide axially, in the headstock. On a conventional OT lathe, this motion enables controlled operations like threading. On a rose engine, under control of a rosette, it allows pushing the spindle in and out to create an action known as "pumping."

All OT lathes need a means to control the movement and position of the cutting tool. That motion is achieved with a sliderest, which is characteristic of all OT lathes. Sliderest designs vary but they all allow precise movement of the tool. When combined with indexing, moving the sliderest over by the width of the cutter for the next set of indexed cuts enables a staggering number of possible patterns. *(For more on OT cutters and patterns, see past* AW *article, "The Cutting Edge of OT," vol 23, no 1, page 32.)*

What may not be obvious by looking at an OT lathe is that the lathes are used at very low speeds. Think 3 rpm. A benefit of those low speeds is that wildly out of balance chucks can be attached to the spindle without the dangers that would be associated with normal wood-turning speeds. The result is that the workpiece does not necessarily need to rotate on center and can be oriented at any angle to the tool or lathe bed. *(For more on OT chucks, see past* AW *article, "Slightly Eccentric," vol 24, no 3, page 60.)*

For a turner armed with a capable lathe, an assortment of chucks, and an array of cutting frames, the sky is the limit in terms of patterns and possibilities for adding decoration to turned pieces.

How has OT evolved?

OT in one form or another has been around for centuries. Rose engines were well known and described in early works like Joseph Moxon's 1680 book. Rose engine and swash turning in that era both used fixed tools, held rigidly in place, while the workpiece rotated past and was cut. The turned ivory collection, known as the Coburg Ivories, sacked from the Ehrenburg Palace during the Thirty Years War and now housed in the Pitti Palace in Florence, represent the peak of the craft in that era (*see lead Photo*).

The 18th century brought the advent of rotating cutters, held in frames that could be used with profiled cutters, presented to the workpiece at any desired angle via the sliderest. Combining index work with rotating cutters meant that many patterns could be cut on a much simpler machine, the ornamental turning lathe, simulating the patterns of the much more complex and expensive rose engine lathes.

The rotating cutters were driven by an "overhead" consisting of an upright at each end of the lathe and a rotating drum between them. A light belt dropped from the overhead to drive the rotating cutters. Overheads became the other hallmark of OT lathes, especially those produced during the heyday of OT in the Victorian era.

The Holtzapffel company, whose name is synonymous with OT, produced more than 2,500 lathes during the Victorian prime of OT. Of those, though, perhaps only sixteen ▸

The Rose Engine

"The practice of ornamental turning exercises a fascination for many minds. It provides such endless opportunities for the employment of ingenuity, and offers so much scope for artistic ability, that once its elements are mastered it leads its votary forward, ever urging him to attempt more and more difficult operations, or to produce some more beautiful forms. But like every other mechanical operation, it requires apparatus, and this is by no means cheap. A lathe and set of ordinary chucks can be purchased at a cost which will compare favourably with that of any other hobby, such as a garden, a greenhouse, the collection of stamps or rare books, and the like. But after the lathe is obtained much remains behind, if the whole range of ornamental turning is to be traversed, and chief among the instruments which are unattainable to the possessor of modest means, is the rose engine."

—Excerpted from *Engineering* magazine, Vol. LIV, 19th August 1892

were true rose engine lathes, costing many times more than the simpler ornamental lathes. Holtzapffel & Co. were perhaps even more well known for producing a five-volume set titled, *Turning and Mechanical Manipulation*. Volume five, *The Principles and Practice of Ornamental or Complex Turning*, is commonly referred to as "The Bible" of OT. The sixth volume was expected to include information on the rose engine. Sadly, that was never completed. Recently, ornamental turner John Edwards in England has produced a compendium, titled *Holtzapffel Volume VI*, in an effort to fill that void. For more on that publication, visit ornamentalturning.info.

The creative whims of other Victorian inventors gave us apparatus like Atkinson's Reciprocator, Evans' Spiral Spherical Sliderest, Pudsey-Dawson's Geometric Sliderest, Childs' Universal Rosette, and many more. OT was enjoying the limelight in the technical publications of the day, including *The English Mechanic*, which featured regular articles and commentaries.

Opinions vary, but many suppose that the arrival of the motorcar (c. 1886) provided a new pastime activity for the gentry, resulting in OT's decline around the turn of the 20th century. Subsequent wars, with the melting down of scrap metal, sounded the death knell for many Victorian lathes. Numerous lathes did survive the war and a few practitioners kept the craft alive. In 1948, a small group started the Society of Ornamental Turners in England (the-sot.com). Today, they boast a membership of three hundred worldwide. A more recently formed virtual chapter of the AAW, Ornamental Turners International (ornamentalturners.org), has about 250 members today.

Recent developments and milestones in OT

I was introduced to OT when I was lucky enough to meet Gorst duPlessis. The instant I saw his work and how it was produced, I was captivated. OT married three elements that have always resonated for me: woodworking, geometry, and mechanisms. The problem was, how does one get started? There were not many lathes available. The antique lathes out there were rare, expensive, and usually missing parts. Given the age of the lathes, the missing parts were often made before standardized screws came into being. If I wanted to get into OT, rather than machine restoration, I needed to find some other option.

In 1985, Ray Lawler, a gear manufacturer in Missouri, decided to make some modern ornamental turning lathes. His design inspiration was largely based on the popular Holtzapffel configuration, to which he added some modern innovations, like a full-length lead-screw, motorizing the lathe and increasing its overall size. Ray had produced and sold about thirty-six lathes by the time I learned about ornamental turning, and he was no longer making them. About the same time, James Harris, an accomplished ornamental turner in Texas, had created a website describing his transformation of a Grizzly 12" × 36" (30cm × 91cm) metal lathe into an ornamental turning lathe, with good results.

However, Gorst's work that I had seen was produced on a rose engine lathe, and I was convinced I needed to find a way to acquire a similar lathe. The rose engine lathe that Gorst used was a painstakingly reproduced copy of one of the few extant Holtzapffel rose engines. Gorst's lathe was made by Fred Armbruster, who was allowed access to measure every detail of Holtzapffel's rose engine #1636, originally made in 1838. Fred made only two of those lathes, now known as the Mark I's.

