AMERICAN WOODTURNER

Journal of the American Association of Woodturners

The Art of Contemplation

A Colorful Collaborative Partnership

Be Our Guest: A Progressive Invitational

The Challenge of the Chapter Challenge

October 2010 vol 25, no 5
woodturner.org

Instant Gallery Awards

Hartford Symposium

Peter Exton, *Facet Study,* 2010, Bleached maple, 12" × 4" × 4" (30 cm × 10 cm × 10 cm) nine-piece diamond turning

Photo: Tib Shaw

AAW Permanent Collection Awards

Irene Grafert, *Organic Pleasure,* 2010, Wood, epoxy, 2¼" × 5¼" × 3¼"; 2¾" × 5¼" × 3¼"; 2½" × 5⅛" × 3⅛" (6 cm × 13 cm × 8 cm; 7 cm × 13 cm × 8 cm; 6 cm × 13 cm × 8 cm)

Photo: Tib Shaw

Excellence Awards

Dixie Biggs, *Yes We Cayenne,* 2009, Cherry, watercolors, 6½" × 3½" (17 cm × 9 cm)

Dewey Garrett, *Ostromoukhov Box,* 2010, Walnut, urethane resin, 4½" × 2½" (11 cm × 6 cm)

Mark Nantz, *Amphora,* Artifact Series, Maple burl, acrylic infused, dye, ebony, 14k gold, steel stand, 9¾" × 6" × 5¼" (25 cm × 15 cm × 13 cm)

Rick Angus, untitled, 2009, Curly soft maple, 4½" × 9" (11 cm × 23 cm)

Steve Gleasner, *Rhapsody,* 2010, Petrified denim/birch plywood, 12¼" tall, (31 cm)

Jon Sauer, *Topper N Stand,* 2010, Mopane wood, African blackwood and betel nut, bamboo, 6¼" × 3" (16 cm × 8 cm)

The betel nut beads on the top and the stand revolve.

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

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AMERICAN WOODTURNER

Journal of the American Association of Woodturners

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ON THE COVERS

Cover – Wilmington Area Woodturners Association's (WAWA) chapter collaborative challenge, a one-twelfth scale model of an 1850s waterwheel-powered woodturning shop. Article, page 10. Photo: Kathi Rosbrugh.

Back Cover – Jason Breach, untitled, 2010, Amarillo, blackwood, 10½" × 7⅔" × 7⅔" (270 mm × 195 mm × 195 mm). The lids are 2½" (65 mm) in diameter.

woodturner.org

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

A NOTE ABOUT SAFETY

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

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

From the Editor

The rain came down in a torrent, flooding the streets. Driving home, I carefully avoided a man who had positioned himself near the storm drain at the T intersection where my street meets the one behind my house. I had seen this man there last winter when the snow was melting, shoveling a pathway for the rivulets of water to reach the storm drain. Today, he was unclogging the drain so that the intersection would not flood.

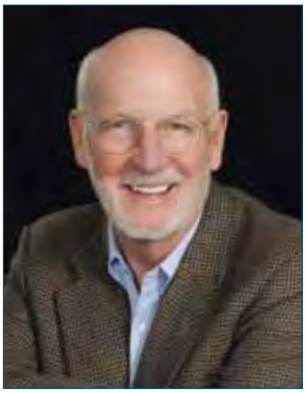
I like that I have a neighbor who watches over this intersection, performing a service for the common good of all. I do not know him. I might not even have much in common with him. But I admire his service and think highly of him. Maybe I will drop off an extra journal in his mailbox. Who knows? He could have an interest in woodturning. Seems like he would be the sort who would fit well within our turning community.

The long list of volunteers at the Hartford symposium is testimony to the many people who offer their services for the benefit of others. The entire list can be seen on the AAW website at woodturner.org/sym/sym2010/volunteer.htm. A shorter version is offered in the symposium highlights, pages 5–9. "Wounded Warriors," "Wyoming Woodturners," and Ted Bartholomew also speak of woodturners who share with others. Read about them in this issue.

I am pleased to be part of our woodturning community. To all of you who help make the AAW great, thank you!

—Betty Scarpino

President's Letter



Search for Executive Director:
Our search for a new Executive is well underway. TransitionGuides, the company hired to assist AAW in conducting the search, has received applications from a number of highly qualified candidates. The Board of Directors' goal is to complete the search and select the best-qualified candidate by mid-October. Those who wish to be considered for the AAW Executive Director position can email TransitionGuides at aaw@transitionguides.com or contact Ginna Goodenow, TransitionGuides, 301-439-6635. For a more detailed description of our transition plan, please see the article on page 5 of the August 2010 *American Woodturner*. A detailed position profile can be found on the AAW website at woodturner.org.

Revising AAW Bylaws:
The AAW has established a committee to revise the AAW bylaws. The committee is making great progress and plans to complete the revisions in the fall. The committee is co-chaired by Ron Sardo and Dale Larson. Committee members include David Walser, Rob Wallace, Jerry Robertson, Mark Mandell, Judy Kingery and David Moore. Once the bylaws have been revised, they will be submitted to the AAW Membership for approval. If you have suggestions or recommendations regarding revisions, please email them to aawbylaws@gmail.com.

25th Anniversary Book:
The AAW 25th anniversary book, *Woodturning Today: A Dramatic Evolution*, will record the association's history and recount the role of the AAW and its members in the evolution of woodturning as an art form, the growth of turning as an amateur activity, and the place of woodturning in the context of American and international craft and culture. The book will emphasize personal stories by diverse voices and be illustrated throughout with photographs of turned work, woodturners, and turning events. It will be an amazing collector's item for every AAW member. Visit the AAW website at woodturner.org and order your copy now.

25th Anniversary Symposium:
The 25th Anniversary Symposium in Saint Paul, MN will undoubtedly be the largest and best AAW Symposium ever. Every living Lifetime Honorary Member has been invited to participate, and we will have an outstanding slate of demonstrators and panelists. Save the dates now: June 24–26, 2011 at the Saint Paul RiverCenter. Don't miss it!

With warm regards,
Tom

24th Annual AAW Symposium: Hartford June 18–20

The AAW would like to extend a huge and sincere thank-you to the many volunteers who helped with preparations for the symposium. Your efforts are much appreciated! The team included several hundred volunteers who worked tirelessly to cover every detail and then some! We particularly wish to thank:

- Sharon Bierman, symposium handbook
- Jim Degan
- Carol Ellis, craft room, John Ellis
- Mike Gould
- Kay Haskell
- Kristin Haugan, Wally Haugan
- John Hill
- Al Hockenbery, Sherry Hockenbery
- Dave Long
- Rick Meier, equipment room and youth room
- Jerry Sambrook, shipping and taking care of demonstrators
- Buster Shaw, our liaison who helped run the whole symposium
- Rob Wallace
- Lynda Zibbideo, craft room

We appreciate all the local turners who contributed to the symposium (a complete list can be found on the AAW website)

Equipment was generously donated for demonstration rooms by:

- Christian Brisepierre, Vicmarc Lathes
- Kevin Clay, Oneway Mfg.
- Brent English, Robust Lathes
- Bill Rubenstein, Stubby Lathes
- Barry Schwaiger, Walter Meier Powermatic/JET ▸

(Below) Tom Wirsing opened the Saturday night banquet by thanking Sharon Bierman for her dedication and hard work creating the symposium handbook.

Photo: Terry Martin

(Below) The spouse craft room was a wonderful place to gather, work, and talk during the symposium.

(Above) Katherine Kowalski's fiber and wood whimsical creation.

(Above) Thursday night entertainment featured John Wheland, seven-time All-Ireland champion of button accordion and Flynn Cohen performing during AAW's "Got Talent" session.

(Below) Keith Holt demonstrates multi-axis turning.

Photo: Ed Kelle

(Below) Bonnie Klein instructs one of the older youth.

Chapter Collaborative Entries in the Instant Gallery

(Above) **Central New York Woodturners (NY),** *Green Farm*

(Above) A symposium attendee closely examines *Nested Spheres,* which was crafted by the Granite State Woodturners (NH).

(Right) **Association of Revolutionary Turners (MA),** detail from *Turnabout is Fair Play*

(Above) The 1850s replica of a workshop by the Wilmington Area Woodturners (NC) was a huge hit. David Ellsworth and others could not resist taking photos of the marvelous creation.

(Left) **Central Connecticut Turners (CT),** *Wood You Join Us for Tea?*

(Below) **Space Coast Wood Turners (FL),** detail from *Yarn Winder*

Eleven local chapters participated in the Chapter Collaborative Challenge for Hartford.

Best of Show: Wilmington Area Woodturners (NC) for their 1850s Waterwheel-Powered Woodturning Shop

Fantasy Award: Association of Revolutionary Turners (MA)

Technical Award: First State Woodturners (DE) for their *Tilting at Windmills*

Artistic Award: Granite State Woodturners (NH) for their Nested Spheres

Other chapter participants:
Western Mountain Woodturners (ME)

Bucks Woodturners (PA)

Long Island Woodturners (NY)

Central New York Woodturners (NY)

Space Coast Woodturners (FL)

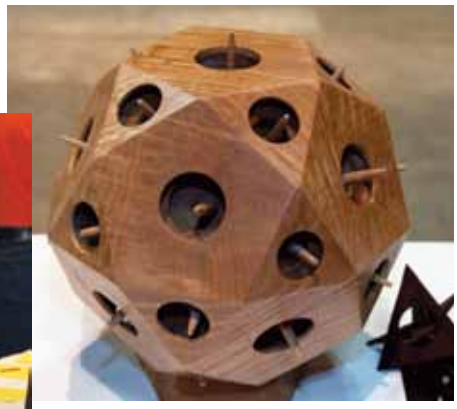
Big Island Woodturners (HI)

Central Connecticut Woodturners (CT)

Instant Gallery

(Above) Detail of a vessel made by Tiberio Yepes.

