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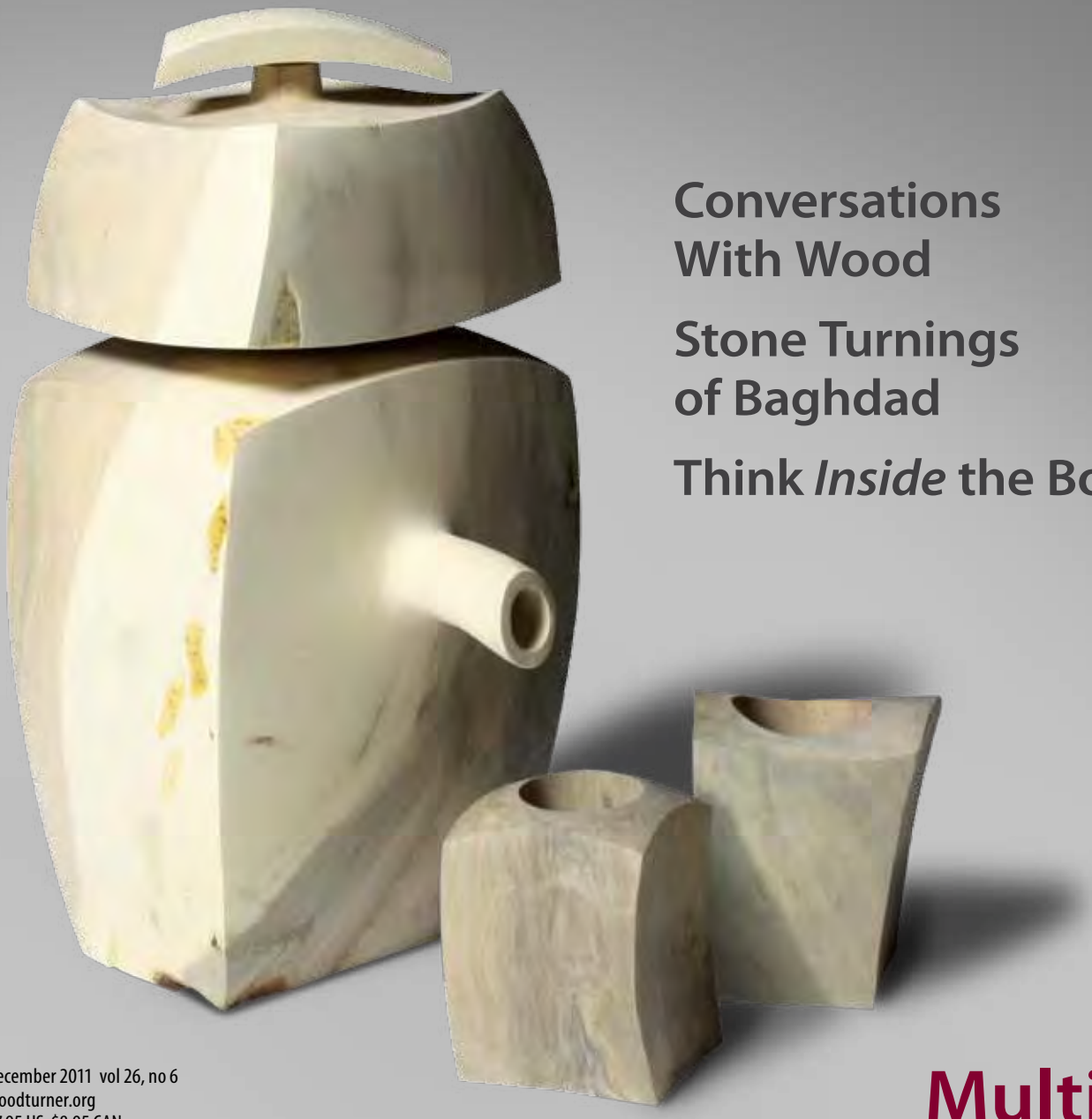
AMERICAN WOODTURNER

Journal of the American Association of Woodturners



Conversations With Wood

Stone Turnings of Baghdad

Think *Inside* the Box

December 2011 vol 26, no 6
woodturner.org
$7.95 US $8.95 CAN

Multiaxis Spindle Turning: Further Exploration

Eccentric Turnings

Jean-François Escoulen, France

Chicken Family, 2003, Elm, boxwood, cypress, 16" (40 cm) high

Collection of John Hill

The *Chicken Family* is the largest piece I made using my eccentric chuck, and that was a challenge!

Photo: John Hill

Untitled box, 2003, Ebony, pernambuco, 7" (18 cm) high

Photo: Yves Duble

Untitled boxes, 2006, (*l to r*) ebony, boxwood, 2¼" (6 cm); Osage orange, 2" (5 cm); Cocobolo, 3¼" (8 cm) high

Photo: Yves Duble

Untitled, 1995, Pear, 10½" × 8" (27 cm × 20 cm)

Center for Art in Wood Museum Collection

On loan from Albert and Tina LeCoff

Untitled, 1996, India rosewood, mahia rosewood, 12" × 8" × 3" (30 cm × 20 cm × 8 cm)

Center for Art in Wood Museum Collection

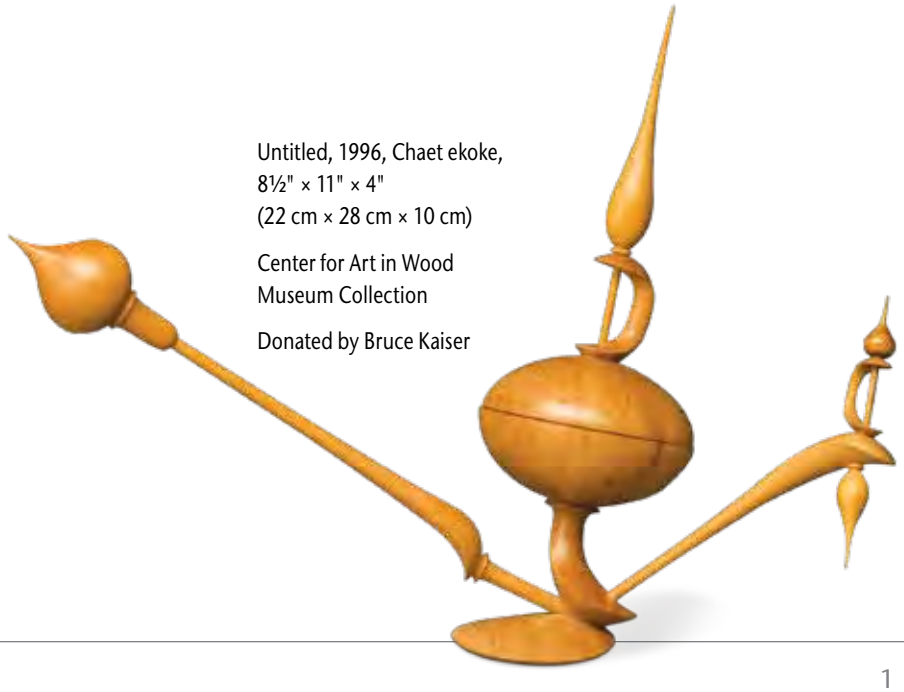
Donated by Bruce Kaiser

La Tour de Babel 2, 2008, Various woods, 12" (30 cm) high

Photo: Yves Duble

Untitled box, 2004, Angelique, ebony, 8¾" (22 cm) high

Photo: Yves Duble



Untitled, 1996, Chaet ekoke, 8½" × 11" × 4" (22 cm × 28 cm × 10 cm)

Center for Art in Wood Museum Collection

Donated by Bruce Kaiser

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

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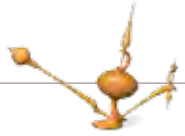
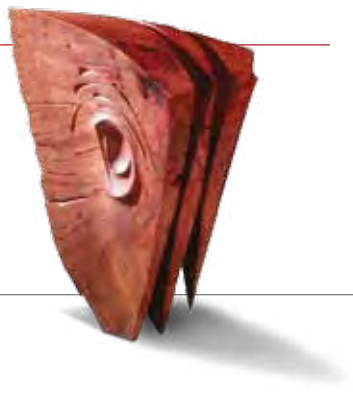


ON THE COVER

Cover – Barbara Dill, *Tea Set*, 2010, Holly, 10½" × 5" × 4" (27 cm × 13 cm × 10 cm) (teapot)

Back Cover – Stoney Lamar, *Muse*, 1994, Madrone burl, 12" × 8" × 8" (30 cm × 20 cm × 20 cm)



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

A NOTE ABOUT SAFETY

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

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

From the Editor

When I tried multiaxis turning years ago, it didn't take me long to realize it was outside my comfort zone, a process quite unfamiliar. It takes lots of practice to learn multiaxis turning, like other techniques and procedures, well enough to own the visual vocabulary of the various options. Barbara Dill clearly understands this—she has lived, breathed, and dreamt multiaxis turning for years in order to become proficient and knowledgeable. And like so many woodturners, she willingly shares her knowledge and enthusiasm with fellow turners.

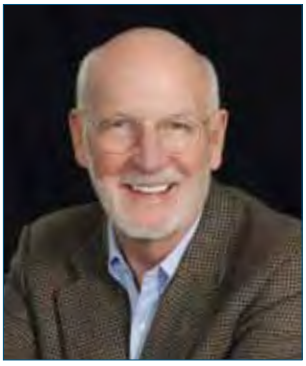
Barbara's new work is a true representation of her dedication and devotion to understanding multiaxis turning. Her tea sets are personally expressive. Barbara's approach is different from anything else I have seen. I hope you enjoy reading her article as much as I did working with her to bring it to completion. More than that, I hope many of you give multiaxis turning a try!

What pleasure I had collecting images of the entries from the AAW Forum contest. For several days, my inbox filled up with Christmas ornaments, putting me in an early holiday mood. Many entrants had a story to tell about the wood, the process, or the reason they made their ornament and I enjoyed reading each one. Perhaps you will consider entering the next Forum contest; it is a great way to expand your horizons.

Thanks to all the authors who shared their knowledge—this issue is packed with interesting and valuable information. Enjoy, happy holidays, and be sure to renew your membership in the AAW!

—Betty Scarpino

President's Letter



A Fond Farewell

At the end of 2011, I will have completed two years as Board President. Even though I will serve two more years on the Board, I have asked that the Board elect a new President for 2012. While I have immensely enjoyed serving as President during 2010 and 2011, I believe two years is enough. A new President will bring fresh ideas and renewed energy to the organization.

The AAW Board of Directors has nine members. Directors are elected by the AAW membership to three-year terms. Board members may run once for reelection, so it is possible to serve two consecutive terms. Congratulations to Board members Dale Larson, Binh Pho, and Cassandra Speier, each reelected to serve a second three-year term.

The officers of the Board (President, Vice President, Secretary, and Treasurer) are elected by the Board to serve one-year terms. The Board elected new officers for 2012 at our face-to-face meeting in November, and their terms begin January 1, 2012. I am looking forward to serving with our new executive team. Congratulations to Dale Larson, President, Cassandra Speier, Vice President, Jean LeGwin, Secretary, and Warren Carpenter, Treasurer.

As President, it was my duty to preside over the Board's deliberative process and to ensure that process was carried out in accordance with the AAW Bylaws and Policies and Procedures. The President is not, however, supposed to influence the deliberative process and only votes when the Board is deadlocked. As a regular Board member, I will have a greater opportunity to influence the deliberative process, and I'm looking forward to again becoming more actively involved in debating issues.

I am grateful to the AAW membership for electing me to two terms on the Board, and to the Board for the confidence it has shown by electing me as their President for the past two years. I look forward to serving the AAW membership in my remaining two years on the Board of Directors. Thank you!

With warm regards,
Tom

26th Annual International Symposium

San José, California, June 8–10, 2012

Save the date and don't miss the 2012 symposium in San José, California, at the McEnery Convention Center (sanjose.org/plan-a-meeting-event/venues/convention-center). San José International Airport is only 15 minutes from the Convention Center and hotels. Our world-class lineup of demonstrators and events promises excitement and learning for all. The spouse craft room with its separate list of demonstrations expands each year, as do the tours for family members. Make this event a destination for your family vacation!

While in town, take in the Community Forest of San José, estimated to contain more than 1 million trees on private and public property (sanjoseca.gov/tree/trees_heritage.asp). A wide variety of tree species provide great beauty, shade, and environmental benefits to Santa Clara Valley. You might want to also visit Plaza de César Chávez, Cathedral Basilica of St. Joseph, The Tech Museum, and Winchester Mystery House.

In addition to the largest Instant Gallery of turned objects under one roof, the symposium will feature three exhibits, "A Walk in the Woods," and the Professional Outreach Program's "Beyond Containment" and "Richard Raffan, Merit Award" exhibits. The Collectors of Wood Art (CWA) will sponsor a panel discussion and a session at the Special Interest Night on Friday.

AAW's Return to the Community fundraiser will be "Empty Bowls," which is perfect for AAW's membership to help end hunger in the communities where our annual symposium is held. What could be better—woodturners making, donating, and purchasing bowls, all for a good cause!

Registration information will be online (woodturner.org) starting January 1. A complete list of demonstrators and events will appear in the February and April issues of *American Woodturner*. ■

Accommodations

Symposium rates are effective from June 4–12.

San José Marriott: 301 S Market St
marriott.com/hotels/travel/sjcsj-san-jose-marriott/, 408-280-1300, $129

Hilton San José: 300 Almaden Blvd
www1.hilton.com/en_US/hi/hotel/SJCSHHF-Hilton-San-Jose-California/index.do
408-287-2100, $129

Convention Plaza *(Will become a Hyatt Place in January, 2012.):* 282 Almaden Blvd
cpsanjose.com, 408-998-0400, $125

EOG at Community School, North Carolina

Bringing woodturning to a new generation of turners is part of the mission of the AAW and its member clubs. Educational Opportunity Grants (EOG) are catalysts for new woodturning programs around the country and the world. Community School of Davidson, NC, was the recipient of a grant this year. The school's commitment to wood arts was a natural springboard to bring woodturning to our community's youth. By coupling school and student interest with money from the AAW, a successful woodturning program was embedded in the arts curriculum.

The story doesn't end with the grant money. A significant reason for the success of woodturning in the program was due to volunteerism on the part of former club president and active AAW member, Ric Erkes. Ric's hundreds of hours of service to our school helped to shepherd it along and grow the skills of numerous students. Through his frequent involvement, he ensured student success and ultimately maintained a high level of interest by teaching and demonstrating. Ric's commitment serves as a model for AAW members everywhere.

I urge all AAW members to share their skills with today's youth and tomorrow's turners by actively seeking out, or even creating, a local program for youth, and supporting it with regular, ongoing participation. Thank you to those clubs and members who are already giving their time and talents, and thank you Ric for making our program a success. ■

—Jim Dumser, Wood Arts Instructor, Community School of Davidson

A ninth-grade student in the woodturning program at Community School of Davidson made this natural-edge bowl.

AAW Board of Directors Election Results

Congratulations to Dale Larson, Binh Pho, and Cassandra Speier for being reelected to the AAW Board of Directors. Each person will serve a second three-year term.

Classes for Youth

The Piedmont Triad Woodturners Association (PTWA) meets regularly at the Leonard Recreation Center in Greensboro, NC. Each summer, the Center and its director, Jonathan Woodburn, sponsor a day camp for 12- and 13-year-old boys and girls. For the last four summers, PTWA has taught a woodturning class one day each week for five weeks of the day camp. A small fee is collected and used to buy dust masks, goggles, and supplies for turning projects. Using lathes the club owns and others borrowed from members and from the Greensboro Woodcraft, we set up six to seven workstations, each with an instructor and two or three students.

Club members donate wood for the projects. Instructors are members of PTWA and are required to be AAW members. In addition to wood, instructors provide their own tools and supplies, such as sandpaper and wood finish. Very proud students complete a turning to take home after each class. Projects include honey dippers, ring holders, baseball-bat-shaped pens, slimline pens, and small egg-shaped clocks.

This has become a rewarding part of our club's outreach, introducing students to the art of woodturning. Members enjoy discovering students who have a natural talent for woodturning. ■

—James E. Yarbrough, Jr., Vice President, Piedmont Triad Woodturners Association

Projects made by the students.

Local Chapter Builds International Relations

Central Oklahoma Woodturners Association (COWA) members hosted six Chinese students for a one-day bowl-turning class. The students are attending Oklahoma University, working on their doctorates in research science. Dewayne Colwell, Bob Jarrett, Michael Reggio, Wayne Furr, and Bill White gave personal instruction in turning a maple bowl with a segmented ring of cherry, padauk, or zebrawood. Turning the bowls were Li Wei, Chen Jiahi, Jiang Yuchas, Kang Minhua, Guo Ding, and Zheng Haita. Also attending the daylong session was Nella White from Norman, OK, their English teacher.

All students reported great happiness with learning the new skills of bowl turning in Dewayne Caldwell's shop. Li Wei said, "Getting to make a bowl was great fun, as was meeting several new friends from the turning club." The students' previous experience was limited to turning ink pens with Bill White. The students wanted to share with the entire club their appreciation for the woodturning lessons and new friendships in America. ■

—Bill White

Chapter Collaborative Challenge 2012

For the 2012 AAW 26th annual international symposium in San José, CA, the chapters and membership committee will again sponsor a Chapter Collaborative Challenge (C3).

Each AAW chapter is encouraged to submit one collaborative work created by as many chapter members as possible, with a minimum of six participants. Please refer to page 13 in the October issue of the journal for rules and guidelines. ■

Apply for an AAW Grant

AAW's Educational Opportunity Grant (EOG) fund continues to be strong, thanks to the wonderful generosity of donors and buyers at our annual symposium auction. Funds are available for worthy proposals. To be eligible, entries must be received by January 15, 2012. ***All AAW members are eligible to apply*** (except for recent recipients). You can complete the application form and review the guidelines at woodturner.org/resources/eog/.

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

- Complete the application online at woodturner.org/resources/eog/2012. Only online applications will be accepted.
- Provide sufficient information so EOG committee members can clearly understand what you are requesting and how you intend to use the funds. Please be as concise as possible to make your points direct and clear.
- Include details of how you will use the funds. Specific needs should be itemized. Funds will not be granted for miscellaneous, incidental, or unspecified expenses.
- Explain your educational goal or experience you wish to offer. Keep in mind that these grants are for educational purposes. In particular, please explain how others will benefit as well.

Grants are limited to $1,000 for individuals and students and $1,500 for local chapters, schools, and nonprofit organizations. Your budget may exceed these limits; however, your grant request should not exceed EOG limits. For special situations, at the discretion of the EOG committee and the AAW Board, grants are available in larger amounts.

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

Kurt Hertzog, EOG committee chair
kurt@woodturner.org

Renew Your AAW Membership!

There are several ways to renew: directly at woodturner.org; use the renewal form attached to the journal cover; or call the AAW office at 651-484-9094 or 877-595-9094 (toll free).

Prize Drawing for AAW Members

Thank You to Our Vendors

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!

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

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 Inc. Powermatic/JET powermatic.com and jettools.com

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.

First Place
Ed McDonnell,
Untitled, 2011, Loquat, atomized copper, 8" × 2" (20 cm × 5 cm)

Second Place
Curtis Fuller, Untitled, 2011, Bethlehem olive, walnut, 6¼" × 1¾" (15 cm × 4 cm)

Third Place
Bill Lewis, *Touch of Gold Christmas,* 2011, Maple, TomBow color, Prismacolor paint, 2¾" × 2" (7 cm × 5 cm)

Michael Gibson,
Untitled, 2011, Pear, African blackwood, 6" (15 cm) high

AAW Forum Contest

Holiday Ornaments

The challenge for the latest AAW Forum contest was for Christmas ornaments. The rules stated: The item must have been made within the last 60 days, until the end of the contest. Judging will be on creativity and use of chosen material.