Paul Cler, an ingenious machinist in Illinois, had taken up the mantle and was producing a modern rose engine lathe at the rate of one or two a year. I got on his list and had a lathe within a year. The Cler lathe is based on modern linear rails, and his design does not use a rocking headstock, but instead uses the Pudsey-Dawson approach, whereby the top slide of the sliderest, with the tool mounted on it, moves in and out. The differences are somewhat subtle, but the main advantage is that without

OT lathes

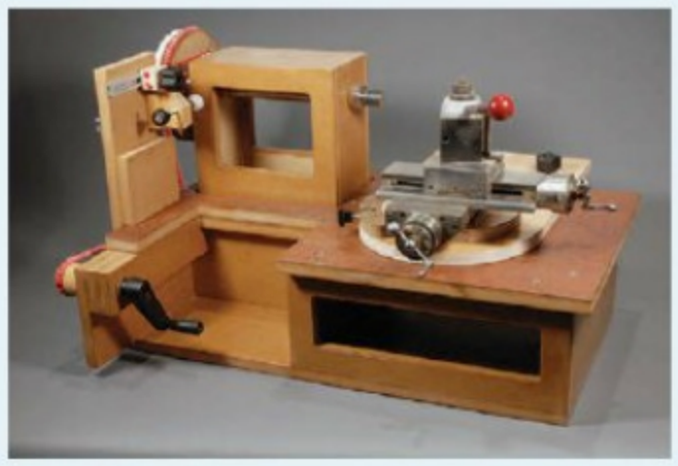
Lawler ornamental turning lathe, c. 1996

Photo reproduced from product literature

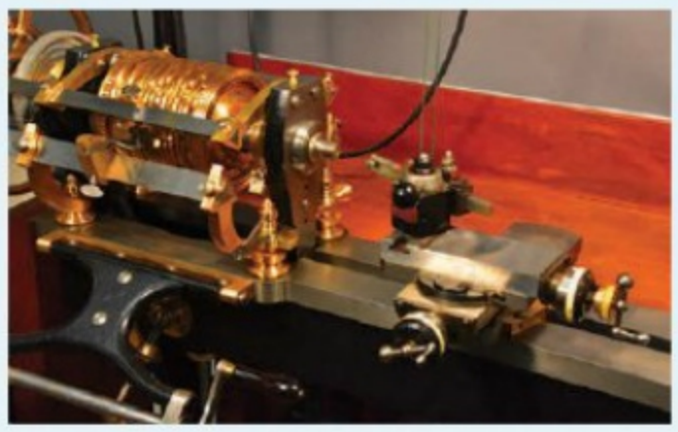
Cler Ornamental Lathe with Rose Engine, 2001

Holy Rose Engine, Gorst duPlessis, AAW Pasadena Symposium, 2003

More OT lathes



MDF Rose Engine with sliderest, 2007. Learn more about the MDF rose engine at rogueturner.com.



Armbruster Rose Engine, Mk II, 2009

Lindow Rose Engine with sliderest, 2007. For more, visit roseengineturning.biz.

John Moe, *Trinity's Friend,* 2015, Bloodwood, holly, 5½" × 4" (14cm × 10cm)

a rocking headstock, a simple tailstock can still be used. As mentioned above, most rose engine lathes typically also incorporate ornamental turning functions. Paul's design incorporated a lead-screw to enable spirals, a curvilinear apparatus, and the capability to produce two types of reciprocation, all fodder for future journal articles.

For the AAW's 2003 symposium in Pasadena, California, Gorst built a portable rose engine lathe. He perforated the aluminum body of the lathe to reduce weight and sized it to fit in a suitcase. He wanted to demonstrate OT to the masses. He did three rotations for standing-room-only crowds. People were fascinated and wanted to give OT a try, but they walked out of the demos facing the same hurdle I had a few years earlier: there were no readily available lathes.

Since the 2003 symposium, rose engine plans using MDF (medium density fiberboard) were published for anyone who wanted to build their own lathe. *(See past* AW *article, "Rose-Engine Turning," vol 22, no 1, page 46.)* David Lindow has been producing and selling his Lindow Rose Engine, together with numerous OT accessories. Fred Armbruster has since produced more than twenty Mark II lathes, which maintain the Holtzapffel aesthetics while incorporating a number of modern innovations, notably rocking and pumping from all rosettes and a 5C collet for the spindle. Other lathes are on the horizon, as OT enjoys a relative resurgence in this century. Thanks to the recent availability of equipment, there are many new ornamental turners taking up the craft.

Among his other contributions, Gorst was the master of innovation when it came to producing striking finials. He has also encouraged many to try their hand at making finials inspired by his designs. Gorst and I thought it would make sense to produce a special rosette to enable people to create variants of his signature triple finials. The GDP-3 rosette for the MDF rose engine allows people to try their hands at making a triple finial. Once the basics are mastered, the rosette has additional phasing holes to allow making a twisted version of the triple finial as exemplified by John Moe's twisted finial box. ▸

Paul Fletcher, *Cricket Cage VI,* 2004, African blackwood, 3½" × 3" (9cm × 8cm)

Long-time practitioners of the craft continue to raise the bar for the new generation. I aspire to follow in the footsteps of the late English master, Paul Fletcher. Experts, like Al Collins in California, are exploring techniques to produce works like the masters of centuries past, reviving the nearly lost art of fixed tool work. What is old is new again. In the words of the late Martin Matthews, "Perhaps I can inspire you to participate in the craft of ornamental turning." ■

Jon Magill (ornamentalobsessions@gmail.com) is an ornamental turner who lives in Shady Cove, Oregon. Jon is a member of both the Southern Oregon Woodturners and Ornamental Turners International AAW chapters.

Al Collins, *Coburg Quest,* 2015, Alternative ivory, 12" × 3½" (30cm × 9cm)

Loss of a Legend

Gorst duPlessis on his front porch in New Orleans.

Photo: Brad Davis

In April 2015, the woodturning and OT world lost a legend when Gorst duPlessis passed away.

Gorst was perhaps the most prolific ornamental turner of the modern era. His creative flair and eye for aesthetics never tired. He created more signature designs, shapes, and techniques than just about any other ornamental turner. Stylistically, he brought an organic panache to the traditionally rectilinear realm of ornamental turning. With no fear of trying something new, Gorst developed many innovations that have become accepted practice in the OT world.

Gorst and his work inspired countless turners. His zealous joy for sharing and teaching infected many would-be ornamental turners, myself included.

I met Gorst in the summer of 1998, when learning to turn spheres at Bonnie Klein's shop. When we went into the house for a cup of coffee, there was a wooden vase full of flowers on her mantle. Nearly everything in her house has been turned, so I said, "I know that came off a lathe, but I have no idea how." Bonnie's reply has been the punchline for every demo I have given since then: "Oh, that's Gorst. He's out buying wood. He'll be back in an hour." Gorst just happened to be visiting from New Orleans. When he returned and demonstrated the magic of rose engine turning, my own life changed course.