(Below) Attendees take the time to make a careful examination of some of the EOG auction items.



(Above) Bob Rolling's *Chinese Ball, is* a successful combination of turning and geometry.

(Above) The largest gathering in the world of wood-turned objects under one roof.

Photo: John Kelsey

(Below) Bill Smith looks on in amazement at Ron Gerton's creation. Ron's piece was made from multiple forms that he turned, cut apart, and reassembled.

Photo: John Kelsey

(Above) Trent Bosh's candleholders, *Working Together Again*, were part of the Historical Woods Exhibit, contained within the Instant Gallery. Wood for Trent's candleholders came from the 1854 Rappahannock River Crib Dam.

(Above) Participants take a close-up look at the beadwork on collaborative pieces by Eucled Moore and Marilyn Endres. Dave Long brought these objects from his private collection.

(Right) Piece shown is by Luc DeRoo who attended the conference and is one of the year's International Turning Exchange participants. ▶

Trade Show

(Left) So many choices, so many ideas! Many varieties of wood were available for purchase at the trade show.

Photo: John Kelsey

(Above) Participants get to see firsthand how a rose engine works in the trade show area.

(Above) Walt Betley, Ed Miller, and Robert Reuhel watch Craig Jackson demonstrate in the trade show.

Photo: Ed Kelle

(Above) The Oneway lathe booth featured live turning demonstrations.

(Above) Explanations galore and rapt attention from the trade show floor.

(Below) Molly Winton explains the use of a burning pen while working in the Packard Woodworking booth.

(Below) It was wonderful to visit with Dale Nish at the symposium.

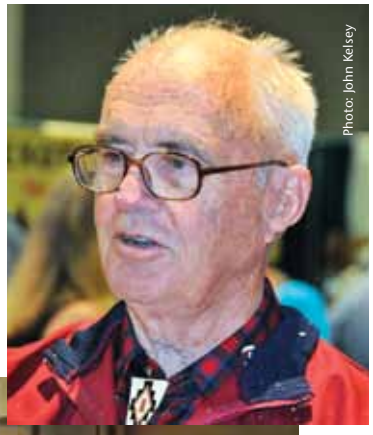


Photo: John Kelsey

(Above) Nick Cook, working on a Powermatic lathe, draws a crowd in the trade show.

Photo: Ed Kelle

Youth Turning Workshops

The participants in the Youth Turning Program assembled during the Saturday night banquet.

The 2010 Youth Turning Workshops held at the Hartford symposium were extremely successful. Fifty-one participants, ages seven to seventeen, took advantage of ten rotations taught by five different instructors. This program is made possible through the generosity of following companies and individuals:

Crown Hand Tools
Fox Chapel Publishing
Penn State Industries
The Sanding Glove
Steve Sinner
Teknatool
Vince's Wood 'N Wonders
Walter Meier Powermatic/JET
Woodcraft

This year's instructors were Nick Cook, Barry Gross, Bonnie Klein, Joe Ruminski, and Avelino Samuel. The AAW board representative was Dale Larson. Almeta Robertson tirelessly registered the youth for each rotation. Larry Miller was the youth turning room and raffle coordinator. Many other volunteers assisted with the program, and we sincerely thank everyone who participated.

Twenty-five youths who participated in the Youth Turning Program won a complete turning station, which included a JET mini lathe, a set of Crown tools, a faceshield, and a chuck. The winners were:

Kirsten Appell
Wesley Bouchelle
Nicholas Bratina
Robert Bratina
Abraham Cook
Ben Daffern
Rebecca Dailey
Ryanne Dailey
Elessa Deneen
John (Brit) Douglas
Andrew Furlong
Davie Lynn Hardesty
Kaleb Harp
James Huether
Kaleigh Iler
Christian Lindow
Craig Pastel
Victoria Peterson
Catherine Rive
Daniel Ruland
Ryan Shaffer
Adam Shoemaker
Nicholas Spraetz
Keegan Twomey
Ben White
Brenndan Wulforst

Lathe Raffle

The net amount raised for AAW's emergency relief fund was $3,484.77. Thanks to everyone who purchased raffle tickets and congratulations to the winners of the Powermatic and JET lathes! Steve Wagner won the Powermatic lathe. Ray Gannon won the JET lathe.

Ray Gannon stands next to the new JET lathe he won.

Return to Community

Local AAW chapters in Connecticut selected the Connecticut Children's Medical Center Foundation as the recipient of Return to Community donation this year. Connecticut Children's Medical Center is the only free-standing, nonprofit hospital solely devoted to providing cutting-edge care, using state-of-the-art equipment, to treat children in Connecticut and Western New England. The project raised just over $1,200.

Utilitarian turnings were included in the Return to Community project.

All photos by Andi Wolfe unless otherwise noted.

The Challenge of the Chapter Challenge

Byron E. Rosbrugh


Photo: Ed Kelle

There are many challenges to overcome when a local chapter enters the AAW Chapter Collaborative Challenge (3C) competition. The challenges begin when consideration is given to participating in the event, and continue throughout the process. And if that is not enough, a final challenge is to find an appropriate display venue for the entry after it is returned from the symposium. Despite many challenges, this event is a wonderful experience for everyone who participates.

The 3C provides an opportunity for building team spirit within a club while at the same time creating a masterpiece of art that will live on well after its debut at the symposium. This combination is a means by which chapter members become directly involved with the many benefits of being a woodturner and of belonging to a national organization of peers. Members connect with other individuals who share a common interest—a desire to learn more about their passion: woodturning excellence. The 3C challenges members to work together with one goal while transforming a concept into reality. Each person plays an important part to achieve that success.

Wilmington Area Woodturners Association (WAWA), located in Wilmington, NC, became involved in the 2009 challenge when one member innocently asked the chapter president if the chapter had ever considered participating in the 3C. The WAWA is a young club with about sixty members who possess different backgrounds, skill levels, and talents.

The members are probably typical of most chapters' membership: primarily retired individuals who have spent years working in fast-paced vocations, complete with the appointments, deadlines, and duties that are part of a successful career. Many belong to the club to simply pick up new ideas and techniques, meet and socialize once a month with others of similar interests, or to just make a few chips fly. Becoming involved in a competition that requires timelines, difficult turning techniques, and lots of additional planning meetings is not why they became members. They have "been there and done that" and don't want to do it again! However, when the club president appointed the "innocent questioning member" as leader of the new group to investigate, organize, plan, and build an entry for the 2009 symposium, it was the beginning of a great experience for all.

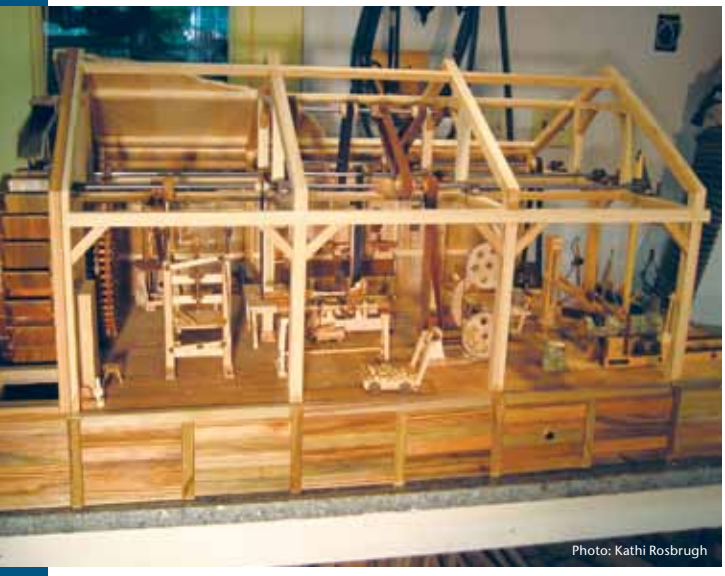


Photo: Kathi Rosbrugh

The first step began in December 2008 when we formed a team to develop a concept that would fit the theme for the 2009 symposium in Albuquerque. There were many entry guidelines to consider: size, shape, complexity, symposium theme, static or dynamic, materials, appearance, finish, shipping details, display and setup—obviously a multitude of decisions had to be made. It was difficult for us, when looking at various ideas, to determine which would fit the club's talent and time available. We were already late in starting—almost half the available time had elapsed. And we had a lot of questions.

The concept team was made up of members with a variety of talents: an emergency management professional, a retired lawyer/engineer, an information technology consultant, a technician machinist, and a nuclear engineer. The team started with

several meetings to develop ideas that would meet guideline criteria, time limitations, and achievability. We considered many ideas, sorted through them for the best, and discussed how we might proceed. Shipping size was a definite consideration. A design that worked around the symposium theme was important, so the Southwest theme kept coming up. Unfortunately, we discarded many of the best ideas because of the limited time remaining before June—we were already at the end of January. Finally, we all agreed that a chess set would be a project that would provide an opportunity to showcase a variety of woodturning skills and levels.

The concept team then became the design team, challenged with coming up with a Southwest-themed chess set. We researched the Internet, books, magazines, and other resources and settled on the Kachina doll idea. Everyone agreed that a Kachina chess set could be built in the remaining time, assuming we could convince other chapter members to participate.

During the next few weeks, we faced and met many challenges such as figuring out the scale of the chess pieces to match the overall size of the board; determining the size of the board to meet AAW guidelines for shipping, receiving, and display space; and creating prototypes of chess pieces, which needed to be turned, refined, and returned. One of our members suggested off-center turning as a way to create the look we were searching for. This added a new challenge, as well as a learning curve, for our club members.

Most of us had never been introduced to off-center turning techniques, and as one turner stated, "It feels like I am turning air more than fifty percent of the time." Individual comfort zones were being stretched—we actually *were* turning air fifty percent of the time! We definitely learned new turning techniques in meeting this challenge.

We discovered that a team approach worked well, with each team assigned a specific part of the overall project. Many chapter members, who had not previously been involved, were willing to help on a project team if they were asked (or invited) to help. We overcame these challenges and club members were enjoying working together. We even had one team member volunteer to give a demonstration at the monthly meeting on offset turning of a chess piece.