Kurt Bird, Forum moderator, designs and coordinates the contests. John Lucas judged the November contest. To enter the next contest and view all the entries, visit the Forum section of the AAW website at woodturner.org. Additional information about the entries and the judge's comments can be found on the website. ■

Roger Meeker,
Jetsons Holiday Ornament, 2011, Pine, brass rod, paint, 7¾" × 3" × 4¾" (20 cm × 8 cm × 12 cm)

Scott Hackler,
Untitled, 2011, Quilted maple, African blackwood, 5" × 1¾" (13 cm × 4 cm)

Bob Davis, *Nutcracker,* 2011, Maple, acrylic, 3¾" × 1½" (10 cm × 4 cm)

Bernie Hrytzak,
That's a Wrap, 2011, Spruce, acrylic paint, 3" × 1¼" (7 cm × 3.5 cm)

Hal Taylor, *Angel,* 2011, Bradford pear, paint, 6½" × 5¼" (17 cm × 13 cm)

John Beaver, *Open Wave,* 2011, Walnut, maple, milk paint, 8" × 4" (20 cm × 10 cm)

Joseph Geiner,
Untitled, 2011, Mahogany, 7½" × 2½" (19 cm × 6 cm)

Michael Gibson,
Untitled, 2011, Pear, dye, 6½" (17 cm) high

Martin van der Sanden,
Untitled, 2011, Cedar, 9¾" × 3" (25 cm × 8 cm)

Curtis Fuller, *Angel,* 2011, Birch plywood, poplar, aspen, 5" × 4" (13 cm × 10 cm)

A Walk in the Woods

AAW's 2012 Exhibit Application Guidelines

A Walk in the Woods is the title and theme for the AAW's annual juried exhibit, premiering at the 26th annual international symposium in San José, CA. Open to any current AAW member, this year's theme honors the many parks and forests in California. From coastal redwoods to giant sequoia, bur oak, manzanita, and chinquapin, forest covers over 30 percent of this state's 1 million acres. Our host city alone boasts over 1 million trees!

The title, chosen from among many suggestions, is intentionally open to interpretation. For *A Walk in the Woods*, the true theme is excellence. We anticipate that this exhibition will showcase the depth, creativity, and skill of our membership.

A popular feature of the symposium, the annual exhibition is regularly featured in AW and other publications. A complimentary copy of the full-color exhibition catalog is provided for each winning entry and is for sale to anyone.

The show will be on display at the AAW symposium in San José before traveling to the AAW Gallery of Wood Art in Saint Paul. Additional venues are being sought.

Apply online now through February 12, 2012.

Application information

- This juried exhibition is open to AAW members of all ages, from any country.
- Up to three (3) pieces may be submitted for consideration per person, although only one piece per person will be selected for the exhibition.
- Images should be 1800 pixels on the longest side. Instructions on resizing images are on the website application page.
- A link to the online application form can be found at woodturner.org/gallery/walkinthewoods

Accepted works

The following criteria will be applied to all submissions. Work that does not meet these criteria will not be considered for acceptance:

- Work submitted should have been completed within the past two years.
- We are looking for pieces that have been created at least in part on the lathe; they may also be carved, textured, colored, and so on.
- Work must be for sale and must stay with the exhibit through its conclusion at the final venue.
- The work must in some way reflect the exhibit theme. You may include a statement of up to 150 words.
- This year a limited number of larger-scale pieces will be considered. *Larger scale* is defined as shipping in a box where the length + 2 × width + 2 × height exceeds 108".
- The exhibition committee reserves the right to reject pieces that do not match the submitted images or do not adequately meet the criteria.

Deadlines and fees

- Application deadline is February 12, 2012.
- Entry fee is $30.
- Applicants will be notified by mail no later than April 30, 2012.

Sales

A 45 percent commission will be taken on sales made at any of the exhibition venues. Sold work will remain with the exhibit until its conclusion. ■

Holiday Gift Ideas

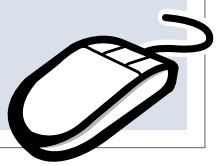
Share what you love about woodturning with a variety of combo gift ideas that can be found in your AAW website shopping cart at woodturner.org/shop/products.asp. Consider one or all of these gift ideas or combinations:

- Share the history of woodturning: 1 gouge and *Woodturning Today: A Dramatic Evolution* (includes free domestic shipping)
- For the beginner and young turners in your family: A Green AAW membership and mouse pad
- For your advanced or beginner turner: San José symposium registration (online registration available January 2012)

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!



Woodturning in the Caribbean

A conversation among friends became a mission of hope for a small group of unemployed individuals in the Caribbean nation of St. Vincent and the Grenadines (SVG). Bob and Rhonda Vaughn have devoted considerable time and energy through CAFC, Inc. (Christian Aid for the Caribbean) to feed hungry children in that island country where the unemployment rate is high. Bob's dream was to send a lathe there, and he asked if I would be interested in teaching the basics of woodturning so the islanders could create items to sell in the burgeoning tourist trade. My wife Sue and I saw this as an opportunity to combine my passion for woodturning and her enthusiasm for travel. Our exciting adventure would start with a purpose; we agreed to go in July 2011.

Bob and Rhonda shipped a mini lathe and tools to Rhonda's contacts at Kingstown Baptist Church in St. Vincent; Sue reached out to Michael McLean, construction supplies manager at Coreas Hazells Inc. for items we might need; and I prepared for what I thought would be a logical sequence of classes and products (bowls, pens, and bottle stoppers). My intention was to teach the basics of turning in four days.

Even though Rhonda, Sue, and I left on our mission with a few loose ends, we were full of anticipation for what turned out to be an amazing journey. Upon arrival, we found and set up the lathe but could not locate the pen kits. In Kingstown, our new friend Michael donated pine for practice and kabukalli and green heart for projects.

We lost electricity the first day of class, so I spent three hours checking out tools, examining the lathe, and answering questions from five energetic students, three of whom were part of a work-furlough program from the male prison in Kingstown. We finally began to turn, but initially it was challenging—not all the tools I was accustomed to using were there, so we innovated.

Frank shows students turning techniques on the mini lathe that was set up in the church building.

Three students proudly display their certificates and completed projects.

Each student learned the basics of turning bowls and pens so that they could in turn teach others.

We located the pen parts on the second day. I showed the students what to do, and they learned quickly. They even thought they had an avenue to market the pens.

After finishing their projects on the last day, I took photos of each student with his or her completed projects and gave each a certificate of completion. To these individuals, the certificate was something truly special. They were beaming, their joy and enthusiasm palpable as they shook our hands and thanked us all around.

Our contact at the church reported that within a week the students had orders for half a dozen pens. The church will continue the classes using the trained students as instructors. The church is also looking at the possibility of making custom-order pens from broken wooden items that have sentimental value. The idea will be discussed with the students to determine their interest and to offer opportunities for them to practice their new skills. ■

Frank Reed creates distinctive items crafted from trees that fell during Hurricane Katrina. He is a member of the International Wood Collectors Society and Lighthouse Woodturners in Mississippi. He can be contacted at frankreed45@att.net.

Local Chapter Contact Information

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

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

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

—Linda Ferber, Program Director

Smithsonian American Art Museum Announces Bresler Endowment to Support Curator Position at Its Renwick Gallery

The Smithsonian American Art Museum has received a gift from noted craft collector and local arts patron Fleur Bresler to create an endowment to support the current curator of craft position at the museum.

"Fleur Bresler exemplifies the meaning of philanthropy, supporting our craft program through her myriad contributions of time, expertise and resources," said Elizabeth Broun, The Margaret and Terry Stent Director of the Smithsonian American Art Museum. "We are honored to commemorate her and her late husband Charles's contributions to the Renwick Gallery through this gift."

"The creativity that has filled my life as a Renwick Gallery docent has been deeply satisfying," said Bresler. "The excellent shows produced and displayed at the Renwick educate the public and fulfill the artists' desire to benefit generations of viewers. I believe it is important to see these inspiring projects continue."

Fleur and Charles Bresler assembled one of the leading collections of American craft with an emphasis on textiles and objects of turned wood. The 2010 Renwick Gallery exhibition "A Revolution in Wood: The Bresler Collection" celebrated their gift of 66 pieces of turned and carved wood to the museum. The Breslers' gift, one of the largest of wood art to any American museum, established the Renwick Gallery as one of the preeminent public collections of wood art in the United States.

The Smithsonian Board of Regents approved the establishment of the Bresler Endowment in April 2011. Nicholas R. Bell, the current curator at the Renwick Gallery, will hold the title The Fleur and Charles Bresler Curator of American Craft and Decorative Art.

The Renwick Gallery (americanart.si.edu), established as a branch of the Smithsonian American Art Museum in 1972, features one of the finest collections of American craft in the United States. Its collections, exhibitions program and publications highlight the best craft objects and decorative art from the 19th century to the present.

A native of Washington, D.C., Bresler has served as a docent at the Renwick Gallery for 14 years and has been a presenter in multiple museum programs. In 2011, she was named as a Commissioner of the Smithsonian American Art Museum. She has also served on numerous nonprofit boards related to craft, including the James Renwick Alliance, the American Craft Council and the Center for Art in Wood (formerly the Wood Turning Center) in Philadelphia. Together with her husband, she helped fund and build VisArts, a multi-faceted visual arts center in Rockville, MD. ■

Educational Opportunity Grant Supports Training New Demonstrators

Maybe you have experienced a friend asking, "Pete, you've got a great piece you turned, why don't you show our club how you made it?" You might respond, "I don't know how to present it, I've never demonstrated before."

Two years ago Jerry Chandler, President of Chattahoochee Woodturners (CWT), Gainesville, GA, suggested we set a chapter goal of training people in demonstration techniques (Train the Trainer). We saw the need for training because (1) our chapter was having a problem finding qualified demonstrators in our area at a reasonable price, (2) some of our members seemed to be interested in presenting but believed they lacked presentation skills, and (3) not all of the demonstrators in the past had good presentation skills, even though they might be excellent woodturners.

Jerry explained the idea to the CWT and gained resounding support. A training committee was formed with Jerry Chandler, Mike Peace, and myself. With the help of an AAW Educational Opportunity Grant (EOG) to support our plans, we got to work.

Our plan:

- Develop an instructional DVD to assist new demonstrators.
- Conduct a hands-on workshop on demonstration skills.

Training committee members, *(l to r)* Dan Albertus, Frank Penta, Mike Peace, and Jerry Chandler.

Workshop participants, *(l to r)* Mike Peace, Bert Workman, Steve Mellott, Jim Hardy, Jim Underwood, and Jerry Chandler.

- Provide AAW with our training materials, which could be used by other chapters wanting to conduct a similar program.

An early step in our plan was to develop a DVD with a skilled demonstrator explaining how to develop and present an effective woodturning demonstration. We were fortunate to find an enthusiastic partner in Frank Penta. Besides being an experienced woodturning demonstrator, Frank has an extensive training background including advanced degrees in training and curriculum development. He has authored an AAW Best Practice, "Planning and Presenting a Useful Woodturning Demonstration" and one on developing demonstration handouts.

Our planning continued for months and the training committee met with Frank several times, including a visit to the John C. Campbell Folk School, where he was instructing. With the support of Marsha Barnes, chair of the Southern States Woodturning Symposium, we were able to arrange for Frank to deliver his presentation, "The Fundamentals of Being a Demonstrator" at the symposium at Gainesville in April 2011. We were able to video and edit Frank's presentation to produce the instructional DVD used as part of the participant prework for the planned all-day workshop.

Jerry and Mike co-facilitated the daylong, hands-on workshop in June. The local Atlanta Woodcraft store generously made their classroom available. The workshop provided an opportunity for participants to work in teams to plan, organize, and present a woodturning demonstration, which included a handout. The participants received feedback on their demonstrations, which included a DVD of their presentations for self-critique.

The participants representing four AAW chapters in the North Georgia area judged the workshop a success.

We have provided to the AAW all of the training materials that we developed for the all-day workshop, including pre-work, lesson plan, and participant handouts, as well as a copy of the DVD of Frank Penta's demonstration. We are hoping other chapters might use the training material we developed and build on our experience with their own demonstrator-training programs. ■

— Dan Albertus, past President of Chattahoochee Woodturners

Saskatchewan Turners Raise Money to Support Cancer Research

When a group of turners belonging to the Saskatchewan Woodworkers' Guild got together for an advanced turning class ten years ago, we had no idea that the class would grow into a yearly event to support cancer research.

It all started innocently enough. A friend signed me up for an advanced turning class presented by the Guild. I did not consider myself an advanced turner, but decided to attend anyway. I had a lot of fun. Larry Matisho, a Guild member and dedicated turner, hosted the class and Trent Watts instructed. Attending this class introduced me to the turning fraternity in the Guild.

Eventually, since the same people kept signing up for the class, it became more of a social gathering. We continued to get together in this manner for several years.

In 2005, Larry, who was in his mid-fifties, passed away suddenly from cancer. We decided to move the event to the industrial arts shop in the small community of Waldheim, Saskatchewan, where I teach. Rather than paying the host and instructor, it was suggested that a minimum donation of $50, in the form of a check made out to the Canadian Cancer Society, be the price of admission. Mel Genge agreed to handle the donations and with these decisions, the Matisho Memorial was born.

For the past six years, we have met in Waldheim, either in February or March. Each year, the event has expanded. In 2005, we had 15 lathes and raised about $500. By 2011, the event had grown to 30 lathes and about 50 in attendance. Although turning is the core of the event, other woodworking artists attend as well.

For many years, attendees were generally from the Saskatchewan Woodworkers' Guild and Hub City Turners. We have been somewhat successful in engaging the local media, which has attracted others interested in turning, but we are lacking equipment and/or expertise. Many turners are also bringing their children.

In order to introduce the craft to the inexperienced, the skilled turners really help out, and in the end, everyone learns. To accommodate the new turners, the local Lee Valley outlet in Saskatoon lets us use their training lathes and tools, which is a big help.

For me, the highlight of the weekend is lunch on Sunday that my wife and I supply for everyone. Traditionally, it was a simple affair, burgers and desserts. In recent years salmon steaks, shrimp (thanks to Gord Smith), and salads have been added. We eliminated all styrofoam, paper, and plastic utensils, making it more environmentally friendly.

We raised $3,100 for the Canadian Cancer Society this year. Our hope is that this event will continue to grow and inspire other groups to host similar events. A neighboring club, The Prince Albert Turners, is already on board. We appreciate that group's efforts. Turners can help fund cancer research. Find us on the Internet at turnersforcancerresearch.org. ■

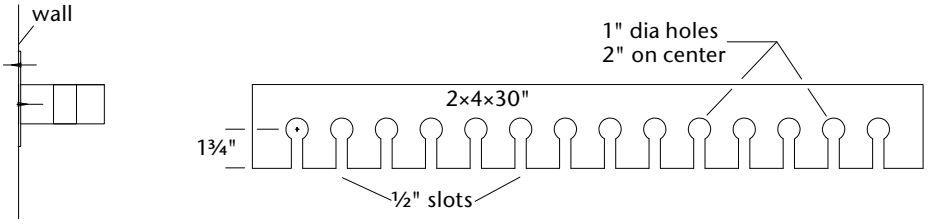
—Glen Friesen


Photo: Cal Isaacson

Tips

Simple tool holder

I designed an effective, simple tool holder that attaches to a wall. I mounted mine on a lower wall near my lathe. It is made from a single, 2" × 4" (5 cm × 10 cm) piece of lumber and can be any length. It can be made in about 20 minutes.
—Fred Bond, Florida



Attach to wall with metal plate and screws or screw through the 2 × 4 to the wall

Turning tool holder

Erasing pencil marks

In woodturning, sometimes we mark the contour lines at the wrong positions. Trying to remove them with an eraser can mean a lot of effort. It occurred to me that I could quickly and easily remove pencil lines by sanding them away with 150-grit abrasive.
—Charles Mak, Alberta

Best turning shirt ever!

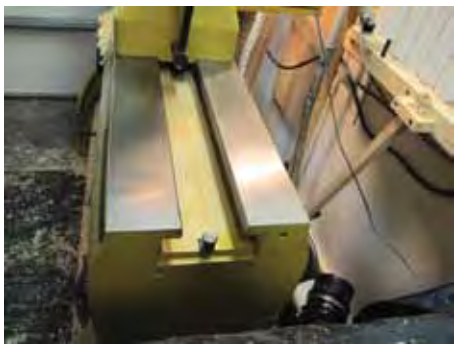
Neil Erickson and Jerry Trembly wear Neil's son's hand-me-down army shirts. They are perfect for woodturning—the sleeves and necks close using hook and loop tabs. The material is a tight weave, is dust proof, and cool. If you don't have someone in the army to pass along shirts, shirts can be obtained from army surplus stores or online. Be sure to buy the ones with the hook-and-loop closures, which cost around $30.
—Jerry Trembley, Wisconsin

Share your turning ideas!

If we publish your tip, we'll pay you $35. Email your tips along with relevant photos or illustrations to editorscarpino@gmail.com.
—Betty Scarpino, Editor

Plywood shelf for Powermatic

For my Powermatic lathe, I cut thin pieces of plywood to the correct width and inserted them into the bed between the ways. The plywood provides a safe, quick, and temporary place to hold some of the tools I'm using at the time.
—Jim Brinkman, Texas



Dust collector intake

I have a shelf at the bottom of my Powermatic. I took a standard dust collector floor sweeper attachment and built a V-shaped structure around it to help direct the wood chips to the intake. This makes the collection of floor sweepings more efficient.

I attached a length of wood to the dust collector gate and screwed a glass knob to the top. The gate is located behind the lathe, so now I can easily grab the knob, pull or push, and the gate opens or closes.

—Jim Brinkman, Texas

Easel tool storage

I recently made a lathe-tool storage that is convenient and easy to move. The easel positions the tools at arm's length away and stores away flat against the wall when space is needed. The easel is stable, allows for quick tool selection, and a burst of air clears shavings. The bottom rack is adjustable to position the tools for ease of access, then out of the way for storage.

The only change I would make is to resize the tool openings to accommodate larger scrapers.

—William Hutchinson, Tennessee

Sliding tool rack

Like many woodturners, I have my shop set up in part of the garage; floor space is at a premium. My lathe sits in a nook, so I attached tool racks to plywood sheets and mounted the plywood sheets to the wall near both ends of the lathe. I used Woodcraft's Accuride drawer slides. I can pull the racks out into the room when I'm turning. For clean-up, they slide back out of the way.

A fellow member of the Inland Northwest Woodturners club suggested the design. The racks are secured to the plywood with wood screws. The slanted bottom shelf does not catch dust and shavings and it is drilled to hold accessories.

—Chad Gladhart, Washington

Sliding shelf for grinder

My 8" (20 cm) grinder sat on a 12" (30 cm) shelf attached to a wall, which made it difficult to use with the Wolverine sharpening system, especially the V arm attachment. To solve the problem, I mounted the grinder onto a ¾"- (20 mm-) thick board and attached two epoxy-coated drawer slides that I screwed onto the shelf. This allows me to slide the grinder away from the wall so I can use the grinder attachments.

—Jim Brinkman, Texas

Mount natural-edge bowl blanks

Use a Forstner or spade drill bit the same diameter as your spur center to drill a hole about ½" to ¾" (13 mm 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 draw up the tailstock.

Additional benefits include creating a flat surface when turning a natural edge and removing punky bark or sapwood to get to the solid wood below. Also, the wood is less likely to fly off the lathe, even if it is unbalanced.

—Steve Schwartz, Virginia

PVC tool storage

I have a Powermatic 3520B that I primarily use as a short bed lathe so there is very little room on the lathe bed to lay a tool down. I screwed three lengths of 1" (100 mm) PVC tubes to the shelf under the lathe. Now I have a place to store the tools I am using so they won't roll off the short lathe bed.

—Michael Roper, Colorado

Bandsaw-tensioning arm

I devised a bandsaw-tensioning arm for my Delta bandsaw, which is easier to use than the knob that came with the bandsaw. I drilled and tapped the original tensioning knob and turned a handle, which I screwed into the knob.