He was a patient, intelligent, and creative genius, probably the most enthusiastic ambassador that the craft of OT has ever had. His quick wit paired perfectly with his expansive repertoire of jokes and quotes. Everyone who knew him misses him. For Gorst's sake, I hope they have lathes in heaven.

(Top row, left to right)
For Mary, 2010, Cocobolo, boxwood, pink ivory, 10½" × 5¼" (27cm × 13cm)

Family of Man Series, 2013, Boxwood, bloodwood, mopane, tallest is 7¼" × 2" (18cm × 5cm)

Seattle Series, 2002, African blackwood, pink ivory, 8¼" × 2½" (21cm × 6cm)

(Bottom) OT Finials, 2010, Various exotic hardwoods, typical size 7" × 3" (18cm × 8cm)

Post-Millennial Standout: MICHAEL ANDERSEN

David M. Fry

Far from any college woodworking program or even local high school shop, 17-year-old Mike Andersen has emerged as something of a prodigy in the world of artistic woodturning. He claimed POP Instant Gallery awards for youth at the last two AAW symposia, as well as first place at the 2015 Turning to the Future competition of the Association of Woodworking & Furnishings Suppliers. At the Pittsburgh symposium, he also completed a full slate of rotations as room assistant to various demonstrators at the suggestion of mentor and current AAW board member John Ellis. And renowned turner Trent Bosch has already scheduled him to demonstrate at the Rocky Mountain Woodturning Symposium in 2016. All together, it's a remarkable track record for a teenager with only 2½ years' experience at the lathe.

Michael Andersen in his 112-square-foot workshop at the campground managed by his parents. He created the space by building walls around a flatbed utility trailer.

Scouting wood

In the remote high country of Northern New Mexico, Mike had few local resources besides pine and cottonwood to build a replacement bobsled for his scout troop several years ago. His quest for suitable wood took him three hours south to Albuquerque, where he found stores offering not only a great variety of species, but also tools and instruction. Soon after being introduced to pen turning there, he bought a lathe and eventually took a class with Jimmy Clewes. It was Jimmy, Mike recalls, "who opened my eyes to the rest of woodturning and sparked my interest in the AAW." Florida turner Rudolph Lopez and wood dealer Jake Jacobson also have provided pivotal guidance.

Surreal Stream, 2015, Bolivian rosewood, Gabon ebony, 5½" × 10" × 3⅝" (14cm × 25cm × 9cm)

2015 POP Instant Gallery Youth Award

Design and experimentation

Quickly advancing beyond traditional turned forms, Mike has gravitated toward "funky shapes like turned boards and triangles—what you see in the hull and sails of my *Fire Ship*." As in *Surreal Stream*, the Clewes influence is apparent in the elongated geometry. "I like to watch how other people turn, to figure out how they do it, and to scoop up ideas from everywhere. I'm especially interested in the approach of Jacques Vesery—someone I've talked to quite a bit who has redefined my sense of design. I'd like to get more involved in fine surface embellishment, although I'm limited now by having just an angle grinder with a big burr."

To explore a concept, Mike may doodle, but he doesn't make detailed drawings. Designs are usually refined at the lathe without elaborate jigs. For complex works, he may first turn and assemble prototypes out of scrap woods. While turning gives him pleasure and satisfies his attraction to curved, thin forms, he doesn't want to be limited to objects made exclusively on the lathe.

Fire Ship, 2015, Scrub oak (hull), big leaf maple burl (sails), and myrtle (mast), 11½" × 8" × 3¼" (29cm × 20cm × 8cm)

The inspiration arose from Mike's fondness for the vivid imagery of sea shanties.

Career aspirations

Mike has been home-schooled in a tiny community—Chama, New Mexico—and his occupational goals diverge from the conventional college-to-job trajectory plotted by many of his contemporaries. "Owning a business is probably in my future, and doing art will remain my passion. Because I don't want to put all my eggs in one basket, I'll probably get electrician training. But I do hope to become a professional woodturning demonstrator and teacher and to sell my work through galleries." Mike's impressive showing so far suggests he's well on his way. ■

David M. Fry turns wood and writes near Washington, D.C.

Shock of the TIMELESS

Betty J. Scarpino

Shock of the Timeless booth at SOFA Chicago, 2015.

I doubt anyone viewing *Shock of the Timeless* at SOFA Chicago (Sculpture Objects, Functional Art, and Design) was even mildly surprised by wood artists' use of color—color abounds at SOFA. Patrons unfamiliar with the history of painted wood, however, might be surprised to learn its history is rich. Painting wood has long been an established act, artists and makers of every era concealing even the most glorious woodgrain. Kevin Wallace, exhibit curator, discusses the historical background of painted wood in his essay, "Contemporary Wood Art & The Shock of the Timeless." You can find it at tiny.cc/Timeless (case sensitive).

Color aside, the significance of *Shock of the Timeless* at SOFA was the presence of an exhibit focused on wood art, at a venue outside the confines of the wood field. In addition, a variety of galleries carried the work of many well-known woodturners. This is good news for the wood-art field, where del Mano Gallery used to reign supreme at SOFA. Like all vacuums, the shift of del Mano from bricks-and-mortar to online sales provided an opportunity. Other galleries are beginning to fill that void quite nicely, with the Thomas R. Riley Gallery representing many artists—wood offered for sale alongside glass and ceramics sends an inclusive message.

