AMERICAN WOODTURNER

Journal of the American Association of Woodturners

Grinder Wheels

Split Turning

Ferrules

Hayley Smith
Unwavering Commitment

April 2011 vol 26, no 2
woodturner.org

Integrating the *Past*

Like many woodturners of my generation, I was introduced to woodworking in seventh- and eighth-grade shop class. I learned the basics of woodworking and found joy in working with the materials.

As a manufacturing-engineer major in college, I studied metallurgy and learned how to form and machine metal. I also had access to casting, welding, milling, turning, and grinding machines.

During this time, my mother wanted to learn how to weave. I used the school's facilities and my uncle's woodshop to build her a ten-harness jack loom. I cast or fabricated all the metal parts in brass and used walnut and maple for the structure.

In order to teach her to weave, I had to study weaving patterns, spinning, dyeing, and tapestry weaving. I even built a tapestry loom for myself. Working with fibers, a warm and pliable medium, balanced my work with cold, hard metal.

When I moved to Bisbee, AZ, in the mid 1970s, my uncle gave me his small wood lathe, and I rediscovered the pleasure of turning. I spent the next thirty-plus years learning about the material and the tools and techniques to work it.

In the early 1990s I started to incorporate metal into my turned objects, first with gilding and then with wire. Wrapping my forms created a metal surface, which followed curves and angles without the need for forging metal.

The combination of weathered wood and rusted wire reflects my aging process. The metal layers flow and weave throughout, defining pathways, some continuing and others ending; they represent the choices I have made in my life. Looking back, I realize the interconnection between my past experiences and my present work. ■

—Todd Hoyer

Untitled, 2003, Mesquite, 17" × 10" (43 cm × 25 cm)

Collection of Robyn and John Horn

Ringed Series, 2004, Grapefruit, wire, 16" × 8" (41 cm × 20 cm)

Todd Hoyer will be a featured demonstrator at the AAW's 25th annual symposium, June 24–26 in Saint Paul.

Untitled, 2010, Sycamore, wire,
15" × 6" (38 cm × 15 cm)

Collection of Robyn and John Horn

Ringed Series, 2004, Oak, wire,
13" × 7" (33 cm × 18 cm)

Collection of Robyn and John Horn

Ringed Series, 2004, Oak, wire,
15" × 7" (38 cm × 18 cm)

Ringed Series, 2009, Sycamore, wire, 13" × 7"
(33 cm × 18 cm)

Photo: Mark Nantz

Collection of Gary Quinlin

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

American Woodturner (ISSN 0895-9005)
is published bimonthly by:
American Association of Woodturners
222 Landmark Center
75 5th St W
St. Paul, MN 55102-7704
office: 651-484-9094
toll free: 877-595-9094
fax: 651-484-1724

email: inquiries@woodturner.org
website: woodturner.org
gallery website: galleryofwoodart.org

Executive Director Cindy Bowden

Program Director Linda Ferber

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Yearly membership in the American Association of Woodturners is $48 USA, $53 Canada, and $63 overseas and includes a subscription to *American Woodturner*. Electronic-journal AAW membership, $38

Send dues to:
American Association of Woodturners
222 Landmark Center
75 5th St W
St. Paul, MN 55102-7704 USA

Or join online at woodturner.org

Periodicals postage paid at St. Paul, MN, and additional mailing offices.

POSTMASTER: Send address changes to AAW, address listed *above*.

Publications Mail Agreement No. 40064408
Return undeliverable Canadian addresses to:
Express Messenger International
P.O. Box 25058, London BRC
Ontario, Canada N6C 6A8

Printed in the USA by
RR Donnelley, Long Prairie, MN

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Journal of the American Association of Woodturners

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GALLERY

ON THE COVER

Cover – Hayley Smith, *Rule of Thumb,* 2008, English sycamore, bleach, pigment, 1½" × 13¾" (4 cm × 35 cm)

Smithsonian American Art Museum, gift of Robyn and John Horn

Back Cover – Twenty-five images selected from the outstanding work of demonstrators and presenters at AAW's 25th annual symposium in Saint Paul. A key to the images can be found on the AAW website at woodturner.org.

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For tips on article submission and photography requirements, visit woodturner.org/products/aw.

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

A NOTE ABOUT SAFETY

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

Take appropriate precautions when you turn. Safety guidelines are published in the AAW *Resource Directory* and online at woodturner.org. Following them will help you continue to enjoy woodturning.

From the Editor

Copying can be a controversial topic among woodturners. Opinions range from "it's okay, there's no problem with copying pieces that appear in magazines and exhibits" to "no one should copy someone else's work. Ever." Years ago while teaching a class at Arrowmont School, I noticed a student tracing one of my sculptures into his sketchbook. I didn't think much about the incident. A year later, a friend told me that this student used his copied version of my sculpture to successfully jury into a guild. Was he wrong in copying?

Woodworkers and woodturners are conditioned to copy. Magazines offer project articles, complete with plans—we buy them, go to our shops, and make cabinets, candleholders, vases, and bookcases. Some of those creations take up residence in our homes. Or, we go into production mode and sell through craft fairs or galleries.

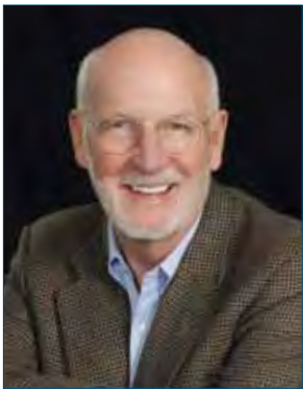
A lot can be learned from copying someone else's work: form, line, embellishments, and color combinations. As our creative vocabulary expands, we may begin to experiment with new ideas, eventually finding innovative expressions of our own.

For those who choose to make work based solely on imagination, life experience, and influences, a marvelous experience is to be had; the satisfaction is unparalleled. That state of creating and connecting is called *flow*.

At the top of my list for students is *No More Secondhand Art* by Peter London. I hope that student from years ago has discovered the creativity within himself, as well as the insight within the pages of this book.

—Betty Scarpino

President's Letter



The AAW 25th Anniversary Symposium promises to be the biggest and best AAW celebration ever. All living Honorary Lifetime Members have been invited to participate. David Ellsworth (a founding member of the AAW and our first president), Dale Nish (a founding member), Bonnie Klein, Ray Key, Nick Cook, Alan Lacer, and Al Stirt have all accepted the invitation. Many other outstanding woodturners will be in attendance such as Michael Hosaluk, John Jordan, Clay Foster, Hayley Smith, and Chris Stott.

Exhibitions will include "Roots" and a Retrospective on David Ellsworth.

Collectors of Wood Art (CWA) will meet in Saint Paul in conjunction with the AAW symposium. For information on their events, visit the AAW website.

Friday's Special Interest Night (SIN) sessions offer information for a wide range of interests. Session titles are: Ornamental Turners International, Principally Pens, Segmented Turners, Antique and Reproduction Lathes, Gizmos and Gadgets, Bowls: Utilitarian and Artistic, First Aid for Woodturners, Collectors of Wood Art, and Why the Heck Should My Chapter Be a Nonprofit?

The Saturday evening banquet will feature the Educational Opportunity Grant (EOG) auction. The Professional Outreach Program (POP) auction will be held on Sunday. Both auctions and the Instant Gallery offer excellent opportunities to acquire the world's very best wood-turned art.

If your spouse isn't a woodturner, she or he can visit the Spouse Craft Room and see demonstrations on jewelry making, cake decorating, quilting, kaleidoscope making, and a presentation on America's First Ladies. If you would like to demonstrate your craft, contact the AAW office.

If you love lathes and equipment, the tradeshow is for you! Every major manufacturer of lathes, tools, and accessories will be there to let you see, test, and purchase the latest offerings. Wood selection will be vast.

Consider submitting your own woodturnings to display in the Instant Gallery! When you visit the Instant Gallery, don't forget to vote for the best Chapter Collaborative Challenge, purchase a bowl from Return to the Community, or acquire a turning from the "25 for 25" exhibit.

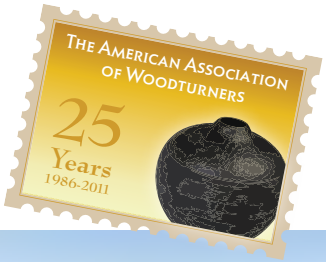
And stop by the AAW Corporate Office and take in the AAW Gallery of Wood Art in historic Landmark Center. Our gallery is beautiful!

Visit the AAW website at woodturner.org to register for the symposium, reserve your hotel room, and access the latest symposium information. While you are there, click on "25th Anniversary Symposium Video" to view an excellent video about the symposium.

With warm regards,

Tom

Join us in Saint Paul for AAW's 25th Anniversary International Symposium! June 24—26



You won't want to miss the fantastic celebration we have planned! We have a full lineup of woodturning demonstrations and panel discussions that is guaranteed to appeal to a wide range of interests. Visit the February journal and the AAW website for the list of feature demonstrators. This issue highlights selected demonstrators as well as additional family activities planned for the weekend.

The Minneapolis/Saint Paul Lindbergh Airport is ten miles from the RiverCentre Convention Center and hotels. The AAW office and Gallery of Wood Art are located close to the convention center. We hope you will stop by for a visit.

For the latest information about the symposium, visit woodturner.org. Make your reservations now—see you in Saint Paul!

Accommodations

Hilton Garden Inn
411 Minnesota St.
Saint Paul, MN 55101
651-291-8800
877-782-9444 (toll free)
(0.2 miles from city center)

Holiday Inn
11 E Kellogg Boulevard
Saint Paul, MN 55101
651-225-1515
800-465-4329 (toll free)
Rate: $134/night
(.95 miles from city center)

Be sure to mention American Association of Woodturners to get the discounted room rate.

FEATURED Demonstrators

Dixie Biggs
Nick Cook
David Ellsworth
Clay Foster
Dick Gerard
Mike Hosaluk
Todd Hoyer
John Jordan
Jerry Kermode
Ray Key
Bonnie Klein
Alan Lacer
Dale Nish
Hayley Smith
Al Stirt
Chris Stott
Malcolm Tibbetts

See the February issue for rotation descriptions and titles.

AAW 25th Anniversary International Symposium in Saint Paul

Selected Demonstrators

Alan Carter, Illinois

▸ **Turn It Thin**

Join this demonstration and see how to turn long, thin stems for goblets and vessels while focusing on developing tool control and achieving precision when working with small fragile turnings, regardless of their shape. Learn how to prepare and secure the blank to maintain its structural integrity without sacrificing the delicacy of the finished product.

▸ **There Be Goblets Amongst Us**

This session follows up on "Turn It Thin" as small delicate goblets and vessels that sit atop stems are turned. See how thin walls can be achieved and how to add variety to the shapes and woods. Various embellishments and design elements used to enhance the uniqueness of the finished pieces will be discussed.

Alan Carter

Enhance your Creativity

Jérôme Blanc

Jérôme Blanc, Switzerland

▸ **Turning and Acrylic Inlay**

Learn about several methods of inlaying acrylic in wood and the marriage of wood and acrylic, assembly, drying, and gluing. See how acrylic can be textured using an Arbortech grinder and a wire brush. Images of the technical and artistic approaches will enhance the demonstration.

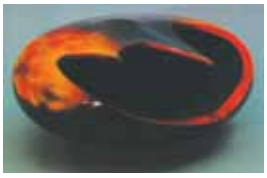
▸ **Sculpture on the Lathe**

Using the reverse rotation of the lathe, see how the lathe can be used as a sculpting tool. Learn how to texture with an Arbortech grinder and drill as well as use dye to achieve various effects. Images will illustrate technical and artistic approaches.

Giles Gilson, New York

▸ **Painting and Finishing**

Discover how to paint your turned objects with professional flair! Find out the many painting and finishing techniques learned from a lifetime of working with automobiles, airplanes, and wood sculpture.



Giles Gilson

Andrew Glazebrook, Alberta

▸ **Colorful Ice Cream Cones (Youth Class)**

The concept of this fun project is intended for emerging woodturners and lends itself to learning between-center turning. This project will use all of the cuts needed to develop basic skills on the lathe, while keeping with the theme of fun.

▸ **Youth Class**

Watch a variety of projects being finished at a quick pace. Entertaining for all ages!

Andrew Glazebrook

Panel Discussions Open to all attendees

The Artist and the Collector, Arthur Mason, David Ellsworth, Jane Mason, David Waterbury, Ron Kent, Jeff Bernstein

25 Years of Bad Wood Art, Co-sponsored by the Collectors of Wood Art, Betty Scarpino, Louise Sacco, John Kelsey, Terry Martin

Artists, Collectors, and the Stories Behind the Relationships, Kevin Wallace, Giles Gilson, Jacques Vesery, J Paul Fennell, Jeff Bernstein, Dave Long

Demystifying "DESIGN," The Role of Observation in Design Inspiration, Keith Tompkins, Andi Wolfe, Robert Sutter, Dick Gerard

Future of the Field, David Ellsworth, John Jordan, Albert LeCoff, Dick Gerard

Legacy and Continuum in Woodturning, Giles Gilson, Kevin Wallace, Mark Lindquist, David Ellsworth

Preservation of Woodturnings, Laura Kubick and Hugh Shockey, Lunder Conservation Center, Smithsonian American Art Museum

Self-Critique, David Nittmann, Cindy Drozda, Curt Theobald

Social Networking, Andi Wolfe, Mike Mahoney, Katherine Kowalski

The Craft Fair, Deborah Kermode, Jerry Kermode

The Unknown Woodturner: Furniture and Architectural Turning, Jerry Kermode, Mark Supik, James Santhon

Turning to the Future, Albert LeCoff, Claude Lethiecq, Jacques Vesery, Jennifer Komar Olivarez, John Kelsey, Ray Leier

Woodturning: From Convention to Art, J Paul Fennell, Binh Pho, Mike Mahoney, Bill Luce

Stephen Hatcher, Washington

Stephen Hatcher

▸ **Inlaid Rims**

Create accents to platters and bowls with inlaid rims. Several methods, including the use of mineral crystals, mother-of-pearl, glass, and metal wire, will be discussed. The entire process from start to finish will be demonstrated.

▸ **Inlaid Imagery**

Create accents to platters and boxes with inlaid imagery. The design possibilities are limitless when using inlaid mineral crystals. Learn the materials used, the carving technique, and requisite tools as the entire process is demonstrated.

▸ **Turn a Teapot**

Create a hollow-form teapot from the inside out. This technique involves turning mirrored halves that are glued together and turned like a sphere, which is then given a final shape using abrasives. Learn how to go from the initial design to final shaping.

Tim Heil, Minnesota

▸ **Handles, Handles, Handles**

Doesn't everything need a handle? Learn about handles for screwdrivers, bench chisels, jump ropes, fishing rods, bicycle grips, paintbrushes, doorknobs, pogo sticks, giant spinning tops, potato mashers, toilet plungers, and woodturning tools. After turning a golf tee to warm up, see how to turn a handle for a bowl gouge. Design, wood selection, drilling, ferrules, gluing, and finishing will be discussed.

Tim Heil

Fun Activities for Your Family Tours • Craft Room

Sign up for one of the three fascinating packaged tours of the Saint Paul/Minneapolis area at woodturner.org.

- Saint Paul Tour
- Stillwater Tour
- Best of Minneapolis

The craft room expanded at the Hartford symposium last year and was a roaring success. This year's activities will be equally interesting! Bring your craft items to work on and share. Questions? Contact rctendick@hotmail.com.

Looking for family entertainment while in Saint Paul? The King Tut exhibit will be at the Science Museum of Minnesota with special pricing for AAW members, tickets available on the AAW website. Or, take in a lively minor league baseball game. The Saint Paul Saints minor league team offers an all-access one-game fun package. Watch Johannes Michelsen as he throws out the first ball of the game! Further details and more activities for your family adventure are at woodturner.org.

Free Symposium Handbook

This comprehensive handbook features all of the demonstrators, shows images of their work, and contains valuable how-to information on topics covered in demonstrations. You will want to buy an extra copy to share with your woodturning friends back home.

Duane Hill, Wisconsin

▸ **Three Ways to Thread Wood**

Interested in adding threads to your work or simply want to make jigs/attachments for your lathe? Using taps, learn how to thread jigs and attachments for the headstock and live center. The demonstration will include how to use a threading jig, like the Baxter Threadmaster, and how to hand-chase threads on the lathe. This session incorporates using alternate materials, such as UHMW (ultra high molecular weight) plastic and MDF (medium density fiberboard). Traditional and nontraditional woods will be discussed.

Duane Hill

EOG Auction

After Saturday evening's banquet, join us for a fast-paced, spirited auction of high-quality turned objects. Proceeds from the auction benefit the AAW Educational Opportunity Grant (EOG) program. We award grants from this program to AAW chapters, AAW members, and woodturning programs, national and international.

Master the Process

Rex Burningham

Rex Burningham, Utah

▸ **One-of-a-Kind Twist Pens**

See how to make one-of-a-kind pens from basic twist-pen kits. Three different designs result from basic, inexpensive parts. Learn how to make jigs and fixtures and discover tips and tricks to create unique designs.

AAW 25th Anniversary International Symposium in Saint Paul

Explore new Methods

John Calver

John Calver, Ontario

▸ **Eccentric Chuck for Rose Engine**

See how a shopmade, indexable eccentric chuck on a rose engine can be used. The effect of off-center turning on a rose engine can be as appealing as off-center and eccentric turning on a wood lathe. Applications for this process will be discussed.

Jim Jacobs, Minnesota

▸ **Jigs, Gadgets, & Tips**

Discover the various jigs and gadgets this demonstrator has made to fit his JET mini lathe: a rollerblade steady rest, disc sander, and indexing system. See how these jigs are easily made with a small investment of time and money, with great results. Several quick tips for all skill levels will be offered.

Jim Jacobs

Jon Magill, Washington

▸ **Demystifying the Rose Engine Lathe**

Tried your hand with the rose engine? View a variety of techniques used in ornamental turning (OT) (newbies may find some aspects of this session beyond their experience level). Everyone can move up the complex ladder of skills required to master rose engine turning and incorporate OT into their turning repertoire. Learn about cover settings and setups that will exemplify the range of possibilities and patterns using the lathe, as well as insights into using assorted OT chucks and cutting frames.

Jon Magill

James McClure, Florida

▸ **Strategies for Turning Teardrop, Calabash, and Other Challengingly Shaped Bowls**

Reduce your turning frustration by learning various strategies and techniques for turning all forms of bowls. To illustrate the use of a bowl gouge for creating perfect bowl forms, a calabash-inspired bowl will be turned.

▸ **Fundamentals of Bowl Turning**

Ever asked yourself when, why, and how each cut should be used in order to quickly and efficiently turn an open, flat-rimmed bowl? Learn how to use and quickly sharpen a bowl gouge, as well as how two different grinds are complementary. The result will be a cleanly cut surface, which will reduce sanding time.

James McClure

AAW 25th Anniversary Book Signing Friday Night

Pre-order your copy now and pick it up at the symposium.

Friday Special Interest Night

Join us Friday evening to attend one of a variety of special interest sessions to discuss ideas and make new friends. Additional topics may be added. If you have an idea for a Special Interest Night session, contact Dale Larson at woodbowl@frontier.com.

Why the Heck Should My Chapter Be a Nonprofit? Cindy Bowden, AAW Executive Director and Karl Warden, Attorney

Antique and Reproduction Lathes, Dick Enstad

Gizmos and Gadgets, Rob Wallace

Bowls: Utilitarian and Artistic, Greg Haugen

Ornamental Turners International, Steve White, President, Ornamental Turners

Principally Pens, Kurt Hertzog, President, Principally Pens

Segmented Woodturners, Malcolm Tibbetts, President, Segmented Turners

First Aid for Woodturners, Stan Wellborn, Board Member and Patrick Sullivan, MD

Collectors of Wood Art, Joe Seltzer, President CWA

Collectors of Wood Art

The Collectors of Wood Art Forum will be held in conjunction with the AAW symposium. For information about CWA and their schedule of events, visit collectorsofwoodart.org or email Sheryl Wallace at admin1.cwa@gmail.com. The CWA will host panel discussions and tours of exhibits and local collectors' homes.

Ken Nelsen, Nevada

▸ **Custom Pen Making: Acoustic Guitar**

Learn how laser cutting can be used to create the pieces necessary for making an acoustic-guitar rollerball pen. Discussion and demonstration will include assembly of wood, silver wire, aluminum shim, and metallic thread, methods for successful turning, and finishing. Tips, tricks, and jigs!