To use it, I turn the handle to the proper tension. When I'm finished, I simply twirl the handle seven times to relieve the blade tension. When I use the saw again, I turn the handle seven times the other way. There's nothing magic about seven, so however many turns you use to relieve the tension, use the same number to tighten. Doing the tensioning this way is faster and more repeatable than turning the knob by hand.

As an aside, I use Timberwolf blades; they require less tension than most other blades.

—Jim Brinkman, Texas

Safe sanding hollow form openings

Many turners are using hemostats to clamp abrasive paper for sanding inside small openings of hollow forms and vases. It's tempting to grip the hemostats with fingers inside the loops, which can be dangerous.

Here is a safe way to sand the openings on hollow forms and vases. Use PVC pipe, size is up to the user. Wrap and glue hook material around one end. Add a hook-and-loop disk and you are ready to go. There are no loops to get fingers caught in.

—Dick Hines, Virginia ■

Smaller finish bottle

I like to use Mylands when applying a finish to my projects. I had the problem, though, of pouring too much onto my rag (and shoes) using the wide mouth on the bottle. I transferred the product to a squeeze bottle that has a small opening, so now I get a lot more projects completed with one container of finish and have stopped applying it to my lathe and shoes.

—Michael Cyr, Massachusetts

Calendar of Events

February issue deadline: December 15

Send information to editorscarpino@gmail.com

Australia
March 22–25, 2012 TurnFest! For information about this ten-year anniversary event, featuring demonstrators from around the world, visit TurnFest.com.au.

Canada
July 27–29, Saskatoon Twenty-Twelve Woodturning Symposium, SIAST Kelsey Campus, Saskatoon, Saskatchewan. Featured demonstrators include Clay Foster, Mark Sfirri, Jimmy Clewes, Beth Ireland, Andrew Glazebrook, Lyonel Grant, Michael Hosaluk, along with local demonstrators. For more information, visit hubcityturners.ca or call Saskatchewan Craft Council at 306-653-3616.

Colorado
December 10, "Student Show," Red Rocks Community College, Department of Fine Woodworking, Lakewood. The exhibit includes woodturnings, furniture, guitars, cabinets, and much more. For additional information, visit rrcc.edu/finewood/.

Florida
February 3–5, 2012, Florida Woodturning Symposium, Lake Yale Convention Center. Featured demonstrators include 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 at floridawoodturningsymposium.com.

Georgia
April 27–29, Southern States XII Woodturning Symposium, Georgia Mountains Center, Gainesville. Featured demonstrators include Kimberly Winkle, Jimmy Clewes, Bill Grumbine, and Mark St. Leger. Guest demonstrators will be announced in January. Forty rotations, Instant Gallery, gift certificates, door prizes, large vendor area, and banquet and auction Saturday evening. Information is available at southernstatessymposium.org or contract Marsha Barnes at 828-837-6532 or ml.barnes@brmemc.net

Idaho
February 25, 26, The 2012 Idaho Artistry in Wood Show, Boise Hotel and Conference Center. Competitions are for all skill levels, with cash prizes for top entries. Onsite registration of entries is February 24. Open to everyone. The show will feature demonstrations, vendors, and an auction and banquet. Prospectus and registration forms are available on the IAW website, idahoartistryinwood.org. For specific questions, email Doug Rose at roseboise@yahoo.com.

Illinois
August 3–5, 2012, Turn-On! Chicago, Mundelein, IL. Three full days with 60 demonstrations, hands-on events, tradeshow, onsite meals and housing, banquet, and auction. Demonstrators include Eli Avisera, Stuart Batty, Dixie Biggs, Bonnie Klein, John Jordan, and Kurt Hertzog. For event information, including a complete list of demonstrators, visit turnonchicago.com.

New York
March 31–April 1, Totally Turning Symposium, Saratoga Springs, held in conjunction with the 21st Annual Woodworkers' Showcase. Featured presenters include Trent Bosch, Giles Gilson, Kurt Hertzog, Joe Herrmann, Peter Lovalo, Glenn Lucas, David Nittmann, Chris Pytlik, and others. More details available at totallyturning.com.

Tennessee
January 27–28, Tennessee Association of Woodturners 24th Annual Woodturning Symposium at the Radisson Hotel at Opryland in Nashville. Featured demonstrators include Al Stirt, Dale Larson, Mark Gardner, Ashley Harwood, and Jennifer Shirley. View upcoming details on tnwoodturners.org or email tawsymposium@aol.com or call 615-973-3336.

Utah
May 16, Super Wednesday at Craft Supplies USA. Kick off the Utah Woodturning Symposium with us! More than twenty free demonstrations, clearance sale, door prizes, and much more! Barbeque luncheon offered. For more information, visit woodturnerscatalog.com.

Mark your calendars now!
AAW International Symposium
June 8-12, 2012
San José, California

May 17–19, 33rd Annual Utah Woodturning Symposium, UCCU Events Center, Utah Valley University, Orem, a reunion of family and friends, woodturners of all skill levels. Sponsored by Craft Supplies USA, three full days include demonstrators from around the world, hands-on events, live auction, pen-turners rendezvous, vendor showcase, banquet, silent auction, swap meet, and Instant Gallery. Online registration begins December 1 at utahwoodturning.com. For specific questions, email Susan Hendrix at shendrix@byu.net or call 801-471-0758.

Virginia
September 15–16, Virginia Woodturners' Symposium, Expoland in Fishersville. Featured demonstrator, Jimmy Clewes, will demonstrate both days. Hands-on sessions set this symposium apart from others with 4 rotations of 12 workstations each. Attendees will receive in-depth, up-close, hands-on woodturning instruction from individual mentors. New turners welcome. Visit virginiawoodturners.com for developing information.

Wisconsin
November 19–January 22, "Think Inside the Box," Leigh Yawkey Woodson Art Museum, Wausau. Central Wisconsin woodturners, woodworkers, and craft artists combine skill and imagination to create containers that hold items of interest or surprise. This exhibit is organized with the assistance of Wisconsin Valley Woodturners, a chapter of the AAW, and it complements "Boxes and Their Makers," a concurrent exhibition featuring the work of 32 contemporary woodworkers from around the world. For more information, visit lywam.org. ■

Add Reverse to a Mini Lathe

Don Doyle

I have a JET 1220 VS mini lathe and wanted to add reverse capability. It turned out to be much easier than anticipated, cost about $20, and took less than an hour to accomplish. This will also work with any lathe that does not have variable speed, as long as it has a DC motor.

The capability of reversing the rotation of the lathe is particularly useful when sanding. By sanding in both directions, you can achieve a much better surface. A word of caution, however: If you are using a chuck or faceplate, reversing the rotation of the lathe may cause the chuck or faceplate to be unscrewed from the spindle. Take the necessary precautions to secure these holding devices to the spindle.

If the reverse option is installed correctly, it should not harm your lathe. The most important part of the process is to get the wires correctly connected. Even so, proceed at your own risk—any warranty left on your lathe may be voided.

Parts

- One double pole/double throw switch (DPDT) with push-on terminals, rated sufficient for the voltage and current for your motor (available at Grainger, part # 2VLU3)
- Six insulated push-on female connectors
- Insulated butt connectors, crimp-on, as needed
- Wire nuts, as needed
- Wire, one foot each of black, white, and green wire. The gauge of the wire should be the same size as the wire in the cable or larger.
- Plastic electrical box with strain reliefs and solid cover
- Magnet
- Electrical tape

Directions

Unplug your lathe before making any of the electrical changes. Be sure to only change the direction of the lathe with the power switch in the *off* position and with the lathe stopped. Reversing the motor while it is running can cause major damage.

For a DC motor, all you have to do is add a switch to the cable going between the motor and the control box. Simply cut the cable *(Photo 1)* near where you anticipate placing the switch.

Trim back the jacket (casing) so that you can add connectors and reconnect where necessary. Insert both cables into the plastic electrical box. Be sure to make provisions for strain relief for both cables.

Put an insulated female push-on connector onto each of the black and white wires coming from the motor.

Add a length (about 6" long) of green (ground) wire to the green wire coming from the motor. Only connect it to the motor side for the time being. The green wire is the safety earth ground. It is important that the connections are made with insulated crimp-on butt connectors.

Connect two white wires (each about 6" long) to the white lead coming from the control box, making a Y connection using a wire nut. Do the same for the black lead.

Put an insulated female push-on connector on each of the black and white leads (4 total) coming from the control box *(Photo 2)*. I show the ground wire connected in this photo so that I could test my connections before putting everything in the box. You will want to make the ground connection after inserting the wires through the box.


1
Cut the wire.


2
Attach female connectors.

Now for the most important part: correctly connecting the wires to the proper terminals. The DPDT switch should have numbers on each side indicating the number of the terminal. Mine was numbered 1, 2, and 3 on one side and 4, 5, 6 on the other side.

The leads from the motor go to the center terminals. The connections go as follows.

Terminal

1. Black lead from control box
2. White lead from motor—this is a center terminal
3. White lead from control box
4. Black lead from control box
5. Black lead from motor—this is a center terminal
6. White lead from control box

You will note that the white and black leads from the control-box side are connected diagonally opposite each other *(Figure 1)*. This will allow the switch to be *up* for forward and *down* for reverse. There is also a middle or neutral position that will disable the motor.

Wrap the wires with electrical tape as necessary to ensure that there are no bare wires or connectors. Adjust the strain relief at each entry point. Without effective strain relief, the connectors could be disconnected through accidental pulling on the cables. Also, any movement of the cables could stress the wires at the connectors, causing breakage.

Drill a hole in the faceplate of the electrical box to accommodate the switch lever. Glue a magnet with CA glue to the back of the electrical box *(Photo 3)*.

Connect the two green (safety earth ground) leads (inside the box) using insulated butt connectors. Verify that the wires are connected to the proper terminals and put the cover on the box.

Label the switch positions F, N, and R *(Photo 4a)*. Turn on the lathe and note the direction of rotation. Turn it off and flip the reversing switch to the opposite setting, turn it on and again note the direction of rotation. Turn off the lathe. If necessary, loosen the mounting of the switch and rotate it so that the labels and the switch positions agree. Retighten the switch mounting.

Mount the switch where you wish and by whatever means suits you *(Photos 4a, 4b)*. Be sure that the switch is positioned so that it will not be accidently bumped, changing its setting.

Your lathe will have two switches, the normal on/off switch and the forward/neutral/reverse switch. The second switch must be in either the forward or reverse position for your lathe to run.

Now you can enjoy having reverse on your mini lathe. ■

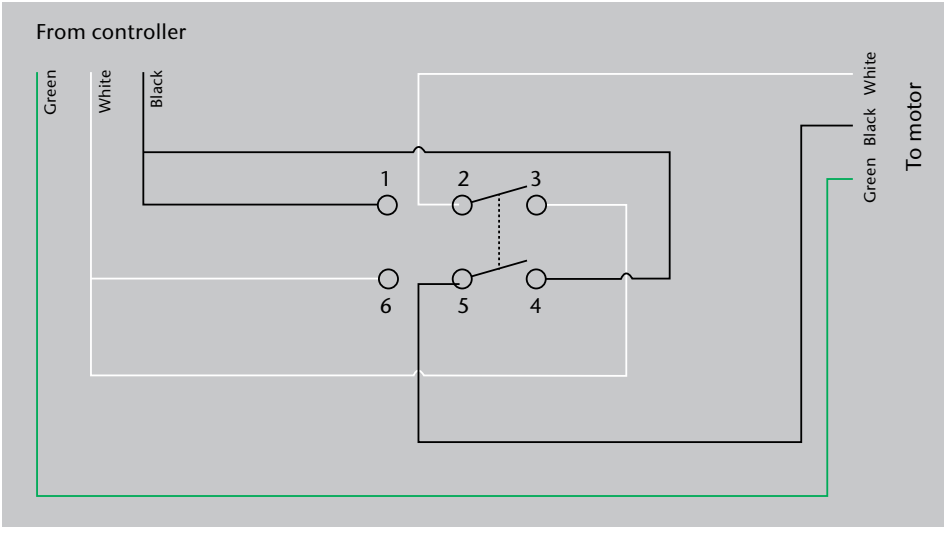


Figure 1. Wiring schematic for the connections to the switch. The switch is shown in the forward position. Note that the terminals on your switch may be labeled differently.

Glue a magnet to the back of the electrical box.

Label the box with F, N, and R and mount the switch in a convenient location.

Side view of the mounted switch.

Puzzle Pictures of Woodturnings

Dick Sing

Over the years, I have given bowls, bottle stoppers, pens, and a variety of other turnings as gifts to family and friends. It is that time of the year again to come up with something new and novel.

While shooting some pictures of my turned work, I had the perfect answer right in front of me, a collage of turned objects. My wife Cindy and I, almost simultaneously, commented, "Wouldn't that make a unique, challenging, great-looking puzzle?" So began our quest for a source.

Numerous online sources are available that make use of photos to create puzzles, calendars, mouse pads, or just about anything imaginable. There are many choices for size and the number of pieces for puzzles. Prices depend on the size, puzzle backing, and the number of pieces.

What wood-turned item would you photograph and like converted into a puzzle? Perhaps a collection of small items is just the right idea? Gather together a few bottle stoppers, pens, and bowls to see what you can come up with. Or, how about a photo of yourself, in your shop in action at the lathe, shavings flying? With a bit of preplanning, you could make a customized puzzle of yourself making a toy for one of your grandchildren. Give the toy and the puzzle to the child for a holiday gift. A turned top makes a great stocking stuffer and the puzzle to match would be unique.

If you want to be diabolical, choose something intricate, with similar colors and patterns, and with very little change in the background. This will make it more of a challenge to assemble the puzzle. Wood shavings are hard to link together, truly a puzzle!

The subject matter for puzzles is endless. Combined with your turning talent, the gift will be priceless. ■

Dick Sing teaches and demonstrates worldwide and is the author of nine books and various articles on woodturning. He combines the skills acquired from his former work in the tool-and-die trade with the eye of an artist. Dick lives in Illinois with his wife, Cindy.

Carbide Cutters Are Here to Stay

Lyle Jamieson

John English wrote about the manufacturers that produce carbide cutters in the December 2010 issue of *American Woodturner* (vol 25, no 6). Many woodturners use their own shopmade versions. This article will move the discussion of carbide cutters to another level to discuss how we use them for woodturning.

During my lifetime of working with wood, I've acquired information from others—reading books, attending demonstrations, and one-on-one conversations—as well as from personal experience. I had a learning curve to go through with carbide cutters, and this time much of my research came from the Internet, as well as from my own experience. There are conflicting viewpoints expressed on the Internet, but there is consensus enough to support my conclusions.

History

A few years ago, Mike Hunter asked me to consider using carbide cutters on my boring-bar system. In spite of my initial comment, "No thanks, carbide does not get sharp enough for turning," Mike began my education. He described the new technology of nanograin carbide. "Okay," I said, "prove it." And he did—my assumption was wrong.

Carbide cutters have been in use for decades: metal machining, military, sports, plastics, wood-production duplicators, and in flat woodworking for tablesaw-blade tips. The earliest mention I found for carbide was in the 1860s, but the woodturning tool market did not accept carbide until recently.

The first commercially produced use of carbide for turning that I know of was when Dennis Stewart put a carbide tip on his slicer tool, sometime in the early 1990s. It was the precursor of the coring systems used today. While it had wear resistance better than HSS or carbon steel, it would not get as sharp. For the use Dennis intended, however, it was perfect. Then why didn't other uses of carbide take off with Dennis's example? The answer is: *That carbide did not get as sharp as high-speed steel, and a diamond hone was required to sharpen it.*

Metallurgy

There are many different carbides and grades of carbide. Carbide is not just carbide. The quality of the manufacturing varies greatly, and the particles that make up the carbides are different sizes. A microscope is needed to see the difference. Let's break down carbide cutters into two categories. First is *tungsten carbide*. It is formulated from a gray powder and the result is three times stiffer than steel.

The second category is the new *nanograin tungsten carbide*, sometimes referred to as *micro-grain carbide*. The nanograin, as you might guess, is made of much smaller particulate than for tungsten carbide—the difference in grain size is that of BBs to beach balls. Nanograin carbide grains are cemented with another metal, usually cobalt *(Figure 1)*. Generally, there is 6% to 12% binder in the carbide. With optimum grade selection, submicron-grain-size particles of tungsten carbide are manufactured to have a razor edge. What does this have to do with us in the turning world? ▸

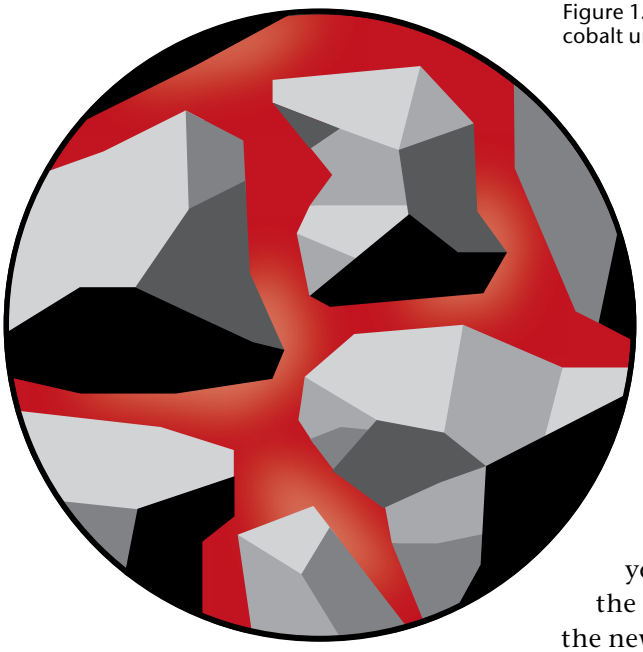


Figure 1. Magnification of carbide: Illustration of (gray) carbide cemented with (red) cobalt under high magnification.

Start with a sharp edge

In woodturning, we begin with a sharp edge on our tools, and the instant we start turning, the sharpness of the edge degrades. Let's do some math. Take a 10"-diameter bowl and calculate the circumference: 10 × 3.14 = 30+". Thirty inches of wood are passing the cutter every rotation. Let's say we are turning at 1,000 rpm. In one minute we have just cut 30,000" of wood—almost one-half mile or 500" per second. Will any tool retain its sharp edge very long?

After the initial sharpened edge is gone, the structure of the base material the cutter is made from is left. This remaining cutting edge is called the *land*. With carbide, the base material is very wear resistant and the tool will cut reasonably well for a long time on the land before the edge deteriorates enough to become unusable.

With nanograin carbide, the finer particulate will allow the edge to be even sharper to begin with than with the old carbides—manufacturers are able to produce a razor-sharp edge. The land edge left after the initial nanograin razor-sharp factory edge has been used to cut wood will still be sharp because the fine grain structure is resistant to wear.

How can you tell if your tools are made from the old-style carbide or the new nanograin carbide? The nanograin carbide is manufactured under high heat and high pressure. The surface ends up with a mirror or glossy finish. The old carbide will have a dull, flat-gray appearance. To confuse the distinction, some carbide manufacturers apply coatings to enhance sharpness. These coatings are usually yellow or gold in color and they are intended to mask the dull gray. The coating wears off quickly and the tool is now cutting with the land made of the same base metal structure.

Grain sizes and sharpness

I spoke with Tom Walz, President of Carbide Processors Inc. in Tacoma, WA, to compare nanograin carbide to HSS. He said, "Consider that the sharpness level of HSS is in the range of 1 to 20, with 1 being the sharpest possible for HSS starting out. Nanograin carbide, on the other hand, starts out at 2 or 3 sharpness. Turning with both for the same amount of time, HSS is dull and has reached a 20 while nanograin carbide is still sharp at a 4 or 5 in the 1 to 20 range." My conclusion is that the finer structure of nanograin carbide will begin with and hold a sharper edge than the old carbide and stay sharper longer than HSS. This is demonstrated to me in daily use of the Hunter nanograin carbide tools on my boring-bar system.