Individual artists

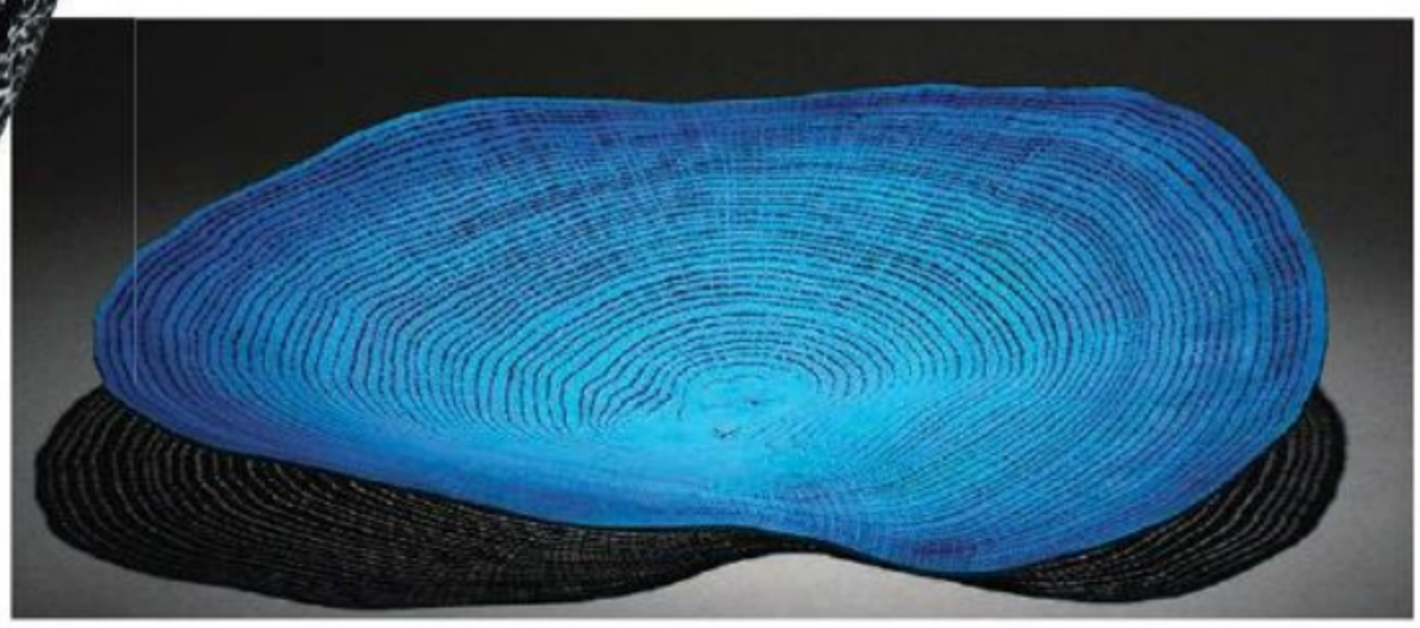
As might be expected when color surfaces, Binh Pho delights. His *Shadow of Your Smile* did make me smile as those two large peacock-feather-eyes seemingly watched me circle around as I studied intricate details. Not to be outdone with color and complexity in a charged-with-color manner, Neil Turner's *Intertwined Spirits* shouted for attention from the wall. Close by, Graeme Priddle and Melissa Engler's *Incubus Triptych* appeared almost mild in comparison; I appreciated its subtle elegance.

In spite of being infused with blue, Pascal Oudet's *Blue Wave* divulged "of-wood-and-turning" by thinly revealing the unmistakable structure of wood. The shadows it cast were as captivating as the piece itself.

Michael Hosaluk employed the sense of walking in his classic vessel, *Patterns of Growth*. Made in 1995, it appeared

Todd Hoyer, Untitled Vessel, c. 1993, Wood, grout, paint, 6½" × 4" (17cm × 10cm)

Provenance: Lipton Collection
Thomas R. Riley Galleries



Pascal Oudet, *Blue Wave,* 2013, Oak, acrylic paint, 2¾" × 13³⁄₁₆" × 11½" (7cm × 33cm × 29cm)

Contemporary Artifact Gallery

right at home in colorful company, as did Todd Hoyer's timeless vessel.

By early evening of the first day, many labels were festooned with a welcome color: red dots. Sales were respectable.

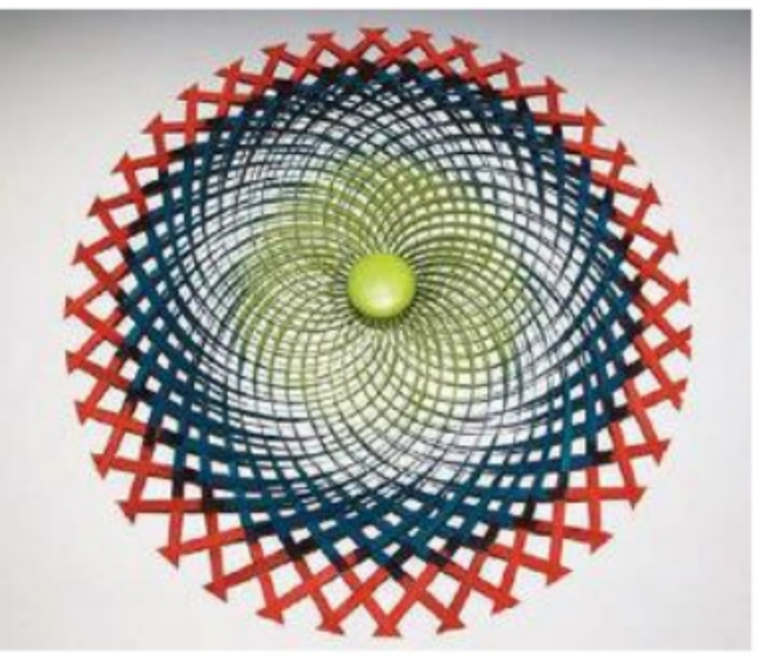
Sponsorship of SOFA exhibits

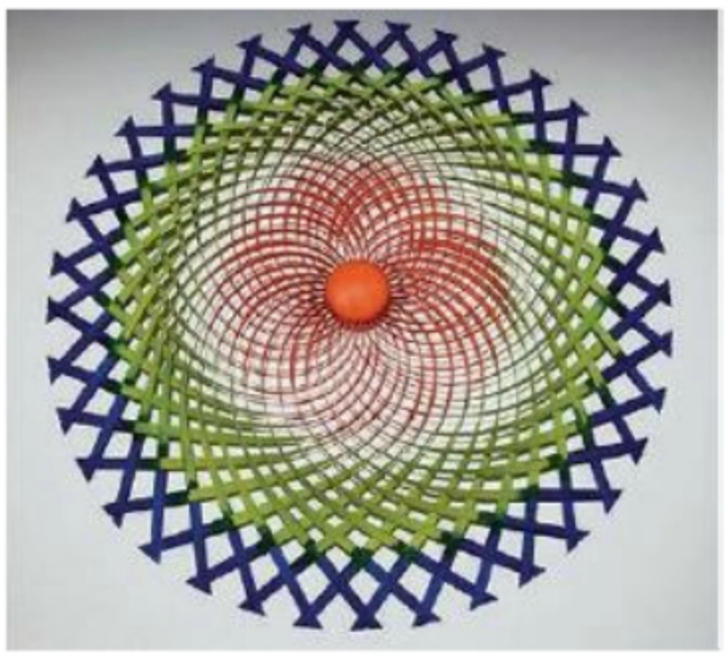
SOFA officials offer free booth space and discounted lights and pedestals to nonprofit organizations as part of their educational programming during this expansive three-day event. For many years, the AAW and the Collectors of Wood Art (CWA) have alternated hosting an exhibit. In 2015, instead of the AAW hosting, the honor went to Beatrice Wood Center for the Arts, Ojai, California. Its director, Kevin Wallace, well known in the wood-art field, curated the exhibit.