More challenges were ahead, but now we were a team of teams and the varied talents of our involved membership paid dividends. We knew who could solve what problem and an information exchange about technical challenges brought things together smoothly. We not only solved the planning and production challenges, but some technical ones too. One member developed a video and blueprints of turning techniques specific to our project as a training program. Another designed the board pieces with a unique wavy pattern. Yet another devised a system of rare earth magnets to hold the chessboard frame together. One member developed a color and paint scheme to make our chess dolls fit the Kachina look we were trying to achieve.

We had an unanticipated challenge appear toward the end of the project: the high humidity caused the board pieces to change size. Even with the use of several coats of sealer on the edges and surfaces, front and back, the problem resulted in a board that was too tight when assembled. That problem solved itself, however, as soon as the board was unpacked and displayed in the dry New Mexico air.

2010 challenge: A one-twelfth-scale woodshop

After successfully submitting our piece for the 2009 challenge, we were eager to participate in the 3C for the Hartford symposium. This project took a much easier, more definitive and efficient direction because we now knew how to get started and move forward. We developed a concept immediately—almost before we decided to participate. There was never any real debate as to whether we would attend ▸

Photo: Andi Wolfe

Photo: Kathi Rosbrugh


Photo: Andi Wolfe


Photo: Andi Wolfe

Hartford and participate; it was simply a matter of what we would build.

We organized the main committee using some experienced leadership and events fell into place in an orderly sequence. We developed the concept of a scale model of a workshop, appointed a researcher, selected a historian (to record, track, photograph, and document), and determined the components of the task. Three club members with design expertise came forward to start the design of the components. In turn, they each selected chapter members to start building the scale models of machines to be displayed in a replica workshop. We appointed another member to acquire materials. We were well on our way to creating a one-twelfth-scale woodshop with working nineteenth-century woodworking machines powered by a working waterwheel.

Lessons learned Doug Haas

Organize

- Break your group into teams with specific tasks, such as design, materials, and logistics.

Manage

- Have one person track progress and the problems that arise.
- Be aware of a volunteer's capability when assigning tasks. Pairing two members together may be a good opportunity for a mentor and a novice turner to work together.
- Keep up with tasks and deadlines. A missed deadline will set back other project elements.

Set deadlines

- Determine what must be done in sequence and what can be done independently.
- Allow more time than you think is required. Murphy's Law lurks everywhere.

Document

- Keep records of volunteers, costs, and donations. Be sure to recognize everyone who contributed.

Promote

- Your project may become an ambassador for your club and woodturning.

Have fun!

- This is a great chance to build camaraderie and friendships and learn new skills.

Building the scale model workshop was much more complex than creating the Kachina chess set, thus the challenges were much greater. However, by applying the lessons learned in 2009 we worked very smoothly and finished on schedule. Through our early research, we discovered websites and books showing period shops and machines. We copied sketches and photos of these machines and our technical design teams drew blueprints and established a list of material and dimensions of detailed parts. We constructed a building using period post and beam construction methods complete with a waterwheel to provide power to the working machines. The waterwheel alone consisted of more than 250 pieces in a segmented style with spokes and a hub rotating on the power axle. We circulated water with a small pump to flow through a woodturned duct system to fall on the top of the wheel. As you can imagine, the challenges were many!

Without the lessons we learned during our first challenge entry, we would have had a difficult time of thinking we could complete this kind of project. For the 2010 C3 competition, we were able to plan step-by-step procedures with a realistic timeline for completion. Our teams performed very well and everyone was spurred on with great anticipation of the first

operating trial run. We completed the project in sufficient time to work out the last-minute glitches and show it to our membership at the monthly meeting before we took it to Hartford.

Upon arrival in Hartford, we carried our scale model workshop into the Instant Gallery and set it in motion on Thursday afternoon. What a thrill to watch as people viewed the machines in action and took movies and photos! Overhearing the many positive comments made all the hours of meeting planning, designing, building, troubleshooting, and operating the model worthwhile.

The water-powered workshop concept was perfect for the Hartford area, especially since many of the people viewing it could remember when their grandfather, or great grandfather, worked in a similar shop. One visitor went into great detail to describe a similar shop in his hometown that had been recently transformed into a museum.

Participating in the AAW Chapter Collaborative Challenge has been a winning experience for our members and our chapter. We came back from our first exhibition without winning a prize, but we will always remember that by participating, we had become winners, even then. Coming together as a team makes for a wonderful experience. There is much to be gained by each chapter member getting involved—accept the challenge to be challenged! You will have the time of your life. We know because we came together, we saw the possibilities, we got involved, and we are winners!

If anyone would like assistance or consultation in getting started, we would enthusiastically lend our help. ■

Byron Rosbrugh has been turning for 45 years and is currently Vice President of the Wilmington Area Woodturners Association.

Chapter Collaborative Challenge 2011

For next year's 25th annual symposium in St. Paul, the AAW will again sponsor a chapter collaborative challenge. Each local chapter is invited to submit one collaborative work created by as many chapter members as possible, with a minimum of six participants.

Rules

- The work can be any turned object, functional or not.
- The size and weight limits of the collaborative pieces, including the packing container and all packing materials, will be those set by UPS for a single standard box (see sidebar). Assembled pieces may be larger but must fit in the single standard-size box. Size restrictions apply regardless of commercial or chapter delivery.
- The names of all participants must be on the work or on an accompanying nameplate.
- At least one chapter representative must be in attendance at the symposium to be responsible for displaying and return shipping of the entry.
- Any electrical/electronic devices in the piece must have an obvious power switch for safety and noise reduction. However, the AAW cannot guarantee that electricity will be available where the collaborative challenge is set up.

Each chapter must specify in which category they would like their piece to be judged:

- Artistic
- Mechanical/Technical
- Fantasy

Four prizes will be awarded:

- Best in Show plaque
- First Place plaque for each of the three categories

The pieces will be displayed during the symposium near the Instant Gallery. Symposium attendees will be invited to select, by ballot, their choice for Best in Show and their favorite piece in each of the three categories. Votes will be tallied prior to the banquet, during which the winners will be recognized.

In addition, the chapter's name will be engraved on the Collaborative Challenge perpetual plaque. All entries will receive a certificate of participation.

Collaborative Challenge pieces may be donated to the EOG auction through an initial silent auction. The highest silent-auction bid will be the opening bid at the live auction. If there is no silent-auction bidding, that piece will not be offered at the live auction. The chapter will receive fifty percent of the selling price. Each donated entry must be accompanied by a box and packing materials for shipment. Shipping the work is the joint responsibility of the chapter and the buyer. ■

- Standard packages can be up to 108" (270 cm) in length or up to 165" (419 cm) in length and girth combined.
- The packages can be up to 150 pounds (70 kg).

UPS package size is determined by adding the length (the longest side of the package) and the girth (2× width + 2× height). Details of this measurement can be found at ups.com/content/us/en/resources/ship/packaging/.

The Growth of Woodturning in Wyoming

Do you remember the moment you first stepped in front of a lathe? How did you arrive at the decision to approach that blur of spinning wood, sharp tool in hand? Why do we so enjoy woodturning, perhaps the most difficult and highly technical activity ever attempted?

In 1988, I borrowed a Boise Crane lathe. The turned objects I made were slightly elliptical, but at that point, I did not know it was a problem. Over the next few years I made scrapers out of old files, sharpened gouges on a flat disk chucked into my drill press, and incredibly, I continued, although I never saw another person turn until Norm Abram crafted a piece on the New Yankee Workshop. I truly began to learn turning when I discovered Richard Raffan's books and eventually joined the AAW.

After compiling a library of DVDs, books, and magazines, and attending as many turning symposiums as I could afford each year, the rest is history. I believe most of us keep growing as we pursue this ancient craft. Bob Dylan wrote, "He not busy being born, is busy dying." Apparently there is no standing still.

Worland Wyoming Woodturners' chapter meeting where club members welcomed some of the students from Worland Middle School who are part of the after-school turning program.

Worland Wyoming Woodturners, AAW chapter

Two years ago I answered a phone call from Mat King. He had been given a lathe as a gift from his family, but it was still packed in a crate a full year later. His voice was tentative, almost apologetic, "Sam, I got this lathe sitting here, do you think you can get me going?" There are similar stories of friends around town who bought a certain model of lathe on my recommendation or who came by my shop to watch me turn. Eventually most of them have started turning.

Mat and I have been turning together since December 2007. Our relationship has progressed from one of mentor–student to two friends increasingly equal in turning skills who both share a desire to make available to others a craft we love.

The Worland Wyoming Woodturners club started with conversations that Mat and I had about other turners we knew. The town of Worland has a population of about five thousand and is not really close to anything except Yellowstone National Park, 160 miles away. Even so, several people started to meet in my shop—sometimes there would be three or four attending, sometimes it would be just Mat and me.

An important part of this story was meeting Alan Lacer when he was a demonstrator at the Yellowstone Turning Symposium in Billings, Montana, in 2008. I related to Alan our experience with the growing number of turners in Worland and he encouraged me to "just get the club started." I took these words to heart and a year later, after enough turners joined to elect officers, we sent in our chapter application. In 2009, the

Worland Wyoming Woodturners became an official chapter of the AAW.

Birth of a middle school program

My wife, two small boys, and I moved to Worland in 1980 where I coached and taught at our local high school and later became a school counselor, which is the position I currently hold at Worland Middle School.

For the past fifteen years, I have given lathe demonstrations in the middle school shop to students whenever I was given the opportunity. Many eighth graders enjoyed creating their spring woodworking project on the lathe.