With HSS tools, the sharpened edge will degrade rapidly, but we can go quickly to the grinder and constantly renew the sharp edge to optimal performance. The sharpened edge of HSS tools will be sharper than the old-style carbide ever gets. You also can use a burr on HSS tools that is not present on carbide. Other steels like stainless and composites have the same trade-off. The knife industry has been struggling with this issue for centuries. The old carbon-steel knives would get sharper and last reasonably well for culinary needs, but they rust and their appearance was a problem. Flat woodworkers have been arguing forever about the best tool steel for router bits and carving tools.

Why use carbide?

Nanograin carbide tools cannot be resharpened to their original razor-sharp factory edge; they are designed to be disposable. They are, however, economical because they last so long. I believe they will wear up to 100 times longer than HSS.

Nanograin carbide cutters leave a much better surface on the wood than the old carbide. Why? Because it begins and remains sharper, and we can use a slicing cut that leaves a cleaner surface on the wood.

How woodturners use carbide tools

There are two types of cuts we can make while turning wood: a scraping cut or a slicing cut. It does not matter whether the tool is HSS or a carbide. The rule for scraping is the cutting edge must touch the wood at a 90° angle or less. Cutting at the centerline with the scraper held flat on the toolrest, the 90° angle is achieved by having the handle slightly up from horizontal (nose of the tool pointing slightly down). As the wood passes by the cutting edge, it scrapes some wood off. If we touch the wood with any sharp edge at more than a 90° angle, handle down with a scraper, the tool will dig in, starting a catch.

The rule for a slicing cut is the bevel behind the cutting edge must be supported against the wood. If you are slicing on an angle without bevel support, the cutting edge will grab, dig in, and skate across the wood's surface until you get a catch. This is a critical concept to understand and when you understand it, tool catches will become a thing of the past (see *Figure 2*).

The two different carbides are used for different cuts for different reasons. The old carbide is used in the scraping mode. Carbide cutters are especially useful for beginners. Learning to use a scraper is easy, and they can scrape for hours and their tool will still be sharp enough.

Old-style carbide cutters are also great for what they were originally made for—roughing out. The turner just presents the tool to the wood in a scraping mode and just pushes it into the spinning wood and scrapes away, keeping the handle slightly up, never violating the 90°-angle rule. The old carbide cutters are wear resistant, so going through dirty bark and miles and miles of waste wood, they will hold their edge for a long time, longer than HSS scrapers. The trade-off is that the old carbide cutters are not as sharp as HSS scrapers or bowl gouges, which is okay—we are using them as roughing tools.

The new nanograin carbide can be used for either a scraping cut or a slicing cut. Professional turner Mike Jackofsky has set up the nanograin cutters to work only in the scraping mode with a tip angle dedicated to scraping across the bottom, inside a hollow form. Mike Hunter developed his new Hercules tool to scrape in this manner, which works better than the old carbide because it is sharper. ▸

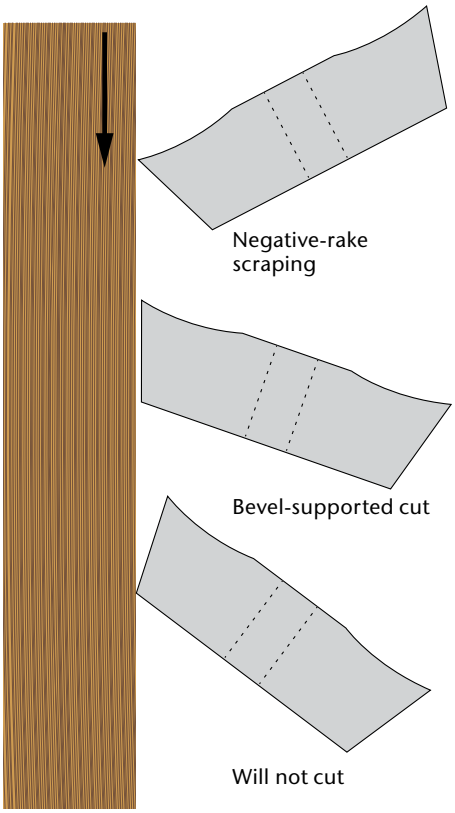
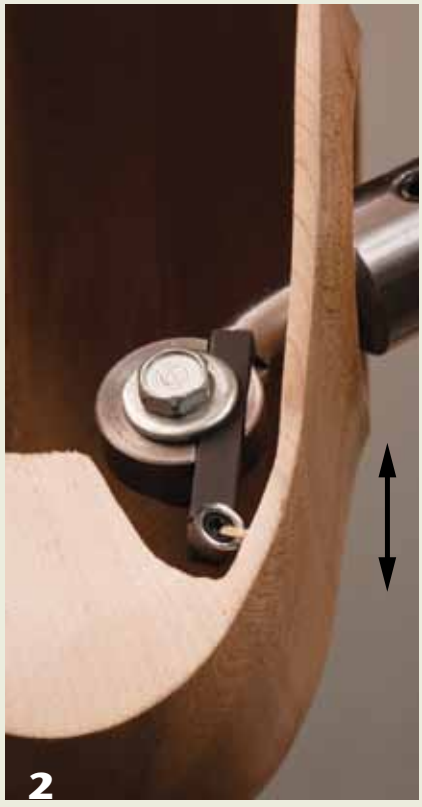
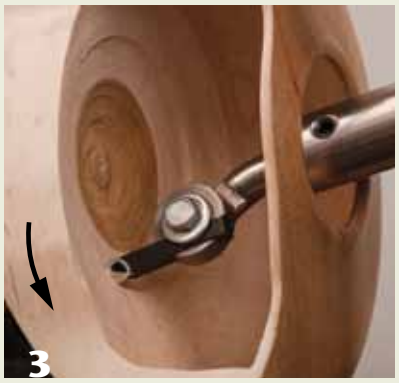


Figure 2. Nanograin carbide cutter in three positions tilted to cut wood (or not).

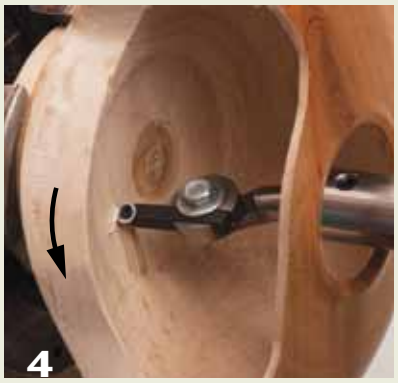
(Above) Carbide cutter clock positions for a nanograin cutter on 3⁄16" (5 mm) square shaft to be used with swiveling-head boring bar.



(Right) The carbide cutter is shown cutting under the shoulder of a vessel. The cutting motion can be in both directions, as indicated by the arrow. Notice the swivel has positioned the cutter to allow scraping at the 9:00 position. This means the carbide cutter is cutting at the 9:00 position and is directed toward the tailstock when cutting under the rim of the vessel. Note the obstacle created by leaving the waste wood behind the cutter, which could easily become a problem later.



The direction of cut is to the left when the carbide-cutter insert is angled to the left. The ring visible in the photo shows the transition shoulder between the surface of the wood just cut and the wood ahead of the cutter. Notice the large thickness of the shaving. The cutting motion is slightly pulling away from the tip, on a taper, across the bottom of this vessel. This hogging-off cut is aggressive and removes large quantities of wood quickly.



This bevel-supported cut in the bottom of the vessel is made with the cutter at the 12:00 position, angled to the left, and the direction of the cut is to the left. Note the fine shavings as a light cut is taken.

A light cut, riding the bevel, and slicing part way up the side of the hollow form produces a smooth surface. The cutter is cutting at the 12:00 position and the cut is to the left.

This is the correct way to undercut a shoulder by removing the waste wood from behind the cutter before working on the underside of the shoulder. The cutter is at the 12:00 position, riding the bevel, and slicing up the side wall to the left.

Mike Hunter, Trent Bosch, Eliminator, or Jamieson tools have set up the nanograin carbide inserts so the bevel can be used in a slicing action to get a smoother, cleaner surface on the wood. It acts as a hook tool or ring tool to slice through the endgrain fibers of a hollow form or lidded box. Mike Hunter has great tutorials on using nanograin carbide for slicing and scraping in bowls and hollow forms on his website, hunterwoodturningtool.com.

Nanograin carbide: Three cuts possible

The new carbide tool is one complex little workhorse. The 3/16" (5 mm) nanograin carbide cutter is efficient and in this case, smaller is better. Larger cutters stress the wood and the chucking method. Using this small cutter, it is easier to hollow deeper vessels without vibration. The turner takes many smaller cuts quickly rather than slowly grinding away with a larger cutter bit.

If you set it up as I do in my captured boring-bar system, there are three different cuts possible.

Let's envision the cutter assembly locked in a boring-bar swivel assembly and positioned straight forward. Looking toward the headstock and down on the cutter, imagine a clock face *(Photo 1)*. When presenting the 8:30 to 9:30 section of the cutter to the wood, the cutting action mimics that of a negative-rake scraper *(Photo 2)*. The arrow indicates we can cut in both directions while scraping.

The second type of cut is to use the cutter from the 10:00 to 12:00 section. The result is an angled slicing action that is efficient and easy to cut with *(Photo 3)*. In fact, this is the workhorse section of the cutter that gets most of the use

and abuse; wood can be hogged off. There is no bevel support for this cut or for the scraping cut. Note the arrow in *Photo 3*: Only cut to the left.

At the 12:00 position of the cutter, a bevel-supported cut is the result. It is a slicing action and leaves a smooth and clean surface behind. This cut is intended for removing only a small-shaving slice to clean up tool marks and prepare to sand, if needed (*Photo 4*). To make a bevel-supported cut, you must swing the handle to keep the bevel on the surface of the wood to make a curved shape inside a hollow vessel. As indicated by the arrow, the cutting action is to the left.

Even if the entry hole is small, the swivel will allow the 12:00 position to be used in any quadrant of the vessel, bottom, side, or top. This will require working in stages as you move the swivel often to position the cutter to use the bevel at the 12:00 position. The inside contour achieved from this method is really sweet because it is easy to pick up the line from a previous stage and carry it through the next stage (*Photo 5*). With a little practice, the line that the bevel and cutter follow will be superior to scraping cuts. (A laser-measuring device will help monitor the transition from stage to stage and keep a uniform wall thickness.)

The cutter will not cut in the 12:00 to 3:00 position. If you present this quadrant to the wood, it will just rub the shaft and the bottom edge of the cutter, and may even result in some chatter and/or vibration.

Learning curve

HSS cutters attached to the end of boring bars can be directed left, right, in, or out to produce a cut. With a nanograin carbide cutter, however, there is a bit of a learning curve. For example, the cutting action of the carbide cutter will always be to the left if it is angled or facing to the left. The direction the cutter is facing dictates the direction of the cut. It will try to "climb" if you try to cut in the opposite direction. Going the wrong way will not usually produce a catch, but it will cause the cutter to skate.

When hollowing under a high shoulder, make sure to get the waste wood out of the middle behind the shoulder of the vessel (*Photo 6*). *Photo 2* shows the incorrect way to hollow by leaving the waste wood in the way behind the cut. Removing the waste wood will prevent an inadvertent skate should you bump the wood behind the cut with the back side of the tool.

Photo 4 shows the correct direction for cutting the endgrain on the bottom of a hollow form. *Photo 6* shows the correct direction of a cut coming up the side of a hollow-form vessel. The cutter needs to cut pulling toward the shoulder of the vessel when the cutter is swiveled to the left. And in *Photo 6*, "left" is actually pulling the cut toward the tailstock. *Photo 2* shows the negative-rake scraping cut used to undercut the shoulder area.

The shearing/slicing cut of the nanograin carbide cutter produces a shaving. A scraping cut would produce sawdust. Try one of these little cutters on the nastiest wood you can find and you will be a believer. These nanograin carbide cutters excel in wet wood, dry wood, hard wood, and soft wood. There is no sharpening and they are economical. I find them to be easy and fast for hollowing, and I like it that there is less sanding required. It takes making a few vessels to master the cuts, but it is worth the effort. ■

One caution to keep in mind:

Do not combine the ride-the-bevel and the hogging-off cuts—that combination removes too much wood, too fast, and starts some vibration going. Doing both cuts simultaneously stresses the chucking method, stresses the wood, and stresses the boring bar. The trick to hogging off fast and easy is to cut with a slight sweeping or scooping motion to pull away from the bevel slightly as you cut. This will create a slight curve to the inside surface of the vessel (see *Photo 3*).

Photos by David Speckman Photography.

Lyle Jamieson is a full-time woodturning sculptor and instructor from Traverse City, MI. He is President of the Northwest Michigan Woodturners (tcturners.org). Lyle is known for his figurative sculptures and for the Jamieson boring bar and laser measuring system. He will be a featured demonstrator at the San José symposium, 2012. For more about Lyle, visit his website, lylejamieson.com.

Profile Turning

Roger Zimmermann

The Woodson Art Museum invited our club to participate in a show in which our works would complement the main feature, "Boxes and Their Makers." We were challenged to create items that did not have the box as the central focus but rather to concentrate on what might be *inside* the box.

One of my ideas was to turn a pie-pan form with a lid that looked like a piecrust, and inside I would fill the pie with four and twenty blackbirds, as in the nursery rhyme. The container would be relatively simple to create on the lathe. I could make the twenty-four blackbirds by sawing them out with a scroll saw or a bandsaw, but they would not be good enough duplications of each other, no matter how hard I tried (besides being laborious).

I had always wanted to work on a project utilizing the profile turning technique described in Jacob Holtzapffel's turning treatise *Hand or Simple Turning* from 1881. David Springett approached profile turning quite differently in his book *Woodturning Full Circle* when making knights for a chessboard, but he, too, managed to retain the element of complexity or even made the process more complex using many measurements and interpolating in between the points or connecting the dots, as he puts it.

In addition to difficulty, another reason that turners so seldom utilize profile turning is because of a lack of perceived uses for the technique. I teach woodturning and have discovered that students often just don't know what to make. They need specific projects; knowing the tools and the techniques is not enough.

Unlike flat woodworking, woodturning is so open-ended that coming up with an idea of what to create is elusive. There are many plans for cabinets, furniture, and bookcases, and by following instructions, a finished project is almost guaranteed. Figuring out what to make with profile turning may be even more challenging.

Fine detail for multiple pieces

With profile turning the turner is given the opportunity to incorporate fine detail into multiple, identical pieces, one to more than one hundred. A scroll saw cannot easily accomplish the sort of detail achievable with profile turning. Profile turning is like having a rabbeting plane with an infinite set of cutters or blades and is easier than most people realize.

Following the rabbeting plane concept, Holtzapffel uses four separate tools ground from steel to produce the front, side, top, and bottom profiles.

That was precisely what had kept me from toying with the technique until I discovered a method that makes profile turning easy to do and does not require creating separate special tools for each profile. In fact, it does not require any special tools. We woodturners already have what's needed.

Pattern

I made the blackbird silhouette pattern from wood using a bandsaw. You can use cardboard, colored paper, or other materials on which you can produce as fine a detailed pattern as you want, within the limits of turning. After creating the pattern, I painted it black so that as I turned, removing a lighter-colored wood down to the pattern, I could easily determine the exact depth of cut by watching for the tool to just nick the black paint.

The finished blackbird pattern is 1" (25 mm) high by 3½" (89 mm) long and approximately ½" (6 mm) thick. The process of profile turning creates a wedge-shaped piece when sliced radially, and I used that to my advantage since a bird's head is smaller than the body and the tail.

Construct the disc

I constructed the disc so that the wood grain would be primarily aligned radially when the blackbirds were sawn off. I wanted the cuts to be either side grain or edge grain or a combination of the two. I did not want endgrain to run the length of any of the birds; that would make the wood weak and prone to breaking. Cutting the board into 45° wedges, rotated to give the correct orientation, solved that problem *(Photo 1)*. If only a small number of cut-offs are to be made, this step may not be necessary—simply use a solid piece of wood.

The diameter of the disc needs to be large enough to create the allowable wedge shape. If the disc is too small, you will get steeper wedge-shaped cuts, so take that into consideration. The larger the disc, the more parallel the sides become. For my blackbirds, I utilized a 14"- (35 cm-) diameter disc, which would yield approximately eighty identical birds. I only needed twenty-four, but the shape of the wedge dictated the size of the disc. I will find a use for the other birds someday; perhaps "bake" another pie.

Maintain the center of the disc

Care must be taken when making the disc so that the exact center is maintained when the disc is reversed on the lathe to turn the other side. There are many ways to accomplish this, but the method I used was to screw the disc directly to a faceplate (the center area was not used, so the screw holes were not a concern).

Turn the disc round and make the center area of the face (side A) flat. Glue a round waste block onto the center of the disc. Turn the waste block true and to the appropriate diameter to be mounted into a scroll chuck when the disc is reversed. Other methods would be to use a Cole chuck, jam chuck, or vacuum chuck to ensure concentricity.

Cut a slot

Cut a slot into the disc to accommodate the pattern *(Photo 2)*. Glue the pattern into the slot making sure the orientation makes all points accessible to the turning tools. I oriented the pattern with the beak toward the inside of the ring.

Turn the ring

The process of turning down to the pattern requires stopping the lathe frequently to check on the progress. Watch for the cut to just nick the black pattern *(Photo 3)*. Sometimes I can see ▸

1
Glue together wedges to make a disc.


2
Cut a slot into the disc and glue in the pattern.


3
The blackbird pattern is just slightly nicked in one area.


4
The inside of the pattern is completely turned and sanded.


5
The second side is turned and sanded.

The first bird is sliced free of the disc.

The birds are easier to slice free if the center of the disc is removed, creating a ring.

The bird profiles are ready to be sanded and painted black.

fine shavings of black dust coming off the turning, which tells me that I am at the pattern depth. Work slowly, cutting one area to the pattern and then moving on to the next.

I found that by using a fine parting tool I could cut down to prominent features and then follow up cutting the areas in between with confidence that I was not going to cut into the pattern. For fine details such as corners or grooves, I used a sharp skew chisel with the long point down to cut defined edges.

Completely turn one side and finish sand before reversing the disc to complete the profile on the other side *(Photos 4, 5)*.

I decided to turn this disc down to the pattern on both sides without making a final cut to remove the center of the disc, which would release the outside ring. I thought that step wasn't necessary because the beak of the bird comes to a relatively sharp point, so that area did not require any detailing. With the turning and sanding complete, I marked the cut lines, using the center point to draw lines radially to the edges.

At this point, the disc could be mounted into a Cole chuck or other method to separate the ring from the inner disc. Doing so would allow for detail to be added to the inside of the ring and usually makes the slicing of elements easier. Before you separate the ring, though, you may want to first mark the cut lines on it, using the center of the disc as a reference point. Depending on the design you create, inside detailing may or may not be necessary once the inner disc is removed.

Slice the ring

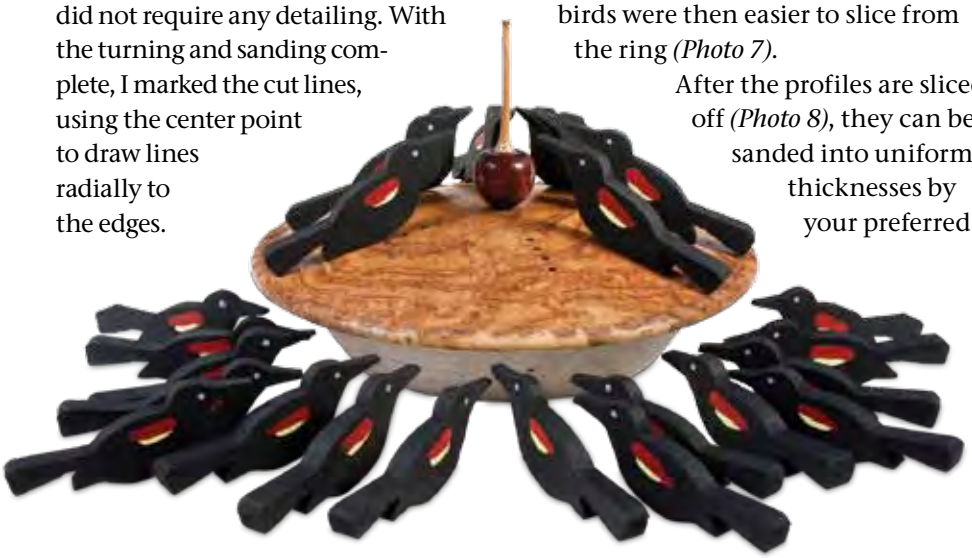
Cut along the lines to release each bird profile *(Photo 6)*. After slicing off several bird profiles, I realized that the process could be streamlined if the inner disc was removed. I did so by cutting the center away with the bandsaw. I smoothed the cut with sandpaper to shape the beak area. The birds were then easier to slice from the ring *(Photo 7)*.