Ken Nelsen

Ron Odegaard, Wisconsin

▸ **Furniture/Antique Spindle Repairs and Reproducing Architectural Spindles**

Learn how to repair a broken chair spindle so it is as strong as or stronger than the original, using the lathe and accessories most turners already have. Participants will discover how to make repairs for friends, neighbors, relatives, and profit. The second half of the demonstration covers how to get organized when reproducing multiple spindles for architectural restoration. Time permitting, an architectural spindle will be turned.

Ron Odegaard

Woodturning Tradeshow

Most of the major lathe manufacturers and specialty suppliers will be set up and ready to offer the latest in woodturning supplies and equipment. You won't see a larger woodturning tradeshow anywhere! Ongoing demonstrations let you personally observe tools and machinery in action, so plan plenty of time to see it all.

- Airbrush-on-Wood
- Alan Lacer
- American Craft Council
- Bad Dogs Burl Source
- Canyon Studios, Inc.
- Carter Products Co.
- Century Tree Turnings
- Choice Woods
- Classic Wooden Watches
- CPH International, Starbond
- Craft Supplies USA
- Curt Theobald Segmented Wood
- Doren's Artistic Woodturning
- Dunlap Woodcrafts (Woodfinder)
- D-Way Tools Inc.
- Exotic Woods USA
- GRS Tools
- HannesTool
- House of Wood, Inc.
- JET/Powermatic
- John Jordan Woodturning
- JT Turning Tools, LLC
- Kallenshaan Woods
- Lindow-White Machine Works
- Lyle Jamieson
- One Good Turn/ Hosaluk Tools
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- Stubby Lathe USA, Inc.
- The Crafts Report
- The Sanding Glove
- Thompson Lathe Tools
- Trent Bosch Woodturning Workshops
- Turningwood.com
- Up North Burls
- Vince's WoodNWonders
- Binh Pho Piercing and Airbrush
- Woodline USA
- Woodworker West

Win a Powermatic Lathe! Custom-Painted by Binh Pho!

Walter Meier Inc. Powermatic/JET donated the lathe. Binh Pho painted it. The Chicago Woodturners chapter will transport the lathe to Saint Paul. *You* could be the lucky winner! Raffle tickets are $10 and will be available through your local chapter, as well as at the symposium. Proceeds support activities of the American Association of Woodturners.

Allen Jensen, Colorado

▸ **Turning Bowls**

Watch as locally harvested urban timbers are turned into beautiful salad bowls. Using wood the right way ensures that bowls can dry correctly and withstand daily use. Topics to be discussed: selecting and harvesting, rough turning, drying, remounting, re-turning, sanding, reverse-chucking, and food-safe finishing. This fast-paced, in-depth session is for anyone interested in turning bowls.

▸ **Hollow Vessels**

Hollow vessels provide unlimited options for shape and surface embellishment. The possibilities begin with the wood, to which color and texture can be added. While focusing on the outside form of a hollow vessel, learn how a bowl gouge can be used to obtain a smooth surface. Watch as the vessel is hollowed with a variety of tools. Additional topics to be discussed: sanding, mounting the vessel to remove the chucking point, and finishing.

Transform Raw Materials

Allen Jensen

AAW 25th Anniversary International Symposium in Saint Paul

Experiment with Technique

Claude Lethiecq, Quebec

▸ **Tour de Force Turning—Complicated Chinese Balls**

Discover the secrets of making advanced Chinese balls, such as a ball with a 12-point star inside and through a 20-point star, detached. Learn how a 12-point star can be created inside two concentric spheres. Find out how it is possible to make a 12-point star inside three concentric spheres, all of which are inside a sphere with an opening of only 80°!

Photo: Andi Wolfe

Claude Lethiecq

Bill Ooms, Arizona

▸ **Patterns and Recipes for Rose Engine**

How are all those pretty patterns made by a rose engine lathe? Learn how simple rosettes can be used to make stunning patterns on turned wood objects. In addition to having a recipe book of patterns, the attendees will gain an understanding of how to make their own creative patterns.

Bill Ooms

Pascal Oudet, France

▸ **French Dentelles**

Watch as green wood is transformed into transparent pieces. The methods to be presented can be applied to any thin turning. The basics of sandblasting techniques and equipment will be discussed.

Pascal Oudet

▸ **Spiky Creatures**

Using a root with its original branches, see how you can create reserved areas during the turning to carve them later to create additional interesting features that cannot be done on the lathe. In this case it will be applied to a creature with many legs and spikes, but you can imagine many other uses: pictures of other possibilities will be shown. There will be a detailed discussion of choice of wood; orientation of it on the lathe to take advantage of its features; turning an appropriate shape; and carving with power tools.

▸ **AFTAB Traveling Exhibition**

Every two years, the French Association for Artistic Woodturning (AFTAB) organizes a traveling juried exhibition. In this slideshow, see the latest edition (2010–2011) of about 50 pieces representative of the current French (and more) turning scene.

Joshua Salesin, California

▸ **Tips, Tricks, and Traps from a Decade of Turning Boxes**

This slideshow illustrates my approach to the ornamental turned box. It includes strategies for the languid woodturner as well as insights for the ardent collector. The illustrations demonstrate how tools, technique, and artistry have an impact on results.

Joshua Salesin

Jim Sannerud, Minnesota

▸ ***Krympburk* (Scandinavian Shrink Box)**

By combining traditional *slöyd* (Swedish hand-craft) techniques with the modern lathe you can create a Viking-era styled, watertight vessel called a *krympburk* from a combination of green and dry wood. Learn the entire process including endgrain-hollowing techniques using hand-forged hook tools. Learn how to lay out traditional and contemporary patterns to carve on an oval form and hand-carve those patterns using traditional knife cuts. Finishing touches using traditional egg tempera will be discussed.

Jim Sannerud

Merryll Saylan, California

▸ **Different Tools, Different Textures**

There is a wide assortment of implements for carving—from power tools to hand chisels. Learn about the various tools and the marks they make. Topics to be covered: How do you decide what texture to use or where to use it? What is appropriate for your piece? What are the pros, cons, and aesthetics of using an Arbortech, Foredom, Dremel, and die grinders?

▸ **From Dyes to Paints**

Learn various low-tech methods for applying dyes and paints to stain and color wood and how texture plays an important role in color. Topics to be covered: transparency versus opaque coloring; how to navigate the array of materials available; the benefits and disadvantages of using various materials. See how to change a color with the use of glazes.

Merryll Saylan

David Schweitzer

David Schweitzer, Washington

Introduction to Off-Center Turning

Using a 4-jaw chuck and a screw chuck, see two off-center turned projects be created: a crescent-moon platter and an offset beaded platter. Design, setup, and tool usage will be presented.

Hollow Forms and Finials

See how different tools and techniques can be used in making a hollow vessel with a complementary elegant finial. The project uses commonly available tools. Grain orientation and how that affects design will be covered.

Hollow Forms and Fluting

Hollow-form fluting made easy! Topics to be covered: design issues and layout, tools, and carving techniques to turn and embellish a hollow vessel with elegant fluting.

Craig Timmerman, Texas

Turning a Torus Vase

In geometry, a torus is a surface of revolution generated by revolving a circle in three-dimensional space about an axis coplanar with the circle, which does not touch the circle. Okay, a simple definition: a torus is a doughnut or inner-tube shape. This fun project covers how to turn a torus-shaped vase/weed pot with glass tube insert. The vase will be turned on multiple axes, using multiple-chucking techniques.

Craig Timmerman

Turning a Multi-Axis Vase

Learn how to turn a vase with a neck that is off-center using multi-axis turning (also known as *spout-off* vases). All the steps in the process will be covered.

Rob Wallace, Iowa

An Introduction to Wood Identification

Rob Wallace

Many turners recognize various species of woods based on past experience, but what if you have never seen the wood before? This demonstration will present the basics to begin identifying wood through the use of identification keys. The characteristics of the wood's cells and their structural arrangement will be discussed. Participants will see examples of what structures to look for, how to begin identification, and how to use available information to successfully identify wood. We will use samples to view the characteristics to assign names to unknown species. Wood toxicity, chatoyance, and structural features relevant to wood drying will also be reviewed. Bring a 10× hand lens and see for yourself!

Steve Worcester, Texas

Hemisphere Hollow Forms

Learn how to mount the wood, make a template for the half-circle shape (no math needed), cut the shape, and easily refine the curve of hemisphere hollow forms. Different methods for hollowing will be demonstrated. Also covered will be removing shavings from the form and reverse turning.

Steve Worcester

A Treatise on Hollowing Tools

From handheld to captive D-bar systems and articulated hollowers, learn about the various methods of hollowing. See firsthand the limitations of effective and not-so-effective tools. Types of inserts for many of the popular brands of hollowing tools will be discussed, as well as what can be accomplished with them.

Woodturning Exhibits!

- **Instant Gallery** Not only is the AAW's Instant Gallery the largest display of turned-wood objects shown under one roof, the work is interesting and varied. Bring three of your best pieces to add to the excitement. While there, vote for your favorite chapter-challenge project and visit the special areas set aside for EOG auction items, award winners, emerging artists' demonstrations, return to community project, and other craft items.
- **"Turning 25—A Celebration"** This diverse exhibit will feature objects made by AAW's local chapters. Be sure to check out the fantastic talent highlighted by our local chapter members.
- **"Roots"** is the Professional Outreach Program's themed exhibit, which will include a catalog for sale at a nominal price. All the objects will be auctioned off to raise funds for POP activities, which support programming at AAW's symposiums among other things.
- **"David Ellsworth: 2011 POP Merit Award Winner"** David is the 2011 Professional Outreach Program's Merit Award recipient. This exhibit honors David's outstanding career.

Special/Interactive Exhibits

- **"Empty Bowls, a Grassroots Movement to Help End Hunger"** will be held in the Instant Gallery. Bring a bowl to donate. Buy a $25 ticket to purchase someone else's bowl. Together we raise money to donate to local food banks. This will be the biggest Return to the Community project to date; send your bowl to the AAW office or bring it with you in June.
- **"Doing a Good Turn: A $25 Souvenir for the 25th!"** is an opportunity to make and purchase a souvenir of AAW's celebration symposium. Make a piece (any turned item), sign it with your name and "AAW's 25th Anniversary," donate the item, then purchase a ticket to acquire someone else's prized object.

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

Youth Turning Room

Youth between the ages of 10 and 17 are eligible to register for free hands-on instruction. Youth must be accompanied by an adult who is registered for the symposium. Students will make a variety of projects.

On Sunday, twenty-five youths will win a complete turning package, including a lathe, tools, and faceshield!

Classes are taught by Andrew Glazebrook, Bonnie Klein, Joe Ruminski, and Avelino Samuel, along with twelve volunteer assistant instructors for each session.

To help make this program successful, donations include:

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

Photo: Ed Kelle

The Youth Turning Program: The AAW at Its Very Best

Peter J. Snyder

As a fairly new member of the AAW and a relative newcomer to woodturning, I seized the opportunity to attend the symposium in Hartford. The program was filled with fantastic demonstrators, and the Instant Gallery was mind-expanding. The highlight for me, however, was sharing the weekend with my son.

I sincerely appreciate the individuals who selflessly donated their time and expertise to the Youth Turning Program (YTP). Organized by Bonnie Klein and Larry Miller, and led by world-class instructors Nick Cook, Joe Ruminski, Barry Gross, Avelino Samuel, and Bonnie Klein, this program is a testament to the Association's commitment to developing the next generation of artisans, and to providing children with top-notch educational activities that will lead to years of creative discovery and shared interests with parents. As the father of a young child who is thrilled to work in the shop with me, the opportunity to share in this special program together was tremendous—it left huge smiles on our faces.

When I received an email from Larry Miller asking which YTP class Jacob would like to attend, I wrote back that he would enjoy Bonnie Klein's stick pen turning class if it were possible for him to attend. After confirmation that Jacob could participate, I told my eager son that he would be taking a class with one of the most prominent and influential woodturners in the United States. Jacob was thrilled!

When we arrived at the class, Bonnie introduced Jacob as most likely the youngest child to ever participate in the YTP. The entire class greeted Jacob warmly. As a professor and educator myself, I thought that Bonnie demonstrated superlative talent as a teacher, and this Association is truly fortunate to have someone like her donate the tremendous skill, time, and energy it takes to manage a class of 25 children with sharp gouges and 25 lathes spinning at high speeds. The class was safe with an assistant instructor for every two students, the atmosphere cooperative and fun, and the children demonstrated great enthusiasm and creativity.

Jacob practically skipped to the escalator as we left, holding my hand in one hand and his new stick pen in the other. He looked up at me, pulled on his AAW registration name tag and said, "Daddy, I want to join this club too...please sign me up for more classes next year!"

I look forward to many more years of woodturning with Jacob and his younger sister Molly Rose. Bonnie, my son's class with you is one that he will not soon forget. You provided him with excellent instruction and a sense of accomplishment. Thank you. My wife loves the compliments from colleagues on her stick pen and enjoys their reactions when she proudly tells them our child made it.

Before leaving, Jacob and I stocked up on bowl blanks and new tools, and after wandering through the Instant Gallery, we have some new big ideas to work on together! ■

Peter J. Snyder is a neurology professor at the Alpert Medical School of Brown University, and he is the Vice President for Research for Rhode Island Hospital and the Lifespan Hospital System (Providence, RI). Peter has been turning for the past five years.

Bonnie Klein and Jacob Snyder at Hartford symposium, 2010.

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? Help with planning for AAW's future—run for a position on the AAW Board!

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 2012.

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

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

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

The nominating committee will review application materials and schedule phone interviews in late May and early June. Candidates will be presented in the journal, ballots will be sent out in the fall, and election results will be announced in late 2011.

Website Winner

The January contest on the AAW forum was to create a suspended form that is at least ¾" (20 mm) above the sitting surface. There can be a base or legs (any number), but the primary form must be suspended. If a winged form is used, the primary form must be of a different material than the legs.

Congratulations to the winners!
First place, Alan Carter
Second place, Ray Muniak
Third place, Rick Crawford

Check out the AAW forum for the next contest at woodturner.org. Thank you to Neil Scobie for being the juror, and thanks to the many turners who entered! ■

Alan Carter,
Proud Mary, 2011,
Maple, bubinga, African blackwood, oak, brass,
29" × 11" × 3½"
(74 cm × 30 cm × 9 cm)

Local Chapter Gem

The AAW offers much to its members. Maggie Gorishek, a member of the Stateline Woodturners (serving northwest Arkansas and southwest Missouri) for three years, serves as club secretary. She is a member of the AAW and an avid woodturner and quilter. Her husband, Frank, is also a woodturner.

Over the last few years, Maggie attended many seminars and classes, receiving instruction from Mike Mahoney, Kirk DeHeer, Alan Lacer, and Andi Wolfe, among others. She and Frank have attended SWAT and the AAW Symposium. She enjoys hands-on woodturning and learning new techniques.

Maggie's positive enthusiasm is contagious; she is always right in the mix at Saturday meetings where club members gather at Mark Ost's shop for hands-on turning instruction. She is usually one of the first to try something new and the last person to leave at the end of the day.

Maggie is a huge asset to our organization! ■

—Paul Moore

Maggie Gorishek and Paul Moore with the quilt she made for a gift exchange at the Stateline Woodturners Club's Christmas party. The quilt depicts turnings found on the club's website, statelinewoodturners.com. Paul was the lucky recipient of the quilt.

Call for Entries
2012 Annual Juried Member Exhibit
"A Walk in the Woods"

In honor of California's many majestic forests, the theme for the 2012 member exhibit is "A Walk in the Woods." Do you see the forest or the trees? Explore this theme with creativity! All AAW members are eligible to enter this juried exhibit, which will premiere at the 2012 AAW Symposium in San José, California, before traveling to other venues.

Entries will be accepted online November 1, 2011, through February 3, 2012. The link for submissions will be provided in the October journal and will be announced on the AAW website in October.

Questions? Contact Tib Shaw at the AAW Gallery of Wood Art, tib@woodturner.org or call her at 651-484-9094.

Guidelines

1. The exhibit is open to any AAW member.
2. Entry fee is $30.
3. You may submit up to three pieces for consideration ($30 total entry fee).
4. Work must be created at least in part on the lathe.
5. Work must have been created in the past 24 months.
6. An artist statement describing how the piece fits the theme is required. Statements may be edited for length and clarity.
7. A 45% commission will be charged on sales made during any of the exhibition venues.
8. Work will stay with the exhibit through multiple venues.

9. When packed for shipment, the maximum box size (two × width, plus two × depth, plus the length) may not exceed 108" (270 cm).
10. No more than three digital images per submission are allowed: one or two images of an overall view, and one image showing significant detail of the piece. Uploaded images should be in jpg or tif format, high resolution (300dpi), no larger than 1,000KB in file size, and 7" (18 cm) on the largest dimension.

Prize Drawing for AAW Members

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

When you patronize our vendors, please thank them for their support of the AAW. Visit our website at woodturner.org/org/mbrship/drawings_winners.htm to see each month's prizes and winners.

At the end of 2011, we will draw another name from our membership roster to give away a Powermatic 3520B lathe. That winner will name a local chapter to win either a JET 1642 or five JET mini-lathes. The Powermatic and JET lathes are donated by Walter Meier Powermatic/JET. Included is free shipping in the continental USA, or up to a $500 allowance for international winners.

2011 Donors

(Others may be added during the year.)
Anderson Ranch Arts Center andersonranch.org
Arrowmont School of Arts and Crafts arrowmont.org
Trent Bosch trentbosch.com
John C. Campbell Folk School folkschool.org
Choice Woods choice-woods.com
Craft Supplies woodturnerscatalog.com
David Ellsworth ellsworthstudios.com
Hunter Tool Systems hunterwoodturningtool.com
Mike Mahoney bowlmakerinc.com
Oneway Manufacturing oneway.ca
The Sanding Glove thesandingglove.com
Thompson Lathe Tools thompsonlathetools.com
Walter Meier Powermatic/JET powermatic.com and jettools.com

Congratulations 2010 Grand Prize Winner!

Cliff Mann from Arizona won the Powermatic 3520B lathe! He designated the Southern Arizona Woodturners Association to be the recipients of the JET lathes. A huge thank-you to Walter Meier Powermatic/JET for donating the lathes!

A Good Turn in Tulsa

For more than twenty years, the Northeastern Oklahoma Woodturners Association (NEOWA), located in Tulsa, met in ten different locations. Lack of funds prevented the club from purchasing or leasing a permanent location of adequate size to conduct meetings, have demonstrations, teach classes, and store equipment. At times, we transported equipment from storage to a donated classroom and back again.

With the leadership of our tireless president, Almeta Robertson, along with the dedicated efforts of the governing board, many committed members, and the incredible generosity of a new and recently retired member, the club now is the proud owner of a 4,300 square–foot building in an excellent location in Tulsa.

In June 2010, the city of Tulsa notified us that our one-year contract for the use of one of their buildings would not be renewed; we had thirty days to find new quarters. Our new member/benefactor told us we could use his vacant warehouse and just pay the insurance, taxes, and utilities. One-fourth of the building had been used for offices. It has two bathrooms and a heating and cooling unit. With $600 of club money and hundreds of hours of volunteer labor, we had our tenth and permanent home.

In July, the club appointed a building committee to determine the cost of building out a large classroom and converting one-fourth of the remaining space into a studio with nine permanent lathe stations. The cost estimate was $25,000, provided club members furnished the labor.

In August, our benefactor challenged the membership: If we wanted to develop an exemplary organization, reach our true potential, and contribute $25,000 for the build-out, he would donate to the club the building and land, which was appraised at $210,000.

Also in August, a widow, whose late husband left her with a workshop full of equipment and supplies, told a club member that if we would clean out and sell all the contents of the shop, we could keep 20 percent of what we collected. Club members moved all the equipment and supplies to the warehouse and conducted a sale. With $4,000 from our share of the sale and $25,000 in contributions from the membership, we surpassed our goal.

Our club received the deed to the property on November 29. The next great challenge is raising sufficient additional funds from other sources to modernize the balance of the warehouse.