Most of the artists in *Shock of the Timeless* were woodturners. That these artists are currently or were previously involved with the turning field should make the AAW take note. Events that showcase professional woodturners' artwork, especially ones outside the field, are always welcomed—and needed.

The CWA announced the theme for its 2016 SOFA wood-art exhibit, "WHY WOOD? Contemporary Practice in a Timeless Material," which will be curated by Jennifer Navva-Milliken, Curator of Craft, Bellevue Arts Museum. To view the call to artists, visit tiny.cc/CWACall. For 2017, I hope the AAW will sponsor an exhibit at SOFA. Lead-time is essential to putting together a topnotch array of turned-wood art; right now is not too early to begin planning. ■

Betty J. Scarpino lives, works, turns, carves, and writes in Indianapolis. Her work can be seen at bettyscarpino.com.





Neil Turner, *Intertwined Spirits 1 & 2,* 2015, Rock maple veneers, jacaranda, ink, 2' × 2' × 1½" (61cm × 61cm ×4cm)

Thomas R. Riley Galleries

Graeme Priddle and Melissa Engler, *Incubus Triptych,* 2015, Monterey cypress, acrylic paint, 19" × 15" × 3" (48cm × 38cm × 8cm)

Thomas R. Riley Galleries

Binh Pho, *Shadow of Your Smile,* 2015, Boxelder, acrylic paint, gold leaf, 11" × 6" (28cm × 15cm)

Thomas R. Riley Galleries

Michael Hosaluk, *Patterns of Growth,* c. 1995, Elm, acrylic paint, hair from each of Michael's four children, maple, brass, 13" × 6" × 6" (33cm × 15cm × 15cm)

Thomas R. Riley Galleries

Members' Gallery

Derrick A. Te Paske, Massachusetts

As a professor of media studies at Framingham State University (Massachusetts), I am primarily concerned with theoretical principles and digital production/reproduction methods. In purposeful contrast, my art involves wood and other common tangible materials, employs tools and processes that are decidedly low tech, and results in unique and very physical objects. I have always been interested in classical forms, the ancient, the primitive, and the strange.

For more, visit derricktepaske.com.

(Left) Sex Pot V: Oval, 2012, Black cherry, jarrah burl faux ovum, 15" × 10" (38cm × 25cm)
Collection of Lisa de Lima

(Right) Uluburun Ritual Vessel, 2015, Butternut, patinated copper leaf, 12" × 8" × 6" (30cm × 20cm × 15cm)

This piece was inspired by the name of the oldest shipwreck ever found, which dated to ~1300 BCE. It is the first finished piece from a series of imagined artifacts I have been contemplating for several years.

Barry Todd, Ohio

Dragonfly's Lair resulted from a bit of intentional whimsy between "serious" pieces. My good friend and instructor Jim Burrowes had given me a piece of bamboo laminate and challenged me to turn something from it. The next day, when the plain little bowl was completed, I took it off the lathe and went to set it on my workbench when I saw a piece of desert ironwood Jim had given me earlier. I asked myself how I could combine the two, and what you see is the result. The project reminded me that not every piece has to make a statement about our skills and that there are times when we should simply have fun and be creative.

After making *Dragonfly's Lair,* more or less as a joke, I became intrigued by the possibilities of expanding the basic concept in a more serious vein, yet retaining the original sense of whimsy. *Butterfly Phoenix* was the result. Now, I have a few more ideas along the same lines waiting to take form.

(Left) Butterfly Phoenix, 2015, Mangrove driftwood, spalted maple, African blackwood, oak burl, 18" × 8" (46cm × 20cm)
Photo: Steve Wolfe

(Right) Dragonfly's Lair, 2015, Bamboo laminate, desert ironwood, African blackwood, coffee wood, 6" × 6½" (15cm × 17cm)
Photo: Steve Wolfe

Buster and Christa Shaw, Connecticut

My wife Christa has been making Nantucket Lightship Baskets for more than twenty years. For a basket to be considered a Nantucket Lightship, it must have four key components: a wooden bottom, a mold for shaping and weaving, strips of cane for weaving, and a rim secured by nails. Dissatisfied with both the quality and variety of materials available, Christa asked me for help. Of course, I said yes. To myself, I said, "What the heck did you say that for?"

Some of the supplies needed are a mold, a base, staves, cane, and a rim. After the base is secure, you have to taper the staves. After all of the staves are put into the base around the mold, you then weave, going over and under each stave. The last steps involve attaching the rim, lashing, and putting a finish on the basket.

The process involved some creative woodturning solutions. The bases Christa uses require a thin kerf into which the staves are inserted. A thin hacksaw blade with the teeth ground off and then ground to a 45-degree angle was the answer for a custom parting tool. Next came the molds on which to make the baskets—just like making a bowl but the inside is not hollowed out. I also made a vacuum chuck that allows me to finish the bottom of a small lid after installing the turned knob.

We have been working together now for more than fifteen years. The best part is, when I say I need a new tool, Christa says OK, thinking it's for her baskets. But you and I know it's for me.

(Left) Creative woodturning solutions marry turning with basket-making. A turned mold and base with a thin kerf set the stage for tapered staves and weaving.

(Top) Nantucket Lightship Baskets by Christa and Buster Shaw.

(Bottom) Baskets with turned black and white ebony lids.

Joe Van Keulen, Canada

I started turning in 2005 and shortly thereafter began experimenting with embellishing techniques, such as pyrography and piercing. Sometimes my work is bold and colorful, and other times, thin and delicate. This platter, less than ⅛" (3mm) thick and pierced with a dental drill, was embellished with pyrography and pastel colors.

Untitled, 2015, Boxelder maple, 13" (33cm) diameter

CURT THEOBALD

Elements of a Balanced Life

Terry Martin

Curt Theobald will be a demonstrator at the 2016 AAW international symposium in Atlanta, Georgia, June 9-12, 2016. For more, visit woodturner.org.

The summer sky is crystal clear as I join the freeway traffic heading due north from Colorado to Wyoming. As I settle into the rhythm of mile-eating travel, the strip malls and warehouses gradually fall away and most of the heavy trucks bid the highway goodbye, following signs that echo frontier legends: Gold Hill, Fort Collins, Red Feather Lakes. I cross the state border into Wyoming and at Cheyenne I turn east, straight as an arrow toward Nebraska. Both land and sky open up, wider and wider, and at Pine Bluffs near the Nebraska border, I leave the highway to follow a narrow local road. I float on a sea of grain that ripples in waves to the horizon. The neat white farmsteads are miles apart, while older farmhouses and silos lurch into decay, returning to the earth that nurtured them. For a country boy from flatland rural Australia, this is all so familiar. I slow down, open the window, and breathe my stress away.