After the profiles are sliced off *(Photo 8)*, they can be sanded into uniform thicknesses by your preferred method. You may also want to lightly sand the edges of the pattern by hand, but be sure to retain the fine details.

Other projects

Profile turning can be used to create a variety of other objects: knobs, beads, profiles of people (your children), trees, stars, keychain fobs, decorations to glue onto other projects such as cabinets or furniture. Christmas-tree ornaments, pieces for board games. Inlay pieces for parquetry. Tops for bottle stoppers. Chains of profiles on a string as garland for the Christmas tree; gears for movements or clocks, inexpensive items to sell at craft fairs, wooden buttons, drawer pulls, knights for chess sets, knife handles, snowflakes. Use your ingenuity and imagination to find ways to incorporate profile turning into your projects. ■

Roger Zimmermann is the president of the Wisconsin Valley Woodturners. A retired engineer, he has been turning for more than 35 years. He has taught turning at the Prairie River Woodworking School, Woodcraft, and the Boys and Girls Club. He holds two patents on pen-making tools. You can email Roger at LatheyBum@aol.com.



The maple burl piecrust is 7¼" (18 cm) in diameter and the pan is silver maple. The overall height is 5" (13 cm), including the cherry stem. The cherry is made from bloodwood; the stem is black cherry.

Think *Inside* the Box

Pat Peckham

One thing led to another when the curator of the Leigh Yawkey Woodson Art Museum in Wausau, WI, wanted local talent to host a woodturning demonstration a few years ago. It took just a few phone calls for curator Andy McGivern to connect with Roger Zimmermann, president of the AAW chapter, Wisconsin Valley Woodturners. The Woodson Art Museum is highly regarded, enjoying an international reputation and accreditation by the American Association of Museums. Zimmermann was more than willing to grant his request.

Club officers suggested setting up a few tables in the demonstration room so club members could display a variety of objects turned on a lathe. The quality of the work impressed McGivern. He said he would keep our group in mind for an exhibition in the future. Two years ago, planning began for something the club could do to complement a national touring exhibition, scheduled for November 19, 2011 through January 22, 2012. That exhibition, "Boxes and Their Makers: Contemporary Woodworkers," features well-known turners such as Bonnie Klein and Richard Raffan.

Brainstorming led to a theme and title for what the north-central Wisconsin turners would present in a gallery space adjacent to "Boxes and Their Makers." Taking off on the popular axiom encouraging inventiveness, we came up with a perfect title, "Think *Inside* the Box." Each of the twenty-plus boxes that made it into the juried exhibition has a lid or cover that, once removed, reveals surprising or precious objects.

Club members were inventive: a pie with "Four and 20 Blackbirds"; a container of turned cigars; tools of a shaman's trade; an optical illusion and pieces for a game the maker devised; oversize clamshells holding wooden "pearls"; and a circular tackle box containing turned fishing lures.

Our five-year-old turning club is making its mark. Members had an exhibition at the local Center for Visual Arts in 2009, featuring works from the wood of a historic tree (*AW*, vol 24, no 4) and a subsequent exhibit in 2010 featuring items made from trees culled from a beloved park. Wisconsin Valley Woodturners took best of show honors in the collaborative competition at the recent AAW symposium. Members are involved in teaching woodturning at the Boys & Girls Club of the Wausau Area, and we contribute silent auction items to local nonprofits.

For more information about the exhibit, visit lywam.org and to learn about our local chapter, go to wisconsinvalleywoodturners.org. ■

Photos by Roger Zimmermann unless otherwise noted.

Pat Peckham is Vice President of the Wisconsin Valley Woodturners.

Roger Zimmermann, *Pine Tree Hatchery,* 2011, Walnut pinecone, various woods, acrylic paint, 9" × 7" (23 cm × 17 cm)

Roger Zimmermann, *Woodland Crayons,* 2011, Pine box, various woods, 7" × 6½" × 3" (18 cm × 17 cm × 8 cm)

Roger Zimmermann, *Nasty Box-House Fly,* 1999, Pine box, maple, acrylic, 4½" × 5½" × 2" (11 cm × 14 cm × 5 cm)

Tony Kopchinski, *We Must Be Wood Duck Eggs,* 2011, Cherry burl, black palm, spalted white birch, cocobolo, hackberry, sumac, persimmon, Osage orange, purpleheart, cottonwood, claro walnut, spalted red oak, plastic, 3¼" × 12" × 4½" (8 cm × 30 cm × 11 cm)

Nancy G. Borger, *Some Ideas Are Brighter Than Others,* Light Ideas Series, 2011, Boxelder, maple, lacewood, hand-spun pewter, silver-plated metal, pigment, bleach, 10½" × 9¼" × 4½" (27 cm × 23 cm × 11 cm)

Robert Stavran, *...You Wish...,* 2011, Walnut, spalted birch, copper, 16" × 5" (41 cm × 13 cm)

Paul Martorano and Roger Zimmermann, *Oystershellus Wormwoodia Butternuttii,* 2011, Wormy butternut, ebony, white pine, cherry burl, bloodwood, curly maple, tagua nut, white oak, white ash, 2" × 5½" (5 cm × 14 cm)

Chet Warpehoski, *Penny the Pentopus,* 2011, Figured white ash, maple, brown ash, red oak, 5½" × 8" (14 cm × 20 cm)

Nancy G. Borger, *Sand Dollar Sun Hat,* 2011, Boxelder burl, bleach, acrylic paint, 3¾" × 4" (9.5 cm × 10 cm)

Lonnie Nylund, *No Smoke, All Mirrors,* 2011, Maple, mirrors, 4" × 8" (10 cm × 20 cm)

Joseph Garry Sack, *A Box of Beads,* 2011, Cherry burl, ebonized maple, gold, various beads, 2½" × 5" (6 cm × 13 cm)

Photo: Joseph Garry Sack

Pat Peckham, *Spin to Win,* 2011, Cherry, Brazilian rosewood, oak, Osage orange, walnut, Spanish cedar, 2" × 21" × 13" (5 cm × 53 cm × 33 cm)

Nancy G. Borger, *Cigars in a Cigar Wrapper,* Cigar Series, 2011, Amboyna burl, cherry burl, walnut, ash, pigments, vintage cigar bands, 10½" dia. (27 cm)

Joseph Garry Sack, *The Shaman's Talismans,* 2011, Maple burl, deer antler, bighorn sheep leather, toadstones, tamarind seeds, obsidian arrowheads, pottery shards, petrified wood, mountain goat horn, 3½" × 3" (9 cm × 8 cm)

Photo: Joseph Garry Sack

Bob Foss, *Can You See What I See?,* 2011, Maple burl, 6½" × 16" (17 cm × 41 cm)

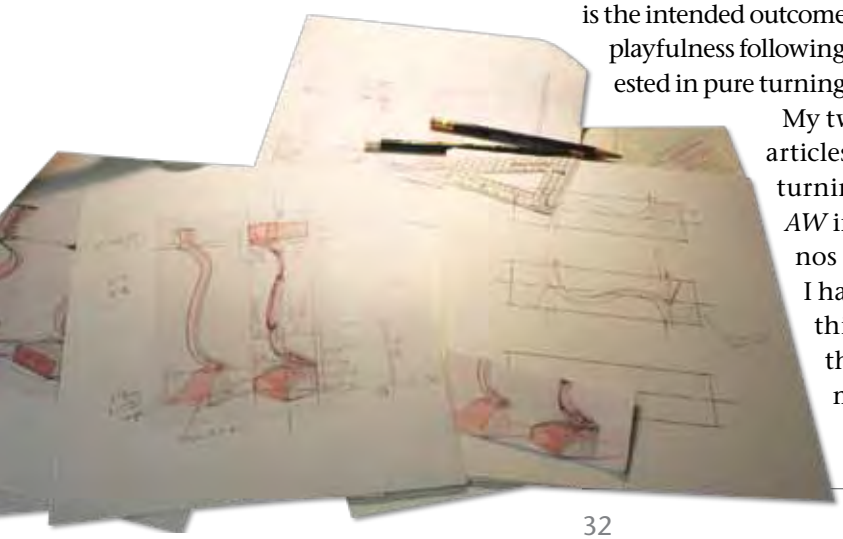
Barbara Dill

Multiaxis Spindle Turning: Further Exploration

Born into poverty in 1900, Louis Armstrong learned to play the cornet while in reform school. A few years later he was given his first cornet and mentored by King Oliver and others to play jazz by ear. The rest is history.

Some artists are like Louis. This article on multiaxis turning is for the rest of us.

Admittedly, multiaxis turning is complex. Even so, some turners can create forms randomly and get great results. Most of us, however, need a more structured approach so we can first experiment with confidence and then branch out in our own direction.



This article offers an updated conceptual model designed to systematically present the essential elements found in multiaxis spindle turning. An orderly exploration is the intended outcome, with creative playfulness following for those interested in pure turning pleasure.

My two previous articles on multiaxis turning appeared in *AW* in 2007 (vol 22, nos 3, 4). Since then, I have refined my thinking, explored the application of multiaxis spindles for a variety of projects, and combined the multiaxis concept with split and inside-out turnings to create a new body of work. Jazz is happening.

Significance of a conceptual model

Exploration with a structure

Changing the axis provides woodturners with unlimited forms, within the limits of the lathe and the wood. In music, the notes must be studied, the limits of the instrument understood, and the musician must have the skills to produce music. Theory, technique, and skill come first; improvisation (jazz) comes later. So it is with multiaxis woodturning. A

conceptual model provides structure and offers options that one might never realize if the axes were randomly changed and cuts arbitrarily made.

Repeatability

Turning on one central axis is straightforward and predictable. When many axes are used, forms are randomly created by luck and experimentation, and at times there seems to be nowhere to go. A conceptual model provides a systematic way to intentionally explore and repeat the forms that are possible.

Teaching concepts

Rather than giving a blueprint for what I make, this article provides the building blocks needed for a conceptual understanding of multiaxis turning. With this knowledge, you can experiment and combine forms to come up with new designs of your own creation.

Creativity

We are creative when we think for ourselves rather than copying ideas from others. The conceptual model helps woodturners learn the basic techniques of multiaxis turning, which then allows for confident, creative self-expression using multiaxis techniques.

The conceptual model

One central axis

When a spindle is turned on one central axis, the result (outcome) is always circular or cylindrical. The *profile* can vary, within the limits of *the length and diameter of the wood.* The elements for creating a variety of profiles are beads, coves, V cuts, and straight lines *(Photo 1).* ▸

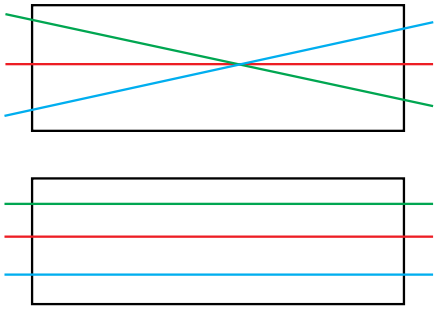


Figure 1. There are only two ways a new axis can be placed in relation to the center axis: parallel or intersecting. When a new axis intersects the center axis, the outcome looks twisted.

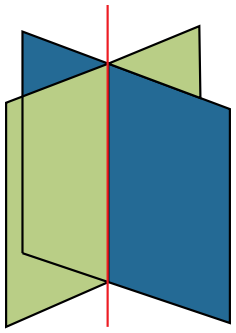


Figure 2. These planes intersect the center axis. The diagram can help with visualizing placement of the new axes in relation to the center axis and to each other.

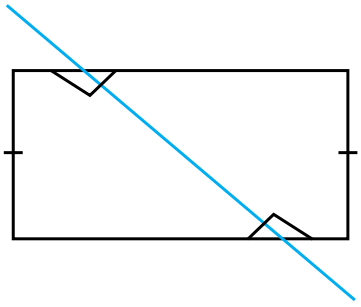


Figure 3. This axis is placed at an extreme angle to the center axis, one of thousands of ways to place a new axis.

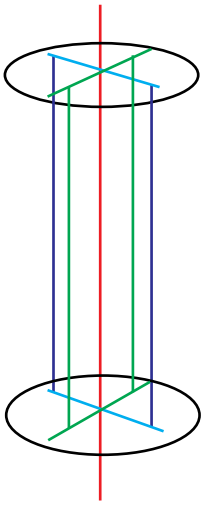


Figure 4. The four new axes are parallel to the center axis (red). The green axes are in the same plane with each other, as are the blue axes. Each plane is 90° to each other.

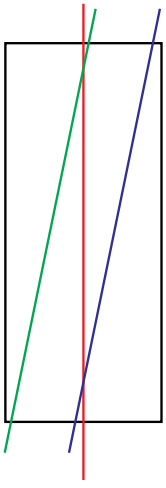


Figure 5. These axes are parallel with each other while intersecting the center axis.

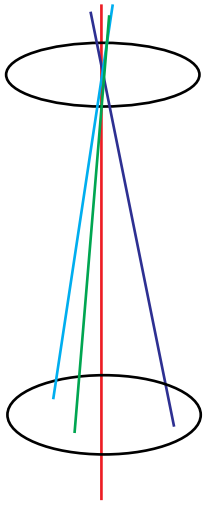


Figure 6a. The three new axes have been moved only on one end and they are twisted axes, meaning that they intersect the center axis (red) at some point.

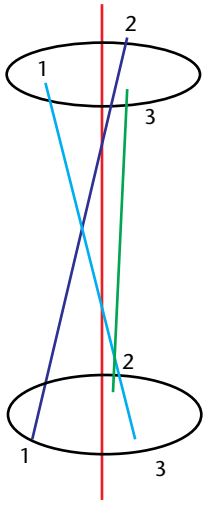


Figure 6b. The illustration shows the axes' connections at each end: axis 1 on the bottom is connected to axis 2 on the top, axis 3 on the bottom is connected to axis 1 on the top, and so on. The outcome will be twisted. Keeping the numbering consistent is essential to help systematically create (or re-create) multiaxis designs.

This spindle was turned with one central axis. The profile consists of beads, coves, and V cuts.

This multiaxis spindle is a circular-type multiaxis spindle. There are three axes on the bottom and one center axis on the top.

This arc-type multiaxis spindle has two axes parallel to the center axis and they are in the same plane.

Multiple axes

When turning a multiaxis spindle, there are only two outcomes or results: *circular type* and *arc type*. A circular-type result occurs when the axis of rotation is moved from the center axis to a new axis and the spindle is cut deeply enough to reach solid wood and form a new cylinder on which a profile is turned *(Photo 2)*. When the spindle is cut less deeply, not reaching just solid wood (still turning air), an arc on which a profile is turned is created *(Photo 3)*. It is important to note that for any multiaxis spindle, the result will be either a circular- or arc-type profile. This is the case when using either parallel or twisted axes (more on those later).

Variables

Just as traditional spindles are created by changing the profile on one axis, multiaxis spindles are accomplished by changing the profile on multiple axes. There are only two ways these new axes can be placed relative to the center axis: parallel to the center axis or crossing (intersecting) the center axis *(Figure 1)*.

The variables used for creating multiaxis spindles include, but are not limited to: (1) the various placements of the axes, (2) the number of axes used, (3) the distance from the center axis, (4) the way the axes are combined, (5) the axis orientation used to join the spindle to separate component, (6) the symmetry or asymmetry of the profile, (7) the depth of the cuts, and (8) the size and shape of the wood.

The basics of the variables

Placement of the ends

Either one or both ends of a spindle can be moved from its center point to create a different axis. That new axis can be in the same plane or in different planes *(Figure 2)*. The planes used can intersect at any angle and the axes can be placed either close or not close to the center axis.

A new axis, positioned close to the center axis, allows enough solid wood for a circular outcome, in this case, a bead.

A new axis, located close to the outside of the spindle, results in substantial air-wood. An arc-type outcome is possible.

Before the end points are changed to create a new axis, a bead and/or V cuts can be made into the cylinder using the initial central axis. Note that the entire spindle is turned to a cylinder before proceeding.

From the starting point of a bead turned on the central axis (see *Photo 6*), additional profiles are turned using other axes.

A disc shape works well as a transition form from one element to the next, one axis to the next.

Additional considerations

- The angle of an axis as it crosses the center axis can be extreme by using the sides of the wood rather than the ends *(Figure 3)*.
- An axis is considered parallel when each end is moved the same distance and direction from the center axis *(Figure 4)*.
- Axes can also be parallel to each other and can cross (intersect) the center axis *(Figure 5)*.
- An axis is considered twisted when each end is moved in a different direction and distance from the center axis so that the new axis intersects the center axis or another axis at some point. The spindle can be repositioned on one or both ends *(Figures 6a, 6b)*. The results look twisted.

Distance from the center axis

First, some terminology: I use two terms to describe the kind of wood presented to the tool in multiaxis turning. *Solid wood* is the wood that appears as a solid mass when the spindle is spinning around on the lathe. *Air-wood* is the wood that appears as a shadow as the wood rotates on the lathe. (Some turners call this wood *ghost wood*.)

The distance and direction the new axes are placed with relationship to the center axis are important considerations inherent in multiaxis turning. When a new axis is closer to the center of the spindle, the solid wood is large *(Figure 7, Photo 4)*. When the solid wood is large, a circular outcome is easier to create because (1) there is more solid wood on which a profile can be turned, (2) there is more wood available to connect the other new axes, and (3) there is less "cutting through air" to contend with.

Conversely, when a new axis is positioned close to the outside of the spindle, the air-wood is large. When the air-wood is large, an arc-type outcome is possible *(Figure 8, Photos 5a, 5b)*. ▶

Combining the axes' segments

There are many ways to combine the various profiles that can be created by each axis of a multiaxis spindle. A sphere, large bead, or a V cut can be turned on the center axis before the end points are changed *(Photo 6)*. From this starting point, a second segment, created with a different axis, can be created *(Photo 7)*. A disc with either curved or straight sides, sharp or rounded edges, is a profile that works well as a transition from one axis's profile to a profile from another axis *(Photos 8, 9)*. Jean-François Escoulen made popular a golf-club profile that distinctively links the segments of his multiaxis spindles *(Photo 10)*.

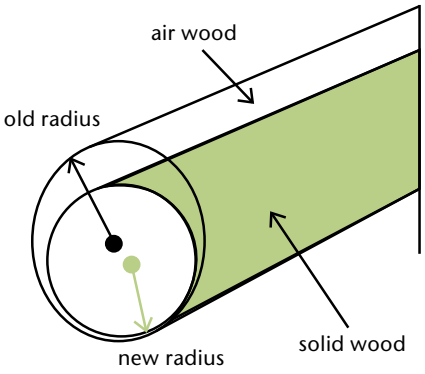


Figure 7. The new axis that creates the green solid wood is located closer to the center axis than to the edge of the cylinder. The solid wood is large, providing sufficient wood on which to turn a circular profile.

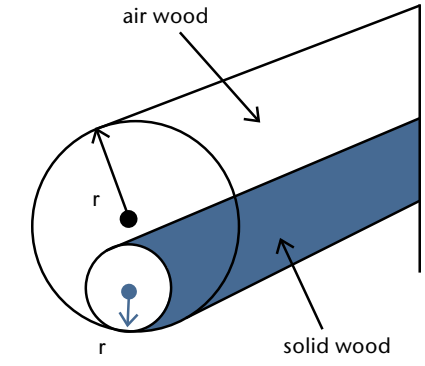


Figure 8. The new axis that creates the blue solid wood is located close to the outside of the cylinder, far from the center axis. The solid wood is small, which allows more air-wood onto which a profile can be turned, and the outcome will be an arc type. If, however, a circular profile is turned on the blue solid wood, the spindle would be thin, and it would be difficult to connect this axis to other axes that are located close to the outside of the spindle.