When he presented the club with the title, our benefactor, who started turning after his retirement at age 78, said, "The excitement and enjoyment I have found in learning to turn and in helping the club grow has added years to my life and will continue to provide pleasure in the years to come." ■

—Ken Hager

Photos: Bob Hawks

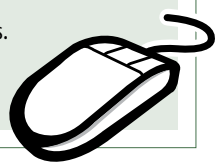
John Scott teaches beginning turner Rex Taylor how to make a cut.

Almeta Robertson instructs Coleman Ross, a Boy Scout, how to turn. In the background are Charles Madison, Ken Hager, instructors, and Ben Daffern and Marshall Newman, Boy Scouts.

Is Your Email Address Current?

AAW membership includes the benefit of accessibility of all back issues of *American Woodturner* online in the Members Only area of the AAW website (woodturner.org/member/MemberLogOn.asp). Access to this material is dependent on your email address being current in your membership record. If you are unable to log in, send an email request to inquiries@woodturner.org to update your email.

The AAW also periodically sends out notices to members via their email address. Please ensure that our records have your latest email address. Send us an email at inquiries@woodturner.org, and we will update our records. Thank you!



Tips

Waste blocks

Instead of cutting waste blocks using the bandsaw or with a hole saw, I glue scrap boards together in layers to form lengths 3" thick by 20" long (8 cm by 50 cm). I turn the lamination to a cylinder of a diameter that will fit my chuck. I cut thicknesses as needed, using the bandsaw with the cylinder safely held in a V block.

I generally use a section that is 2" (50 mm) thick so that the project is kept away from the chuck, but you may wish to have the bottom of the turning blank rest on the shoulder of the chuck jaws for additional support.

Because I am gluing endgrain, I use five-minute epoxy to glue the waste block to the turning stock. It is a nice way to make use of bland or damaged wood.

— Thomas J Daluisio, Virginia

Thread lock

There are several grades of thread lock, each one fairly expensive. I have used fingernail polish with good results. Inexpensive bottles are available at discount stores. I use the polish on adjustment bolts to keep them from vibrating loose. It provides just the right amount of stick and the bolt can still be adjusted. It's great for screws as well.

— John Kaner, Arkansas

Got a Great Idea?

Share your turning ideas! If we publish your tip, we'll pay you $35. Send your tips along with relevant photos or illustrations and your name and mailing address to:

Betty Scarpino
American Woodturner
5246 Evanston Ave.
Indianapolis, IN 46220
editorscarpino@gmail.com

Shark jaws

A fellow woodturner from Russia retired after forty years as a musician. He was looking for a way to express himself, and after a course from Eli Avisera, he realized the endless possibilities of self-expression that turning offered. It has been ten years and he has made amazing progress. Along the way he has come up with many new ideas on how to get things done.

One idea that stands out is his use of shark jaws. This device is able to hold wood in its jaws as well as at the tail end. The heart of the shark jaws is a 5000 kg (11,000 lb) hydraulic jack. The jaws are sharp and have a wide capacity. You can also utilize a hydraulic jack with a chain in order to hold wood down on the other side. For more information on the shark jaws, visit Valery Zhukov's website valeryzhukov.com.

— Ron Zalk, Israel

Raise one leg and place dollies under feet.

Raise the other end.

Moving a "mustard monster"

I do not have a reason to move my Powermatic 3520 lathe on a regular basis, but I am sure the time will come. Rather than wait until I need to move my "mustard monster," I devised a solution.

Purchase a small automotive hydraulic jack, the type with wheels, and two 6" (150 mm) steel tri-dollies with 1¼" (32 mm) plastic wheels. (The smallest jack I found has a much larger capacity than needed, but you may be able to find a smaller jack.)

Center the jack under one of the lathe's legs and raise the leg just high enough to place one tri-dolly under each footpad. Slowly lower the jack, ensuring that the feet are centered in the tri-dollies.

Move to the other end of the lathe and again center the jack under the lathe's leg. Raise the jack just high enough to lift both footpads off the floor. The lathe can now be moved.

— Bob Gerenser, CA

Larger knob

The wing nut used to tighten the leg on my Wolverine Vari-grind sharpening jig is difficult to loosen and tighten. The wing nut is a standard ¼" × 20 (6 mm) thread so it can easily be replaced with a larger knob that makes it more user-friendly. You can even make your own knob with a leftover spindle scrap and a ¼" (6 mm) T-nut.
— *Mike Peace, GA*

Wooden running pads

I sometimes need to use my live center to support a turning attached to the drive center without the metal pin of the live center poking into the wood. I custom-make wooden pads that slip over the live center.

True up a small cylinder of wood and hollow out a recess deep enough for the live center to slip into cleanly. There should be very little or no play in the fit.

Cut the desired working profile and part that section free. The profiles are typically a cone—some shallow, some steep—but any profile can be made, even a long dowel shape.

I keep these running pads stored close to my lathe so that they are super quick to slip on and off as needed.
— *Thomas Trager*

Mineral sifter

If you are like me and would rather crush your own minerals to add to your turning, but find it awkward to hold several sifters with different mesh sizes to separate the material, here is a solution.

First, remove the metal screens from the sifter handles that you have and flatten the screens. The size of each screen will give you the measurements to create a frame.

For my boxes, each has equal sides of 1½" × ¾" × 4" (40 × 20 × 100 mm) made from trim wood I had lying in the scrap bin. I used a nail gun and a square to put together each box. Make sure that the box is square since the boxes will be stacked on top of each other.

Stretch the screen mesh over the box, ensuring the screen makes it to all edges. To hold the screen down I used some narrow strips of trim that I held in place with help from a staple gun. Make sure you hold the trim tightly in place before shooting the staples. I made a box for each mesh size screen. (For future use, you may want to make a few additional boxes to the correct size if you acquire new screen.)

Next, place a thin 2" × 3" (50 × 75 mm) plastic strip on the bottom of each side of the upper boxes. These strips will keep the box aligned with the box below. The plastic strip should hang down at least a ½" (6 mm) below the box on all sides. Attach the plastic strip with medium-thickness CA glue. I used plastic from an old faceshield. It is easy to cut the plastic with shop scissors.

For the bottom box, I cut a larger piece of plastic and glued that to the sides of the bottom box.

To use, pour ground-up minerals into the top box, which should have the coarse mesh screen. Subsequent boxes will have less coarse mesh. Gently shake the tower back and forth and gravity takes care of the rest.

I use an inexpensive ketchup bottle from the discount store to dispense the minerals to my project. It has a great shape to direct the minerals to the project—just don't squeeze the bottle.
— *Chester Gelnet, TX*

White board for designing

One of the best, but least expensive, additions I have made to my shop is a simple dry-erase board with magnetic markers that stay on the board so a marker is always handy. Many times as I am working on a project, I will have a flash of an idea and my sketchbook is in the house. By the time I trek into the house, the idea is gone! With my dry-erase board hanging on my shop wall, I can quickly sketch enough of the form to preserve the idea and then get back to the project at hand.

When I take a break, I often sit gazing at the crude ideas on the board and develop them from there--the dry erase makes it simple to make changes and the board is large enough to give a full perspective. It can really help in revving up spontaneous creativity. ▸
— *Carole Valentine, VA*

Workstation

My shop was chaotic. I had tools and materials stored in every direction: turn to the left for a chuck, turn to the right for another chuck, turn around for a gouge, where's the wax? Every surface in every direction held something I used daily. I was also short of floor space. To remedy the situation, I devised a workstation, which has worked well. It began as an experiment and has sufficed for three years.

I used lightweight materials such as 1" by 4" pine (1 cm by 10 cm), ¼" (6 mm) plywood, and plastic sheeting. First, I built two shelves, which I attached permanently as the top and bottom. These shelves provide rigidity for the unit. A third shelf can be unscrewed and positioned higher or lower, as needed.

For mobility, I attached wheels onto the bottom shelf. Several smaller shelves are freestanding and easily moveable. Some are as deep as the main unit and some are not, depending upon their purpose.

My shelves are about 30" (75 cm) wide; I selected that size to get as many pieces as possible from an 8-foot (240 cm) piece of plywood. The highest shelf is around 5' 6" (170 cm), about eye level. I connected the shelves by running 1" by 4" pine (1 cm by 10 cm) on the outside. I used ¾" (19 mm) screws to attach the plywood and 1¼" (32 mm) screws to join the side supports to the shelves.

To keep shavings from accumulating in the unit, I bought used louvered doors from Habitat for Humanity ($3). I hinged them onto one side of the unit, then removed the louvers from the top portions and replaced the louvers with plastic. That reduced weight, allowed light to flow into the shelves, and kept shavings away. On the side, I made a wooden cleat to hang a broom from. There is plenty of room on the sides to hang other things. The unit works well and takes up about 20 percent of the floor space previously occupied.

— Richard Preston, South Carolina

Workstation, door closed

Workstation, door open

Workstation, side view, front door closed

Black stains

Some types of wood acquire black stains from contact with metal faceplates or chucks. I use a layer of sandwich bag or waxed paper to keep the wood from direct contact with the metal. Usually, the stain does not appear.

— Richard Preston, South Carolina

Safely mount natural-edge bowls

Use a Forstner or spade drill bit that is the same diameter as your spur-drive center to drill a hole about ½" to ¾" (13 to 19 mm) deep in the center of what will be the top or inside of your bowl blank. When you mount the wood, the spur center will act like an extra hand to hold the piece so you can use two hands to bring up and center the wood onto the tailstock. Additional benefits include creating a flat surface when turning a natural edge blank, removing punky bark or sap wood to get to the more solid wood below, and the wood can't fly off the lathe even if it is unbalanced.

— Steve Schwartz, Virginia

Lathe height adjustment

When I am doing spindle work or making small items such as pens or miniatures, I am most comfortable with my lathe at a certain height. When I am turning bowls or vases, I like the lathe to be lower. It would be too much effort to raise or lower my lathe every time, so I adjust my body height using puzzle mats.

To begin, I adjust the height of my lathe so that the center point is at the highest I want while standing on one layer of puzzle mats. When I want the lathe to be lower, I add layers of puzzle mats, which positions my body higher relative to the height of the lathe.

I use four mats in an L shape so that I will be standing on mats when I am on the side or end of the lathe. For me, three layers are sufficient for adjusting the height. Six mats are about $20, not too much of an investment to always be comfortable at your lathe, being kind to your back and feet.

— Dan Burleson, Missouri

Hands-free spindle lock

The JET 1642 EVS does not have a hands-free spindle lock. I have to manually hold in the button. Here is my remedy for that situation.

Remove the U channel that surrounds the spindle lock button from the lathe by removing the two hex bolts. Drill a 9/32" (7 mm) hole through the two wings of the U channel (*Photo 1*). Make sure the two holes line up low enough so that a ¼" × 1¾" (6 mm × 45 mm) cotterless hitch pin will hold in the spindle lock button. Reinstall the U Channel.

To lock the spindle, hold in the button and insert the cotterless hitch pin (*Photo 2*). To unlock, slide the hitch pin off the button before putting the lathe in motion. You now have that extra third hand to help you when you need it.

— Don Doyle, Florida


1


2

Prevent CA stains

We have all experienced the frustration of stopping a small crack or check in our woodturnings with thin CA glue and then found a stain in the wood left by the CA glue that is nearly impossible to remove. The stain prevents any dyes or oil finishes from being absorbed correctly into the wood. If a coat of dilute wax-free shellac is applied first, the CA stain can be prevented without reducing the CA glue adhesion.

Shellac is the universal finishing sealant. Everything sticks to shellac and shellac sticks to everything. It is non-toxic and readily available. Diluted in denatured alcohol, it makes a very useful CA glue sealant and sanding sealer.

Buy a small can of wax-free shellac such as Zinsser's or a bag of super-blond shellac flakes at a woodworking store (there are many on-line sources but I use ShellacShack.com). The shellac must be de-waxed or wax-free. A normal mixture is called a "one-pound cut." This is one pound of shellac flakes in one gallon of denatured alcohol; however, do not mix more than a small amount.

For sealing the wood, about a 1/10-pound cut is plenty, however the ratio is not critical. The dilute shellac should be about the color of tea and feel sticky as it dries, but it should not leave a residue.

I apply the dilute shellac mixture with a chemical-resistant spray bottle (USPlastic.com SKU 66444). When sprayed on wood, it dries in a few minutes (in seconds if dried with compressed air) and leaves a very slight gloss. Spray the wood thoroughly around the crack or check, let dry, then apply the CA glue. When you finish turning and/or sanding there will be no stain and the wood will finish blemish free.

I have used shellac with many but not all woods. Test it first on the woods you use. If the shellac is not sealing the wood enough, add a little more shellac to the mixture. If the shellac seems to gum up your sandpaper, dilute it a little more. Once you have the right concentration for your work, you will have enough for a year. After about one year the dilute shellac degrades and should be replaced with a fresh batch. If you use the normal one-pound cut as a finish, replace it every six months.

I also apply a coat of dilute shellac to my woodturnings before I draw on them with pencil (when designing an embellishment). With a coat of shellac on the wood it is easier to erase graphite marks without smudging. Once the design is completed on the wood, apply a second coat to fix the drawing onto the wood. Now, the drawing will not smudge as you work on the piece. ■

— Stephen Hatcher, stephenhatcher.com

Easy 3520 spindle lock

Another AAW member had the same idea as Don for a spindle lock for his Powermatic; however, he uses a scratch awl to hold in the button. This modification has been in place for five years.

— Wes Jones, Georgia

A simpler hands-free spindle lock

I discovered a simple way to lock the spindle on a PM 3520. All that is required is a 1" (25 mm) diameter rare earth magnet. Place the magnet on the lock button. The circumference of the magnet is larger than that of the button. When the button is pushed in, the edges of the magnet stick to the housing of the lathe and hold the button in place. When not in use, the magnet can be removed and stuck close by anywhere on the lathe. The outer coating of the large magnets tends to chip off over time, so I covered the surface with duct tape.

— Robert Silberman, New York

Chainsaw Safety

Our snowy winter weather broke for a few days around the beginning of the year, and we took advantage of it by felling a large oak tree in our backyard that had died suddenly two summers ago. In my haste to clean up the mess before snow fell again, I was working in very cold temperatures, with a stiff wind blowing. The wind caused my eyes to tear, and some of the tears fell into my glasses, compromising my vision.

As the cut began on the small branch, the tip moved toward and caught the end grain of the large piece, flipping the saw instantly toward my head.

As I worked my way up a branch that was lying on the ground, cutting it into firewood, I failed to see a previously cut length near the tip of the saw. My first inkling that something was wrong was that my helmet, faceshield, and hearing protectors had been knocked violently from my head. Only then did I realize that I had just experienced my first chainsaw kickback, after a few decades of tree felling, and having worn out two previous saws. My Stihl protective gear saved me from what would have been an extremely nasty meeting of the saw and my forehead, quite likely including my right eye.

What surprised me most was how quickly this happened. I had always thought I was prepared to arrest a kickback and that the chain brake and my own reflexes would keep me safe. Not so, as the damage to the helmet suggested that the chain had not completely stopped by the time of contact, although the brake had operated correctly. Even if the chain had been completely stopped, I am certain I would have been the subject of a 911 call.

The impact tore loose three of the four fasteners holding the faceshield to the helmet; they were nowhere to be found. Fortunately, our local hardware store had the necessary replacement parts and I was able to reassemble the safety gear, albeit with a couple of nicks to help me remember the importance of using the proper safety equipment. ■

—Steve Sinner

Online Journal for Visually Impaired

For the exclusive use of AAW members who are visually impaired, there is now special access to PDF versions of journal articles, which will enable those with special software to "hear" the journal and not need a sighted person to read it to them. Contact AAW webmaster for special instructions.

Russ Fairfield

In January, the woodworking and woodturning world lost a major contributor. Russ Fairfield was a well-known writer on Internet forums such as Badger Pond and WoodCentral. He was also an active contributor at many woodturning gatherings, freely sharing his many years of experience.

Russ was one of the founding members of the Principally Pens chapter of the AAW and served as Vice President. In honor of Russ Fairfield and his extensive contributions, particularly to the area of pen turning, the chapter initiated an annual Russ Fairfield Memorial Pen Contest. More details can be found at principallypens.com/contest. At the request of his wife, Gerry, the chapter also established an education fund in Russ's honor; donations will be used for turners' education. ■

— Kurt Hertzog
President, Principally Pens Chapter

Calendar of Events

June issue deadline: April 15
August issue deadline: June 15

Send information to editorscarpino@gmail.com

Australia
2012 Turnfest! For information, visit turnfest.com.au

United Kingdom
August 12–14, AWGB Biennial International Seminar at Loughborough University. Featured demonstrators are Marilyn Campbell, Michael Mocho, Hans Weissflog, John Wessels, Yann Marot, Les Thorne, Paul Coker, Nick Arnull, Tobias Kaye, and Tracy Owen. Honored guest is Richard Raffan. Trade stands and gallery, all accommodations, restaurants, and bars are on the university campus. For information, contact Reg Hawthorne at reg.hawthorne@btinternet.com or visit woodturners.co.uk.

California
April 29 entry deadline for the annual Design in Wood Exhibition, San Diego County Fair, Del Mar Fairgrounds, Del Mar, June 10–July 4. The theme for 2011 is "Race to the Fair." The competition is open to all woodworkers and includes several woodturning categories. Awards total more than $21,000. Entries can be made online in mid-February at sdfair.com/index.php?fuseaction=exhibits.wood. To request a paper entry form, mail a self-addressed, stamped #10 envelope to Design in Wood Entry Office, San Diego County Fair, PO Box 685, Solana Beach, CA 92075.

Colorado
September 10, 11, Rocky Mountain Woodturning Symposium, Loveland. Demonstrators include David Ellsworth, Dixie Biggs, and Al Hockenbery. For more information, visit rmwoodturningsymposium.com or contact Allen Jensen at rajconst@aol.com or 970-663-1868.

Florida
February 3–5, 2012, Florida Woodturning Symposium, Lake Yale Convention Center. Featured demonstrators will be Tim Yoder, Dick Sing, Mark St Leger, and Don Derry. Local demonstrators are Lee Sky, Nick Di Mona, Norm Rose, and Tim Rowe. Workshop leaders are Don Geiger, Ted Smith, Charlie Schrum, Kurt Hertzog, and Rudy Lopez. Mark your calendars now and check out our website for online registration after May 15 at floridawoodturningsymposium.com.

Georgia
April 29, 30 and May 1, Southern States 11th Woodturning Symposium, Georgia Mountains Center, Gainesville. Featured demonstrators include Beth Ireland, Mark Gardner, Robert Rosand, and Steve Sinner. Forty rotations, Instant Gallery, gift certificates, door prizes, large vendor area and banquet and auction Saturday evening. Lists of demonstrators and vendors, along with the latest updates on demonstration description and rotations can be found at southernstatessymposium.org or contact Marsha Barnes at 828-837-6532 or ml.barnes@brmemc.net.

April 30, in conjunction with the Southern States Woodturning Symposium, Chattahoochee Woodturners will present two rotations titled "Planning and Presenting a Woodturning Demonstration," featuring Frank Penta. These sessions are for woodturners who would like to develop or improve their demonstration skills. For information, contact Jerry Chandler, jwc43@bellsouth.net.

Indiana
February 19–April 10, "Through the Woods, Around the Block: A Juried Exhibit of Turned Objects," Lubeznik Center for the Arts, Michigan City. Information can be found at lubeznikcenter.org.

Maine
July 15 deadline, Maine Wood 2012 Biennial, call for entries. Exhibition dates December 2, 2011–February 3, 2012 at the Center for Furniture Craftsmanship. This juried biennial showcases the breadth, creativity, and excellence of wood craftsmanship in Maine. There will be $2,250 awarded in prizes. More information is available at woodschool.org or by calling 207-594-5611.

Massachusetts
February 5–September 11, "Loom and Lathe: The Art of Kay Sekimachi and Bob Stocksdale," Fuller Craft Museum, Brockton. For more information, visit fullercraft.org.

Minnesota
March 1–June 19, "Roots: An Artist's Voice," AAW's Gallery of Wood Art, Landmark Center, Saint Paul. For more information, visit galleryofwoodart.org.

June 17–September 4, "Conversations with Wood: Selections from the Waterbury Collection," Minneapolis Institute of Arts, Minneapolis. This exhibit features more than 80 spectacular pieces of wood art collected by David and Ruth Waterbury, residents of Minneapolis. For more information visit artsmia.org.