I am still on my worldwide woodturning odyssey, and today I am visiting a friend, one of those good woodturners who so often generously share their lives. I am always drawn to sincerity, and the man I am visiting today, Curt Theobald, is among the most sincere I know. As I pull off the road to Curt's home, I can see the homestead is substantial. Spreading out from the old farmhouse, a scattering of buildings tracks the history of the farm. Small wooden barns give way to enormous metal-framed machinery sheds, the bones of old harvesters fall into rust, and grain elevators reach into the sky. Curt and his wife Wanda come out to greet me.

When I first met Curt some years before, I was impressed with his thoughtful consideration of everything we talked about. Now, as we sit at the kitchen table, Curt tells me about his own life. Like most of us, his character was partly formed by where he grew up—the state with the lowest population and with a


Photo: Terry Martin

reputation for common decency. Curt was born in 1965 in Cheyenne, forty miles from the family farm where he now lives. His great-grandfather purchased the land in 1922 and it has been a wheat farm ever since. Curt describes how he used to help his father: "It was always work before play," he says. "Farming is a tough way to live and every year is the same—plant in August, harvest the next July. It is an honorable profession, but I preferred helping my father with construction work, particularly the process of taking a pile of stuff and making something out of it." I comment that it sounds like the work Curt is known for, segmented turning. Curt always crafts his answers as carefully as he crafts his artwork, and he pauses before he replies: "It's probably how I'm wired, but it also comes from watching my dad. When you are a farmer, you don't pay somebody else to do something you can do. That's just throwing money away."

Beginnings

I was not surprised to hear that Curt's interest in turning began in school woodshop, but the more I heard, the more I wondered why he persisted: "It wasn't wonderful instruction. When I asked the instructor how to use the tools, he said, 'Go try something and see what happens.' It didn't matter if it was a bowl gouge or a skew—it was used as a scraper. I used to scrape for two weeks and then sand for the rest of the semester! But I was inspired by a Dale Nish book, and I even made my first segmented bowl in high school."

After high school, Curt went to college for two years. "At first, I thought I wanted to be a woodshop teacher," he said. "I wanted to help students have a better experience than I had, but soon I started to think it wasn't for me. I eventually realized college wasn't providing the challenge I needed, so I left school and started construction work, building roads, bridges, anything involving concrete. It's hard work," he said, "and it took me all over the U.S. It's a challenge taking simple pieces of two-by-four and plywood, then assembling them to withstand the pressures of concrete. You soon learn that no matter how many hundreds of thousands of yards of concrete you pour, the material still does what it wants to do and you can't always predict how it will behave. That's a challenge, but it's also fun."

Even though he became a foreman on major projects, after some years Curt decided the life of a wandering construction worker was not for him. Back in Cheyenne, he found work in a cabinet shop, building kitchen and commercial cabinets and even railroad doors that were six feet wide and fourteen feet tall—"all kinds of assembly," he notes. The urge to assemble was strong in Curt and his new job suited him well: "There was such satisfaction taking rough-cut lumber, planing it, milling it, running it through shapers, assembling with a variety of joints—all to *make something*. I worked there for several years and, just like on the construction work, I was always curious about why we were doing everything. I had learned to read blueprints for construction, so the transition to architectural blueprints was easy. The satisfaction for me still comes from either looking at a drawing or seeing something in my head and formulating plans."

As is often the case, woodturning crept back into his life through the back door: "In the corner of the cabinet shop, there was an accumulation of unused machinery. I found a Shopsmith, bought it for $75, and took it home—then smoked the motor that very night. I replaced the motor and began staying in the cabinet shop at the end of the day to glue pieces of wood together to take home and turn." I asked Curt if he had ever tried turning solid wood: "I tried it and I just didn't find it as interesting. I like the assembly process—gluing pieces of wood together to make different patterns."

Curt left the cabinet shop in 1996 and started his own one-person, custom-cabinetry business: "I had more work than I could keep up with, so I worked like a madman for ten-and-a-half months a year, then I'd glue wood together and turn it to give myself a steady fix of that assembly process I enjoyed so much. I always thought it would be great to do it more than just six weeks a year."

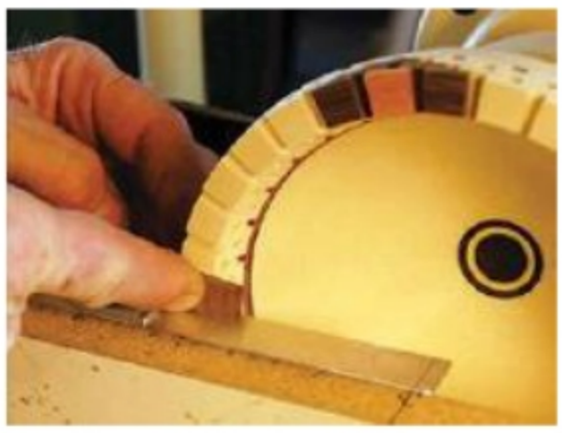
For years, Curt turned in isolation, scraping his work and unaware that turners across the country were developing and sharing skills. When he finally joined the Front Range Woodturners in Denver, it was an eye-opening experience: "When I first saw someone make a fifteen-foot shaving from wet wood, I sat with my jaw on my chest and wondered ▸

Curt's focus is always intense.

Photo: Terry Martin

"If a join is not as accurate as I can make it, I won't glue it together."

Photo: Terry Martin



Eye of the Storm, 2013, Various woods, 3½" × 16" (9cm × 41cm)

Collection of Ivinson Memorial Hospital

Tablets of Stone, 2014, Italian alabaster, wood, resin 2" × 4" (5cm × 10cm)

how it was possible. Eventually, through watching and experimenting, I taught myself to be a proficient turner, and I still like to watch other people to learn."

During this time, Curt was renting a house in the country, and he used an unheated garage as a workshop: "It can get pretty cold in the winter, with temperatures reaching -20°." However, in 1996, when Curt's grandfather passed away, he moved to the family farm, and the extra space changed many things for him: "It's a perfect place for a segmented turner. I can have joiners, planers, table saws, miter saws, sanders—if I was still in a one-car garage, it would be very difficult." Curt was also able to dedicate a large, bright room entirely to photography.

Settling on a new life

Behind most of the successful wood artists, there is a supportive spouse, and Curt is quick to credit his wife: "Wanda is a schoolteacher and, as a supportive spouse, believed we could find a way for me to do what I loved to do. I started to think about making what inspired me, something that was artistic instead of functional and that people would pay me for. I began doing local craft shows in Cheyenne and I liked that a lot. I took the plunge into full-time turning work in 2002 after I got an EOG grant from the AAW for a weekend at David Ellsworth's. His willingness to share his experience made me think it might be possible for me."