Last year, our district curriculum and grant coordinator, Mary Krisko, advertised that grant money was available for after-school programs. As Dr. Krisko explained, "Learning should be an active process; students remember better when they understand through application." After working in schools for thirty-five years as a teacher and counselor, I have also learned that every student can be at risk at some point. The foundation of academic success is involvement in activities. The 280 students who attend our middle school had the option of being in a play, building robots with the science teacher, playing chess at noon, or slumping glass with the art teacher. This availability of experiential learning, along with a positive connection with an adult, has a direct bearing on test scores and overall success of students.

My application for an after-school turning program was approved. With the grant money, I bought four mini lathes with tools, advertised the classes, and with the help of our AAW chapter members, provided fifteen kids with that first moment in which they stood in front of a spinning blur of wood.

What we have accomplished

Most of our club members have joined the AAW. Some turners are starting to attend turning symposiums outside of Worland. This year, I will have demonstrated for the fifth time at either a club or a symposium. A few club turners are getting their feet wet by giving demonstrations at our meeting. Our first official project was turning ornaments for the Festival of Trees, a local fundraiser. As time passes, there is a growing connection between the AAW chapter and the after-school turning program, and our third session of "Turning on the Lathe" is well underway for kids in the middle school.

We are busy being born. ■

—Sam Angelo

Burke DeBolt shows off his first pen. The shop apron Burke is wearing was made by fellow student Bruce Karn's grandmother.

Pen Turning Virtual Chapter

Anyone interested in pen turning is welcome to join this new virtual chapter of the AAW. The chapter's purpose is to foster a wider understanding and appreciation of pen turning as a traditional and contemporary craft and form of art among the general public, hobbyist turners, part-time turners, and professional turners. This will be accomplished by providing education, information, organization, technical assistance, and publications relating to pen turning.

The principal meeting place of this chapter will be at the annual AAW symposium. Other chapter meetings may be held in conjunction with any scheduled woodturning symposium. A notice of each meeting will be sent via email to each member at least thirty days before it is scheduled.

For more information, email Kurt Hertzog, chapter president, at kurt@kurthertzog or visit the chapter's website at principallypens.com.

POP News

The mission of the Professional Outreach Program is to promote a greater understanding of professionalism within the field of contemporary woodturning.

The Professional Outreach Program (POP) is open to any AAW member who is interested in furthering the concept of professionalism within the AAW. To inquire, become involved, or join, sign up at woodturner.org/community/members/signup.pl. Through our efforts and programs, we look to set high standards of excellence in woodturning skills and personal development. The POP committee is comprised of professional turners, teachers, authors, curators, educators, and demonstrators.

Emerging Artist Program in Hartford

Our new Emerging Artist event at Hartford was very successful, with large crowds attending each of the four demonstrations. Visitors could stand near the emerging artists as they worked in order to get a close-up view of techniques. The emerging artists were Nick Agar (UK), David Belser (US), Tucker Garrison (US), and Pascal Oudet (France).

David Belser comments, "It was a very positive experience. I had a number of people talk to me afterward about doing demonstrations for various clubs." Tucker Garrison adds, "I felt like the Emerging Artist program was a great success and I hope POP will continue it in the future."

Instant Gallery Awards

The POP committee sponsored several Purchase Awards and Excellence Awards at the Hartford symposium.


Photo: Andi Wolfe

David Belser talks to the assembled attendees at his 1½-hour-long demonstration in Hartford. The Emerging Artist demonstrations took place near the Instant Gallery, giving the program high visibility.


Photo: Ed Kelle

Pascal Oudet demonstrated his thin-walled turning techniques.

For the winners' names and photos of their pieces, check out the inside front cover and page 1.

Intimate Instant Gallery critiques

This program provided an opportunity for a small group of individuals to discuss their turned objects in a non-threatening setting. Those who took advantage of having their work discussed appreciated the time they were able to spend with professional turners giving individualized feedback.

The following discussions took place: David Ellsworth, hollow forms; Jacques Vesery, surface treatments; Betty Scarpino, sculpture; Curt Theobold, segmented work; Jim Keller, anything goes; Jerry Kermode, natural edge. Thanks to these volunteers and to those attending for giving up a portion of their lunchtime to make this a successful program. Contact Jerry Kermode if you have inquires or comments for next year debjer@comcast.net.

Elizabeth and Dr. James York

A profile article on Elizabeth and James York, written by Dave Long, appears in the latest POP newsletter. The Yorks have been very generous in purchasing objects from POP exhibits and the EOG auction, which helps raise money for POP activities and AAW's EOG fund. Thank you Dave for the article, and thank you Elizabeth and James for your ongoing support of turned-wood art.

Guides for exhibiting turners

The Society of North American Goldsmiths (SNAG) has published a series of professional guidelines, which should prove valuable for exhibiting woodturners as well. The guidelines are a series of checklists, procedures, information sources, and forums that can be used by artists from all media. The guidelines are available in PDF format at snagmetalsmith.org/publications/professional_guidelines/.

POP logo

Congratulations to David Nittmann who submitted the logo that was selected to be used on future POP correspondence and on the POP page of AAW's website.

POP mission statement

The Professional Outreach Program addresses the needs of professionals within the woodturning field, including turners, writers, collectors, teachers, demonstrators, and gallery owners and managers. The goals are to improve services to the professional turner and to promote turned wood as a collectable art form. ■

Photo: Ed Kelle

David Belser turns bee balm stems and ice. The square stems of bee balm (mint family) provide sufficient contact area for gluing together. The stems are first sorted by thickness, then layered in floors, tiny to large. Supported by ice while turning, the result is a rather unbelievably turned object.

Committee members: Trent Bosch, chair, Barbara Crockett, David Ellsworth, J. Paul Fennell, Jerry and Deborah Kermode, Bonnie Klein, Binh Pho, Betty Scarpino, Curt Theobold, Kevin Wallace, David Willard.

Apply for an AAW Grant

AAW's Educational Opportunities 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, 2011. You can complete the application form and review the guidelines at woodturner.org/resources/eog/.

Below 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/2011. Beginning with the 2011 EOG, 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

The Collectors of Wood Art (CWA) is compiling a list of museums that:

- have contemporary wood objects in their permanent collection
- may be interested in starting to collect contemporary wood pieces
- may be interested in exhibiting contemporary wood objects

Please email CWA's Administrator, Sheryl Wallace at admin1.cwa@gmail.com with the name of the museum, address, website, and a short description of the type of wood the museum has in its collection or that the museum may be interested in obtaining or exhibiting. If you have spoken with the museum director or curator, please let us know his or her name, title, and comments.

Additionally, if there are any craft or art fairs in your community that include wood artists, please send information about the event's name, sponsoring organization, contact information, and dates of the event. Thank you!
—Dave Wahl

Local Chapter Helps Wounded Veterans

As the wars in Iraq and Afghanistan have progressed, the U.S. military, learning lessons from previous wars, has made a determined effort to help its wounded veterans readjust and reintegrate into civilian life. Often, soldiers are faced with traumatic injuries and long periods of rehabilitation.

Most major military installations now host a Wounded Transition Unit (WTU) where the injured are cared for and where resources are pooled to help soldiers and their families adjust. Fort Benning, Georgia, is home to one such unit and Columbus, Georgia, adjacent to the post, is home to the Bi-City Woodturners, a local chapter of the AAW. For the members of the club, many of them veterans themselves, reaching out to help was only natural.

Soldiers learn to turn using the Oneway sit-down lathe.

"Our initial goal at the Bi-City Woodturners Club was to make fifty canes to be given to wounded soldiers at Fort Benning. Bringing the soldiers in to participate in woodturning was an afterthought, but one that proved to be as rewarding for the club as it was for the soldiers," states Bob Ingram, Vice-President of the club.

"Being a Vietnam veteran, it gives me a great deal of satisfaction to help create a small bit of pleasure for some of the soldiers. We never hear them complain about their injuries. I really enjoy seeing the big smiles on their faces when they finish the beautiful and creative pens or bowls that they have turned," said William Pope.

"I enjoy sharing the knowledge of woodturning with other people. These soldiers come to us with little or no idea about this craft and a few hours later, they leave with something they created themselves. Their smiles say it all," commented Fred Phillips.

Monday mentoring

Pope and Phillips are both regulars at the club's Monday mentoring sessions. Every Monday, club members meet with the soldiers in the unit and teach them woodturning. It is unknown exactly what each individual soldier will get out of the program, but the "intent is to expose the soldiers to something that will allow them to forget their injury and learn a hobby that can last a lifetime," said Karen Nichols, the occupational therapy assistant who keeps the program running for the Wounded Transition Unit.

For some soldiers, working with the club is simply a chance to get away and not have to think about the war and the effect it has had on their lives. "I like the shop because it makes me relax and focus on what I am doing. I am doing something that releases my stress, and it boosts my self-esteem," said Sergeant Angel Morales. Sergeant Richard Powell states, "I was hooked on my first visit. It helps me to relieve stress."

And many soldiers return. "For the ones who return for another session of woodturning, it is common to hear them say 'I need to turn another pen. My wife or husband liked it so much, they took the one I made last time,'" said Pope.

For other servicepeople, woodturning has become a hobby. "My husband and I have both joined the club and now that I have retired I can attend the Monday mentoring sessions. The club members' entire focus on Mondays is helping people like me who are just starting out. No one is trying to be better than anyone else; everyone is here to help others to improve at turning and expand their skills. There is no competition here, and that takes away a lot of the pressure of being a beginner," said Nina Saeli. Sergeant Hanazaeel Mounier told me, "When I get to complete my transition out of the military, my plans are to locate the nearest woodturning club in Orlando, Florida."

Fifty canes finished

The club did finish all fifty canes, and they presented them to the wounded soldiers in June 2009.

A soldier creates his project using one of the club's traditional lathes.

A soldier receives individual instruction from a mentor.

One soldier, upon whom the experience had a definite impact, is Major Fred Zink, who wrote after his departure from Fort Benning to say, "Hope all is well in your neck of the woods. I am improving daily in SC. I wanted to thank you for allowing me as a WTU soldier to come to your house and 'get hooked' on woodturning. John Touchton has made me a cane, of which I am very appreciative."