June 22–26, Collectors of Wood Art Forum (CWA), Saint Paul. Program includes panel discussions, slideshow and talk by Lynn Yamaguchi, presentation by Dr. Schmidt of the Minneapolis Institute of Arts, tours of collectors' homes, and an open house at David and Ruth Waterbury's to see their collection. Limited seating is available for a museum tour and dinner Thursday evening. For more information, contact Joe Seltzer, President of CWA, seltzer@lasalle.edu or 215-635-5157.

North Carolina
November 4–6, North Carolina Woodturning Symposium, Greensboro Coliseum Special Events Center. Featured demonstrators include Marilyn Campbell, Emmet Kane, Mike Mahoney, Pascal Oudet, Richard Raffan, and Les Thorne. They, along with regional demonstrators, will present 63 sessions (7 periods of 9 rotations). Visit northcarolinawoodturning.com for developing information.

Ohio
July 10–August 21, "National Treasures," exhibit at the Ohio Craft Museum, Columbus. For more information visit ohiocraft.org or contact William Jewell at Jewell@historicalwoods.com.

September 30–October 2, "Turning 2011," 7th biennial symposium, sponsored by Ohio Valley Woodturners Guild. The event takes place in suburban Cincinnati and features Benoît Averly, Jimmy Clewes, Keith Holt, Richard Raffan, Avelino Samuel, Betty Scarpino, Al Stirt, and Kimberly Winkle, plus local guest demonstrators. There will be a trade show, auction, and lots of good food. Additional details can be found at ovwg.org or by contacting Bob Cochoy at 937-427-2555 or cochoys@sbcglobal.net.

Texas
August 26–28, Southwest Association of Turners 20th Annual Symposium, Waco Convention Center. Featured demonstrators include Nick Arnull, Kip Christiansen, Nick Cook, Douglas Fisher, Dave Hout, Alan Lacer, Robert Rosand, and Curt Theobald. For more information, visit swaturners.org.

Utah
May 19—21, Utah Woodturning Symposium, McKay Events Center, Orem. More than 80 demonstrations, featuring some of the top turners in the world: Bonnie Klein, Dick Sing, Katherine Kowalski, Richard Raffan, Rudy Lopez, Carole Floate, Dale Nish, Hans Weissflog, Jakob Weissflog, Mike Jackofsky, Nick Cook, Ray Key, Bob Rosand, Pete Holtus, and Jason Breach. For more information and to register online, go to utahwoodturning.com.

Washington
July 23, "Creativity in Woodturning," 4th annual symposium, Komachin Middle School, Lacey. Demonstrators include Stephen Hatcher and Mike Mahoney. Two day-long workshops follow, Sunday and Monday, led by Mike Mahoney. For more information, visit woodturnersofolympia.org or call Al Price at 360-791-0396.

July 8–24, Camping and Turning Rendezvous, Ellensburg, Kittitas Valley Event Center, Rodeo Grounds, north RV lot. Join us for an unstructured camping and outdoor turning get-together. Bring your mini lathe and stay for as long as you wish. For more details email Julian Lee, julian.s@comcast.net or call 360-299-2900. Information about a companion carving event is available at cascadecarvers.com, click on Carving Academy. ■

Fascination with Friction

Turned and burned utilitarian objects

Emmett Manley

The first embellishment many woodturners learn to make is a burn line, or as the British prefer, a scorch mark. In just a few seconds this magic line appears, always perfectly at right angles to the spinning wood. The curling smoke is impressive, a reminder that we are working with powerful forces. I am convinced that making a first burn line is the moment that addicts many to woodturning.

Fascination with friction-generated lines carries over to woodturning customers—given a choice, the public usually selects the item that has burn lines. Working with another woodturner, I once took orders for 25 custom mortars; every person checked the "add burn lines" option.

Beginners often passionately create burn lines, not realizing that decorations used sparingly and for a purpose enhance rather than detract. I most often use burn lines to embellish plain wood and to hide a defect in the wood (natural or manmade). A small spot of torn grain or stubborn tool mark may be hidden under a burn line. Or the burn line can lead the viewer's eye elsewhere.

Burn the wood

Holding a wire within a small groove while the wood spins on the lathe creates a burn line. The groove can be cut with a skew chisel or parting tool or any pointed turning tool. The width of the line is determined by the width of the wire selected and how long the wire is allowed to burn. Following the burning process, the burned grooves can be cleaned with a wire brush, folded sandpaper, or the wire itself.

Burn lines are added to a spindle turning.

Holding a piece of hardwood against the spinning wood can also make burn lines, a technique that can produce beautiful rims on bowls. In this case, both woods are significant: some woods burn easily such as sweet gum, others do not. Some woods burn; some do not. Cocobolo has a reputation as a good burn-line wood, but my results have been mixed.

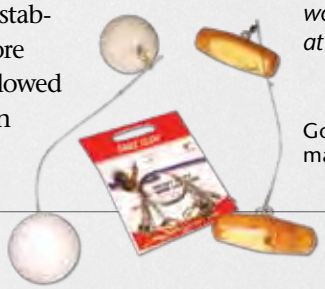
Safety

A few reminders about safety: you are reaching across the lathe and near the spinning wood, so keep your sleeves out of the way. Keep the wire taut, never letting loose wire sag down onto the chuck where the wire could get caught in a protruding jaw. Never wrap the wire around your fingers. I recommend the use of balls as wire handles so that the wire-and-ball assembly will be jerked out of your hand in the event of a catch.

Design considerations

One of the unwritten rules of woodturning seems to be that the number of burn lines should be odd with one, three, and five being most common. There is a general belief that even numbers of burn lines are not as pleasing. I tend to agree although I cannot say why. The odd-numbers rule extends to other areas of woodturning. Nick Cook makes five grooves in his honey dippers, saying, "Three are not enough, seven are too many, and you can't use even numbers."

It can be challenging to evenly space burn lines. For three lines placed together, make the two outside marks first, and then split the two with a third cut. Or, use pencil marks to establish the lines before making a cut, followed by the application of the wire.



Wire holder

Wire holders for adding burn lines can be purchased or shopmade. I have seen one instructor make his burn lines with a spool of wire in one hand and a pair of pliers in the other hand. That crude setup can be dangerous. Wire holders are easy to make, so I keep several on hand.

I make my wire burners with 30-pound-test steel fishing leaders. A pack of six leaders is less than two dollars and packs are available in three lengths, 6" (15 cm), 9" (23 cm), and 12" (30 cm). Nine inch is ideal for my needs. A major advantage of using wire fishing leaders is that the swivel keeps the wire from twisting, which can be a problem with other wire burners. Also, the wire used for fishing leaders is flexible as well as strong. The coating on the wire will quickly burn off. The wire is sturdy and will last a long time.

Fabrication is simple. Use small but strong screw eyes. Pry one screw eye open and then close it around the swivel end of the wire fishing leader. The fishing leader has a snap at the other end, so simply snap the leader onto the other screw eye.

Handles can be turned from wood. Small wooden balls are available at craft stores, or use my favorite: golf balls. Surprisingly, the tough rubber holds the screw eyes firmly and the golf balls fit my hand nicely.

Happy burning! ■

Emmett Manley is a retired medical scientist/professor who got hooked on woodturning in 2005. He enjoys studying and collecting wood native to western Tennessee and turning that wood into useful items. He may be contacted at emanley1@comcast.net.

Golf balls and 30-pound-test fishing leaders make excellent burn-lines implements.

Grinder Wheels

Bill Neddow

Most people don't realize they might need specialized grinder wheels when they begin their adventure with woodturning. The first thing they think of is usually a lathe. Next, turning tools and wood. Maybe sharpening enters into the process at some point, but grinder wheels? Nobody thinks of them.

Having proper wheels on your grinder makes woodturning simpler and more pleasant than struggling to sharpen tools with improper equipment. Quality wheels that are balanced and suitable for your needs will make sharpening easy. Sharp tools make turning fun.

The old pros can sharpen successfully with just about any grinder and grinder wheel. They probably don't even use a jig to hold the tool at the proper angle. Decades of practice make it easy for them to roll the tool over the grinder wheel by hand and get a perfect edge, whether it is an old gray grinder wheel or the latest ceramic ones.

The rest of us, however, appreciate all the help we can get. When we are starting, it is particularly important to simplify the process and have the most appropriate equipment.

I spent more than a decade as a production turner and used a wide variety of grinder wheels. I have tested all the popular types—and some not so popular. Some wheels work quite well, but I have a cabinet full of wheels that do not. Now I want to share those experiences with you.

Grinder size and speed

I have used 6" and 8" (15 cm and 20 cm) grinders both high and low speed. Which is best? Probably the one you have. The main difference between the 6" and 8" grinder wheels is the amount of use you get out of them. When a 6" wheel gets down to 5" (13 cm), I generally change the wheel. But I use an 8" wheel until it is about 6", which is a substantial amount of extra grinding. Yes, it costs more to begin with, but you quickly recoup the extra cost. Is it worth buying a new grinder, though? Probably not, unless you are in continual production mode.

More important than the wheel size is the speed of the grinder. There are high-speed (3450 rpm) and low-speed (1725 rpm) grinders. Low-speed grinders are increasingly popular with woodturners because of the lack of heat buildup during use. At a lower speed, there is less chance of *bluing*—heating the metal to a blue color. In the old days, this was considered a terrible thing to do, with good reason. The carbon-steel tools—all we had until the last twenty years—lose their temper if the metal turns blue from heat buildup when grinding. The tools would not hold an edge and had to be ground back significantly to get rid of the soft metal, wasting metal and grinding grit.

The newer high-speed and powdered-metal tools are much less susceptible to overheating, but it can still happen, especially if you put some pressure on the tool and take it beyond the blue stage. Many people recommend dunking a tool in cool water to keep the heat level down. I have done this and seemed to get away with it; however, it can lead to microscopic cracks in the sharp edge. It is better to use a light touch when sharpening a tool to avoid heat in the first place.

If you have a high-speed grinder, there are wheels made specifically for them. Oneway Mfg., for example, sells wheels recommended for use with high-speed grinders. These wheels tend to be harder than the low-speed ones, so don't mix them up. Personally, I prefer the lower-speed wheels because I tend to grind off less of my tool at each sharpening.

Dressing the wheel

Speed is not the only thing that causes heat. A dull wheel is a major culprit. Dress your wheel as soon as it is not cutting efficiently. When the abrasive particle contacting the steel is sharp, a metal shaving is milled from ▸

Three aluminum oxide wheels are currently available. The gray one on the left came on a new grinder and is meant for grinding soft steel. The white wheel in the center was also on the grinder and is a little too coarse for woodturners' sharpening needs, but would be suitable for major reshaping of a tool. The blue stone is distributed by Oneway Mfg. and is a type that is designed for woodturners' needs. Note: it is rated for 4,140 rpm, so is meant for a high-speed grinder. Stones are also made specifically for slow-speed grinders.

the steel and ejected. This removes a significant amount of generated heat in a spray of red sparks. A wheel with dull grit ploughs across the steel and transfers much of the heat to the steel. Hard wheels are particularly prone to getting dull.

Gray wheels

As I mentioned, those who have been turning for quite some time can do a good job of sharpening using the hard gray wheels that normally come with a grinder. For many of these turners, this was all they had, so they learned to live with the grinder wheel's limitations. Gray wheels are designed to stand up to the terrible punishment associated with metalworking shops where thick steel plate is ground, bolts shortened, and other heavy-duty jobs performed. Heavy pressure is usually put on the wheel and the metals are soft. Gray wheels are very hard, so they can do these jobs while lasting a reasonable length of time. They also tend to heat up the metal, which is not a problem in most applications.

We woodturners, however, are performing a light-duty job on very hard tempered steel—simply renewing an edge on an already sharpened tool. The tool's hardness and the resulting heat are our enemy. Gray wheels tend to glaze over easily and stop cutting efficiently. When that happens, the normal reaction is to press harder, increasing the heat. If you have to use a gray wheel, clean it often and use a light touch when grinding.

White wheels

White wheels became popular about twenty years ago. They were considered a solution to all of our sharpening problems. And, to a certain extent, they were. They were soft and did not burn hard steel tools as readily. (Most were about an H grade.) The softer the wheel, the less heat buildup.

There was a downside, however. It was easy to wear a groove in a white wheel. As a result, more time was spent dressing the wheels to get rid of grooves, causing most of the wheel to be ground away by the dresser, removing ripples and grooves on the face of the wheel, white powder piling up. The wheels did not last long but did a good job of sharpening. Another problem was that with the quick wear, my grinding jig had to be constantly readjusted in order to maintain the same angles on my tools.

Blue wheels

After white wheels came blue wheels, which are still popular. They are harder, but not hard enough to cause major problems with overheating the steel. They sharpen tools quickly and easily. They are great workhorses and last longer. I continue to use them. They are a great compromise for light use on hard metals.

Wheel grit

All these wheels are made from aluminum oxide, the workhorse of the metal industry, and they are relatively inexpensive and do a good job. The blue wheels are the wheels beginners will probably like best. I keep an 80-grit wheel on one side of a grinder and 120 grit on the other side, the first for shaping tools, and the second for creating a fine edge. The edge produced by the 120 grit is sharper than that produced by the 80 grit. It looks almost like a honed edge, yet the edge will not break off the high-speed tools we use, as it used to with carbon-steel tools.

Ceramic wheels

There are new and interesting wheels on the market. The ones made from a ceramic alumina compound are better than the regular aluminum oxide wheels. The grit on these wheels is not made from your granny's ground-up teapot, even though it is called a ceramic. Each manufacturer closely guards exactly how it produces the material, but basically, the manufacturer converts a colloidal dispersion of hydrosol containing goethite into

Ceramic wheels. On the left is a Norton SG wheel and on the right, the 3X wheel. Both cut faster and cooler than aluminum oxide wheels. The SG wheel lasts a very long time. In fact, the wheel on the left has been in daily use for over two years.

a semi-solid gel, dries this gel to a glassy state, crushes it to the required grain size, and fires it at between 1200° C and 1600° C. The final product is an abrasive grit of alumina microcrystals.

A major reason why these wheels work so well is that the grits are microcrystalline. This means that each piece of grit is composed of a clump of hundreds of tiny sharp crystals. They continually break away as they are used, exposing millions of fresh sharp cutting edges. These wheels cut cool and leave a fine finish on the tool bevel. By comparison, each piece of aluminum oxide grit is one crystal, which may or may not fracture under pressure and break down to expose smaller edges as they wear. Blunt abrasives rub, which overheats tools.

Ceramic wheels are expensive, but they produce a wonderful edge. I find that when sharpening with 80 grit, the edge looks almost like it was sharpened with a 120-grit wheel. (The finest wheel I can find in ceramic is 80.) They grind almost twice as fast as aluminum oxide (so use a light touch) and produce a keen edge. The wheel self-sharpens as it grinds, it wears slowly, and requires minimal dressing. They can last five times longer than a white wheel, so they are cost-effective.

Because the ceramic is expensive to produce, it is mixed with regular aluminum oxide before being pressed into a wheel. The wheels I am referring to are 50% ceramic, such as the Norton SG wheels sold by many suppliers. Norton also manufactures a wheel that has only a 30% ceramic content, the 3X. While these cut cleanly and run cool, some people have found the wheel wears faster than they would like. Some who have had problems say their wheel has a bond hardness of I. Mine has a bond hardness of K, and has not been a problem. To me, they are good value for money, however, the SG, with its higher ceramic content is well worth the added expense.

Diamond wheels

Some woodturners use diamond wheels. The theory seems to be that diamond can cut anything. In theory, it does. It is great for cutting ceramics, stone, and aluminum. But diamond wheels do not cut steel efficiently. All the manufacturers agree it should not be used to sharpen the steel we woodturners use—in fact, anything with iron in it. On metals with a ferrous content, the diamond literally disappears.

Diamond particles have a fatal attraction to the iron in the steel. The iron attracts away the carbon in the diamond one atom at a time. The two actually bond at the molecular level, which means a minute amount of the diamond gets carried away with the chip. It sounds like a slow process, and at room temperature it is—thus hand-held diamond honing stones last a long time. Start adding heat, however, and the process speeds up dramatically and catastrophically and you will find a mist of black dust around the base of your grinder, all that is left of your precious diamonds. If you put much pressure on your tool—pushing it into the diamond—you can go through the diamond layer in minutes. If you are gentle, you can get a year or so out of a diamond wheel in use daily, but it will slowly change from an 80-grit wheel to a 120-grit wheel, and eventually will only be good to use as a hone.

I have tried several brands of electroplated diamond wheels, as well as resin-impregnated ones, and an expensive wheel with ⅛" (3 mm) of diamond embedded in nickel around the rim. They all behaved the same way: The diamond quickly wore down to a finer grit and some wheels seemed to need a lot of dressing.

Cleaning them with an old aluminum oxide wheel can restore diamond wheels. That worked on all wheels I tried, but I was reluctant to use the aluminum oxide on the electroplated wheel—there is only one layer of diamond. In fact, that wheel needed less attention than the other types—just cleaning with WD40.

The wheel with the diamond/nickel mixture wore away the old aluminum oxide grinder wheel faster than my daughter's large cat inhales food. It looked great and cut well after this treatment. What happens is that the aluminum oxide wears away the bonding agent in the diamond wheels, exposing more of the diamond. If I sharpened a few ⅝" (16 mm) gouges on the wheel, however, the surface seemed to deteriorate into a finer grit and the nickel became highly polished. It always looked like it needed cleaning. I eventually took that wheel off the grinder and will give it to a stone carver. That is a $400 loss.

The resin-bonded wheel also lost its edge quickly, but would clean up well ▸

Three diamond wheels. On the left is the wheel with ⅛" (3 mm) of diamond/nickel on the rim. The polished spots caused by sharpening high-speed steel are visible. In the center is an unused resin-bonded wheel and on the right (diamond plated) is the one I found most suited to my needs. It started out as an 80-grit wheel and after a year, I am using it as a fine-honing wheel. Note that there is no identification on the two wheels on the right.

CBN wheels, my favorites. They cut cleanly, quickly, and smoothly. They have been in continual use for over a year and show no wear.

with the aluminum oxide dressing stone. The stink of hot resin in the shop was intolerable. That noxious odor was even present when I was sharpening tools. I finally gave the wheel away.

To summarize, the electroplated wheels caused the least amount of trouble. It took about a year to permanently wear them down from 80-grit to honing-wheel condition. The electroplated and resin-coated wheels cost more than $200 apiece, so I do not consider them cost effective.

CBN wheels

Manufacturers recommend wheels made of CBN—not diamond—for sharpening tool steel. CBN is cubic boron nitride and it is almost as hard a diamond—it will actually scratch diamond. And, it does not have the fatal attraction that diamond has for iron. I have had a pair of these wheels on a grinder for over a year now and can detect no wear. Of course they will eventually wear out, all things do, but the 80-grit is still an 80-grit wheel and the 180 grit is still 180 grit. (I have found I can use the 180-grit wheel to keep my powdered metal tools, like the ones made by Doug Thompson and Dave Schweitzer, sharp as a razor.) The steel is hard enough, yet flexible enough, to maintain a scary-sharp edge, reducing dramatically the need for sanding.

CBN is used widely in industry where precise sharpening and shaping is required. Aircraft manufacturers use distinctively-profiled wheels to sharpen end mills and other precision machining tools to strict tolerances. The CBN sharpening wheels have to perform exactly the same job, with no significant measurable wear, shift after shift, day after day. That is why they last a long time in a woodturning shop.

The CBN wheels I have came prebalanced. I did not have to fuss with dressing and shaping the wheel when it was first mounted. Maintenance of CBN wheels is simple: Scrub them once in a while using a toothbrush and kerosene or WD40. This removes varnish and CA glue that gets transferred from turning tool onto the wheel. I have never had to use aggressive cleaning techniques on these wheels.

If I use a CBN wheel, I never have to adjust my sharpening jig. I can leave it set exactly the way I want, and since the wheel never gets smaller, I get the same grind every time. One light pass over the 180-grit wheel is enough to sharpen a tool to razor-blade quality most of the time. If my tool is really dull, then one pass over the 80 grit wheel, followed by a light pass over the 180 grit wheel will return the edge to perfection.

CBN grinder wheels come in almost any shape desired. The choice is endless . . . except for simple bench grinder wheels. (The shape of a standard bench grinder wheel is generally called 1A1 for diamond/CBN.) Bench grinder wheels are available, but you have to search for them. Check with your local metalworking shops.