Curt knew from the start it would be difficult to sustain a career just by selling objects, so as well as making and selling art, he teaches workshops at home, at craft schools, and at woodturning clubs. And he even has his own line of tools. "You have to diversify," he says. "I always thought it would have been nice if I'd had some instruction as a segmented turner, so I produced my own tutorial videos. The people who come to learn segmented turning are typically motivated by problem-solving—retired engineers, people with drafting backgrounds, and so on. It's fun to share the formulas and techniques

I use to solve segmenting problems. They may know more about math than I do, but I have the ability to apply my knowledge to the project at hand."

At work

In the workshop, Curt is calm, methodical, and highly skilled. Much of his skill comes from the thousands of times an action is repeated, just like the master crafters of the past—the practiced flick of the wrist that comes from the body finding the best way to lighten the day's work. He applies precise care to every step and has learned much over the years. He explained, for example, that a lot of segmented turners just glue up wood without thinking about grain orientation. "When things start to come apart, they don't know why," he says. "I soon figured out that you have to always align the grain in the same direction, never sidegrain to endgrain. I glue endgrain to endgrain, which is the weakest joint you can make—until you glue another layer of wood over the joint, like a brick wall, and then it becomes really strong. Precision is really important to me. If a join is not as accurate as I can make it, I won't glue it together. I tell my students, 'If you strive for perfection, it will be close enough; if you strive for close enough, it won't be.'"

There is no doubting the quality of the workmanship and design of Curt's early work, but in many ways it is not so different from what most segmenters make. Curt explains how he progressed from complex patterns to increasingly simple designs: "I think, early on, segmenters try to put in as many different species of wood as they can, with as many different tones and shades as possible. It's easy in segmented turning to get too busy, but I think you have to go through that to get it out of your system."

Sources of inspiration

Eye of the Storm grew out of the powerful environment of Curt's homeland: "Living on the high prairie, it is easy to see the building thunderstorms a hundred miles off. You can see the transformation of colors and shapes as the storm builds. It's eerie, knowing the destruction that can be produced by the storm, yet strangely beautiful at the same time."

Curt has always drawn on his deepest thoughts, and as a religious man, he often finds inspiration from the Bible: "I've often thought about Moses smashing the tablets of stone containing the Ten Commandments when he returned from Mount Sinai. When I read that he was commanded to hew replacement tablets, I thought it would have been nice if he had some way to glue the broken pieces of stone back together." *Tablets of Stone* is Curt's response to this notion. "I've always turned stone," he says. "In the early 1990s, David Nittmann gave me a piece of stone and said, 'Epoxy it to a piece of wood and turn it to see what happens.' The translucence of the stone was intriguing, and I continue to explore it."

Like a lot of farmers' boys, Curt had a pretty hard-nosed upbringing, but there is a deep well of gentleness in him. He takes in all the stray cats in the area, and when he walks around the farm, they all follow him. While we sit and talk, the farm dog wanders in and sniffs Curt's hand, and I am reminded of the other reason I traveled so far to visit Curt in his home. We have a shared experience far deeper than woodturning: Twenty-seven years ago, my wife and I adopted a Korean girl, and more recently Curt and Wanda adopted two girls from China. I understand the wonderfully complex and rewarding journey these two devoted parents are on, and most of Curt's recent work has been inspired by this experience. Because Curt is a stay-at-home father, he has been very close to his daughters. "I spend the school year with the kids, and Wanda takes over in the summer during her time away from the classroom. I am wired for evenings and late nights, so after the kids are in bed I go back to the studio to get some work done."

Curt's *Family Series* reflects the complexity of his family life: "These pieces are based on the interlocking lattice-work found on doors and windows in China. The interlocking boxes in ▸