All of us at Bi-City Woodturners enjoy this program as much as the soldiers. The Bi-City Woodturners are the ones being blessed and in a small way we have tried to say thank you to these men and women.

A new lathe

The club has continued working with the WTU, and in the spring of 2009, the club became concerned about those soldiers who were unable to attend sessions because of injuries that limited their ability to stand at the lathe long enough to finish a project. Following a unanimous vote, the club decided to make inquiries into the cost and methods available for obtaining a sit-down lathe. We applied for a grant from the AAW and were one of the recipients selected.

Following the decision to obtain a sit-down lathe, I called Tim Clay at Oneway Mfg., to inquire about the cost of a sit-down lathe. I explained our program and what we as a club had been doing to support soldiers. I told him about our program to provide canes for the soldiers, and how that led to the opportunity to provide therapy in the form of hands-on woodturning. Tim listened quietly as I described how some of our wounded heroes, because of their injuries, could not participate in the program. When I was finished, Tim asked for some time to look into the matter. A day or so later, he called back, and told me that he was going to give the club a sit-down lathe. True to his word, the lathe arrived shortly thereafter, and we have now expanded our program to include all soldiers. Tim Clay's generosity was tremendous. And, having no need for the grant we received, we returned the money to the AAW.

"I have the pleasure of teaching woodturning to wounded soldiers and the experience has been very rewarding. The satisfaction I see on their faces after they have turned a pen or bowl is very stimulating. I look forward to working with them in future sessions," remarked Duane Hardesty.

For clubs located in proximity to a military installation that would like to start a similar program, we suggest that you contact the unit's battalion commander or executive officer. Have prepared a short paragraph of what your club can offer for soldiers, and feel free to reference other clubs and installations that already have programs set up. ■

—Dawson McLemore, President, Bi-City Woodturners

Turned Pens for Soldiers

The Freedom Pens Project is an all-volunteer effort spearheaded by the members of SawMill Creek Woodworkers Forums to provide custom handcrafted pens to American servicemen and servicewomen overseas. We welcome anyone who is interested in our project and willing to donate their time, talent, or services to assist in our goal of providing beautiful writing instruments for our military stationed in foreign countries who are in harm's way. Every Freedom Pen that is delivered will serve as a constant reminder to our troops that they are not alone and will have our continued support until every one of them returns home. For more information visit freedompens.org.

The Bluewater Area Woodturners in Richmond, Michigan, participates in a pen project through the Michigan chapter of the Blue Star Mothers organization. This local AAW chapter can be contacted at bluewaterareawoodturners.org.

Ted Bartholomew

Ted Bartholomew stands with one of the spinning wheels he and his dad made together.

Lillian Bartholomew holds one of her hand-dyed items.

Ninety-year-old Ted Bartholomew is not a man who sits still for very long.

Ted started school in Puyallup, Washington, at Maplewood Elementary. His family owned a berry ranch that his grandfather had purchased in 1900. When Ted's dad was injured and unable to run the farm, Ted took over. "At seven years old," he said, "I ran the farm." Helpful neighbors came over to harness the horses for him, but after that was done, Ted drove the horses and ploughed the ground, always under the watchful eye and direction of his father.

The family had a tough beginning, but Ted never complained. There were three kids and his older sister contracted polio at six months. The family moved to Randle, Washington, and again, Ted ran the show while his father looked on. "Dad stood there and told me what to do," he recalled, adding that he and his dad always got along. "Out of the eighth grade," he said, "I felt I could do it all."

Ted credits the March of Dimes with bringing the family out of the Depression. His sister was able to undergo surgery and learned to walk with the organization's assistance. She lived until she was seventy-eight years old and her husband, who also had polio, lived to be 102.

Ted was eleven years old when his dad built his first lathe for him. Since there was no electricity available, Ted snagged the gas engine from his mother's washing machine on Monday after washday was completed. He ran his lathe all week on that gas engine, returning it in time for the next week's laundry cycle. Ted and his dad built 322 spinning wheels together, one of which still stands in the home of Ted and his wife Lillian, in Tacoma.

A wooden hat made by Ted.

The Bartholomew farm had hundreds of species of trees, and Ted and his father had access to high-quality wood. They turned together until his dad's ninetieth birthday, which is when his dad gave up turning. "That was a sad day for me," said Ted.

When Ted was in the Army, he served on a tugboat as an engineer. "First thing I did," said Ted, "was to build a lathe. There was a crew of seventeen and when the war was over, everybody on board knew how to turn. I taught them all."

Ted has taught hundreds of people how to use the lathe and has built and sold sixty-four lathes himself. He is a generous and thoughtful man, patient with his students and always willing to share new techniques.

Lillian is also a creative and active person. She buys raw fleece, washes and dries it, and then uses the fleece to do her weaving. She hand dyes her product, using roots, flowers, and Kool-aid for colors.

The Bartholomews like to experiment with new methods. "If it turns out good, I'm happy," said Ted, adding, "and if not, I burn it before anyone sees it."

Ted sells his work and said he once sold a bowl for $3,000. Commenting on his decision to sell his work Ted said, "One day I made a bowl and was coming into the house with it and Lillian said 'Don't bring another bowl into this house!' That is when I started to sell my work."

Ted encourages everyone to stay active and busy. When asked what the best part of his life has been so far, he replied, "Today, if I live through it." ■

—Joan Cronk

American Woodturner online

Look through and read all 101 back issues of *American Woodturner,* now available on the AAW website. You can search by author or subject, using the online index. Want to turn a sphere? You will find five articles on this topic!

You can enlarge images, fast-forward through pages, view multiple pages at a time, and print pages with the click of a mouse.

The AAW is offering a $38 membership for those who choose to read *American Woodturner* online instead of receiving a paper copy. Regular members also have access to the online journal.

To access the online journal, visit woodturner.org, click on the Member's Area link on the left, enter your member number and password and then select Online Journals from the link on the left. Give it a try!

Sharpening Demystified by Kirk DeHeer

Kirk DeHeer's DVD, *Sharpening Demystified*, is a greatly expanded version of his article by the same title published in the Winter 2006 issue of the *American Woodturner*. The DVD covers an impressive range of topics related to tool sharpening, including most of the common turning tools as well as thread chasers and chainsaws. Beginner and experienced woodturners would benefit from Kirk's insight.

The DVD begins with an introductory chapter in which Kirk demonstrates the sharpening of a bowl gouge and then proceeds to turn a bowl out of hard oak. This chapter seems largely duplicative of the material in the subsequent chapters, and seems a bit out of place. The chapter is included to introduce Kirk's thesis that a tool's sharpness should be chosen based on the task.

The following chapters flow in a logical sequence; Kirk first shows how to set up the basic sharpening system, including the choice of grinder, grinding wheels, and basic sharpening accessories. He then demonstrates how to sharpen the spindle roughing gouge, the parting tool, the skew chisel, various scrapers—including the negative-rake scraper—and bowl and spindle gouges. Following this, he backtracks a bit to discuss some of the recently introduced tool holders and jigs and the Tormek wet-wheel system. He follows with a discussion of how to sharpen and modify thread chasers. The DVD concludes with Kirk's advice on how to determine safe lathe speed and a demonstration of chainsaw sharpening.

In his discussion of setting up a sharpening system, Kirk explores the choice of grinder speed, wheel size, and wheel characteristics in considerable detail and explains how to interpret the marking code on grinding wheels. He recommends the use of a sharpening-jig system such as the Oneway Wolverine.

Kirk advocates the use of the tilting table of the Wolverine system for sharpening almost all basic turning tools except, perhaps, the spindle gouge and the bowl gouge. For each type of tool, he demonstrates the sharpening process, discusses proper angle of grind and desirable shape, and, where appropriate, encourages the use of honing. In the case of scrapers, he discusses how to match the characteristics of the edge burr to the type of wood to be turned.

Sharpening a gouge is introduced by first sharpening a side-grind bowl gouge freehand using the tilting table, and then showing how to sharpen it using the Wolverine Vari-Grind attachment. He does not specifically demonstrate the sharpening of spindle gouges, dismissing this process as being similar to the sharpening of bowl gouges. This is a bit unfortunate in that the novice does not have an opportunity to see the desirable shapes of spindle gouges. Perhaps the reason that Kirk feels comfortable with lumping bowl gouges and spindle gouges together is that he uses the same setting of the Vari-Grind attachment for both. Specifically, he recommends setting the arm of the Vari-Grind attachment to an angle of 23° relative to the axis of the gouge. While this avoids having to readjust the Vari-Grind when sharpening a variety of gouges and will be acceptable to many woodturners, it has its limitations; it works well only if the wings are not longer than the diameter of the gouge. The 23° setting will not produce the long side-grinds that many of us prefer, because the edges become too blunt to be useful. Setting aside this small point, all turners can benefit from Kirk's advice.

Available in woodturning catalogs, 102 minutes, $24.99. ■

—Dennis J. Gooding

Website Winner

The August contest on the AAW forum was turned platters. Size requirements were between 6" and 10" (15 cm and 25 cm) in diameter and the theme was "showcase the wood." Design embellishments were limited to no more than one-third the surface area of the platter.

The juror was Mike Pankion. His website is woodturningbymike.com.

Congratulations to the winners!
Melissa Bishop, First
Jonathan Garcia, Second
Bernie Hrytzak, Third

Check out the AAW forum for the next contest, and thank you to our juror and to everyone who entered! ■

— Kurt Bird, AAW Forums Moderator

Melissa Bishop, untitled, 2008, Spalted Norway maple burl, 2¼" × 9¼" (6 cm × 23 cm)

More of Melissa's work can be seen at truffuls.com

Calendar of Events

December issue deadline: October 20
February 2011 issue deadline: December 20

Send information to editorscarpino@gmail.com

Canada, Nova Scotia
November 23–December 4, Woodturning Exhibition at the Nova Scotia College of Art and Design in Halifax, hosted by the Nova Woodturners' Guild. The exhibit showcases woodturning in Atlantic Canada. For more information, contact Ted Monk at tedmonk@gmail.com.