I intend for this brief survey of grinder wheels to accomplish three objectives. First, to provide information to help you buy grinder wheels with more confidence. Second, to make your turning experience more pleasurable. And third, to help you save money—I know—I have spent far too much on grinder wheels over the years. It is my own fault, of course, but I am too curious for my own good! ■

Bill Neddow spends his retirement creating bowls for galleries and taking part in studio tours. He also does some demonstrating. Bill considers himself a semiproduction turner, following themes in his bowl designs, but trying something different with each one. He is fascinated not only by how to do something but why it works, a byproduct of thirty years as a writer, editor, and publications manager. He lives in Ottawa, Canada, with his wife and about 3,500 dry rough-turned bowls. His website is billneddow.com. You can email him at bill.neddow@sympatico.ca.

CBN bench grinder wheels (6" by ¾" [150 mm by 20 mm] only) are available in Britain from Peter Child Woodturning Supplies.

In North America, they are harder to find. Dave Schweitzer of D-way tools just started carrying CBN wheels. Another source is the one I found after searching for six months—the supplier was in my own backyard! Cuttermasters (800-417-2171 or cuttermasters.com) has both 6" and 8" (15 cm and 20 cm) wheels in a variety of grits and they ship worldwide. One major woodturning supplier is actively searching for a good source, but there has been no announcement yet.

Another source is Northwest Super Abrasives in Eugene, OR (541-683-0801). Reed Gray (robo hippy) provided this source. Reed is an active and knowledgeable contributor to woodturning forums. Reed adds, "My 80-grit (CBN) wheel is four-plus years old and until last year, I was turning maybe 800 bowls per year, along with other things. It might be halfway used up. That amount of sharpening would have worn out at least one standard grinder wheel per year."

I have tried getting the wheels from the salesmen for all the big name companies, including Norton and 3M. They all say they can deliver, but not one has called back. These companies produce CBN wheels, but it appears that bench-size grinder wheels are not part of their regular production lines.

Identifying Grinder Wheels

Most manufacturers use a system for identifying grinder wheels. There are variations—a number of manufacturers modify the identification system to meet their needs, and not all use the complete sequence of identifying codes. Some wheels carry an absolute minimum of information. It is possible, however, to figure out the code on most wheels.

There are two systems, quite similar. One is for identifying bonded wheels (made of such substances as aluminum oxide and silicone carbide). The other is for diamond and CBN (superabrasive) wheels.

I have tried to simplify the systems to cover only the types of wheels woodturners generally use.

Identifying a Bonded Wheel

Number and Letter Sequence

Prefix	51
Abrasive Type	A
Abrasive Grain Size	80
Grade (Hardness)	K
Structure	5
Bond Type	V
Manufacturer's Record	05

Prefix: Manufacturers' symbols indicating the exact kind of abrasive. This is optional, and often manufacturers do not use it.

Abrasive Type: Identifies the primary grain used to make the wheel.

- A Regular Aluminum Oxide
- WA White Aluminum Oxide
- Z Aluminum Zirconium
- C Silicone Carbide
- SG Seeded Gel (Ceramic)

Abrasive Grain Size: Indicates the size of grit particles going through a screen. For example, 80 grit is what goes through one row of screen with 80 wires in one linear inch. 120 grit means there are 120 lines of screen, making the size of the grit going through a 1" (25 mm) linear line of screen smaller. The measurements range from coarse to very fine. I have found that woodturners use the medium-grit range (46, 54, 60) and fine (70, 80, 90, 100, 120, 150, 180). We most commonly use 46 grit for shaping a tool and 80 grit for sharpening. Some turners use a finer-grit wheel to keep the tool sharp, such as 120 grit.

Grade (Hardness): Hardness is rated from A to Z with A being the weakest bond and Z being the strongest. A weaker bond is preferred for grinding harder materials like tool steel. Most of the wheels we use are in the I to K range. An increase in the hardness grade by one or two letters can make a dramatic difference. A move from an H to an I, for example, could double the life of the wheel.

Structure: Basically the spacing between abrasive grains, represented by a series of numbers, with the structure becoming more open as the number increases. A 1 would be very dense. We are after a more open structure, which would probably be 5 or above.

Bond Type: The most common bond types are vitrified V and resin B. Vitrified is basically a vitreous glass much like pottery or glassware fired in a kiln, which is why there is such a fuss about not using a chipped or dropped stone made with this material—it may be cracked and can blow up. Resin is more commonly found in cut-off wheels, but can also be found in diamond and CBN wheels. There are other bond types such as Rubber R and Silicate S.

Manufacturer's Record: A private manufacturer's marking to identify a wheel. The use is optional.

Identifying a Superabrasive Wheel

The marking system for superabrasive grinder wheels is somewhat different.

Number and Letter Sequence

Abrasive Type	D
Abrasive Grain Size	80
Grade (Hardness)	N
Concentration	100
Bond Type	M
Bond Modification	77
Abrasive Depth	⅛
Manufacturer's Record	4

Abrasive Type: The letter D indicates that the abrasive is diamond. The letter B or CB is used for CBN.

Abrasive Grain Size: The number 80 represents the average grain size fitting through a linear inch of wire mesh (e.g., 120 grit would mean 120 lines of mesh).

Grade (Hardness): Like conventional wheels the letter N identifies the hardness of the wheel. Resin- and metal-bonded wheels, however, are produced with almost no porosity and the grade of the wheel is controlled by modifying the bond formulation.

Concentration: The number 100 is known as a concentration number, indicating the amount of diamond abrasive contained in the mix in the wheel. The number 100 corresponds to an abrasive content of 25 percent by volume. For CBN wheels, the number represents a concentration of 24 percent by volume. Concentration numbers of 75 or higher are are preferred. For CBN wheels, Norton drops the concentration section. Norton refers to the concentration as the grade and uses the letter W for 100 concentration, T for 75 concentration and Q for 50 concentration.

Bond Type: The letter M or N indicates the bond is metallic. Another bond is resin, represented by the letter B or R. There are also vitrified wheels V.

Bond Modification: This is the manufacturer's notation of any special bond type or modification. It is optional information.

Abrasive Depth: The working depth of the abrasive section, generally measured in inches. For example: ⅛" (3 mm). This is very important in determining the life of the wheel and its initial cost. A bond layer of ⅛" provides about half the life of a bond layer ¼" (6 mm) thick.

Manufacturer's Record: As with the bonded wheels, this is optional information on the manufacturer's private identification code for the wheel.

Safety Note

Grinder wheels can explode as they rotate at high speed. It is absolutely necessary to wear an impact-resistant faceshield when using a grinder.

Fancy Ferrules from Everyday Objects

Photo: Tib Shaw

This group of tools tells a lot about handle length. The heavier the intended cut for the tool, the longer the handle. A long handle provides more leverage. Big handles give a larger tool a balanced look and feel. A small handle does the same for a small tool.

Tim Heil

Custom-made tool handles make the tools more personal and the extra touch gives the user joy. One method for personalizing a handle is to add a unique ferrule. A ferrule supports the wood, which is sandwiched between the tool's shaft and the ferrule itself, which is essential in keeping the endgrain from splitting.

Ferrules can be made in your shop, found in the hardware store, or discovered from everyday objects. Copper tubing is a good choice for making a ferrule: It is readily available, easy to cut, and strong. Copper can also take on several looks. It shines when buffed, appears multicolored when heated with a torch, and develops an interesting patina after weathering in the elements.

I have turned several hundred tool handles out of forty different kinds of wood. Every handle needs a ferrule to prevent the endgrain from splitting.

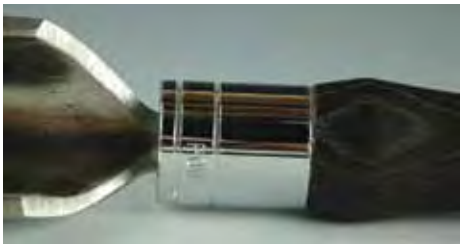
Stainless tubing is another excellent choice for custom ferrules. It wears well and its natural polished look catches one's eye.

Almost anything that can be wrapped around a tool handle can become a ferrule, as long as it is strong enough to support the wood and keep it from splitting. I have looked beyond the common ferrule and found several alternatives: piano wire, a faucet aerator, motor-shaft bushing, springs, ball bearing race, textured towel bar, key rings, welding rings, cake decorating tip, end of a garden hose, and the list goes on.

The right ferrule is a subtle jewel on any tool handle.

Tim Heil has been a member of the Minnesota Woodturners since 2001. He will be demonstrating how to make tool handles at the AAW symposium in Saint Paul this June and looks forward to meeting you there. Tim can be contacted at tim@heiltruckbrokerage.com.

Photos by Jordan Schroeder unless otherwise indicated.



Sockets have a durable finish, are inexpensive, and come in a variety of sizes.

A decorative ferrule transforms a roughing gouge. I joined two pieces of ebonized red oak with a tongue–and-groove joint and sandwiched the ferrule in between.

This ferrule is a spring that was removed from the screen door of my home.

I salvaged this brass ferrule from a worn-out garden hose.

Three separate pieces of ebonized copper pipe butted together make a utilitarian ferrule. With use, the black wears off and the ferrule develops a fine patina with the copper showing through.

This ferrule is made from three brass natural-gas fittings.

A spacer-lug from a truck tire becomes a sturdy ferrule.

I cut this ferrule from a textured bathroom towel bar.

Springs make excellent ferrules because they are strong and attractive.

This ferrule started out as a tip used for frosting cakes.

This copper ferrule has developed a warm patina over time. I often select a ferrule that will complement the wood.

Ball bearing chases are made in many different sizes; I find a variety of uses for them.

This ferrule is a bushing from an electric motor shaft. They come in a variety of sizes.

This stainless steel ferrule came from pipe that I salvaged from a boat. Stainless steel is hard to cut but it is strong and looks good with any wood.

This ferrule is stainless steel. ▶

Stainless steel is a favorite ferrule on a chisel because it can withstand pounding and levering.

Aluminum is easy to cut and readily available—it is a good starter ferrule.

A series of key rings are user friendly because no cutting is involved, they are inexpensive, and readily available.

This ferrule started out as an aerator on a kitchen sink faucet. The ultimate repurpose.

Wrapped piano wire creates a unique appearance that goes well with highly figured wood.

I used a pipe cutter to add a shallow cut to the end of a copper ferrule, a detail that I often use.

I often buy a set of sockets when re-handling a set of bench chisels. I use the smaller socket for the smaller chisels and the larger socket for the larger chisels.

Springs come in a variety of sizes. The best way to cut them to size is with a bolt cutter. Remember to wear eye protection.

Copper tubing comes in a variety of diameters and gauges, which makes it useful on many different tools.

These are my everyday tools. Because each one is unique in appearance, I can easily select the one I want, even when covered with wood shavings.

I balanced the appearance of each of these tools by including decorative steel on each handle. ■

The Morning Paper Takes a Turn

Ray Ferguson

Untitled, 2010, Mangrove, multicolored construction paper, 14½" × 3" (37 cm × 8 cm)

Photos: Pierre Blanchet

Untitled, 2009, Cherry, paint, newsprint, 16" × 6" (41 cm × 15 cm)

After forty years of relatively traditional woodturning and woodworking, I decided to try a few innovative approaches to lathe turning. For me, the limitations imposed by focusing only on wood to create a turned object seemed woefully restrictive; I felt boxed in. I began exploring and discovered other media with the possibility of being turned: soft metals such as pewter, copper and aluminum; plastics, especially Plexiglas; wood veneers with a thickness up to 1/16" (1.5 mm); plywood; and even paper (newsprint). Each medium presented special challenges and all had limitations and solutions.

Using newspaper particularly intrigued me and I found that if I compressed stacks of paper and glued them tightly enough between a top and bottom section of wood, they formed a cardboardlike substance that could be turned much like a piece of wood. My explorations revealed that the assembly has to have been glued with great pressure applied and the turning blank worked slowly with a very sharp tool, preferably a small spindle gouge.

The surface of the newsprint needs some intense sanding, starting with about 80-grit abrasive and working down to finer grit. The paper sands easily and quickly, and it is possible to get it as smooth as any piece of wood if compressed tightly enough. A simple form with an uninterrupted flowing surface works best. ▶

Background photo: John Lucas

1

Cut the newsprint

2

Drill the hole in the center of newsprint

3

Pipe inserted in paper stack

4
Turned cylinder for base and top

5
Base section

6
Top section

Prepare the newsprint

Assemble a stack of newsprint approximately 1" (25 mm) thick and draw a circle on the top sheet that is at least 1" (25 mm) larger in diameter than you need for the finished turning. Take the stack to the bandsaw and saw the circle (*Photo 1*). The stack of paper must be held securely. It may be difficult to hold the assembly together, but do not be too concerned—the additional circumference size allows room for errors. Repeat cutting stacks of newsprint until you have a pile the height you require.

Using ⅜"- (10 mm-) thick plywood cut two 8"- (200 mm-) diameter circles. Drill three holes for bolts to make a press. In the center of the top plywood layer drill a ¾" (20 mm) hole. Place a 1" (25 mm) stack of newsprint circles into the shopmade press and clamp the stack down tightly. Drill a ¾" (20 mm) hole through the newsprint. Remove this stack and repeat the process until all stacks have been drilled (*Photo 2*).

Cut a length of ¾" (20 mm) OD pipe about 5½" (140 mm) longer than the height of the stack of newsprint. Better too long than too short—you can always cut off the excess length of pipe later. Assemble the newsprint stacks onto the pipe so that the pipe protrudes about 1¾" (45 mm) at one end and about 3" (75 mm) at the other end (*Photo 3*). Cut off excess pipe if necessary.

Prepare the wood base and top

With a length of wood mounted between centers of your lathe, spindle-turn it to a size that is large enough to create a 4"- (100 mm-) diameter cylinder, 12" (300 mm) long (*Photo 4*). Part 4" (100 mm) off one end of the cylinder. Carefully mark the center at one end of that length—use the point where the live center held the cylinder onto the lathe. This length of wood will become the base of the vessel. Drill a ¾" (20 mm) hole about 2" (50 mm) deep into the exact center (*Photo 5*).

At one end of the remaining 8" (200 mm) cylinder, at the center point, drill a ¾" (20 mm) hole that is 4" (100 mm) deep. From the center of the other end, drill a ½" (13 mm) hole to meet the ¾"- (20 mm-) diameter hole (*Photo 6*). This length of wood will be the top of the vessel.

Assemble the base, stacked paper, and top

Secure the base piece into a 4-jaw chuck, which is attached to the lathe.

Untitled, 2010, Cherry, lacquer, newsprint, 13½" × 5" (34 cm × 13 cm)

Untitled, 2010, Citrus, newsprint, 12½" × 4½" (32 cm × 11 cm)

Take the pipe with the assembled paper and slide the exposed pipe into the hole (*Photo 7*). Next, fit the end of the 8" (200 mm) cylinder that has the ¾" (20 mm) hole onto the protruding pipe. Bring the tailstock up and center the wood onto the live center, using the ½" (13 mm) hole for centering. I use a revolving cone center. Lock the tailstock in place. Advance the tailstock quill as much as possible to compress the newsprint (*Photo 8*).

When the stacks are lined up, remove the assembly from the lathe. Slip the two pieces of wood off the pipe (leave the paper on the pipe). Apply a generous amount of strong adhesive to the exposed ends of the pipe (I use Thick Stick Fast CA Glue, which performs well—you might want to try some form of epoxy). Remount the two cylinders of wood onto the pipe and mount the assembly onto the lathe as previously done. Tighten the tailstock, applying as much pressure as possible. I generally wait six to eight hours to let the glue gain full strength before turning.

Turn the assembly

The glued-up assembly can now be turned similarly to a regular piece of wood. It is advisable, however, to work slowly using very sharp tools. The paper section will need special, careful attention, so use only your smallest and sharpest gouges. You can minimize surface problems on the paper section by working at higher speeds.

Sharpen your tools frequently. When the form is turned and the surface is as cleanly cut as possible, aggressive sanding with coarse abrasives (60 and 80 grit) will be required. You will quickly get down to 180 and 220 grits and the surface will become exceptionally smooth. Continue sanding the entire vessel through progressively finer grits, finishing with the finest of grits.

Turn away the excess wood at each end and finish-sand those areas. You may end up leaving short tenons at each end, which can be removed after the piece is taken off the lathe. I shape the top and bottom using a Velcro pad on a flexible-shaft rotary tool. Lacking that, sand with abrasive paper, shaping the top opening to flow into the drilled hole. For the bottom, I make sure that area is turned slightly concave.

The wood can be finished with any of the usual finishes used for wood. I am partial to both the appearance and velvetlike feel of the paper when it is left unfinished.

This project presented a lot of problems that required unique solutions, but it was a great deal more exciting for me than simply turning another bowl. There are so many possibilities for combining other media to complement wood. Experiment a little and you will find the lathe, with just a little imagination, can handle a lot more than wood. Happy turning! ■

Ray Ferguson's turnings have appeared in international, national, regional, and local competitions. He served as president of Florida Craftsmen, was the American Craft Council Southeastern representative, and has judged art shows. He teaches at John C. Campbell Folk School and Arrowmont School of Arts and Crafts. Ray is driven to achieve superior craftsmanship and to pay attention to aesthetics and design.

Untitled, 2010, Cherry, lacquer, newsprint, 14" × 4½" (36 cm × 11 cm)

7 Paper on pipe assembled on base

8 Assembly clamped with pressure between headstock and tailstock

Paper Lamination

James Thurman

Tectonic Plate 10-0404, 2010, Recycled atlas, 7¾" (20 cm) dia

Sometimes innovation comes from the most unexpected source. *Mokume-kami*, or wood grained paper, is one of those sources. My journey began about ten years ago, when I collaborated with another artist to create awards for an environmental design symposium. To make the awards, we bolted a variety of recycled books together *(Photo 1)*. While I was at the symposium and thinking about the recycled books all bolted together, we talked about the potential for using books as raw material, especially if the pages could be glued together. "Impossible," I thought . . . at the time.

Never one to back down from a challenge, I spent the next several years experimenting with how best to glue books and paper together. With the resulting material I made a few objects such as *Bookwork III*. I continued to experiment with a variety of adhesives and types of papers to create an assortment of objects from vessels to jewelry, including *Tectonic Medallion* and *Paper Plate 03-1222*.

Despite thinking of myself primarily as a metalsmith and sculptor, I fell in love with the patterning and material of glued-up paper, and just could not stop working with it. An obsession was born!

In 2007, while teaching a workshop on the paper-laminating process at the Hiko Mizuno College of Jewelry in Tokyo *(Photo 2)*, we decided to call the glued-up paper product *mokume-kami*, a take-off on the word *mokume-gane* (wood-grained metal), the word for traditional Japanese laminated metal.

My current process of gluing paper together to create a turning material is well suited to lathe turning, although almost any other woodworking technique can be applied as well.

The lamination process is somewhat costly and labor intensive, so I precut the paper into circles slightly larger than the desired finished size of the piece *(Photo 3)*. I prefer to use the West System of epoxy resin to adhere the paper to a waste block. The extra cost of the West System is well worth the expense because of the clarity, durability, and working properties of the epoxy.

Be sure to follow the specific directions of the epoxy and use proper safety precautions, including ventilation, work apron, eye protection, and nitrile gloves *(Photo 4)*. I also use a barrier cream on my hands (Invisible

Chuck Cave and James Thurman, Green Design Awards, 2001, Recycled books, hardware, 12" (30 cm) tall

Tectonic Medallion, 2002, Recycled maps, silver, 1½" (4 cm) dia.

Bookwork III, 2001, Recycled books, 2½" × 3½" (6 cm × 9 cm)

Paper Plate 03-1222, 2003, Recycled textbook, 6¾" (17 cm) dia.

Gloves is one example) just in case the nitrile gloves tear. I have a dedicated resin-lamination area in my shop. For those not familiar with working with epoxy resin, the gooey stuff can migrate everywhere, so be extremely conscientious about your workspace.

A wide variety of papers and similar dry materials work well with the epoxy resin, although glossy coated papers tend not to adhere well. The lamination process is relatively straightforward. Using disposable mixing cups, stirrers, and brushes, I completely coat each individual piece of paper, stacking them as I go *(Photo 5)* onto a waste block just slightly larger in diameter than the round pieces of paper. For better lamination and fewer air bubbles, squeegee each sheet before applying the next coating of epoxy resin.