Two disc forms connect long beads with a sphere, joining the various elements of three axes.

John Pirson turned this spindle using a distinctive form made popular by Jean-François Escoulen.

The center axis of this multiaxis stem was used to line up the separate components—cup, stem, and base—of this goblet.

The axis used for the stem of this goblet is one that is parallel to the center axis and was also one that was used to create the stem.

An elegant candleholder can be created from a multiaxis spindle and base, with the addition of a separate cup on top.

Inside-out turnings can be safely held together with strapping tape. In addition, glue is applied at the ends. When finished, all four pieces will have been turned on four different parallel axes.

These spindles are the result of inside-out turning, turned on all four sides.

(A circular profile could be turned on the solid wood; however, the spindle would end up thin and fragile, making it difficult to connect to another element.)

Connect multiaxis spindles to a project

After a spindle has been turned, the next stage offers a multitude of design options. Any orientation of the spindle can be used (including an axis that was not used for turning) to connect a multiaxis spindle to a cup and base to create a goblet *(Photos 11a, 11b)* or candleholder. A spindle with base can be connected to a cup to end up with a candleholder *(Photo 12)*. The orientation you select can dramatically affect the look of a goblet, candleholder, or sculpture. Most of the time, however, the center axis is used to align the spindle to the components of a goblet or candleholder.

Thermed, split, and inside-out turnings

The axis is totally outside of the spindle when therming (see Art

Helpful hints for multiaxis turning between centers

- First, turn the entire length of wood to a cylinder. If the ends are not rounded into a cylinder, it is difficult to turn them later when the spindle is thin and fragile.
- Decide the type of outcome you will turn, or at least have an idea of the axes you want to play with. When the mounting points on the ends are determined, press the spindle between centers on those points so that later, when the spindle is fragile, the holes are already there.
- Number the axes not only on the ends but also on the outside of the spindle. I use a permanent marker that is dark enough to see the numbers *(Photo 14)*. Also, decide on a numbering system and stick with it. If the numbers are the same on each end and twisted axes are used, either remember the progression or write it down for reference (such as 1 to 2, 2 to 3, and so on). Even without distractions, it is easy to get confused.
- Take notes on the project so it can be re-created. I save a sample spindle with the ends intact to remind me of the process.
- Sharp tools and the speed of the lathe are important factors for making a smooth cut. The tool has more time in the air than on the wood when the speed is slow, causing the tool to bounce. To make smoother cuts, I use the fastest speed on my lathe, which is 3,000 rpm, whenever it is safe.
- When making an arc-type spindle and turning more than two axes, the depth of cut becomes critical. The toolrest can be used as a reference point for the depth of the cut.
- Sanding is a challenge because the surfaces are curved and the edges are crisp. My goal is to sand as little as possible. This means the cut must be as smooth as possible.
- Cloth-backed abrasive is thick enough to hold while sanding these surfaces. It helps

Write the numbers of the axes on the ends and sides of the cylinder so they are clearly visible. Even with a numbering system, though, mistakes are easy to make.

to sand each axis before moving on to the next axis. The circular type can be sanded with the lathe running, but knuckles are in danger, so use caution. The arc type and any other non-round surface must be sanded by hand, being careful to keep the edges crisp. I sometimes let the lathe hold the spindle while I sand it by hand.

Liestman, "Beyond Round—Therming," *AW*, vol 25, no 2). With split and inside-out turnings, the axis point is located at the extreme corner or edge of each piece of wood (see Peter Exton, "Turning Diamonds," *AW*, vol 25, no 1). For all three—thermed, split, and inside-out turnings—the outcomes are arc-type. For these methods, several pieces of wood can be safely attached together and turned, and multiple masterpieces (or multiple pieces of firewood) can be made at the same time.

The technical advantage of turning multiple spindles together is that the turning is balanced, even when turning large multiaxis spindles—the tool is cutting more solid wood than air and the cuts are smoother. There is unlimited opportunity for creative combinations of multiaxis turning to thermed, split, and inside-out turnings.

Personal expression

In my recent and ongoing explorations, I am experimenting with combining multiaxis turning with split and inside-out turnings *(Photos 13a, 13b)*. This exploration can be both frustrating and rewarding, but either way, the ideas are endless *and* the possibilities infinite. The rhythms of jazz are increasingly present in my head, appearing in my work as expressions of my own creation. There is much fun awaiting others who are willing to enter into the fascinating realm of multiaxis woodturning. ■

Barbara Dill lives near Richmond, Virginia, and has been turning wood since 1990. She teaches locally and regionally. Visit her website at barbaradill.com.

Recently I have been working with flat, rectangular pieces of wood to create containers. I place the wood between centers and turn the ends, as well as the sides. I turn the wood by cutting with the grain parallel to the axis of the lathe (as in spindle turning), and then reposition the wood to turn it with the grain running perpendicular to the axis of the lathe (in the same manner that a bowl is turned). The possibilities and combinations are endless.

An exploration in multiaxis turning can combine spindle turning with faceplate turning.

Multiaxis Conceptual Model

Variables	Arc Type	Circular Type
Parallel Axis (Does not cross center axis) Other variables **Profile:** straight, curved, or V cut, symmetry, depth of cut **Axes:** number of axes used, the many options of axis placement, distance of new axis from center, various ways to connect the axes, the axes used to combine a spindle to another separate element **Wood:** size and shape of wood		
Twisted Axis (Crosses center axis) Other variables **Profile:** straight, curved, or V cut, symmetry, depth of cut **Axes:** number of axes used, the many options of axis placement, distance of new axis from center, various ways to connect the axes, the axes used to combine a spindle to another separate element **Wood:** size and shape of wood		

Multiaxis Gallery

Barbara Dill

Barbara Dill, *Three Square Forms,* 2011, Maple, 11" × 3½" × 3" (28 cm × 9 cm × 8 cm) (tallest form)

These forms are an exploration into creating various forms using the same multiaxis concepts.

Barbara Dill, *Tea Set,* 2010, Holly, 11" × 4½" × 3" (28 cm × 11 cm × 8 cm) (teapot) 3½" × 2" (9 cm × 5 cm) (cups)

I used mental images of other turned and carved wood teapots for inspiration for my early exploration of teapot sets. This is my first. My goal was to turn all pieces between the headstock and tailstock. The square surfaces are turned using axes that are perpendicular to the lathe's axis. The spout is one of the tenons used in turning. There is no carving.

Barbara Dill, Untitled, 2011, Cherry, holly, walnut, 10" × 4" × 4" (25 cm × 10 cm × 10 cm) (center form)

Michael Hosaluk's playful approach to his work is very inspiring. He simply says, "I make parts and then put them together."

Barbara Dill, *Pitcher,* 2011, Maple, 7" × 3" × 2" (18 cm × 8 cm × 5 cm)

I turned the spout at the same time that I turned the front plane. Previously, I had carved the spout into the first pitcher I made, and then realized I could turn that detail. This approach minimizes the carving needed to finish the spout. The handle is carved and attached as a separate component.

Barbara Dill, *Tea Set,* 2010, Holly, 10½" × 5" × 4" (27 cm × 13 cm × 10 cm) (teapot)

I turned this teapot set with axes both perpendicular and parallel to the lathe's axis. The tops of the two teacups are different because the cuts were made on different axes. Imagine the design possibilities!

Barbara Dill, *Sugar Bowl With Spoon,* 2010, Holly, 5" × 3½" × 3" (13 cm × 9 cm × 8 cm)

The sugar bowl is six-sided. I turned the shape of the spoon; its bowl is carved out.

Barbara Dill, *Tea Set,* 2011, Mulberry, 7" × 5" × 5" (18 cm × 13 cm × 13 cm) (teapot)

Barbara Dill, *Cookie Jar,* 2010, Holly, 7½" × 4½" (19 cm × 11 cm)

This cookie jar has six sides, each one turned.

Multiaxis *Turning* Gallery

The work of many turners has inspired my own creations. The images in this gallery represent a brief overview of their multiaxis work.
—Barbara Dill

Derek Weidman, *Zebra,* 2011, Maple, ebony, pink ivory, 8" × 6" × 9" (20 cm × 15 cm × 23 cm)

Derek Weidman, *Asterion,* 2011, Cherry, holly, 12" × 10" × 9" (30 cm × 25 cm × 23 cm)

Photo: Karl Seifert

All the pieces in my Animal Series have the geometry of the lathe at the center of their creation. I begin with an appropriate-sized piece of wood and attempt to draw the animal, using as many axes as necessary. I move the piece around freely between centers, cutting away anything that doesn't belong. When the turning is finished, the abstract qualities and novel representation of the animal are the direct result of my attempts to tease a recognizable form out of my imaginative interaction with the lathe.
—Derek Weidman

Derek Weidman, *Rhino,* 2010, Locust, ebony, 9" × 7½" × 10" (23 cm × 19 cm × 25 cm)

Photo: Karl Seifert

Tom Crabb, *Three Pods,* 2006, Plum *(left)*, poplar *(center),* mesquite, 3½" × 5", 5½" × 8", 4½" × 5" (9 cm × 13 cm, 14 cm × 20 cm, 11 cm × 13 cm)

The mesquite pod is turned on two axes and hollowed from the bottom.

Tom Crabb, *Tango,* 2008, Hackberry, 8" × 3½" (20 cm × 9 cm)

Turned on two axes, then steam bent.

Mark Sfirri, Hall Table, 2011, Bubinga, mahogany, paint, 36⅛" × 41" × 15½" (92 cm × 104 cm × 39 cm)

Luc Deroo, *Tenue de Soirée #4,* 2010, Locust, 5" × 13" × 7" (13 cm × 33 cm × 18 cm)

Photo: Karl Seifert

Luc Deroo, *Lunar Landscape #11,* 2010, Redwood, 5" × 7" × 6" (13 cm × 17 cm × 15 cm)

Photo: Karl Seifert

Keith Holt, *Self Portrait,* 2011, Holly, 6½" × 3½" × 4" (17 cm × 9 cm × 10 cm)

I created Self Portrait using a sphere jig, and it is almost entirely shaped on the lathe.
—Keith Holt

Keith Holt, *Curious Figure,* 2011, Bradford pear, gesso, 14" × 4" × 5" (36 cm × 10 cm × 13 cm)

Curious Figure is the combination of multiaxis turning and carving, a process I am calling linear extraction.

Michael Hosaluk, *Conversation,* 2009, Maple, gesso, 10" × 12" × 5" (25 cm × 30 cm × 13 cm)

Photo: Trent Watts

Stone Turnings of Baghdad

Gregory Conti

When I deployed to Iraq, I expected to leave my turning hobby behind for the duration of my tour of duty, but I was pleasantly surprised. I was assigned to the sprawling Al Radwaniyah Presidential Complex in Baghdad. A former retreat for Saddam Hussein and his loyalists, now the headquarters of U.S. forces in Iraq, the complex was an oasis of palaces, villas, and once well-manicured grounds juxtaposed against the austere desert environment. Turned forms decorated the streets and adorned building interiors. Sadly, many were damaged due to neglect and the ravages of war, but others were in pristine condition. To combat the tedious nature of life in a combat zone, I set about photographing as many examples as possible in my off-duty time to share with the *American Woodturner* audience.

The site is now called Victory Base Complex by the service members who call it home. In its former life the Al Radwaniyah Presidential Complex was a closely guarded secret. We were told stories of locals who would avert their eyes out of fear when driving past the complex during the era of Saddam Hussein. Today, very few details are available on the history of the complex. My purpose with this article is to share a rare glimpse into the turned forms and related architectural details of the complex and to provide design inspiration for our own work. In a perfect and peaceful world I would have liked to have sought out workshops and spoken with the Iraqi craftsmen responsible for the construction of these elements, but unfortunately military service members were strictly confined to the base and such exploration was impossible. I will let pictures tell much of the story. ▸

A massive column adorns the entrance to Al-Faw Palace, the half-million square foot Baghdad home of Saddam Hussein.

Note the gentle curve and the reeding on the column decorating the Perfume Palace. As I passed by these features, I promised myself I'd turn them into peppermills one day.

The stone spiral staircase at Al-Faw Palace is highly polished; however, tool marks are visible on close inspection. The second floor landing has a single newel post, but is surrounded by matching railings.

The ground floor landing is embellished with two newel posts and each stair tread has two balusters.

Midway up the staircase, a chandelier hangs.

Detail of Perfume Palace column.

Many of the outdoor decorative stone turnings are intact.

(Far left) In the railing alongside the bridge over a canal, the balusters grow progressively shorter and appear to have been cut to fit from a single standard size.

(Left) The railing on the opposite side of the bridge over the canal has been destroyed. The bridge leads to a former children's play area nicknamed "Flintstone Village" seen in the background.

Exterior turnings and architectural details

As one would expect in a harsh desert environment, even the best-preserved turnings are weathered heavily by the sun, sand, and wind. Exterior turnings are relatively common and decorated stairways lead to rooftops where residents of the villas would enjoy cooler desert evenings. Craftsmen used balusters to create railings alongside walkways following the edge of the numerous small carp-filled lakes dotting the compound and turned forms were also frequently used to adorn small bridges for vehicular traffic. The turnings themselves are of simple design, appear to be of sandstone, and bear no tool marks due to years of natural sandblasting. The damaged turnings provide insight into their construction.

The palaces of the complex are decorated with beautiful columns of a distinctly Middle Eastern flair and rise 50 feet (15 m) or more into the air. What beautiful designs for pepermills these columns would make. The smaller villas also include other architectural details that would be stunning if constructed in wood, such as elegant mosaics of simple design.

Interior turnings

Interior turnings are in exceptional and well-cared-for condition. Again, balusters decorate staircases and railings, but indoors the stone appears to be marble or crystallized gypsum, which was likely imported. The palaces themselves are ornate and despite attempts at elegant construction there are frequent signs of questionable workmanship and cost cutting, such as glass used instead of crystal in chandeliers. Given the exorbitant costs of creating these palaces, such design trade-offs and attempts at limiting expense are not surprising.

The complex and many other facilities across Iraq are now being returned to the Iraqi government and people; the window for Western eyes is, for now, closing. Perhaps one day we can return as tourists and stroll the streets, examine the turnings, find design inspiration, and admire the country that is Iraq. ■

Gregory Conti is an AAW member and has been a woodturner for seven years. He resides in the Hudson Valley of New York, where he teaches computer science at West Point, U.S. Military Academy.

The views in this article are the author's and do not reflect the official policy or position of the U.S. Military Academy, the Department of the Army, the Department of Defense, or the U.S. Government.

Less grand than those of Al-Faw Palace, stone balusters support a railing in a large villa nearby, now a military recreation center.

The palaces and smaller villas have numerous interesting designs and architectural details. This repeating pattern from the exterior of a villa would look stunning in wood.

Damages from the ravages of war reveal important construction details. Note the use of a reinforcing steel bar to anchor the base of each baluster.

Rick Reeves

Lyndal Anthony

Custom-Made Spinning Wheels

Rick and Marge Reeves show off their personal spinning wheel.

Rick Reeves is an artist, craftsman, and a living legend among the spinning-wheel world. He has performed his art for King Olaf of Norway and later Princess Ragnhild of Norway. Rick and his wife Marge have lived a dream that most only imagine.

In 1964, Rick quit his job as a tool and die maker to satisfy the demand for his woodturning skills. For the next thirty-five years, he felt as though he was on vacation, doing what he loved best, working with wood. Some days, Rick worked twelve to fifteen hours. Rick estimates that he spent more than 52,000 hours turning. He liked his flexible work schedule, because he could go out to his shop at any time and try out an idea that was keeping him awake.

Fascination with spinning wheels

Many years ago when Rick was approached by the "Spinning Lady of Iowa" to make repair parts for her antique spinning wheel, he became instantly hooked on making spinning wheels. In total, he has made more than eleven thousand of them, has shipped them to all corners of the world, and each wheel is a valuable collectors' item, earning Rick the recent distinction of being a living legend.

Rick's fascination with spinning wheels, combined with his mechanical abilities, prompted him to refine the design of spinning wheels and improve his production techniques. While he turned, he mused over the various ways to speed up the processes. One idea that did not work, however, was the new-on-the-market duplicator he acquired. After using it only five minutes, he hung it on the wall—it slowed him down too much. Just imagine: more than two hundred seventy-five thousand spindles, all turned by hand!

After repeatedly spinning the lathe's tailstock handwheel in and out, Rick completely wore out the tailstock of his favorite Delta lathe. He replaced it with a pneumatic cylinder that saved him several seconds on each piece. Another timesaver he employed, unheard of by most turners, was changing turning blanks while never turning off the lathe. With the lathe spinning at full speed, Rick easily removed spindles and mounted another length of wood.

Rick's familiar stance, of turning with one hand on the headstock, working the scrapers and skews with perfection, all while talking to you, looking you in the eye, is pure magic to watch!

Spinning wheels were only half of Rick's work. He also made architectural turnings: spindles, newel posts, and porch columns as long as 17' (518 cm) and as wide as 8" (20 cm) in diameter. He had to combine five Oliver lathes, end to end, to accommodate the length.

Products

One of Rick's first moneymaking projects was candleholders that he marketed as "zebrawood." They were made from pine that he burned with a propane torch. When he sold them in the Southwest, they became Navaho-style candleholders. Early in his career, Rick used a lot of pine because, as he states, "I didn't know how difficult softwood was to turn and there was plenty of it around."

Rick demonstrating at a Harry Nohr Woodturners meeting.

Rick paid attention to what sold and kept his showroom well stocked. Sometimes it was challenging, though, to keep enough inventory available. As many as twenty-five tour busses a day would stop, loaded with customers who carted off newfound treasures. The location of his shop, near a busy highway, provided him with a ready and growing audience. With this audience, his fame started to spread.

Turning method and tools

Rick's almost exclusive use of short-handled gouges, particularly scrapers, sets him apart from most present-day woodturners. The short handles allow Rick to use the tools one-handed. A longer handle forced him to move his body in order to swing the handle side to side, which cost him precious seconds.

Rick sharpens his skew at a 90° angle, similar to the angle used by pole-lathe turners years ago. This angle allows Rick to save time by simply turning the tool over for another sharp edge instead of stopping to resharpen. He loves the newer oval-shape skew chisels—they make the skew easier to maneuver. Another feature that Rick incorporates is a small flat on the top of the handle, which allows him to orient the tool without even looking at it.

Rick's sharpening process is quick and efficient. He grinds bevel angles at an unconventional 45° on his scrapers, even while he admits that he doesn't try and find out exactly what the angle is. Rick's theory is that it worked for him and he never had time to waste experimenting with the "proper" angles or tools. How can a person argue with that when you consider the sheer volume and quality of Rick's work?

In addition to improved techniques, unique jigs and fixtures, and the machines required for production turning, Marge helped Rick achieve success. Marge managed the sanding, other machine and tool operations, business activities, and customers, allowing Rick to concentrate on improving production.

Rick has also demonstrated lathes for many of the major lathe manufacturers throughout the United States.

Pricing for production

One spinning wheel maker once told Rick that his prices were too low. This fellow sold his wheels at a higher price, but only made three or four spinning wheels a year, barely enough to make a living. Rick made three to six hundred wheels a year. He and Marge stayed in the best hotels and lived a comfortable life.

Several universities studied Rick and his production techniques. One professor told him that he couldn't make money selling spinning wheels at the low prices he was charging. To demonstrate that he knew what he was doing, Rick and Marge went to the shop one Saturday and made twelve spinning chairs, a simple chair with four legs and no rungs and a removable single-slat back. His gross profit for that day was $1,500, which was a lot of money in the 1980s!

Philosophy

Rick wants everyone to keep in mind one thing about turning: It should be fun! Enjoy what you do, no matter how crude it may appear to someone else. If you like what you do, that is all that matters.