France
October 14–17, international woodturning symposium, Villeneuve les Avignon (South France), organized by The French Association for Artistic Turning (AFTAB). Demonstrators scheduled to date are Marilyn Campbell (Canada), Eli Avisera (Israel), Graeme Priddle (New Zealand), Jacques Vesery (USA), Hans Weissflog (Germany), and Jean-François Escoulen, Alain Mailland, and Christian Delhon from France. For information, visit aftab-asso.com/html/2010_symposium.html.

New Zealand
March 19–26, 2011, Artist Collaborationz, McGregor's Bay, Whangarei Heads, Northland. This collaboration event is held every two years. National and international artists working together, followed by a public auction. For information, email info@collaborationz.co.nz.

Arizona
February 18–20, 2011, Desert Woodturning Roundup, Mesa Convention Center, Mesa. Scheduled demonstrators include Mike Mahoney, Lyle Jamieson, Christian Burchard, Mark Sfirri, Stephen Hatcher, Don Ward, Al Stirt, Ron Goble, and special guest Betty Scarpino. Instant Gallery, vendor area, panel discussion, and other events. For more information, visit desertwoodturningroundup.com.

Florida
September 10–October 24, A forty-year retrospective of the work of woodturner and sculptor Mark Lindquist, Gadsden Arts Center, Quincy. Gallery open Tuesday–Saturday, guided tours available. For more information, visit gadsdenarts.org.

Georgia
October 7–17, Georgia National Fair. Nine Georgia clubs will have access to two lathes for turning during the fair including a Oneway handicap lathe on which injured soldiers from Ft. Benning will turn. Dave Barriger will judge the largest display of juried work in Georgia.

April 29, 30 and May 1, 2011, Southern States 11th Woodturning Symposium, Georgia Mountains Center, Gainesville. Featured demonstrators are Beth Ireland, Mark Gardner, Robert Rosand, and Steve Sinner. 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 available in January at southernstatessymposium.org or contact Marsha Barnes at 828-837-6532 or ml.barnes@brmemc.net.

Hawaii
October 16–17, 2nd Annual Honolulu Symposium, sponsored by the Honolulu Woodturners. Demonstrators include Jimmy Clewes and many of Hawaii's top demonstrators. For information, visit honoluluwoodturners.org or call Andy Cole at 808-778-7036.

Illinois
November 5-7, "Is Ornament a Crime?: Rethinking the Role of Decoration in Contemporary Wood," SOFA, Chicago's Navy Pier, hosted by the Collectors of Wood Art. The exhibit is juried by Cindi Strauss, Curator, Museum of Fine Arts, Houston. A catalog of the exhibit will be available. For information, visit collectorsofwoodart.org.

Massachusetts
Through October 31, "Boxes and Their Makers," Fuller Craft Museum, Brockton. Public lecture, October 24 by the author of *New Masters of the Wooden Box*, Oscar Fitzgerald. The exhibit features the work of thirty-two contemporary woodworkers. For more information, visit fullercraft.org.

Minnesota
Through December 19, "Maple Medley: An Acer Showcase," AAW Gallery, 222 Landmark Center,

Jerry Bennett, *The Dance,* 2010, Mahogany, base is maple, dye, acrylic, steel, brass, 24" × 14" × 13" (61 cm × 36 cm × 33 cm)

"Dancing with the Stars" has introduced many to the beauty and passion of classic dance. This sculpture is reflective of the Paso Doble. Even though *The Dance* does not appear to be turned, it is constructed of 210 segmented rings that are individually turned and precisely tapered. The tapering of each ring is accomplished with specially designed jigs. After assembly, final smoothing is done with rasps and sanding.

Jerry Bennett will be one of the featured demonstrators at the 2nd Segmenting Symposium, Arrowmont School of Arts and Crafts, Gatlinburg, November 11–14.

Saint Paul. For information, visit galleryofwoodart.org.

New York

March 26–27, Totally Turning Symposium, City Center Convention Center, Saratoga Springs. Featured demonstrators include Richard Raffan, Dale Nish, Giles Gilson, Curt Theobald, Jennifer Shirley, Kurt Hertzog, Paul Petrie, Rick Angus, George Guadiane, John Franklin, and Andy DiPetro.

Pennsylvania

August 7–October 16, "International Turning Exchange Exhibit," Wood Turning Center, 501 Vine St., Philadelphia. For information, visit woodturningcenter.org.

Tennessee

November 11–14, 2nd Segmenting Symposium, Arrowmont School of Arts and Crafts, Gatlinburg. Join us for three days devoted to all things segmenting: software programs for design, alternative materials, sculpture, open segmenting, transitional vessels, and more. Segmented Woodturners is a specialty, Internet-based chapter of the AAW. Featured demonstrators include Jerry Bennett, Andy Chen, Dennis Daudelin, Jamie Donaldson, Kurt Hertzog, Lloyd Johnson, Bill Kandler, Jim Rodgers, William Smith, Curt Theobald, and Malcolm Tibbetts. For information visit segmentedwoodturners.org.

January 28–29, 2011, Tennessee Association of Woodturners 23rd Annual Symposium, held at the Radisson Hotel at Opryland in Nashville. Featured demonstrators include Stuart Batty, Bill Grumbine, Michael Mocho, and Molly Winton. For information, email symposium@tnwoodturners.org, visit the TAW website at tnwoodturners.org/symposium, or call 615-973-3336.

Virginia

October 23–24, "It's Your Turn, 2," 2010 Virginia Woodturning Symposium, Expoland, Fishersville. This hands-on turning and learning event is an environment of networking, education, and collaboration for members of the regional woodturning community. The symposium promotes the art and craft of woodturning to nonclub members. For information, visit virginiawoodturners.com/symposium.

Washington, DC

September 24–January 30, 2011, "A Revolution in Wood: The Bresler Collection," Renwick Gallery, Smithsonian American Art Museum. This exhibit celebrates the extraordinary recent gift of turned wood objects from collectors Fleur and Charles Bresler. For information, visit americanart.si.edu/exhibitions/archive/2010/bresler/.

Ongoing, turned wood on display at SAAM, Luce Center, in aisle 54b, Smithsonian American Art Museum (SAAM), 9th and G St. NW. For more information, visit americanart.si.edu/luce/index.cfm. ■

Tips

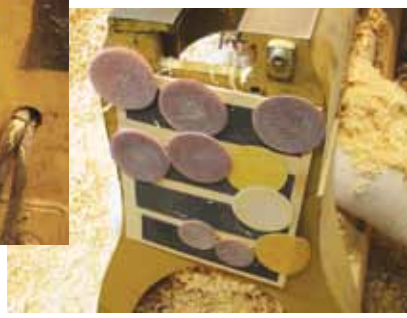
Velcro

I glue strips of Velcro (or hook and loop; hook side up) to pieces of plywood and attach magnets to the back of the plywood. The Velcro holds my sanding disks and the magnets hold the plywood onto my lathe. I have one for 2" (5 cm) disks and another for 3" (8 cm) disks.

I mark the grit for each disc on the back of the disc using permanent marker and put them in progressive order by grit number.

I also glue Velcro to the headstock of my lathe to hold a 3M buffing pad and a pencil.

— Dan Burleson, Troy, MO



Removing dimples

I think most of us novice turners have problems with dimples at the center of the inside bottom of boxes and other turnings. Here is a simple tool and process that will help to eliminate dimples.

The drawing illustrates the dynamic of a rotating piece as well as the cutting tool in relation to a dimple on the inside of a bowl. Most cutting tools, such as scrapers, only cut top down. As soon as the tool crosses the center point, the cutting edge of the tool is no longer engaged, making it difficult to get a clean cut at the center.

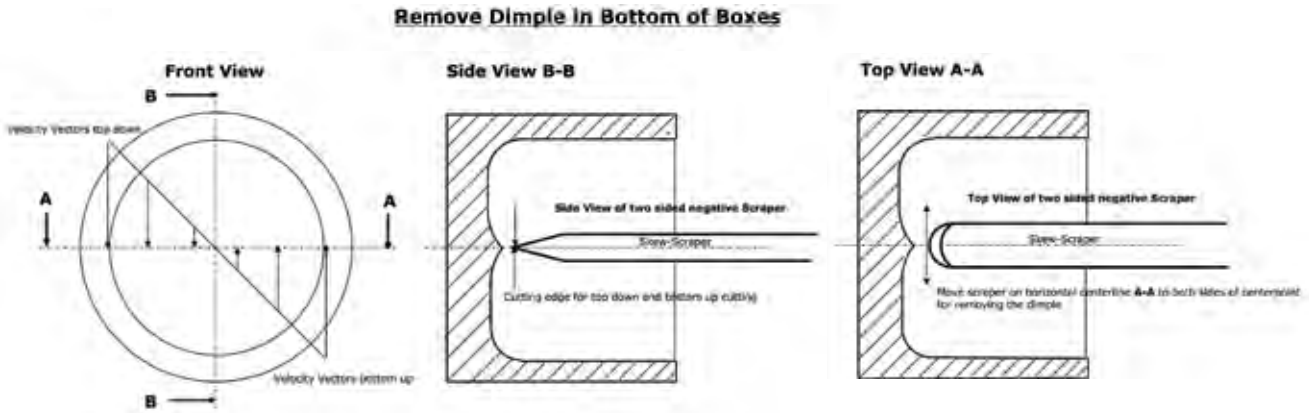
The solution is to make a tool that can cut the wood in both directions, from the top down and from the bottom up. The tool is simply moved to the left and right of the center point of the box or bowl, eliminating a dimple.

Grind the cutting edge of a skew chisel to a round profile like a round-nose scraper. I reground a 1"- (2.5 cm-) wide skew and put a 2" (5 cm) radius on the cutting edge.