Once I have achieved the desired thickness of the block of paper, I clamp the billet overnight. Proper clamping pressure is critical. Too much pressure and everything will squish out like a sandwich with too much mayo. Too little pressure and the paper will not tightly bond together.

Once the resin has fully cured, the material is ready to be worked. I ▶

Workshop at Hiko Mizuno College of Jewelry, Tokyo, Japan, 2007.

Initial sawing of book pages to prepare the turning blank.

West System epoxy resin and proper safety gear.


Brushing on resin.


Trimmed blank glued to a waste block.


Turning the blank to run true.

usually trim the billet on a bandsaw *(Photo 6)* before mounting on the lathe to make the truing process a little easier *(Photo 7)*.

Mokume-kami will cut like an even blend of plastic and wood. It is more brittle than most woods but does not suffer from grain tear-out. It also dulls tools quickly so I would recommend using high-quality steel tools. Depending on how you are using the material and if your tools are sharp enough, you may not have to sand at all *(Photos 8, 9, 10)*.

To finish most pieces, I use a friction wax but you may want a more durable coating if the pieces are to be functional rather than decorative.

In the years that I have been working with this material and process, I have barely scratched the surface of what is possible. It is my hope that this article will inspire others to experiment with *mokume-kami* in ways that I could never imagine. This is what is truly exciting about contributing to a larger community of makers. Please send me images of your completed pieces or feel free to contact me with any further questions or suggestions. ■

James Thurman is an Assistant Professor at the University of North Texas, College of Visual Arts and Design, where he coordinates the 3D Core program as well as teaches in metals and jewelry. He is also a former board member and editor of technical articles for the Society of North American Goldsmiths (SNAG). He received his MFA in Metalsmithing from the Cranbrook Academy of Art and his BFA in Sculpture from Carnegie Mellon University.

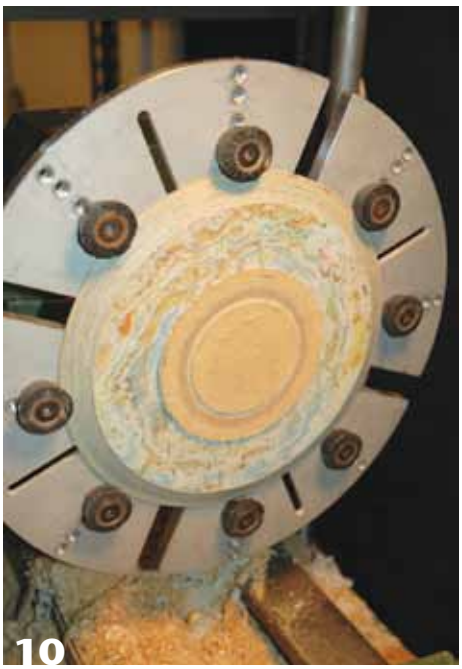
A variety of resources are available on the Internet to supplement this article. I have produced a 15-minute video, available free on YouTube.

youtube.com/watch?v=Mlv2g67G-1k

I also have numerous images of pieces I have made using *mokume-kami* on Flickr (flickr.com/photos/jamesthurman/), crafthaus (crafthaus.ning.com/profile/JamesThurman), and jamesthurman.com.


Initial facing of the front.


Front of the plate finished.


The plate is reversed to finish the back.

Split Turning

Andrew Potocnik

If you are a woodturner who is ready to move beyond bowls, spindles, and other forms commonly associated with turning on the lathe, consider exploring the possibilities hidden within turned forms. Split turning may be just your avenue to discover new designs. Split turning exposes the interior form that a turned profile conceals and opens up limitless design possibilities.

Probably the easiest method for revealing the interior of a turned object is to cut a bowl in half using the bandsaw. In this project, however, I use a spindle-turned form rather than a bowl. Also, instead of using large sections of wood, which can be difficult to find and costly, I glued two pieces of timber together, turned the wood to a cylinder, then shaped the cylinder. After completing the turning, I split the wood along the glue line. The result is two matching forms, which can be reassembled to form a new and intriguing form.

This is not a new concept. For as long as turning has been around, production turners have applied split turnings to the fronts of furniture as decorative elements or used them to form identical display shelves. Probably the most innovative use of contemporary split turnings is Stephen Hogbin's Walking Bowls Series where he turns a form, cuts it apart, and then reassembles the parts. Stephen visited Australia in the mid 1970s and his work spurred several Australian turners into thinking well beyond—or should I say *inside*—the turned form.

Sketch a form

It's one thing to visualize an image and quite another to see it as a three-dimensional object, sitting on a workbench. The image and the reality sometimes end up dissimilar, especially if you are like me and are biased toward line and profile. In between visualizing a form and the three-dimensional object itself is a line drawing. I can easily visualize external shapes, so I render my drawings as outlines, which is sufficient for me to begin the project. As you can see from the photos of my pieces, I rely heavily on exterior shapes.

Grab a piece of paper or use your sketchbook and draw a few simple forms, ones that can easily be replicated by turning. Begin by drawing a bowl form. Using a pencil, mark where you would like to divide the bowl, dissect it, overlap two parts, and then draw a base for it. Do the same with a cylinder: begin by drawing a rectangle, then apply curves. Use scissors to cut the curved cylinder apart and then reassemble the parts. By going through this exercise, you can begin to visualize the possibilities.

Glue boards together

For this project I began by passing two red gum boards (2¾" × 4¾" × 11¼" [70 mm × 120 mm × 290 mm]) over my jointer to create a smooth and flat surface to ensure a good glue joint. I glued the two boards together face-to-face with a layer of paper sandwiched between, which later allowed for easy parting (*Photo 1*). I like to use low-tech methods, tools, and materials: I used salvaged red gum fence posts, recycled photocopy paper, and standard wood glue (PVA).

After the glue was allowed to dry (overnight is the general rule), I mounted the wood onto my lathe. It is best to plane or bandsaw off the outermost edges of the block, ▸

Glue two surfaced boards together with paper in between the boards.

Rough turn the glued-up boards to a cylinder.

A close-up view shows the paper joint.

Hold a mirror against one end of the form to get an idea of what the split and reassembled form will look like.

Turn a tenon at the narrow end to use in a 4-jaw chuck.

The form is mounted in a 4-jaw chuck, ready for hollowing.

reducing the glue-up to something that resembles a cylinder, thus eliminating sharp, protruding corners. I always wear a full faceshield when I turn—prescription glasses are not shatterproof and do not protect a turner's face.

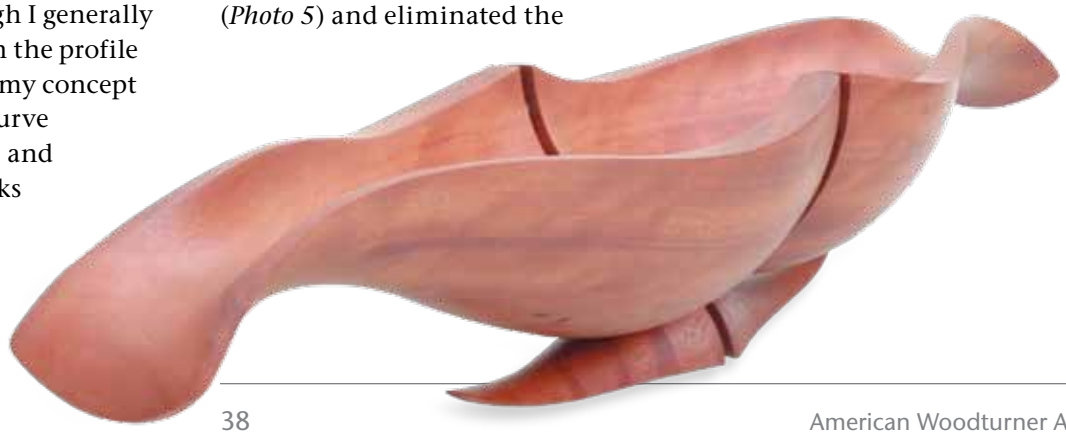
Turn the form

I used a deep-fluted spindle gouge to rough-turn the initial cylinder shape (*Photos 2, 3*). I refer often to the profile that I sketched when my initial idea came to mind, although I generally incorporate changes in the profile at this stage, allowing my concept to evolve. I tighten a curve here, flare a line there, and accommodate for cracks unearthed below the surface of the wood. Often, the material influences design.

As I am turning, only one-half of the finished form is evident. In order to see the complete form after it is split and reassembled, I hold a mirror against one end of the form (*Photo 4*). Looking at the form and the mirror image together provides a clue to how the completed form will look. My mirror showed a form I was not pleased with, so I made adjustments to the flared end, reducing its overall diameter.

After I achieved a satisfying form, I turned a tenon at the narrow end (*Photo 5*) and eliminated the excess length. The enlarged-goblet form was now ready to be held in a 4-jaw chuck for hollowing the interior (*Photo 6*).

I like to play it safe, so after remounting the wood into my chuck, I pushed the tailstock up against the blank to provide support. The tip of the live center will apply pressure directly to the joint, so do not apply too much pressure from the tailstock, otherwise the paper joint could separate. Or, you




Hollow the form, leaving a central core.


A long lancelike scraper works well when hollowing the interior.


After noticing a small crack in the glue joint, I applied a line of CA glue and used a section of car-tire inner tube for additional support. Wear a faceshield and keep the lathe's speed moderate.

could remove the tip or use a different cup-type center in the tailstock. For safety's sake you might want to apply tape or a hose clamp around the largest diameter of the form.

Hollow the form

I used several tools to hollow the form, working as deep as possible while retaining a central core (*Photo 7*). A long lancelike scraper held in a Stewart Tool brace (*Photo 8*) allowed me to hollow about 4¾" (120 mm) into the form, after which I parted off the central core. From there I used a bowl gouge, a Munro Hollower, and a shear scraper fitted to a heavy steel handle to finish hollowing the interior. I left the interior unsanded, as I planned to do more shaping later, by hand.

At this stage I noticed a small section of the glue line had started to separate, so I ran some CA glue into the split and applied a section of car-tire inner tube, which acted like a big rubber band (*Photo 9*). A hose clamp might be an even safer method to ensure the glue joint holds. Make sure that any joined wood you mount onto the lathe is capable of withstanding forces and pressures generated by the spinning of the lathe and tools cutting your wood. Again, be sure to wear a full faceshield for protection! Additionally, keep the speed of the lathe moderate.

Separate the form

After turning was finished, I removed the form from the lathe and separated the halves using the blade from a dismantled hand plane. (A wide chisel might also work.) I lined up the blade with the paper joint directly in the middle of the paper and struck the blade with a firm blow of a mallet. This caused the paper to split in half, leaving two nearly identical forms (*Photo 10*).

Carve away excess material

I carved away excess material using carving gouges (*Photo 11*), but power carvers and burrs are just as effective. Using micro files and rasps, I worked the timber down to a form that felt appropriate to my fingers and looked appealing, all the time keeping in mind the profile this piece would later become. Interior surfaces would need further shaping to blend with the outside form. This stage required thinking forward.

Prepare the halves for joining

I opted for pins (made from stainless steel bicycle spokes) to fasten the halves end-to-end to create the effect I was striving for. To determine where to place the pins, I marked a point on the edge of ▸


After the turning is finished, remove the form from the lathe and split the two halves apart.


Carve away excess material.

Mark the location for holes for the brads on one end of the two forms.

With the brads in place on one end of the two forms, transfer the markings for drilling the holes for the pins.

Drill the holes for the pins.

Shape the profile of the two halves.

each curve where I thought the outside-most pin should be located. I divided the remaining length by three, set my dividers to match that distance, and marked the location of holes on one half of the two forms (*Photo 12*). The spacing looked good, so I proceeded to transfer the markings to the second form.

To transfer the markings for the pins, I nailed ½" (10 mm) brads into the initial marks, snipped their heads off at about ⅛" (3 mm), laid the two turned halves upside-down on a flat board (*Photo 13*), and pressed the two forms together so that the cut-off brads would mark corresponding locations on the second form.

After marking the locations, I removed the brads and drilled 1/16" (2 mm) holes using a drillpress. To ensure that the holes were drilled perpendicular and straight, I created a simple jig that holds wood square to the table and parallel to the drill bit (*Photo 14*). I was ready to shape the form.

Shape the profile

I used a belt sander to remove excessive material to create a form with a flowing S-shape that tapered to a thin outer profile. I used a file to smooth the edges to eliminate unwanted bumps and to remove those little inconsistencies that interrupt the flowing lines (*Photo 15*). At various points in the shaping process, I temporarily joined the two halves together to see how they related to each other.

Create a stand

To develop the stand, I opted for a style that reflected the form of the elongated bowl and decided on a spindle-turned form that would later be cut in half along its length. I would join the two pieces end-to-end. With material mounted onto the lathe and ready for shaping, I held the bowl above the cylinder to determine the length for the stand and its diameter (*Photo 16*). I continued to check how the two forms related to each other as I shaped the stand (*Photo 17*).

To help determine the shape, diameter, and length of the base, hold the bowl above the cylinder.

As the shape of the base progresses, keep checking how the bowl and base relate to each other.

Cut the base in half along its length with the bandsaw. If desired, create a jig to hold the wood for safety.

Satisfied with the shape, I sanded the form, removed it from the lathe, and cut it in half along its length with the bandsaw (*Photo 18*). For further refinement, I chiseled away waste material from the faces that would later be joined and flattened and shaped the bottom. I sanded a concave surface into the top to match the bottom of the bowl, repeatedly checking how the bowl and base aligned. Realizing that a decorative element was needed between the two halves, I considered how to create an insert.

For the insert, I decided a disc of blackened red gum (ancient red gum) would work nicely. A flat disc with rounded edges (*Photo 19*) could easily be cut in half and provide a pleasing transition between the two turned-and-split elements (*Photo 20*). After turning the disc, removing it from the lathe, and cutting it in half, I applied polyurethane finish to one of the halves and then bonded it with two-part epoxy to the faces of the turned stand (*Photo 21*).

To join the two halves of the bowl, the bicycle-spoke pins were okay, but I wanted to add an additional element to make the piece a bit classier, so I decided to turn beads that would slip over each pin and act as spacers (*Photo 22*). Again, I selected ancient red gum, which I predrilled with a 1/16" (2 mm) hole. I turned beads, parted them off, slipped each bead into place, glued them and applied finish. I attached the base to the stand, using epoxy.

Sometimes, articles such as this one can make it seem as though everything turns out successfully the first time, but that is far from reality. While writing this article and taking the photos, I made several modifications to the forms, simply because I felt they were needed. I also had to adjust my initial approach that had included a second hollowing stage, leaving hand carving as the only option. Making any new project requires repetition. We all need several attempts to refine the little details, such as making sure angles are spot-on or designing the sweep of a curve tight in the right spot and elongated just where it should be. In addition, deciding which timbers are best suited to a project can take years of experience with a variety of species. When you come up with just the right combination, though, the result is eminently satisfying. ■

Andrew Potocnik is an educator, artist, and writer. He lives in Australia.

19

Turn a disc out of contrasting wood to use as an element between the two halves of the base.

20

One of the disc halves will be glued between the two halves of the base. Note the concave area sanded in the top of the base. That shape matches the profile of the bottom of the bowl.

21

The bowl and base are almost ready to epoxy together, however, one more element is needed. Beads placed on the pins will add a nice touch.

22

After drilling a hole through the wood, I turned beads to slip over the pins.

My Father's Eye

Terry Martin

When I received an invitation to participate in AAW's fifth annual Professional Outreach Program (POP) exhibition to be shown at the symposium in Saint Paul, I was particularly pleased. The title for the show is "Roots—An Artist's Voice," and the theme rang all my bells: I often carve rootlike matrixes that surround the turned part of my work, and if I do have a personal voice, I like to think it expresses a love of the raw nature of trees.

It's a fine compliment to be asked to participate in such a show and the discipline of working to a theme is an interesting challenge, so I wanted to come up with a new idea. A friend once said to me that technical problems aren't really problems, because there is almost always a solution. "It's getting new ideas that are the problem," he said. I believe he was right and I brooded on this challenge for many weeks.

For the past fifteen years I have produced a series of Cyclops. I gave the series this name because the original Cyclops was a one-eyed creature of legend, and each of my pieces has a turned central "eye" with a turned and carved surround. I let the ideas of "eye" and "roots" bounce around in my head, waiting for an image to form. Thinking about my personal roots as a woodworker, I remembered how my father taught me to split mallee roots for the fire when I was a boy. Mallee is the hardest wood I have ever encountered and my father showed me how to examine each root carefully to find the sweet spot amidst the chaotic swirling grain. If I hit that spot perfectly, the root split like a watermelon. If I missed, the shock as the axe rebounded left my hands numb.

In this way I learned almost everything I ever needed to know about grain direction and how to work with the wood, not against it. As I relived these moments from my childhood, an unexpected memory rushed back. Long after I had left home, my father continued to split mallee. At the age of 75 he was chopping a monster root when the axe shattered and a piece of the blade imbedded itself in one of his eyes, permanently blinding him. Almost immediately I had my theme and knew exactly what I would to do. I wanted to show the raw character of the mallee wood, highlighting its hardness and roughness. Also, for the first time ever, my Cyclops would represent a real eye, my father's.

With a half-formed design in my head, I selected a suitable piece of mallee from my stock. The exterior of the wood had already been water-blasted to remove the bark and dirt. I bandsawed a few blocks that fitted within the 6"- (15 cm-) square limits for the exhibition, eventually choosing one to mount between centers on the lathe.

I spent a lot of time moving the wood around on the points of the

1 Mallee blank mounted between centers

2 A flat is chiseled on the rough side for the drive dog

drive dog and the live center, visualizing how it would turn. I wanted the natural exterior to form a sloping front for the piece and the eye would be deeply imbedded in this surface. I mounted the wood with the natural surface facing the headstock (*Photo 1*) and when I was sure of the orientation, I removed the blank and chiseled a flat spot for the drive dog to grip (*Photo 2*).

I remounted the blank, locked the tailstock firmly and wound the quill in as hard as I could to seat the drive dog. With a really hard wood like mallee, I find it helps to lock the indexing head and then rock the blank back and forth against the stationary drive dog to work the teeth into the wood and increase its purchase. After a final tightening of the tailstock, the wood was ready to turn.

Starting at a slow speed because the weight was out of balance, I first removed much of the bulk from the back of the piece. With an irregular blank, cutting is intermittent and can be dangerous if you push too quickly into the spinning timber. This is one case where the often-repeated mantra of "rub the bevel" can lead to problems. I always control cuts like this by bearing down with my left hand on the toolrest to stabilize the tool, then feeding the cutting edge into the work by starting with the handle low and lifting it to roll the tool forward into the spinning wood (*Photo 3*).

With the bulk of the off-center wood removed, I wound the speed control up to just below the point of vibration and shaped the back of the piece into a flowing curve. Next, I turned a spigot for mounting the piece into my scroll chuck (*Photo 4*), then parted the spigot off just long enough to clear the base of the piece when it was reversed and mounted into the chuck (*Photo 5*).

One time-consuming job for turners is removing evidence of how a piece is held on the lathe. Sometimes it means remounting to turn off a spigot or recess, or perhaps a lot of carving and sanding is required. I prefer to hide the mounting method in plain view, so with all my Cyclops pieces the central "eye" is also the recess for expansion chucking. To create the recess, my first task was to clean up the center where I had already cut the rough flat area with a chisel. Using a pointed scraper, I opened out the area and removed the drive-dog scars so a sawtooth bit would run true (*Photo 6*).

With smaller pieces like this one, I use long-nose jaws on a Vicmarc VM100 chuck because of the deep recess. To establish a base for the recess to sit against, I turned a step in the jaws (see sidebar). I match a sawtooth bit to the diameter of the jaws when they are adjusted to be perfectly circular (*Photo 7*), so that when I expand the jaws into the recess, they have maximum grip.

With the drill bit in a Jacobs chuck, I drilled the recess in the front (*Photo 8*). When the recess was deep enough to hold the piece on the long-nose jaws, ▸

Hollowing the back

Turning a spigot for remounting in a chuck

Piece, remounted

Roughing a flat spot in the center where a recess will be drilled

Long-nose jaws with turned step and matching saw-tooth drill bit

Drilling the recess using the saw-tooth drill bit


Center, donut shaped


Beginning of eye, rough grooves surround

I turned away some of the wood surrounding the recess, then started on the all-important eye.