Rick's only regret is selling his business in 1999 to retire (although he continued to make spinning wheels for the new owner until 2001). Even though he is now fully retired, Rick is active. His schedule is full and he still does a lot of turning for various customers, including making handles for beer taps for custom brewers.

For more about Rick Reeves visit dreevesinc.com/rickreeves.html ■

After a career as a machinist, Lyndal Anthony enrolled in college and graduated from the University of Northern Iowa in 2005 with a teaching degree in industrial technology. Because he was going to teach woodturning, he took a bowl-turning class, and was referred to the Quad Cities Woodturners for mentoring. Through the help and encouragement of club members, he became an avid and competent turner. Lyndal has demonstrated woodturning at Technology Education Association of Illinois and Wisconsin Technology Education Association state conferences for the past two years, promoting woodturning in schools.

Photos by Amanda Williams, inyourworldportraits.com

(Top left) Marquetry detail on the spinning wheel.

(Top right) Detail of the flyer.

(Bottom left) Detail of a hummingbird adorns this spinning wheel.

(Bottom right) Wheel of tools that Rick used to create the wheel.

Todd Williams

Double Helix

At a recent Minnesota Woodturners Association meeting, Duane Gemelke gave an excellent demonstration of multi-axis turning. He referred to Barbara Dill's articles several years ago in *American Woodturner* (*AW*, vol 22, nos 3, 4). As I looked at those articles and thought about Duane's presentation, I realized that multiaxis turning could be used to produce spirals or helices. I used that technique to make a double-helix candleholder.

Mark the ends and segments

Begin with square stock; I used two 2" × 2" × 6¾" (50 mm × 50 mm × 170 mm) lengths of poplar (one for each helix). The larger the diameter, the larger radius spiral you can make. The longer the stock, the larger pitch spiral or the more turns in the spiral you can make. Having the square stock is helpful. Read the entire article before proceeding.

On each end of both pieces, using a pencil, draw diagonals. Also draw bisecting lines through the center and perpendicular to the sides, so you end up with eight points. Then draw a circle. The intersections of the circle with the straight lines should be evenly spaced *(Photo 1)*. I used a circle with radius of ⅜" (9.5 mm). It is important to provide enough space between the circle and the sides of the wood so that there is enough wood to support the spurs of the drive center without splitting the wood.

I use a spur center because the tailstock pressure required to drive the piece is not as great as is needed with a safety center. After much of the wood has been removed, the work piece becomes spring-like and susceptible to breaking if too much tailstock pressure is applied.

On the headstock end of the wood, make indentations at each intersection *(Photo 2)*. Be sure the spurs make marks heavy enough that you can easily get back to later to drive the piece with minimal tailstock pressure. Small deviations are not critical. On the tailstock end of the wood, make a small indentation at each intersection using a nail or scratch awl. These points will locate the pin of the live center *(Photo 3)*.

Turn to a cylinder

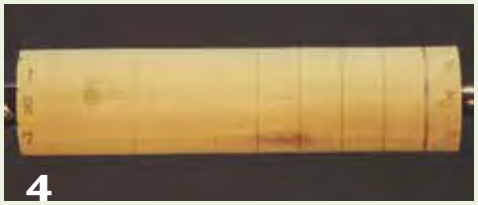
Mount the first length of wood between lathe centers, using the center points on each end, and rough to a cylinder. At the headstock end, write on the side of the cylinder the locations of the intersections on the end, 1 through 8, around the cylinder. Do the same on the tailstock end, and make sure the numbers correspond. One set of numbers will read clockwise, the other counter-clockwise *(Photo 4)*.

On each end of the cylinder, mark a ½" (13 mm) long no-cut zone. Divide

Mark both ends of each length of wood with intersecting lines and a circle.

At the headstock ends, make deep marks with a spur center. Position the point of the spur center at each intersection of the circle and lines.

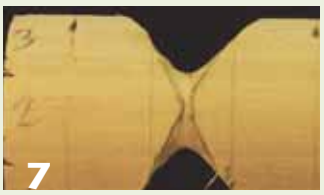
At the tailstock ends, make small holes to register a live center.



After roughing to a cylinder, mark two "no-cut" zones, one on each end. Divide the remaining length into nine sections. Mark these cutting zones with heavy pencil lines. Number the mounting positions at each end, one end corresponding with the other end.

A typical tool position for cutting zone #2 on the off-center piece. Note that the right side of the cut starts at the mark separating zones #3 and #4. Keep the cuts light and move slowly.

The back side of zone #2, close to the final cutting depth.

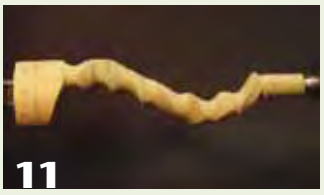


Take care not to cut too deep, or your final spiral diameter will be too small, making the wood subject to breaking. This depth is the maximum that should be taken.

The shadow wood when cutting zone #3 after zone #2 has been cut.

Zones #2 and #3 have been cut to their final depth.

All zones, except #1 at each end, have been cut.



Trim zone #1 and the tailstock tenon.

Trim the headstock zone #1 and tenon.

up the length between those end zones into nine equal segments. Nine segments will result in a spiral with one full turn. If you use more or fewer segments, you will make more or less than a full turn of a spiral. With a heavy pencil or marker, mark the complete circumference at each mark *(Photo 4)*. It is important to make heavy, dark lines so that they can be seen later while the piece is spinning.

Mount the second length of wood to the lathe and perform the same operations.

Multiaxis turning

Remount the stock off axis with each end positioned at the same position number. You can start at any number, but for this article, I started with the indentations that designate zone #2. There will be nine segments and eight positions. There are two #1 zones (one at each end) and only one zone of each other number. Before you start the lathe, be sure the toolrest is moved far enough away from the wood so the off-axis stock will not hit it.

Use a fairly high lathe speed, and take light cuts with a sharp spindle gouge. For each zone, begin the cut at the next zone mark over (always avoiding the no-cut zones at the headstock and tailstock). For zone #2, you will begin the cut at the left-hand side of zone #1 at the headstock. For the right-hand side of zone #2, the cut can be started at the mark that separates zone #3 from #4 *(Photo 5)*. The objective is to have the deepest part of the cut be centered on where zone #2 is located.

How far into the piece should you cut? It depends on the balance you want between strength of the piece and the amount of sanding needed after turning. For this project, I left about ⅝" (16 mm) thickness at the center of each zone. *Photo 6* shows the wood left after what I consider to be a minimum amount of wood removed. You will have to sand away a lot of material with this cut. *Photo 7* shows the amount of wood left after the maximum cut. (I have blackened the edges of the cut.)

Move along the piece, remounting the stock at the properly numbered marks for each zone. Here is where those heavy spur center indentations come in handy. After a couple of zones have been cut, there is significantly less axial strength to the wood, so you could not force the spur center into the wood without breaking the spiral. Adjust the tailstock pressure to engage the drive spurs without applying too much pressure—this is where the spur center may have an advantage over a safety center. *Photos 8, 9* show section #3 cut.

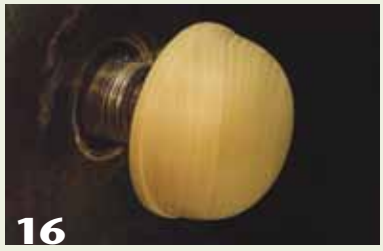
After all but the #1 zones (one at each end) have been cut, the piece should look like the one in *Photo 10*. You can go back and clean up some of the sharp edges, but be careful. At this stage the piece is not strong and a catch will result in breakage. To finish turning, remount the piece, using the #1 marks on the ends. Begin at the tailstock end and turn away most of the no-cut zone as well as the #1 zone, but leave a generous amount of tenon diameter for final shaping and blending of the curves *(Photo 11)*. Do the same at the headstock end. The result should look like *Photo 12*.

Turn the second length. ▸

The fun part: sanding! Mount a drum sander into a Jacobs chuck and keep it in place using a blunt live center in the tailstock. Use various -size drums to shape and blend the curves of the spiral.

You can make the transition from spiral to tenon smooth (lower piece), or with a step (upper piece).

This finished spiral has smooth transitions between spiral and tenons.



Mount the base block onto a screw center, shape, and sand. Do the same for the top.

All the parts are ready for assembly.

Sanding

Now comes the fun part: sanding! Mount a 3" (75 mm) sanding drum into a Jacobs chuck. Bring up the tailstock (with a blunt center in it) to keep the drum from creeping out. Sand the spiral smooth, except in zones #1 *(Photo 13)*. Aim for a final diameter of a little less than ½" (13 mm). Change the drum to a smaller one to do the #1 zones, leaving unaffected the tenons on each end.

Aim for a pleasing shape to the spiral and avoid creating lumps or bumps. The piece will be mounted using the tenons, so the final curves should be a continuation of the spiral, without sharp bends. This part is challenging, so take your time.

There are two different possibilities for the tenon treatment: fully blended or with a step *(Photo 14)*. The step gives a slightly cleaner look, but this requires getting the lengths of both spirals exactly the same, which is a challenge.

When finished shaping, remount both pieces and turn the tenons to a final 7/16" (11 mm) diameter. Final sanding is done by hand *(Photo 15)*.

Top and bottom blocks

I like a tulip shape for both top and bottom; the curves blend well with the organic shape of the spirals. Using a bandsaw cut one 3" (75 mm) and one 2" (50 mm) diameter round from a 2" thick board. Mount each piece using a screw center and turn the shape *(Photo 16)*. Drill two 7/16"- (11 mm-) diameter hole into each block to receive the tenons. Use a brad point bit to keep the bit from wandering on the sloping sides of the pieces. It is your choice how far apart to drill the holes. I chose a 1" center-to-center separation *(Photo 17)*.

Finish and assembly

I used poplar for this project, and I applied cherry stain to add color. You can stain and finish the pieces before assembly, but keep the tenons and mounting holes clean. Or, you can assemble first and then stain, but be sure glue does not squeeze out and act as a block to the stain.

To make assembly of the four parts easy, use the lathe. Mount the bottom piece onto the screw chuck and use a cone center in the tailstock. Line up the tip of the cone center into the screw hole in the top piece. Dry assemble the parts and manipulate them until the double spirals are uniformly arranged over their length. A toolrest can be used as a straight edge for alignment.

There is a wide range of positions for assembling the spirals, but only a few look good. When you are satisfied with the look, remove the parts from the lathe, apply yellow glue, and remount. Use mild tailstock pressure as a clamp until the glue sets.

Drill the candle hole

After letting the glue dry overnight, use a drill press to drill the hole in the top for the candle. I used a brass candle insert to dress up the hole. Sign your name on the bottom, and you are ready to insert a candle.

There are many variations to this design. The tailstock could be left in the center position, resulting in a tapered spiral. You could make more than one turn along the spiral or the pitch could be smaller or larger. (Bear in mind, though, the need to access all sides of the spiral for ease of sanding—do not make the turns at too small a pitch.) Experiment and have fun! ■

Todd Williams is a member of the Minnesota Woodturners Association and lives in Lake Elmo, MN.

Conversations with Wood: Selections from the Waterbury Collection

Terry Martin

If the field of wood art is to grow, it needs the support of significant public institutions. The Minneapolis Institute of Arts (MIA) has a good history of working with the field and has an admirable permanent collection of wood art, so their latest show, *Conversations with Wood: Selections from the Waterbury Collection,* is a significant milestone. It was given added relevance because its launch coincided with the AAW's 25th symposium held in nearby Saint Paul.

The presentation of a much-loved personal collection is a public exposure of any collector's soul, perhaps made all the more difficult when it is the curator who chooses the pieces to be shown and decides how they will be displayed. This exhibition, driven by a curatorial agenda, dissects the Waterbury's vision and rebuilds it in a way that does not necessarily reflect why and how they built their collection. For thoughtful collectors such as the Waterburys, it must be hard to let go of their treasured art and this is highlighted by what they wrote in the book that accompanies the exhibition: "We have learned that practical considerations are a poor substitute for passion."

When I visited Ruth and David Waterbury's lakeside home, it was evident how passionately they have created their collection, which is not only a celebration of their love for the art, but also of their deep and abiding relationships with the artists who made it. Ruth and David live in splendid intimacy with a body of work that took 27 dedicated years to accumulate. A tour of their house will leave you as well informed about the growth of the wood art field as a tour of any museum. Of course, relatively few can visit a private home, so lending such a huge portion of their collection for public edification serves us all very well.

The MIA exhibition is the work of curator Jennifer Komar Olivarez, Associate Curator at the MIA, and her team. In a panel held at the Collectors of Wood Art forum that ran parallel with the AAW symposium, Jennifer made it clear that curatorial independence ▸

Installation, "Conversations With Wood," Minneapolis Institute of Arts, 2011, collection of Ruth and David Waterbury.

Photo: Amanda Hankerson

One room in Ruth and David Waterbury's home.

is very important to them and that while they were happy to involve the Waterburys at many levels, all final decisions about what was to be included in the show were ultimately the responsibility of the curatorial staff. This panel was a perfect prelude to viewing the show itself and a chance to learn about many aspects of creating an exhibition that we normally never hear about: the creation of the display cases, wall colors, and the rationale behind groupings of work. It was a generous sharing of the trials of producing a show within a tight budget.

So how would the collection look after being squeezed through the filter of independent curating, institutional bureaucracy, and the practical limits of transposing a personal collection from an intimate family home to a large public space? These were the questions on my mind as I walked into the MIA.

The halls of the museum are enormous vaulted spaces linked by long open corridors that lead from one exhibition to the other, and the small journey it took to reach the destination created a fine sense of anticipation. At the end of a long corridor, wood art was scattered around an area beneath a staircase outside the entrance to the main exhibition. Jennifer had explained that they wanted it to be a kind of teaser to lead the audience into the show, but it looked rather forlorn under the lofty ceilings.

The huge Todd Hoyer *Suspended Column* offered a rare chance to see some of his larger work. We don't often see wood art on this scale and it gives a very powerful impression, contrasting with the smaller work nearby that was apparently grouped under themes of technique. It was a bold and perhaps surprising choice, given that technique is not necessarily the best way to understand art. The first group was a set of carved or incised vessels by Liam Flynn, Jacques Vesery, Al Stirt, J. Paul Fennell, and Clay Foster. I had a spirited discussion with some other visitors about whether this was art or craft, and I concluded that these pieces were all delightful examples

(L to r)

Michael J. Brolly, *Baseball Bat,* 1996, Ebonized walnut, 8¾" (22 cm) wide

Michael J. Brolly, *Sinker Ball*, 1988, Ash, 5" (13 cm) dia

Mark Sfirri, *Baseball Bat,* Rejects from the Bat Factory Series, 1996, Ebonized ash, 28½" (72 cm) long

Mark Sfirri and David Sengel, *Black Bat Collaborative,* 1999, Ebonized ash, 24" (61 cm) long

Mark Sfirri, *Baseball Bat,* Rejects from the Bat Factory Series, 1996, Ebonized ash, 33¼" (84 cm) long

Photo: Amanda Hankerson

Todd Hoyer, Suspended Column Series, 1990, Arizona ash, 27" (69 cm) high

Arthur Jones, *Night Star VII,* 2003, Mahogany, 32" (81 cm) high

of what "wood artists" do to try to distinguish their wood art from unadorned craft bowls. The fact that we discussed it with such interest proved to me that the display did its job well.

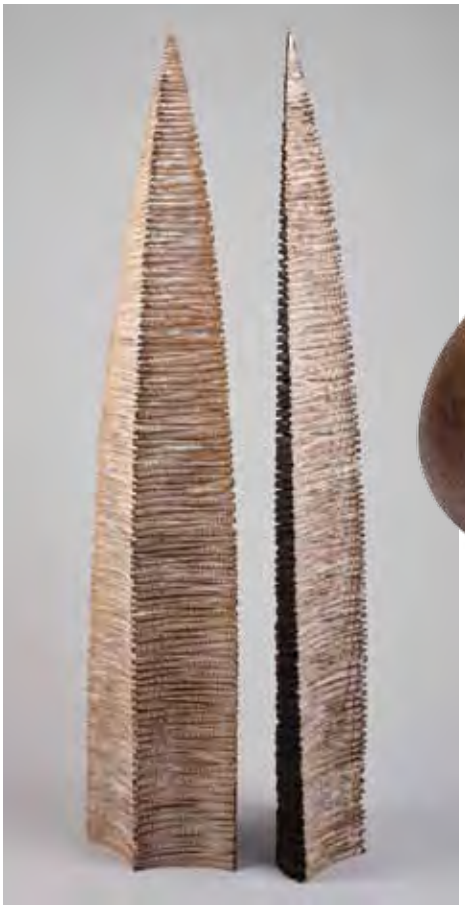
As I wandered into the main hall, the first piece I encountered was the extraordinary *Night Star VII* by Arthur Jones, one of the most outstanding works in wood I have seen for years. It is simple in concept but stunning in effect: slats flare from the central hub to create ever-shifting patterns as you move around the piece.

The Waterburys are great lovers of baseball and their baseball-themed pieces were delightfully and effectively grouped on the wall, with a clever key to the pieces alongside. It was such a pleasure to revisit Michael Brolly's *Baseball Bat* that I watched him make in 1996 when we were residents in the second International Turning Exchange. Shown with Mark Sfirri's quirky *Rejects from the Bat Factory*, this was the perfect themed display.

Moving further in, I was initially puzzled by why a group of pieces by artists such as Mike Schuler and Gianfranco Angelino were placed together. Then it hit me: They were all translucent! Or they would have been, but there was no light shining through them to bring out the glowing wood tones that such work is famous for. This was an amazing oversight. To choose work for this reason and then to display it without dedicated light was a pointless exercise. I had already been feeling increasingly uneasy about the lighting, but looking at Merete Larsen's supposedly translucent vessel sitting in a dull pool of ineffectual light made me feel sad.

In an exhibition of decorative art, all aspects of presentation are important: the design of cabinets, wall color, layout of pieces, how we progress through the show, and so on, but nothing is more important than the lighting. In such an environment the lights need to draw the eye to the object, and that is best achieved by contrast with the ambient light and by tight focus. The lighting in this show consisted almost entirely of long-throw nonfocusable lamps that illuminated the floor and the visitors as much as the works themselves. I double checked by going into several other exhibitions throughout the MIA and found that the problem was endemic. It is a problem the MIA needs to address.

Stepping back for a wide view I was taken by the colossal tables, which held many of the larger pieces. They were almost like banqueting tables presenting a medieval feast. I loved the fact that I was able to lean over and around the pieces to look at them without the interfering reflective barrier of vitrines. It was a courageous choice as there is a risk in ▸



Thierry Martenon, Untitled, 2006, Ash, 38¾" (98 cm) high

Neil Scobie, *Erosion,* 2001, Red cedar, 29" (74 cm) high

Rolly Munro, *Papatua Form,* 2000, Pohutukawa, gold leaf, 8⅞" (22 cm) dia

Stoney Lamar, *Slipping Off the Wire,* 2004, Madrone burl, steel, milk paint, 38" (97 cm) high

Mark Lindquist, *Prodigal Vessel (Returning) with Overlapping Spiralettes,* 1994, Black birch burl, 14½" (37 cm) high

exposing pieces this way, but it was worth it. There was something quite ceremonial in the way they were displayed and it was also an agreeable nod to bygone days as throughout history wooden bowls have been displayed on wooden tables. It would have been good to see one of these tables crowded with bowls such as David Comerford's excellent *Captured Rings Vessel Series*—a feast for the eyes.

Working my way around the enormous tables, I was drawn to the individual *tour de force* creations by some of the best wood artists in the world. These pieces confirm that the Waterburys have been very well-informed collectors. The fabulous Rolly Munro *Papatua Form* can easily stand among the very best vessels the field has to offer. The carefully incised facets captured light and shimmered delightfully as I moved around. It's brilliant. Thierry Martenon's Untitled consists of two standing spires with his characteristic rough texturing and coloring. Thierry is a bold rule-breaker who started out as a turner, but quickly discovered the sculptor within, so it is appropriate that his piece is displayed beside Mark Lindquist's pioneering *Prodigal Vessel* from 1994. It's a beautiful juxtaposition of two *enfants terrible* from different eras of the wood art world. This display was in keeping with the soaring space and worked best of all for me.