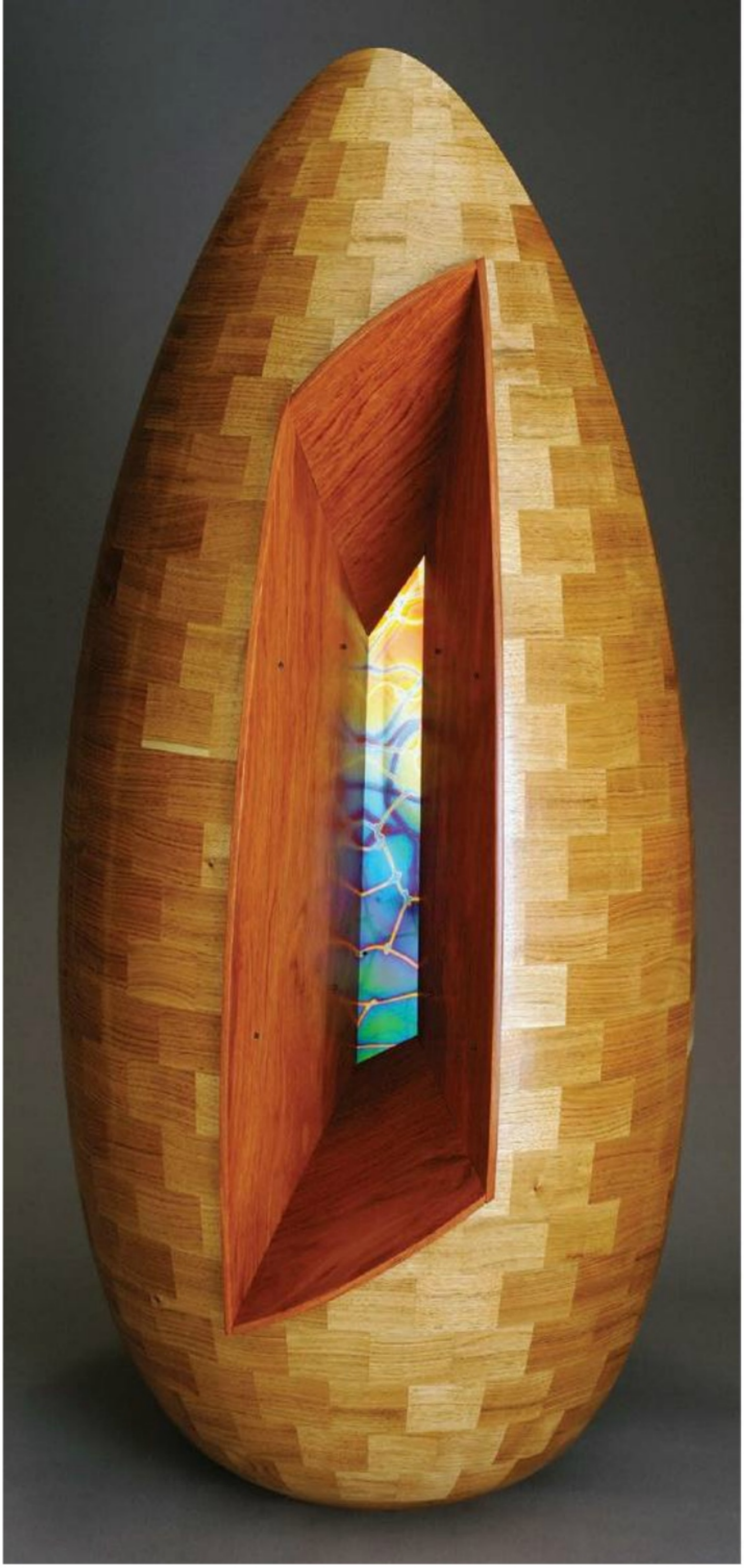
The Theobald family

Photo: Terry Martin

Family, 2009, Dyed wood, metal leaf, 10" × 5½" × 3½" (25cm × 14cm × 9cm)

The Chinese character signifies "family."

Collection of John and Patti Quinn Hill



A Long Time Coming, 2012, Wood, glass, 42" × 22" × 18" (107cm × 56cm × 46cm)

(Top to bottom)
My Mothers, 2009, Dyed wood, largest piece is 6" (15cm) tall
Collection of Richard and Elizabeth Hogue

Father Daughter, 2008, Wenge, 6" (15cm) and 2¼" (6cm) tall
Collection of Dr. William and Susan Miller

Sisters, 2013, Wood, dichroic glass, 7" (18cm) diameter

these pieces show that although every family member is a separate person, our lives interlock and shape us all."

"*My Mothers* is me sorting out the adoption process," Curt explains, "and that includes the love that both mothers give our daughters. The tallest piece depicts my wife because she will have a daily influence on our daughters' lives. The middle piece represents our daughters' birth mothers. Even though they are on the other side of the world, without them we may not have been a family. The small piece representing our daughters has colors of both, just as their character will continue to be shaped and influenced by both of their mothers."

I began working on *A Long Time Coming* during the wait for our second daughter, which at times seemed overwhelming. It was nearly three years of challenges, setbacks, and waiting. The scale of the piece presented immense challenges and echoes the magnitude of the adoption. The inside of the piece focuses on the ultimate goals—finish the piece and bring home the girl."

As Curt describes, the intensity of the adoption process continues through into his developing relationship with his daughters: "The father-daughter relationship is ever-changing, just as a slight rotation of the two pieces in *Father Daughter* drastically changes the emotional feeling of the sculpture. Closeness may change to conflict. Endearment, unhappiness, adoration, and disrespect are a few of the feelings that are evoked when the viewer rearranges the sculpture."

Curt is also a great observer of how his two children relate to each other, and he uses the Chinese concept of yin and yang, wherein opposites balance and create harmony. "My *Sisters* series represents our two daughters. Their personalities are very different, and each stretches the other, but, as different as they are, they can exist in harmony."

Curt's latest piece is worthy of a story all on its own. I suspect there has never been a piece of wood art like it. When I first saw it, I started to wonder just how it was made, but soon I realized that was irrelevant. I was looking at that increasingly rare thing in our field—a completely original work. Curt explains it as follows: "As we travel through life, we pass through many different stages: birth, growth, graduation, marriage, middle age, death. Each phase of life, each ceremony we attend, each emotion we feel, each tear we shed, is part of the *Circle of Life*. The teardrop opening in the sculpture symbolizes the emotions we all face, and the different cutouts let us look inside the sculpture, just as we are often forced to look within ourselves. I want people to try to see what my intent was, what is unique to me as a maker."

A balanced life

Curt and his wife have built a uniquely balanced life and Curt finds so much to be thankful for: "My days are often filled with fun and learning with my children," he says. "We color and paint, look at bugs, see shapes in clouds, fly kites, glue bits of wood together. Looking at the world from the perspective of a kid is an eye-opening exercise that all of us need to do from time to time. We soon discover that we are capable of doing much more than we give ourselves credit for."

Curt looks toward the future with optimism and energy: "I'm in my prime," he says. "The possibilities are limitless. The assembly process is always going to be there because I need to assemble stuff. But I think my work is becoming more sculptural, so there will be less turning and maybe even no turning. It's not that I dislike turning, but it's not always necessary."

Back at the Theobalds' kitchen table on my last evening, we sit sharing dinner and conversation. I am grateful to have been invited into their loving family circle and am moved by Curt's openness to his own creative journey, which for him always begins and ends at home. His coming journey is one to watch closely. ■

For more, visit curttheobald.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.

Circle of Life, 2014, Wood, 25" × 9" × 12" (64cm × 23cm × 30cm)

Collection of Richard and Elizabeth Hogue

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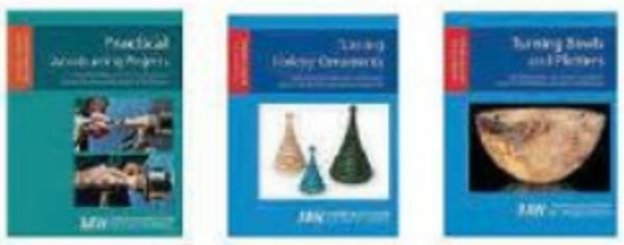

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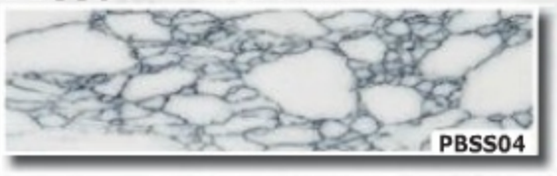

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MERETE LARSEN

DENMARK

I have lived a life with wood. I trained as a cabinetmaker and then worked in antique-furniture restoration. Finally, in 1992, I started woodturning.

I am self-taught. My aim from the very beginning has been to obtain translucency and to apply color. I generally turn my vessels down to about 1mm thickness, using woods such as beech and sycamore. Most of the time, the trunks are stored for up to two years before use, depending on what I feel like doing. For color, I apply water-based acrylics. Then I polish the pieces with shellac.

For more, visit meretelarsen.dk.

Photos by Jacob Lærche.

Untitled, 2015, Beech, 12" × 10¼" (30cm × 26cm)

(Left) Untitled, 2015, Sycamore, 6¼" × 5" (16cm × 13cm)

(Middle) Untitled, 2015, Sycamore, 4" × 7" (10cm × 18cm)

(Right) Untitled, 2015, Beech, 9½" × 10½" (24cm × 27cm)