Perhaps because I usually work with idiosyncratic wood, I am not one of those turners who carefully draws every piece before the wood is cut, nor do I work to set measurements and proportions. I usually follow the rule "if it looks right, it probably is." For this piece, I was following a mental image that felt just right, so with a small scraper I quickly shaped a rounded eye in the center (*Photo 9*). Next, to reflect the rough natural surface, I used a pointed scraper to cut a series of rough grooves into the turned area around the eye (*Photo 10*).

I removed the piece from the chuck and reversed it, mounting it in expansion mode on another chuck with long-nose jaws. With the rim of the recess seated against the step in the jaws, the piece was guaranteed to run true. A dense wood like mallee lets me expand the jaws as hard as I need to without any risk of splitting. Also, because the jaws are perfectly circular, they leave no indentations in the wood. I used the sawtooth bit to drill from this side, leaving only ¼" (6 mm) thickness of wood in the center, checking with calipers (*Photo 11*). When I was satisfied with the thickness, I drilled a ⅛"- (3 mm-) diameter hole right through the pupil of the eye (*Photo 12*). Lastly, I shaped the eye to mirror the other side.

Because I thought this was the last time the piece would be on the lathe, I power-sanded the back to a fine finish. Power-sanding an irregular piece is just like turning it: you should not apply too much forward pressure, because the sanding pad will enter the spaces as they intermittently pass. It will either damage the pad, or tend to round over the leading edges of the voids. I hold the drill as firmly as I can and allow the pad to "float" over the wood at a flat angle, letting the lathe do all the work. With this piece I sanded at the same speed as I had turned it and worked my way through from 120 grit to 400 grit, sanding in both forward and reverse directions with every grit (*Photo 13*).

Shaping the eye supports

I used a pen to outline the two arms that would support the eye, then drilled out the waste wood around the arms using the drill press (*Photo 14*). It was quick work to clean up the drilled portion with a small burr mounted in my Foredom flexi-shaft tool (*Photo 15*). I then used a series of fine files, rifflers, and strips of sandpaper to carefully reduce the diameter of the supporting arms and to round the eye. This was the most painstaking work. I wanted it to look fragile, but I didn't want to push too hard and snap the arms.

I wanted to lighten the heavy base, so I used a larger burr in the Foredom to carve away more wood, leaving only three fine points as support. I like the feeling of weightlessness that comes from light and air showing under a piece (*Photo 16*).

Design improvement

After all this work, I sat back and looked at the piece under strong light, but I was not happy with it. The grooves around the central eye needed


Checking the thickness


Drilling the center of the eye


Power sanding the back


14
Drilling away the wood around the arms and eye (Note the black marks indicating the arms.)


15
Using a small rotary burr to clean up the drill cuts


16
Shaping the base


17
X-Y axis vise


18
The piece is remounted so that the grooves can be improved


19
The author's signature

to be stronger to emphasize their cascading nature. Luckily, because of the Cyclops mounting system, I was able to reseat the piece against the stepped long jaws.

If you are tempted to try this method, here's a tip: you may find that the turning or sanding you have done has rounded the rim of the recess and the piece no longer centers accurately on the chuck. If this happens, put the sawtooth bit into the tailstock again and wind the tailstock up gently to the work to avoid scratching the wood. Loosen the piece in the chuck and carefully maneuver the bit into the recess. Once it is inside the recess, retighten the chuck and carefully withdraw the bit. You will find that the piece runs true once more.

To enhance control of the cutting that needed to be done, I decided to mount a cutter in my X-Y axis vise (*Photo 17*). I have attached a post to the base of the vise so I can mount the vise directly into the banjo to function much as a simple metal lathe would. I angled a strong light across the piece as it spun and used the shadows to gauge depth and spacing, feeding the cutter in slowly to obtain a clean cut (*Photo 18*). I did not make the grooves too uniform and I wanted to maintain the impression of raw irregularity. Next, I lightly sandblasted the grooves to soften them. I also sandblasted the rest of the front to bring out the natural whiteness of the sapwood.

Signing the work

After sanding the base with a sanding disc mounted in a Jacobs chuck on the lathe, I prepared for the signing. It always amazes me how many wood artists will work for weeks to create a masterpiece and then apply a signature that is completely illegible or, even worse, downright ugly. I ▸

suppose it is because they believe that their signature has to be...well... their *signature*. Most personal signatures have evolved over our lives into something that is quickly scrawled. My own signature is dreadful, so years ago I designed another signature, just for my woodwork. First, I use a fine-point indelible black pen to draw an arc on the wood, using any appropriately sized curve as a template. Kitchen jars and containers provide a limitless range of sizes. Then, I sign my name using the arc as a crosspiece to link the two Ts in my name (*Photo 19*). I am not saying it's wonderful, but it is legible and more attractive than my regular signature.

Applying the finish

I wrapped a cloth around my finger and dipped the end into finishing oil, then squeezed off any excess. I carefully ran my cloth-covered fingernail in each of the grooves, avoiding the surrounding wood. This emphasized the contrast between the unfinished soft surround and the angular grooves. After several coats of oil, I buffed the back and base to bring out the wonderful grain.

I am not prone to sentimentalizing my work, but I still cringe at the memory of my father sitting in the car with one hand clamped over his eye, trying to drive himself to the hospital so he would not have to worry my mother. So *My Father's Eye* pays homage to my dad Charlie and how he taught me to chop wood. I'm still chopping. ■

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Truing the chuck jaws

One problem with chuck jaws is that they are usually made out of soft metal. Some manufacturers are even making jaws out of aluminum now. Repeated changing of such jaws on a chuck can make them go out of true (it's one reason why I own several chucks—so I can leave commonly used jaws on dedicated bodies). Also, years of use and wear can damage the edges, or you may have nicked the jaws with a badly placed cut.

If you are not sure whether your jaws run true, put the chuck on the lathe and run it very slowly. It should be clear if they are not true as a wobble will appear at the edge or, you can firmly place a piece of wood on the toolrest and gently advance the wood up to the jaws to hear if there is an irregularity. If there is, the solution is simple: re-turn the jaws on your lathe.

The wood lathe is the immediate ancestor of the metal lathe and there was once very little difference between the two. We can turn soft metal on our wood lathe, as long as we are careful. I used this method to cut the step on my long jaws, but it is also very useful for truing general-purpose jaws.

To illustrate this I used the standard jaws on my Vicmarc VM120 chuck. They are many years old and have had an amazing amount of use. First, I cut four small fillets of wood to fit the gap in the back of the jaws when the jaws form a perfect circle. If you place the chuck flat on a table and wind the jaws open and closed, it is easy to see when they form a circle and then you can measure how thick the fillets of wood need to be. Drop a fillet of wood between each pair of jaws and close the chuck very tightly. This will ensure that there is no chatter in the jaws when you cut them on the lathe. Do ***not*** try this without securing the jaws in this way first!

Remount the chuck on the lathe and bring the toolrest up close to the faces of the jaws. Set the lathe to around 500 rpm and use a small square-ended scraper to true the jaws (*Photo A*). Feed the scraper in very, very slowly while pressing firmly down onto the toolrest. Let the lathe do the work. I find it easiest to start with the scraper flat on the toolrest and the cutting edge very close to the jaws, then I raise the tool's handle so the edge of the tool rolls inward to start cutting.

Next, you can true up the outside edge of the dovetail (*Photo B*) and the inner edges of the jaws. Once the metal is cleaned up, the improvement will be obvious (*Photo C*) and there will now be much better contact between the wood and the jaws. Now that your chuck jaws run true, you can turn a step in them.

Not all jaws are made of soft metal. I certainly would not try this with an old engineering chuck. To test the hardness of your chuck's jaws, remove a jaw and try scratching its back with a turning tool. If it easily leaves a mark, you will know your scraper is harder than the jaws. If you have an X-Y axis vise like I used to cut the grooves in *My Father's Eye*, you may feel more secure if you use it to maintain control while turning very slowly. Truing chuck jaws this way only applies to jaws that are smoothly circular, not to ribbed banana-shaped jaws.

Scraping the front of the jaws

Cleaning up the sides of the jaws

Newly turned jaws (Note the fillets of ply that stabilize the jaws.)

Fancy Cake Slicer

Charles Mak

You *can* have your cake and eat it too. Really! Cake slicers come in all styles and prices. Those found at discount stores for a dollar or two are economical, but would hardly be labeled elegant—unless you know how to turn a handle inside out.

I have turned numerous handles for ice cream scoops, screwdrivers, and awls, but none have mystified fellow woodturners and gift recipients as much as the cake-slicer handles I make by using the inside-out turning technique.

Inside-out turning consists of a split turning, a reassembly of the quarter segments, and a final turning. In other words, turn a glued-up four-square blank between centers, split it lengthwise into the four parts, glue them back together with the turned profile facing inward, and then turn the reconstituted blank into the desired shape. The technique is not very complicated but the devil is in the details. And, if you like details, I have plenty of them to share with you.

Mark the cut line using a felt-tip pen and grind at that mark. Fold the handle back and forth to break it off.

Grind and shape the tang to match the size of the handle you will make.

Get started

You will need a stainless steel cake slicer or cake knife and any 1" square by 6" long (25 mm by 150 mm) hardwood block, straight-grained and free of knots, planed and square. Maple is my first choice because it contrasts well with stainless steel and scraps are abundant in my shop. The stock preparation requires the use of a tablesaw or bandsaw and a bench grinder. For lathe tools, you need a spindle gouge or a skew chisel. My lathe's speed for this project is 1,600 to 2,000 rpm, except when sanding, which I generally do at about 500 rpm.

The tang

Our objective is to replace the metal handle of the cake slicer with a turned wood handle, so first cut away the steel handle, and leave about 2" (50 mm) of the tang intact. I do this using a bench grinder. Wear eye protection and a pair of work gloves (*Photo 1*). Grind the width of the tang down to about 7⁄32" (5.5 mm) for a slim handle (*Photo 2*). Instead of a grinder, a hacksaw or rotary tool and metal file can be used.

Label and split the blank

Label one end of the blank ABCD (*Photo 3*). These letters will be used to guide the assembling and gluing. Rip the ▸

Label one end "ABCD" clockwise, beginning at the top left-hand corner.

The blank is ripped into four equal parts and is as square and true as possible.

Rotate each piece 180° and glue-up the pieces using CA glue at the ends only.

After drilling a small pilot hole on both ends, mount the glued-up blank between lathe centers. Note the masking tape is used as reinforcement for the glue joints.

Turn the middle section to a cylinder to define the window area where the design will be cut.

blank into four equal squares using a tablesaw or a bandsaw (*Photo 4*). Using a tablesaw is quicker, especially if you will be ripping a batch of the blanks. On the other hand, using a bandsaw results in better grain matching because less wood is removed during ripping.

Rotate and glue the squares

Rotate each of the four squares 180° (corners to center) and glue them together temporarily (*Photo 5*). I use CA glue—it cures quickly and is less likely that glue will squeeze out and need to be cleaned up.

I find it easier to handle the assembly by gluing A to B, and C to D first, then glue the half-blocks together. I apply small dabs of CA glue only on the ends rather than along the entire length of the pieces. Wrap the ends of the glued-up assembly with masking tape for added holding strength.

Turn the inside profile

Drill a small pilot hole in both ends of the glued-up blank, then mount it between the drive center and live center (*Photo 6*). If you are using a spur center, the prongs should be set diagonal to the joints. Do not overtighten the tailstock—too much pressure could split the joints.

Use a spindle gouge or skew chisel to turn the middle section of the blank to near round to form the *window area*, leaving the rest of the blank unturned (*Photo 7*). The size of the window depends on the inside profile design. In this cake-slicer project, the window is about 2" (50 mm) long.

The design of the handle—its overall shape and the window pattern—determines how people will appreciate the artistry of your cake slicer. So before you turn, give some thoughts to the design of the inside profile. Here are a few hints:

- Decide on how deep your inside profile should be turned; a rule of thumb is that it should be roughly half of a quarter square or less. A very deep cut may cause the wall thickness to be too thin in the final turning.
- Three basic shapes and their combinations or variations will give any windows you may need: a V notch results in a diamond-shaped window; a square notch will provide a rectangle; and a half cove will create a circular opening.

I developed a method to help me visualize what the outside profile will look like. Fold a 2" by 4" (50 mm by 100 mm) piece of thin cardboard in half and using scissors, cut the profile on the folded edge. Unfold the card and the shape of the handle will reveal itself. If you like what you see, use it as your template.

After the first cut in the window area, place a scrap block or a mirror along the upper surface on the blank to help you visualize the final shape of the design (*Figure A*). If the shape needs to be refined, this is the time to do so. For more information about cutting designs such as these, look at Peter Exton's article, "Turning Diamonds" (*AW*, vol 25 no 1) in which he illustrates several interesting forms, using different inside profiles.

Turn the inside profile, staying within the window area. The handle shown is cut with a half cove sandwiched by two V notches (*Photo 8*). No sanding is required for this particular inside profile because it is small and will face inward. You may, however, want to finish the surface with a sealer. I usually apply a thin coat of polyurethane.

Split the blank and reassemble the squares

Remove the assembly from the lathe and stand it on one end. Split it in half and then in quarters using a mallet and a chisel. Reassemble the quarter pieces into the original ABCD configuration (the turned profile now faces inward). Pay attention to the pattern alignment—you will be gluing the squares permanently (*Photo 9*). Using CA glue or yellow

Make V cuts to create a design.

After splitting the blank apart, assemble the four sections into their original orientation and make sure the design is aligned properly.

Glue-up the four pieces into a square, first by gluing two together, then gluing the two pairs together.

Drill a hole on one end to accept the metal tang and drill a pilot hole on the other end for the drive center.

Mount the assembly onto the lathe and turn the handle to the desired shape, making gentle cuts on the window area.

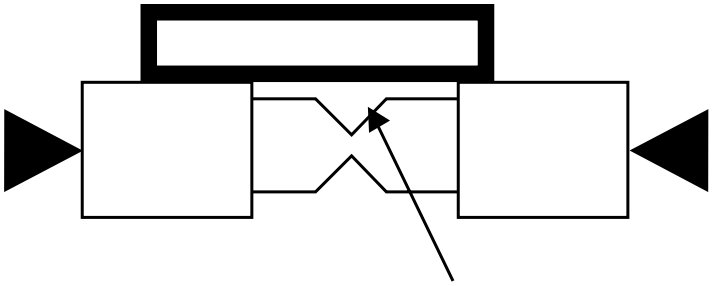

Figure A. To help focus on the shape of the pierced pattern, hold a block of wood or a mirror on top of the window area. The notched area will be doubled.

glue (*Photo 10*), glue the pieces together. When clamping, be aware of any shifting and adjust the four squares to align. Set the blank aside until the glue cures.

Drill holes and turn the outside profile

On the end of the glued-up blank where the tang will be attached, drill a hole, centered, to receive the tang. The hole is 7⁄32" (5.5 mm) diameter and 1½" (38 mm) deep for the cake slicer featured. I usually use a drill press (*Photo 11*), but you can drill the hole while the wood is clamped in a 4-jaw chuck on the lathe. When you make your handle, test-fit the tang into a predrilled hole in a scrap of wood.

Drill another small hole on the other end of the handle to receive the point of the drive center so that the blank will be centered on the lathe. Mount the blank between centers and turn it to the desired final shape (*Photo 12*). When the blank is spinning, you can easily see where the window pattern is and decide where to turn the outside profile. Alternatively, you can run circular lines with a pencil on the blank to mark the window boundary. Either way, stop the lathe from time to time to check your work. Tearouts of the trailing edges in the window can happen. (See the sidebar for strategies that can help reduce tearouts.)

Sand, assemble, and finish

Finish-sand the handle. Lower the speed of the lathe and move the abrasive along the axis to reduce circular scratches. Sand gently on the window area.

Part the handle off, remove it from the lathe, and clean up the ends if necessary. Epoxy the handle onto the cake slicer. A coat or two of polyurethane on the wood will give all the protection the handle needs.

The next time you hear someone say, "You can't have it both ways when it comes to thrift and elegance," you will know that is not true! ■

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Techniques to help eliminate tearout

- Use sharp tools. Dull tools increase the chance of torn grain in the window area of the handle or even ruin the pattern.
- Use a skew chisel. You are less likely to dig into the window pattern when making light planing cuts. If you use a spindle gouge, use a wide gouge and take light cuts when working on the window area.
- Keep sanding to a minimum. Plus, you'll learn more about how to use a skew chisel! Sand the window area by hand, especially if the walls are thin.


Photo: Ian Phillips

Hayley Smith

Unwavering Commitment

Denise DeRose

When viewing Hayley Smith's work, certain words come to mind: *precise, pristine, perfect.* Her creations prompt awe and respect for an artist who exerts absolute control over the common medium of wood to achieve transformation. Hayley Smith's unwavering journey from talented, headstrong schoolgirl to daring artist deserves notice.

Striding toward her newly built home outside Bisbee, Arizona, the strength of Hayley's convictions is as apparent as her smile and the thick braid that swings down her back. Born in Cardiff, Wales, in 1965, Hayley knew she wanted to be an artist from the time she could talk. Hayley was not the model student, although her drawings frequently ended up posted to the classroom wall. She knew from the start that she cared deeply about making things. Her Welsh practicality saw school as a means to an end, and she studied hard to qualify for University.

In 1985, Hayley attended her foundation course at Cardiff Institute of Higher Education. In Hayley's young mind, an artist was a painter. She first focused on oil painting, but had to stop due to an allergic reaction to oils. Relegated to acrylics—a horrible medium at that time—a frustrated Hayley turned to printmaking, where she discovered great pleasure from carving wood and linoleum. The textures and lines captured her interest more deeply than the print itself.

Bangles, 1990, English sycamore, elm burr, silver wire, gold leaf

Sketchbook pages for bangles

In 1987, Hayley started her studies in Art Education at the University of Cardiff in Wales. The studio, peopled with ceramics experts and richly stocked with equipment and materials, allowed Hayley to explore. She threw clay on the potter's wheel, disliked the cold wet material, and realized again that the subtractive process—trimming the leather-hard pot—was compelling.

The lathe

During her second year at University, Hayley began a required six-week rotation focused on wood and metal. Not having worked with wood before, she had no preference for a machine. Others did, leaving Hayley with the lathe.

Undaunted by the lack of wood and instruction, Hayley glued up the largest block of wood the lathe could swing, a 20"- (51 cm-) square by 8"- (20 cm-) thick slab! She screwed the wood onto a 12" (30 cm) faceplate, mounted that onto the lathe, and had at it. "It was a six-week course, and I jabbed at the massive block of wood for two weeks," she recalls. "Stuff was flying everywhere; people just ran!" Hayley did not know that the lathe had a speed control; she did not think to bandsaw the square into a circle before starting; and she was not allowed to sharpen the tools (thereby shortening their lives). After completing the turning, she sanded the form into submission for four weeks, creating an 18"- (46 cm-) diameter bowl, complete with felt on the bottom to cover the screw holes.

"Then I made a giant candlestick holder—ugly, ugly thing," Hayley recalls. But Hayley was smitten. She was, she decided, a woodturner.

Detail of Hemispherical Bowl #3, 1998, Maple, 2⅝" × 6¾" (7 cm × 17 cm)

Hemispherical Bowl #8, 1995, Ash, scorched, 2¾" × 7¾" (7 cm × 20 cm)

Los Angeles County Museum of Art, gift of Dr. Irving and Mari Lipton

Photo: Tony Boase

The University was not as enthusiastic about woodturning as Hayley was—woodturning was considered a craft and unworthy of artistic attention. "I couldn't understand how I could be an artist if I made a bowl out of clay, but not be an artist if I turned a bowl out of wood," Hayley said. The University's displeasure did not slow Hayley down. She taught herself to turn from a Richard Raffan book she found in the library.

One day, discussing her frustration with a friend in a local coffee shop, a woman sitting in an adjacent booth invited Hayley to meet her husband, a local woodturner. Hayley visited his shop and pored over magazines containing articles about British and American turners, including Mark Lindquist. She brought the articles back to University, showed her instructors, and argued that she should be allowed to pursue her focus on woodturning. Her instructors grudgingly agreed. Hayley admits, "I have always been motivated by those who told me I couldn't do something."