In order to keep the cutting edge in the center, I made a toolrest that supports the skew/scraper. The toolrest is made from wood (although it would be better in steel). This way, the tool is always exactly on the centerline of the workpiece.

I use this tool only for finishing, not for roughing out the interior of a box. Take very light cuts, and you will be surprised how easy it is to eliminate the dimple.

— Werner Witek, Appleton, WI



Sandpaper

The Nitty-Gritty

Art Scott

Who knew that P400 was the same as 320 grit? That's just one of many facts I learned from my research on sandpaper. After thirty-eight years of woodworking, I thought I knew about sandpaper. Turns out I didn't.

When I took up woodturning, I found that there was a lot I did not know. For instance, I was not getting the results I wanted when sanding and if I talked to three different woodturners, I got three different answers.

I decided to undertake a study of sandpaper. I began by emailing questions to my suppliers. One replied, "I don't envy your task. The subject has always confused me."

From Rockler Woodworking I received an email that said, "Sorry that I don't have an answer for this. It looks like you have already done more research on this topic than any information I know. I'd be interested in hearing more, though, on any details your further research digs up." What I learned may astound him. It did me.

We are not using our grandfathers' sandpaper. Today's sandpaper does not contain sand and at times does not include paper. Sandpaper is not properly called sandpaper but should technically be called *coated abrasive* or *abrasive sandpaper* or *abrasive paper*. And, identical grits rated under different standards do not have the same abrasive particle size.

Some artists can work wonders with materials, while individuals with less talent struggle. Perhaps your sanding results are suitable, but if you are like me and see room for improvement, try the progression recommended in the comparing methods section.

The ideal is, of course, to improve tool use and control in order to minimize the amount of sanding that is required. But if sanding is what is called for, additional knowledge and a few hints will improve results.

U.S. and European standards: What's the difference?

There are two different standards used to specify the average abrasive particle size in the abrasive sandpapers we use in the United States. The Coated Abrasives Manufacturers Institute (CAMI) governs grit scaling in the Unites States. The Federation of European Producers of Abrasives (FEPA) provides the standard for the European scale.

The letter *P* in front of the grit number indicates that the abrasive particle size falls under the European classification for coated abrasives.

In this article, when you see a grit number alone, the number is classified under the U.S. standard. If the grit number has a *P* in front of it, its abrasive particle size is classified under the European standard.

Grit refers to the grit number printed on the backing of the abrasive sandpaper.

Simply put, it is the number of abrasive particles that will fit in one square inch. A larger number indicates a finer grit because more of the smaller abrasive particles will fit in one square inch.

Manufacturers determine the grit size by passing the abrasives through a series of sieves for the larger particle sizes. The smaller abrasive particles (from 230/P230 and finer) are selected by sedimentation and measured with a photosedimentometer.

There is a range of abrasive particle sizes that is permitted within each grit size. The European system allows a smaller variation in particle size, so their papers will produce a finer scratch pattern than the U.S. ones.

The future of grading systems

In email and telephone exchanges, both Ted Mullins of Keystone Abrasives and Coleman Fourshee of Klingspor Abrasives agree that the U.S. grading system is gradually going by the wayside and the FEPA (European) grading system will eventually become the only system used.

It was difficult to find all the grits I needed when looking for the CAMI-based abrasive sheets for the evaluations for my study. The hardware stores did have all the grits, although some were in an abrasive material other than aluminum oxide. Some grits were only ▸

% Change in particle size for same grit between CAMI & FEPA				
USA		European		% increase from USA to EUROPEAN standard for the same grit
CAMI-grit	average particle size in microns	FEPA-grit	average particle size in microns	
80	188	P80	201	6.9%
100	148	P100	162	9.5%
120	116	P120	127	9.5%
150	92	P150	100	8.7%
180	78	P180	78	0.0%
220	66	P220	68	3.0%
240	51.8	P240	58.5	12.9%
280	42.3	P280	52.2	23.4%
320	34.3	P320	46.2	34.7%
400	22.1	P400	35	58.4%
600	14.5	P600	25.8	77.9%
800	12.2	P800	21.8	78.7%
1000	9.2	P1000	18.3	98.9%

Table 1 *(Above)*. The difference in average abrasive particle size between the two main standards used in the United States.

Table 2 *(Right)*. Grits for both classifications (U.S. and European). (Grits are listed according to their average abrasive particle size in descending order from the coarsest to the finest. The sizes are in microns. One micron equals one millionth of a meter, or a thousandth of a millimeter.)

Ranking the grits by particle size		
average particle size in microns	CAMI (USA)	FEPA (Europe)
201		P80
188	80	
162		P100
148	100	
127		P120
116	120	
100		P150
92	150	
78	180	P180
68		P220
66	220	
58.5		P240
51.8	240	
52.2		P280
46.2		P320
42.3	280	
34.3	320	
35		P400
25.8		P600
22.1	400	
21.8		P800
18.3		P1000
14.5	600	
15.3		P1200
12.6		P1500
12.2	800	
9.2	1000	
6.5	1200	

offered in garnet, others only in silicon carbide, emery, or even flint. Not all of these materials will give us the results we strive for.

Not so with the European system. All grades are easily available, but the main problem is that the catalogs rarely list any grits with the *P*, even though they are actually European. Klingspor, a German company, only carries the European grades. In major home-improvement stores, the *P* is omitted on some of the packages, but it is present on the back of the sheets. This can lead to the false assumption that the grits from both systems are equal, which they are definitely not, especially in the higher grit numbers (see Table 1).

Selecting based on abrasive particle size instead of grit number

Notice in Table 1 and Table 2 that the abrasive particle sizes classified under the FEPA and the CAMI systems are only identical at grit 180/P180. For all the other grits listed, the particle sizes of the European grits are larger than the U.S. particle size for the same grit number.

For 320 grit (U.S.), the average abrasive particle size is 34.3 microns, while for P400 (European) it is 35 microns. This difference is only 2%. The difference in abrasive particle size between 320 and P320, however, is 34.7%! In U.S. workshops, 320 grit should be thought of as equal to P400.

In my study, I used the endpoint for the CAMI system as 320, while for the European system I used P400. The endpoint for both, then, is a comparable abrasive particle size.

But what about P600? Its equivalent CAMI grit would be 380, which is slightly smaller than the critical 400 grit. The P600 can be used to get a super-smooth finish.

Ted Mullins of Keystone Abrasives noted that when you sand much above 400 grit, there is the danger of burnishing the pores closed during the sanding process, which means that stains and colored finishes may not be evenly absorbed into the wood, resulting in a blotchy look. For wood that will not receive a color or stain, however, sanding to a very fine grit is generally not a problem.

Progressively sanding

One recommended method of progressively sanding through the range of

USA progression with 1.5 factor (Method # 1-US)			European progression with 1.5 factor (Method # 1-EU)		
CAMI-grit (USA)	average particle size in microns	% reduction between grits	FEPA-grit (Europe)	average particle size in microns	% reduction between grits
80	188		P80	201	
		38.3%			36.8%
120	116		P120	127	
		32.8%			38.6%
180	78		P180	78	
		33.6%			25.0%
240	51.8		P240	58.5	
		33.8%			21.0%
320	34.3		P320	46.2	
		35.6%			24.2%
400	22.1		P400	35	
		34.4%			26.3%
600	14.5		P600	25.8	

Table 3. Comparing the U.S. and European systems when increasing the grit number by 50% (increasing each grit by a factor of 1.5)

(This method results in a more uniform change for the U.S. sequence with an average change between each grit of 34.8%. But for the European system, an extra grit is added to achieve a similar abrasive particle size for the endpoint of each system [320 vs. P400)].)

Uniform change with USA standard (Method # 2-US)			Uniform change with European standard (Method # 2-EU)		
CAMI-grit (USA)	average particle size in microns	% reduction between grits	FEPA-grit (Europe)	average particle size in microns	% reduction between grits
80	188		P80	201	
					19.4%
		38.3%	P100	162	
					21.6%
120	116		P120	127	
					21.3%
		32.8%	P150	100	
					22.0%
180	78		P180	78	
		33.6%			25.0%
240	51.8		P240	58.5	
		33.8%			21.0%
320	34.3		P320	46.2	
		35.6%			24.2%
400	22.1		P400	35	
		34.4%			26.3%
600	14.5		P600	25.8	

Table 4. Grit selection based on getting a uniform change in particle size from one grit to the next.

grits is to use each available grit. Some authors, however, recommend an abbreviated version. Most experts recommend not skipping more than one grit in any progression. An article in *AW* (vol 13, no 3, Fall 1998) suggests a sequence of 80, 120, 180, 220, 280, and ending at 320. Which method should you use? Should you use a selection of grit sizes based on a different method?

If you apply the theory of using all available grits, the sequence you use for the CAMI standards (80 through 320) would involve nine different grits. With the European sequence (P80 through P400) you would be using ten grits of abrasive sandpaper. This increase of one grit number is because of the slower progression of the abrasive particle sizes in the European system.

I have found it isn't necessary to use all available grits to achieve superior results. Using fewer grits saves money and time.

You might never sand beyond 220/P220 or 320/P400 grit in your shop. That is okay, but keep in mind that the P400 grit has almost the exact same abrasive particle size as 320 (320 = 34.3 microns while P400 = 35 microns).

Comparing methods

Method 1

Method 1 is based on increasing the grit number by 50%. Here, you are increasing each grit size by 50% (multiply the grit by 1.5) beginning with 80-grit abrasive.

Running through the grits using the 1.5 method will result in the following progression in the U.S. system.

80 × 1.5 = 120 and a 38.3% reduction in particle size
120 × 1.5 = 180 and a 32.8% reduction in particle size
180 × 1.5 = 270

At this point, we must make our first decision since 270 is not an available grit. Should you select 320, 280, 240, or 220? Since 280 is not available in aluminum oxide from the suppliers I most frequently use, the choice is either 220 (15.4% reduction), 240 (33.6% reduction), 280 (45.8% reduction) or 320 (56% reduction).