Nearby was a slash-and-burn themed group with George Petersen's large gridded disk on the wall, brutally attacked then rubbed back, and Jack Slentz's plunge-cut (or is it *stabbed*?)

cube. It might appear that these artists are angry with their material, but the pieces reflect the fact that working wood is not always a creative flow of shimmering shavings. The raw results are surprisingly pleasing. Stoney Lamar's *Slipping off the Wire* and Robyn Horn's *Full Circle* were placed together, which seems appropriate as they have a long history of friendship and respect for each other's work. It was all bold sculpture and a strong counterpoint to the tightly controlled, smaller-scale work inside the vitrines.

Among the more historical pieces, I was drawn to Ed Bosley's *Sand Castle* from 1987. Ed was an innovative turner who sadly has not been talked about much in recent years. Mel Lindquist's *Natural-Top Hopi Bowl* was near Norm Sartorius' *Spoon*, a stunning natural-edged amboyna burl piece that uses the waney edge in a way that would have delighted Mel.

There was so much more to see: Sharon Doughtie's delightful *Solar Flares*, a superb blend of ethnic identities; Richard Hooper's *Vector Warp*, a celebration of pure design; the compelling *Carved Basket-Weave Closed Vessel* by J. Paul Fennell; *Blossfeldt Vase* from the ever-unpredictable Michelle Holzapfel... it was truly a feast for the eyes, but one piece stood out among all the others. William Moore's *Pitcher* is sublime. It manages to quietly embrace everything: an acknowledgment of craft and function, superbly simple turning, elegant line, understated and refined decoration, original blending of materials. Significantly, it was also a quiet voice in a crowd clamoring for attention. This was the standout piece in the show.

After I had exhausted my ability to learn from this exhibition, I was left asking myself what it told me about the Waterbury collection. The struggle to find ways of grouping the work may have been a reflection of its seeming incoherence, something that is unavoidable because the collection was acquired over many years of the growth of wood art, which has in itself often been incoherent. The curatorial team has certainly succeeded in showing that the Waterburys have created a *representative* collection. Perhaps these questions are unfair, but I imagine they are the kind of questions other collectors who are considering lending collections might ask themselves.

This review has been as much about the curated vision as about the Waterbury collection. If I had not heard the panel at the CWA forum discussing the constraints they had to work within, I might have been more critical. This highlights the need for more informed commentary on how pieces are chosen and exhibited, something the CWA might consider for future forums. On balance, I think the curator should be complimented because I could see the delight on the faces of the people at the exhibition. The Waterburys have given us all a wonderful chance to appreciate their much-loved collection and we owe them a deep thank-you for that. ■

Photos by Robert Fogt unless otherwise noted.

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

Ed Bosley, *Sand Castle,* 1987, Broadleaf maple burl, 11¾" (30 cm) high

Richard Hooper, *Vector Warp,* 1997, Birch plywood, 12" (30 cm) high

William Moore, *Pitcher,* 1999, Yew, bronze, 6½" (17 cm) high

J. Paul Fennell, *Carved Basket-Weave Closed Vessel,* 2001, Chilean mesquite, 7" (18 cm) dia

Members' Gallery

When I saw several still life paintings by Chicago artist Carl Holzman in 2010, I thought, "I can do that, but it'll be 3D."

The idea had been germinating for a while. Many years ago I was fascinated with Philip Moulthrop's use of epoxy to bind tree limbs into a cylinder, which he would then turn into a vessel. Later in AAW's "Japanese Bowls, A Western Perspective," exhibit, I was delighted with Michael Hosaluk's rice bowl—he simply glued rice onto a wooden bowl to create his "rice bowl."

In 2009, with my inspirations percolating, I participated in a black and white exhibit that was sponsored by my artists' group. It was at this time that epoxy and rice came together. I added black and white rice to epoxy and formed a cylinder, which I turned into a bowl. It looked like granite. That was fun!

I expanded beyond rice and began raiding a friend's bulk food store and poking through the offerings of an ethnic grocery. Paprika, turmeric, blue and yellow cornmeal, spinach powder, and gelatin powders entered my work. I wanted ingredients with color and texture. This exploration led to creating powder/epoxy forms for turning.

I use West Marine slow-curing epoxy. I mix one pump of resin with one pump of hardener, then mix in one tablespoon of dry ingredients. From experience, I avoid pouring more than about one inch of this mixture into a form, otherwise it can get hot, leading to bubbles or even melting the container. If I make a mix in the morning, I can sometimes do a second pour in the late afternoon, however waiting 24 hours for curing consistently achieves successful results.

By 2010, I was ready for the inspiration of Carl Holzman. ■

Larry Jensen

Artifacts Still Life, 2010, Walnut twigs, white oak, toner, aniline dye, madrone, resin, 13½" × 15" × 12" (34 cm × 38 cm × 30 cm)

Green Pitcher Still Life, 2010, Spinach powder, yellow and blue cornmeal, anise flowers, paprika, toner, walnuts, crabapple twigs, white oak, poplar, resin, 11½" × 30" × 8½" (29 cm × 76 cm × 22 cm)

Milk Pitcher Still Life, 2010, Spinach powder, yellow and blue cornmeal, paprika, diatomaceous earth, walnuts, walnut twigs, white oak, poplar, resin, 12½" × 32" × 8½" (32 cm × 81 × 22 cm)

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THE FACTS

Lyle Jamieson

About Hollow Forms Turning Systems

History

In 1996, Lyle Jamieson started producing a boring bar hollowing system with a laser-assisted measuring device that changed how hollow form turning is done. This was revolutionary. There were turners in that era that were using home-built boring bars that were so big and heavy that the turner could not hold the handle up and still have control and accuracy. Lyle took this stabilized platform approach and shrunk it down so anybody could afford to do hollow forms without sitting on the lathe and beating up their bodies in the process. To keep the price down, Lyle's system is low on glitz and high on function - it works! One important aspect of Lyle's boring bar is, it is MADE IN USA! There have been a number of boring bar systems that have come and gone in recent years. You can count on Lyle being around when you need help.

What's the difference?

Scale

The ¾ inch diameter boring bars have been the standard for decades of hollowing. They allow the most flexibility for getting into relatively small mouth openings and can reach out over the toolrest to hollow without vibration in most traditional shapes. Lyle's straight bar creates stability, strength, and accessibility. It is safe to use with no moving parts that create pinch points. At the next symposium you attend, you can look out over the instant gallery room and know you can turn any shape you see out there. What's the difference?

Accessibility

It is important to open up possibilities with your tools, not limit them. Lyle's swiveling tip tool holder allows an infinite range of cutting motion for the efficiency of the 3/16 inch cutting tool to reach any shape vessel imaginable. The boring bar and backrest support are versatile enough to undercut shoulders without constant fiddling. Lyle has developed the cutters with 3 ranges of reach with one boring bar. No need to purchase special boring bars to access the different shapes desired. What's the difference?

Torque Arrest

Lyle uses a "D" shaped handle torque arrest method because it spreads out the considerable twisting forces with a broad brush. When the cutter is positioned around to the left to undercut a shoulder or reach into that hard to reach spot through a small hole, the torquing forces can get intense. Lyle wants the fingertip control to clean up tool marks and smooth the inside contour of the vessel. What's the difference?

Physical Effort

It can't get any easier. The Jamieson system allows you to stand comfortably in front of the lathe with fingertip control to reach any desired hollow form shape. No need to get a stiff neck and sore back leaning over the lathe looking into the entry hole. No need to sit on the lathe and hang onto the handle with a death grip. It is all about the fun. You do not need to work hard hollowing any more. What's the difference?

The Laser

Everyone knows the benefits of laser measuring. It is no longer necessary to work blind in a shaving-filled hollow form. The laser puts you in complete control of the wall thickness. Never turn through the side of a vessel on which you have worked for hours to get the outside shape just perfect. The laser must be easy to set, quick to set, and accurately set. The laser, in real life use, must be reset often and accurately to do uniform, thin-walled vessels. Some lasers take three hands to set them. The laser can "see" through the waste wood and show the shape and depth of the inside bottom of your vessel. What's the difference?

Education and Backup

The Jamieson system has Lyle with it and behind it. Lyle has been a respected, reliable educator for decades. He has a popular instructional DVD that covers the techniques of the boring bar system and the use of the laser measuring device. He publishes a monthly newsletter with tips and tricks on hollowing as well as a Question and Answer section covering a wide range of topics. Sign up for his newsletter at www.lylejamieson.com or view archived copies. Lyle has been published many times in most of the woodturning publications with articles on subjects ranging from preventing catches to carbide cutter techniques. You will see Lyle as a featured demonstrator at the AAW symposium in San José 2012 and at many regional symposiums either demonstrating, as a vendor, or both. People that have the Jamieson System are considered Part of the Family. What's the difference?

"It's All About The Fun!"

Summary

As Joe Friday said: "Just the Facts, ma'am, nothing but the facts." The Jamieson hollowing system is the best, easiest to use, easy to set up, inexpensive, comes with instructions. Set up correctly it will never get a catch. Children and young turners have enjoyed it for years. One hundred percent satisfaction guaranteed. Ask anybody that has one, "What's the difference?"

Lyle Jamieson is a full-time woodturning sculptor & instructor from Traverse City, MI. He is President of the Northwest Michigan Woodturners(tcturners.org). Lyle is known for his figurative sculptures & for the Jamieson boring bar & laser measuring system. He will be a featured demonstrator at the San José symposium, 2012. For more about Lyle, visit his website: www lylejamieson.com.

TENNESSEE ASSOCIATION OF WOODTURNERS

24th Annual Symposium

FRI., JANUARY 27th & SAT., JANUARY 28th, 2012 • NASHVILLE, TENNESSEE

MARK Gardner

ASHLEY Harwood

DALE Larson

JENNIFER Shirley

AL Stirt

For the latest information, registration form and schedules go to **www.tnwoodturners.org/symposium**
You may also contact us by email at tawsymposium@aol.com or call Jeff Brockett at 615.973.3336

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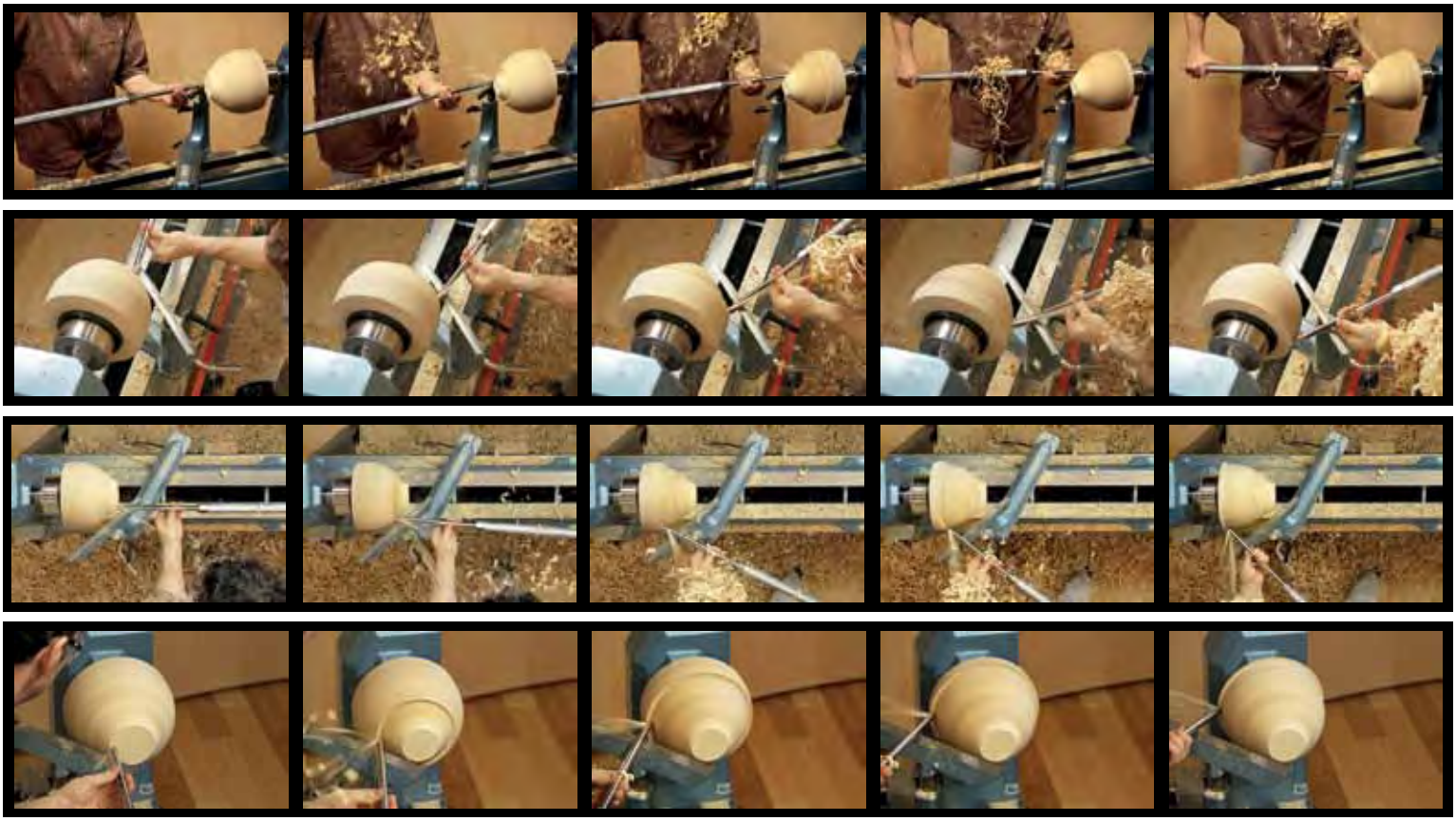


A comprehensive profile of every woodturning tool

Stuart Batty, a third-generation woodturner, outlines the correct cutting and sharpening techniques, capabilities, and limitations for every tool. Each video is recorded in high-definition with up to eight simultaneous camera angles and 3D animation to capture the motion of every technique.

Detailed explanations address everything from tool control, stance, wood grain, tool rest set up, lathe speed, and much, much more. Our teaching method eliminates the guesswork and variables. A workshop book is included with step-by-step instructions and photos that replicate the video footage.

SB Educational Media brings you the ultimate learning experience.

Now available at: www.woodturning.org/edu/media

Woodturning™

Muse

Muse, 1994, Madrone burl,
12" × 8" × 8" (30 cm × 20 cm × 20 cm)

Stoney Lamar

AMERICAN WOODTURNER
Journal of the American Association of Woodturners

Time to renew!

woodturner.org

Dear AAW Member,

AAW is celebrating our 25th birthday this year and we have a promising future. We have expanded to an international organization, and we continue to focus on member benefits, education and safety. Please see our website at woodturner.org/org/mbrship/ for our new membership levels, programs and benefits.

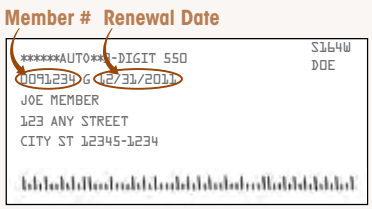
The most important asset of our association is you, our members. We look forward to continuing our partnership.

Cindy W. Bowden

Cindy Bowden
Executive Director

It's easy!

1. Carefully check the renewal date and member information indicated on *your* mailing label.



Save the trees for turning and renew online!

2. Log on to the members' area at **woodturner.org** to renew.
3. If you have questions, email inquiries@woodturner.org or call 651-484-9094 or 877-595-9094 (toll free).

You can also renew by filling out the attached form, putting it in an envelope and mailing it to:

American Association of Woodturners, 222 Landmark Center, 75 5th St W, St. Paul, MN 55102-1724

2012 Membership Renewal

Membership Types & Annual Fees			
United States		**International**	
☐ General	$48	Canada/Mexico:	
☐ Family	$53	☐ General	$53
☐ Youth (under 18)	$19	☐ Family	$58
		Overseas:	
		☐ General	$63
		☐ Family	$68
Professional		■ Please renew my AAW membership as checked.	
☐ Artist	$74		
☐ General Business	$74		
☐ Supporting	$250	■ **Sign me up for 2 years!** I will pay twice the annual rate.	
☐ Benefactor	$500		
☐ Patron	$1,000		

Non-U.S. Members: Please pay by credit card, check in U.S. dollars drawn on a U.S. bank or postal money order.

Check Method of Payment:
☐ Check ☐ Money Order ☐ Credit Card (Visa, Master Card)

Credit Card #

Signature **Exp. Date** **CVV#**

American Association of Woodturners 2012 Membership Renewal

Renew online at woodturner.org or mail renewal form and payment to AAW, 75 5th St W, St. Paul, MN 55102-1724

Please provide information *only* if there are changes.

Member Name

Business Name

Address

City State ZIP

Country

Home Phone #

Work Phone #

Cell Phone #

Email Address

Website

Renew online at woodturner.org or mail renewal form and payment to the home office.
If your email address has changed, send your updated information to inquiries@woodturner.org.

REGISTRATION FORM • PAGE 1

☐ **Yes,** I am traveling to San José for the 2012 AAW Annual International Symposium June 8–10 at the San José Convention Center

Demonstrations end at 3:15 p.m. on Sunday, June 10

Full registration fee includes demonstrations, Instant Gallery, and tradeshow. Purchase banquet/auction tickets separately.

Register online by May 28 at woodturner.org

Or mail by May 21 to:

AAW Annual International Symposium
222 Landmark Center, 75 5th St W
St. Paul, MN 55102-7704
Phone: 651-484-9094 Toll free: 877-595-9094
Fax: 651-484-1724
Email: inquiries@woodturner.org

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

Name: _____

Spouse/Domestic Partner: _____

Address: _____

City: _____ State: _____ Zip: _____

Home phone #: _____

Email address: _____

Enclosed is: ☐ Check

In the amount of: $ _____

Please make checks payable to:
American Association of Woodturners

☐ Visa ☐ MasterCard

_____/_____/_____/_____

Exp. date: __ __ - __ __ CVV: __ __ __

Signature: _____

see you in **San José**

Save the date and plan a fun family vacation in California in 2012!

See you in San José June 8-10!

Register Early and Save!

	Member	Nonmember*
Through May 15, 2012	☐ $250	☐ $310
After May 15, 2012	☐ $300	☐ $360
After May 28, on-site registration only	☐ $350	☐ $410

Includes demonstrations, instant gallery and tradeshow. Banquet/auction ticket must be purchased separately.

Spouse/Domestic Partner ☐ $150

Registration includes admission to all turning events. It does not include banquet/auction ticket, which must be purchased separately.

	Member	Nonmember*
SINGLE-DAY REGISTRATION	☐ $175	☐ $225

Per day attended. Does not include banquet/auction ticket, which must be purchased separately.

☐ Friday ☐ Saturday ☐ Sunday

☐ **YOUTH REGISTRATION** (10 through 18)
I plan to bring one youth for free, full registration. See the AAW website (woodturner.org) for special youth registration and parental consent forms.

	Member	Nonmember*
STUDENT REGISTRATION	☐ $100	☐ $150

Student ID required (25 and under). Does not include banquet/auction ticket (separate purchase).

BANQUET/AUCTION

Fee:
Through May 15, 2012 ☐ $55
After May 15, 2012 ☐ $65
After May 28, on-site ☐ $75
Check the AAW website (woodturner.org) for updates.

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

*Nonmember fees include a one-year AAW membership. Rates are higher for those living outside the United States.

For cancellation through May 15, 2012, a $50 processing fee will be deducted. After that date the registration fee is non-refundable.

see you in **San José**

Join the large AAW family and be inspired to take your creations to the next level! Share your passion for woodturning and attend the AAW annual international symposium June 8-10 in San José.