To further her development, she visited and corresponded with Jim Partridge, Don Dennis, Mike Scott, and Jules Tattersall who helped by giving her tools and materials not available in the school's wood studio. She drew designs, inspired from the bold sculptural forms of Maria van Kesteren and Barbara Hepworth and the pottery of Hans Coper.

After visiting an exhibition of tribal jewelry at the Pitt River Museum in Oxford, Hayley experimented making large wooden bangles. The relatively small scale of jewelry allowed her to produce pieces within the limited lumber resources of the University studio and to experiment broadly with surface techniques. Hayley filled her sketchbooks with drawings of bracelets and necklaces, describing how they could be constructed and embellished. She explored bleaching, wire brushing, carving, burning, grooving, drilling, pyrography, gilding, sgraffito, and other techniques that formed the vocabulary for her work in the years to come.

Of her design process, Hayley says, "I usually draw several ideas in my sketchbook and keep going back and looking at what I have drawn. Sooner or later I find that I keep going back to one of the designs, and that is what I turn.

Early success

Large ethnic jewelry was popular in the early 1990s, and Hayley began selling hers at contemporary jewelry stores in Chelsea and London and at craft stores all over England and Wales. The fashion world enthusiastically received her bracelets; photos appeared in magazines and models wore her bangles on catwalks throughout Europe, putting Hayley in the enviable position of receiving recognition and income while still a student.

After Hayley received her BA in Art Education, she immediately made the transition to full-time studio turning and moved to the Isle of Anglesey in northern Wales, only to discover that she had gotten ahead of herself. Her schooling had been largely about ideas, so she had not yet gained the skills to create the designs she conceived. She set about acquiring the skills needed to match her vision. Hayley attended her first symposium of the Associated Woodturners of Great Britain in 1991 where she met Dale Nish, Merryll Saylan, and Al Stirt, ▸

Constellation Series, 1994, English sycamore, silver, pigment, scorched, 14" dia. (35.5 cm)

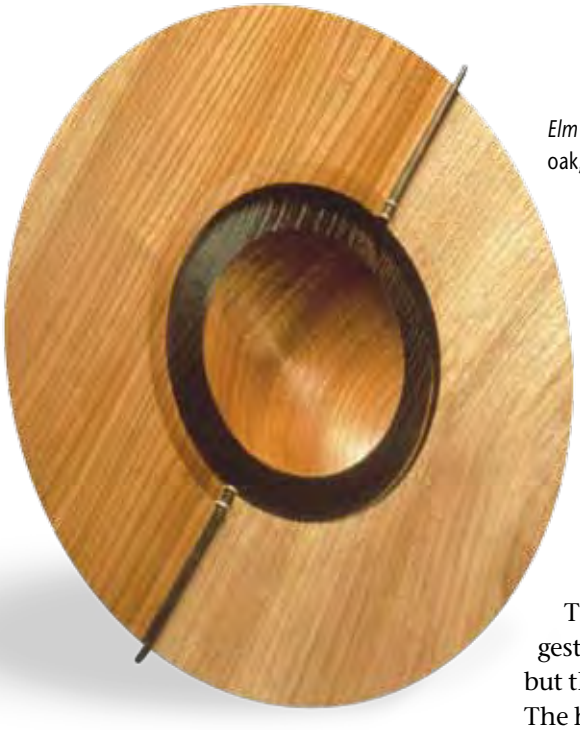
Los Angeles County Museum of Art, gift of Dr. Irving and Mari Lipton

Photo: Tony Boase

Hemispherical Bowl #7, 1995, English sycamore, scorched, 3" × 6¾" (8 cm × 17 cm)

Wood Turning Center, gift of Bruce Kaiser

Photo: Tony Boase



Elm Platter with Bog Oak Rods, 1991, Elm, bog oak, 17" dia. (43 cm) Photo: Michael Focard

strengthening her connection with the woodturning field.

Displaying her characteristic fearlessness, Hayley took her portfolio to European galleries and crafts fairs. "Maybe because I was young, maybe because I was a woman in a field dominated by men," Hayley got in the door. Her work spoke for itself, however, making a strong contemporary statement, which was more popular with the Germans, Italians, and Scandinavians than with her more traditional UK compatriots. In 1992, the prestigious Joanne Rapp Gallery in Scottsdale featured Hayley's *Elm Platter with Bog Oak Rods* in the "Women Woodturners" exhibit, her first show in the United States.

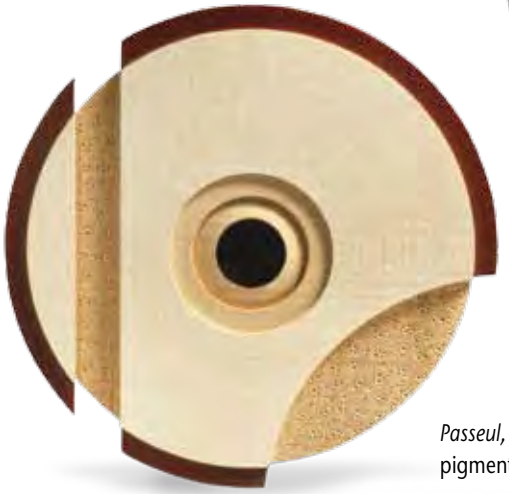
Early work

Working with half-round forms turned from maple and English sycamore, Hayley's meticulous embellishment style emerged. Geometric areas of precisely charred incising float against chalky bleached textured areas, contrasting with the flawless grain of perfectly finished wood. This early Hemisphere Series suggests the uniformity of machining, but the human hand is subtly evident. The hemispheres are reminiscent of the hidden interiors of precise planets—small, well-ordered worlds cracked open, to be cradled in loving hands.

The planetary influence in Hayley's early work is also apparent in the Constellation Series, where dots of silver wire, inlaid in scorched and pigmented sycamore, suggest the night sky in a universe more perfect than our own.

Bebop, 2001, Maple, bleach, pigment, scorched, 10⅜" dia. (26 cm)

Collection of David and Ruth Waterbury



Passeul, 2002, English sycamore, bleach, pigment, scorched, 10½" dia. (27 cm)

A career taking off

A turning point in Hayley's career and in her life occurred in 1994. Visiting the United States, she attended a woodturning symposium at Arizona State University where she met Albert LeCoff, Director of the Wood Turning Center (WTC). LeCoff encouraged Hayley to apply for the first International Turning Exchange (ITE), organized by the WTC in 1995.

Over the next few months, Hayley attended the Grizedale Arts residency program in northern England and was admitted for the first time to the prestigious Chelsea Crafts Fair in London, where a buyer from the Guggenheim Museum store bought her platters and bangles. The Banaker Gallery asked to represent her, and collector Robyn Horn acquired a piece of her work.

The WTC accepted Hayley into the ITE residency program at George School in Pennsylvania, along with four other turners, Todd Hoyer, Richard Hooper, Bo Schmidt, and Timothy Stokes, and photojournalist, Judson Randall.

The ITE cozily housed all the participants in a small, three-bedroom house in a Bucks County suburb. "I was surprised to learn that I, the only woman in the program, would be sharing my

Samba, 2002, Zebrano, pigment, scorched, 9¾" dia. (25 cm)

room with Cody Hoyer, Todd's twelve-year-old daughter." Hayley ended up cooking with Todd, the only other vegetarian. "He was so easy. He would chop the vegetables the way I wanted them."

Their compatibility extended into the studio where the Exchange encouraged the turners to collaborate. Although Hayley's and Todd's styles were dissimilar, their aesthetics and design vocabulary meshed and they completed a collaborative sphere. "It was incredible," Hayley recalls, "being able to see my ideas through another person's eyes. I had never worked with anyone before, let alone cooked. Our ideas sparked off each other."

A move to Bisbee

Others noticed Hayley's and Todd's creative sparks. Benefactors offered to fund a collaborative effort, the product of which would be shown at the Joanne Rapp Gallery. For the next two years, Hayley rotated her time in three-month segments between Wales, where she worked on her own work, and Bisbee, Arizona, where she worked collaboratively with Todd. They completed and showed seventeen collaborative pieces, selling many of them. When the exhibition concluded in 1998, Todd, as Hayley puts it, "proposed a lifelong collaboration." She accepted, and nine months later, moved to Bisbee, where they married.

Bisbee is a tiny town located in the crook of a canyon in the high desert, five miles from the Mexican border. Dry, desolate, and wild, with crystalline clear skies, it is about as far from Wales's "death-by-drizzle" as a person can get. Hayley found the difference troubling; the climate drained her and she struggled to work productively.

Her first Bisbee workshop, shared with Todd, was in an ancient miner's cabin hanging off the red dirt canyon wall, fifty stair steps up. Even though Todd worked first thing in the morning and Hayley worked after the chores of the day were finished, they realized that they could not share shop space and do their own work.

Todd's mind is organized and linear, but his working environment tends toward chaotic. "His favorite sport is *find the tool*," Hayley jokes. Hayley's mind runs and jumps like a rabbit. In order to corral her thoughts and energy, she needs to clear the details of the day and eliminate physical distractions before she can work. Hayley struggled to work alongside Todd's creative havoc.

In 2000, her productive hiatus reversed itself with the completion of her own studio. It boasted big windows, had an air conditioner, and resembled the organizational sterility of a dentist's office (as fellow artist, Connie Mississippi, once declared). The windows overlooked beautiful canyon walls. Absorbing the view of the shining rock, wet with rainwater in the fall of 2000, Hayley found home in Bisbee for the first time. Her new work, the Dance Series, reflected her celebration of life and her recent connection with this dry red land.

Ash Pot, 1994, Ash, scorched, 5¼" × 9" (13 cm × 23 cm)

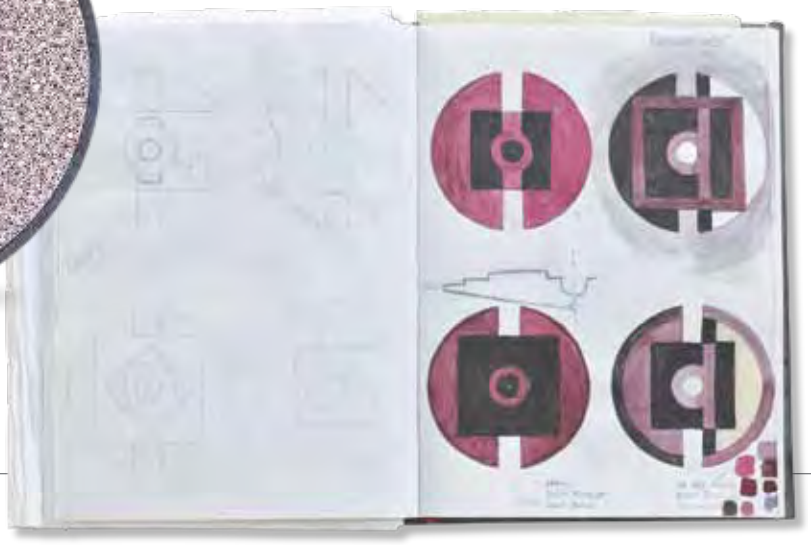
Photo: Tony Boase

Dance

The Dance Series represents a shift from the muted palette of her earlier work to a revitalized intensity. The objects in this series, often flattened platters with a central depression, make use of routed excavations and channels that define separate areas on the face of the platters. The sculptures, each named for a dance or dance element, seem to explore relationships between the shapes that appear on the wood's surface: how they approach each other, whether they are different or similar, where they touch or do not touch, how they might intersect. As Hayley grew early in her marriage to Todd, perhaps the ▸

Passing Through, 2002, Purpleheart, pigment, scorched, 12¼" dia. (31 cm)

Collection of Robyn and John Horn



Sketchbook page for *Passing Through*

The Hand of the Maker Series, 2009, Maple, bleach, pigment, 11" dia. (28 cm)

Arizona State University Art Museum, gift of Robyn and John Horn

Helping Hands, The Hand of the Maker Series, 2009, English sycamore, bleach, pigment, scorched, 18" dia. (46 cm)

Racine Art Museum, gift of Robyn and John Horn

"The part of myself that I see in the world is my hands, and what they do." Hayley talks about building her house. "I made it. There is no part of it I did not care about and did not touch. It pleases me when people surround themselves with things made by people who care."

pieces did not represent a literal dance as much as they revealed her exploration of the dance of humans relating to each other. The colors mirrored the vibrant palette of the desert in which she finally flourished and also revealed intense feelings.

In 2005, Hayley and Todd took advantage of a real estate boom and sold their miner's cabins at the high point of the market. In exchange, they bought acreage in the bottom of a nearby canyon, filled with agave, prickly pear, a few ocotillo, Mexican blue oaks, alligator junipers, and piñon pines. On a step a few yards from the dry creek bottom and steep canyon wall, they parked an RV and started to build. They lived in the RV on twenty gallons of water a day while designing and building two structures, first the accessory building that housed their garage, studios, and storage, and then their new home.

The economic downturn that followed slowed the sales of their work. Although they expected the project to be completed in three years, early 2010 found them still sharing the RV and still building.

Risk and renewal

Hayley returned to her art while Todd continued building. Many artists in this situation would retreat to what was recognizable and saleable. Instead, Hayley produced the Hand of the Maker Series, which she jokingly refers to as the Scary Series. The new work—exuberant, irregular and emotional—was unlike Hayley's prior restraint and geometry. Where her Dance and Hemisphere Series were remarkable for their meticulous perfection and discipline, the Hand of the Maker pieces featured Hayley's own handprints. She recalled the first piece, which featured a small thumbprint. "I walked around for an hour, approaching the piece with paint on my thumb, then walking away. I was in a sweat until I could finally do it. It was, 'Take that, world!'"

The inspiration for this new work came from a trip to Canyon de Chelly in northern Arizona. With a Navajo guide, Hayley hiked to a distant rock overhang. As her eyes adjusted to the dim light, she witnessed the rock walls, covered with 700-year-old handprints, large and small, possibly the hands from a village of Anasazi pueblo people. Hayley felt a deep urge to place her hand, palm-to-palm with theirs, to connect.

The progression of Hayley's work traces her emergence, from small perfect hemispheres where she is the distant god, to her Dance Series, where the approach, intersection, and avoidance of human relationships are depicted. She emerges, unmasked and absolutely present in the Hand of the Maker Series, where, like the Anasazi 700 years ago, she announces her individual and unapologetic presence in the world. I am. I care. I make. ■

Denise DeRose turns and writes in Oakland, California.

Hayley Smith will be a featured demonstrator at AAW's 25th annual symposium in Saint Paul.

Members' Gallery

Johnny Taylor

"This piece represents the entrance or portal to the other world or afterlife, as believed by cultures long gone. The suspended ring represents the portal and the carved lines on the stand represent water, where ancient European cultures believed entrances to the spirit world lay. The inscription warns: death awaits."
—*Johnny Taylor*

Entrance to the Other World, 2010, English oak, sycamore, acrylic paint, leather, 21" × 28" × 6" (53 cm × 71 cm × 15 cm)

John Van Domelen

"I was an artist-in-residence at the Houston Center for Contemporary Craft (crafthouston.org) at the time of Hurricane Ike. *Eye of the Storm* was one of the first pieces I turned from the huge amount of timber available on Galveston Island and surrounding area after the storm swept through Texas. I needed to reground myself and to connect with the positive cycle of renewal, so I created a series titled Gifts from Ike from the salvaged wood.

I had never turned a piece this large before and I was intimidated. Larry Zarra and Jerry Bennett from the Gulf Coast Woodturners AAW chapter suggested that I get over my fear and *just do it*! Thanks, guys."
—*John Van Domelen*, texasturner.com

Eye of the Storm, 2008, Pecan, 26" dia. (66 cm)

Collection of the Galveston Historical Foundation, Lost Galveston Collection, Customs House, galvestonhistory.org

Photo courtesy of Bogan Gallery, Houston

Bill Ooms

Pink Champagne Glass, 2010, Pink ivory, African blackwood, 6½" × 1¾" (17 cm × 4 cm)

"A goblet my wife and I received at our wedding (a long time ago) inspired me to make a replica in wood. All of the pieces are turned by hand, and I used an ornamental lathe to add decoration and spirals."
—Bill Ooms

Untitled, 2010, Holly, rosewood, 6½" × 2" (17 cm × 5 cm)

"I love spirals. This goblet is the first turning I made with a spiral stem pierced through to reveal a contrasting inner wood."
—Bill Ooms

Bill will be a demonstrator at AAW's symposium in Saint Paul. More of his work can be seen on his website, billooms.com.

Joshua Friend

"A neighbor commissioned a bowl from her maple-tree stump, formerly the base of a good-diameter tree, one of those quintessential maples found along the streets of historic New England towns. Shortly after I started cutting, sparks began to fly; a pipe and threaded rod became visible. As a tribute to the history of the old tree, I salvaged the pipe, which was embedded in a swirl of wood grain that formed around it as the tree grew.

I removed the pipe before turning, then glued it back into its hole after I rough-turned and dried the bowl. I used metal grinding stones and a power sander to bring the metal flush with the wood."
—Joshua Friend, jfriendwoodworks.com

Untitled, Maple, metal pipe, 2010, 5¾" × 17¾" (15 cm × 45 cm)

Bob Ooms

"For quite a while, I have had this idea of turning the world rattling around in my head. I finally decided to give life to the inspiration. This was my first segmented turning project, so I began by making a prototype from poplar. My brother, Bill, provided good tips (thank you, Bill).

Each ring has twenty-four segments and there are eight rings of varying sizes in the northern and southern hemispheres. The math was a challenge. I turned each hemisphere separately, then glued them together.

I laid out the latitude and longitude lines in pencil. Using a 12"- (30 cm-) diameter beach ball of the world as a guide, I transferred the outlines of the continents to my project. I used a very fine jigsaw blade to cut the outlines for the continents, except for Antarctica, which I needed to use as a pivot point on the axis. I used a Dremel tool with a fine burr to cut the fine details and refine the jigsaw cuts.

The outer support is also segmented to make a five-ply rim for support of the globe. Two brass screws with washers hold the world in place and allow it to rotate." *—Bob Ooms*

Turn the World, 2010, Honduras mahogany, 19" × 11⅝" (48 cm × 30 cm)
Photo: Adam Jablonski

Pat Matranga, Best in Show "Through the Woods—Around the Block"

Pat Matranga's sculpture, *Family With Rights*, captured best in show, a $1,000 award, at the Lubeznik Center for the Arts exhibit, "Through the Woods—Around the Block." For this juried exhibit, artists submitted work consisting of two elements, a 6" × 6" × 6" (15 cm) block of wood indigenous to the United States and an object created from the same size and species of wood.

Exhibit dates February 19—April 10, Michigan City, Indiana

Family With Rights, 2010, Heartwood pine salvaged from Vanderbilt University, 8" × 6" × 6" (20 cm × 15 cm × 15 cm)
Photo: John Lucas

The Lubeznik Center's website is lubeznikcenter.org
Pat Matranga's website is matrangadesigns.com

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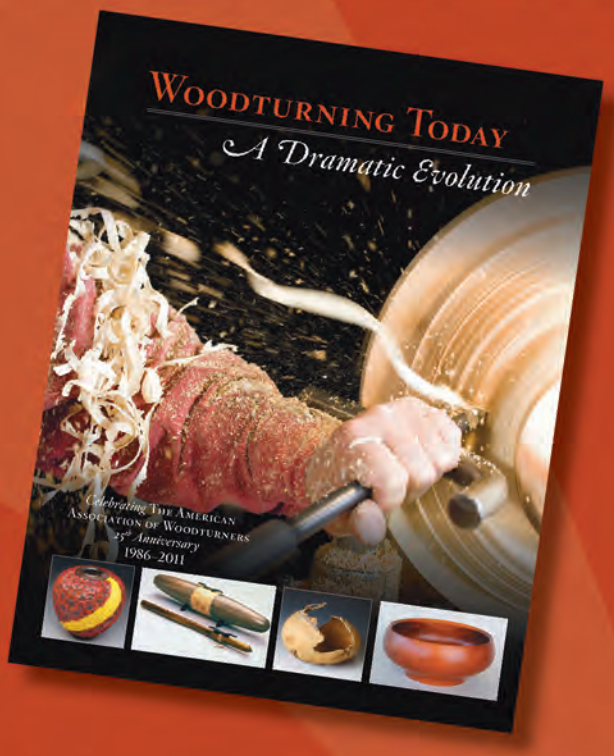

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