Attempting to keep the percentage change between the grits similar, I selected the 240-grit abrasive.

240 × 1.5 = 360, and I chose the 320 grit for similar reasons.

I applied the same process to the European classification and compared the two systems (see Table 3). A major difference in particle size can be seen between P320 and P400. In the European sequence, this means you use one additional paper. Remember, it is more important to compare particle ▸

Mahogany cylinder prepared with an oval skew chisel. As in all cylinders, the first section on the left will be finished to 320 grit with Method 1 & 2-US. (Note: Methods 1 and 2-US are identical and are referred to as Method 1 & 2-US.) The middle section will be finished to P400 grit with Method 1-EU. The section on the right will be finished with Method 2-EU, which has the extra two grits added (P100 and P150).

Cherry cylinder prepared with an oval skew prior to using any abrasives.

Ash cylinder prepared by scraping with a dull bowl gouge to produce torn grain and tool marks.

Ash: Close-up view of the first section of the cylinder in *Photo 3,* before applying any abrasives.

The various woods used, left to right: Maple, ash, cherry, mahogany, yellow poplar. The top section of each cylinder has been finished with Method 1 & 2-US to 320 grit. The middle sections are all finished with Method 1-EU to P400 grit. The bottom sections are all finished with Method 2-EU to P400 grit. Method 2-EU included grits P100 and P150, which were not used in any of the other sections.

size than grit number to accurately compare grit to grit.

Method 2

Method 2 is based on selecting a uniform change in particle size. The goal is to develop a progression through the grits that comes as close as possible to a uniform percentage change between each of the grits used in the sequence. This is based on the assumption that if there is a consistent percentage change between grits, a superior, smooth, scratch-free finish can be achieved faster.

With the U.S. system (see Table 4, Method 2-US) the average change in particle size is 34.6% (32.8% to 38.3%) and a progression of 80, 120, 180, 240, 320, for a total of five grit numbers. This sequence of grits is identical to Method 1-US where each grit number is increased by 50%.

For the European system (Method 2-EU), you can achieve a change in particle size from grit to grit for an average change of 22% and a progression of P80, P100, P120, P150, P180, P240, P320, and P400 for a total of eight grit numbers (see Table 4). This method results in an increase of two grit numbers over the 1.5 method and a percentage change between grits that is more consistent. The grit sequences for all of the methods are compared in Table 5.

Setting up the evaluation

I used abrasive sheets rather than discs for my study because there are more operator variables using a power sander or a Sandmaster-type tool, and not all grits may be available in the various disc systems. However, the basic principles used will still apply regardless of the system you use in your shop.

In an attempt to keep as many variables as possible out of my evaluations, I made several decisions, the primary one being to use a spindle-turned cylinder for my test studies. I chose not to use bowls in this evaluation because of the variables introduced by the many different designs as well as the occasional need to reverse the lathe in order to smooth stubborn endgrain. Granted, it will take longer to smooth the endgrain encountered in the bowls as compared to the face grain of spindles, but the progression I use should apply to all projects. Here is how I set up the evaluations:

- I turned a cylinder for a consistent, smooth surface. (Bulk reduction with a ¾" [20 mm] roughing gouge and finish with a 1" [25 mm] oval skew.) *(Photos 1, 2)*
- I also compared the progressions on cylinders with a rough finish achieved with a dull ½" (13 mm) bowl gouge held off the bevel resulting in tool marks and torn grain. *(Photos 3, 4)*
- I used abrasive sheets applied by hand to minimize pressure variables.
- I used abrasive paper cut into strips that were 1" (25 mm) wide.
- I used each strip only once on a section before throwing it away.
- I kept the strips in constant motion when touching the wood.
- I applied firm pressure but not enough to result in feeling any warmth in my fingertips.
- I cut each wood sample to be 9" (23 cm) in length, divided it into three 3" (8 cm) sections.
- I sanded each section separately even if two adjacent sections called for the same grit number.
- I used kiln-dried wood.

I used a variety of hardwoods, with pores that went from ring-porous and open to diffuse-porous and small. The hardness range was from the medium-hard maple and ash down to yellow poplar, one of the softer hardwoods *(Photo 5)*.

I kept the lathe's speed consistently at about 500 rpm, as I do when sanding in my shop. There are several reasons for using a slower speed for sanding:

1. The heat produced with pressure and high speeds can result in cracks occurring in the wood.

CAMI progression with 1.5 factor is the same as uniform % change between grits (Method #1-US=Method #2-US)			FEPA progression with 1.5 factor (Method #1-EU)			European progression with uniform change in % reduction between grits (Method #2-EU)		
CAMI-grit (USA)	average particle size in microns	% reduction between grits	FEPA-grit (Europe)	average particle size in microns	% reduction between grits	FEPA-grit (Europe)	average particle size in microns	% reduction between grits
80	188		P80	201		P80	201	
								19.4%
		38.3%			36.8%	P100	162	
								21.6%
120	116		P120	127		P120	127	
								21.3%
		32.8%			38.6%	P150	100	
								22.0%
180	78		P180	78		P180	78	
		33.6%			25.0%			25.0%
240	51.8		P240	58.5		P240	58.5	
		33.8%			21.0%			21.0%
320	34.3		P320	46.2		P320	46.2	
		35.6%			24.2%			24.2%
400	22.1		P400	35		P400	35	
		34.4%			26.3%			26.3%
600	14.5		P600	25.8		P600	25.8	

Table 5. Comparison of selection methods. (U.S. grit choices based on Method 1 and 2 are on the left. The grit sequence is identical for the two U.S. methods.) European grit choices in the middle column are based on the 1.5 method. European progression in right column is based on a uniform percent change between grits.)

2. If there are resins present, they can be brought to the surface by the heat, which causes burns resulting in wood discoloration.
3. High lathe speed, combined with coarser grits, can change the shape of the turning, although not as evenly as with steel tools.
4. Most bowls are slightly out-of-round by the time the sanding process happens—when sanding at a high speed, the abrasive will be primarily hitting the high spots (rather like hydroplaning), leaving the lower areas untouched by the abrasive paper.

When the abrasive paper meets the wood

I always started each sequence with 80/P80 grit *(Photo 6)*. Whichever number you begin with, the goal is a uniform surface before moving to the next grit. The rougher the tool finish, the more time should be spent on the very first grit. The objective of the first grit used is to remove torn grain and tool marks.

For the cylinders with a smooth tool finish, I used the 80/P80 grits for one minute on each section, then all the other grits in the sequence for 30 seconds each. Although I begin with a finer grit for my own turning, for testing purposes I started with 80 grit because in some of the progressions I tested I am comparing several grits that I would have skipped had I begun at 240/P240. I wanted to be consistent and use all of the grits in a progression regardless of the tool finish to ensure more accurate results.

On the cylinders with a rough finish, I used the 80/P80 grits for two minutes on each section, then 30 seconds for the remainder of the grits.

The European abrasive paper was the cloth-backed J-flex from Klingspor. For the U.S. system, I used GatorGrit for 80-120-180. Then I switched to the multipack abrasive rolls for pen finishing from Craft Supplies, USA, for the 240 and 320 grits. I used these rolls because, even after checking catalogs, local hardware stores, and the major home-improvement stores, I could not find all the grits I needed under the U.S. classification from the same manufacturer.

In the photos, the first section on the left is always the U.S.-grit sequences. Method 1-US and Method 2-US have identical grit sequences, so the first section represents both US-methods. The middle section is the same sequence of grits as the first ▸

Maple: The first section is finished to 80 grit and the other two sections were finished with P80.

section but with the European-graded papers. The last section on the right is the European graded papers with the extra grits added (P100 and P150).

Comparing results

I found that the sequence of P80, P120, P180, P240, P320, P400 consistently produced the most acceptable finish with all five woods, regardless of whether the initial tool finish was smooth or rough.

Adding two extra grits (P100 and P150) to the sequence did not make any difference in the surface finish at P180 when compared with the sequence that left these two grits out *(Photo 7)*.

Finishing to a P600 grit left an extremely smooth surface.

All methods passed the feel test; they all felt smooth. The *P* grade finishes were a little smoother in all sequences.

The sight test was a little different. After each sequence was completely finished and I looked at the cylinders when they were in a horizontal position while still on the lathe, it appeared as though all three sections of each sample were scratch-free *(Photos 8, 9, 10)*. When I removed the cylinders from the lathe and placed each one at a 45° angle, however, I saw scratch marks in all of the five cylinders in the sections finished with the U.S.-grade paper *(Photos 11, 12, 13)*.

I noticed that for each grit from 80/P80 to 180/P180, the U.S. grit felt smoother than the other two columns where the European grits were used.

At 240/P240 all three sections felt the same. Then at 320/P400 the European grit felt slightly smoother and markedly smoother at the 320/P600 level.

It also appears that having a consistent change in abrasive particle size from one grit to the next is not essential. The best sequence (Method 1-EU) had a change in particle size in the upper 30% range for grits P80, P120, and P180. Then the percentage change dropped to the low to mid 20% range for the remainder of the grits *(Photo 14)*.

Substituting between the European and U.S. systems

If you have abrasive papers from both systems in your shop and run out of one grit number, Table 6 will help you find a replacement grit in the other system with the closest average abrasive particle size.

From 80/P80 to 220/P220, the best replacement is the identical grit. For those numbers higher than 220/P220, the replacement grit will be a different grit number. For P240, you could go either way: 220 = change of 12.8% or 240 = a change of 11.5%.

Choosing abrasive materials

Selection of an abrasive material is based on the friability of the particles—how easily the particles fracture under use.

There are a number of abrasive materials available. The following three are the ones most often used by woodturners.

Aluminum oxide

- the workhorse
- available with paper, cloth, or a synthetic backing

Cherry: The left section is finished with Method 1 & 2-US. The middle section is finished with Method 1-EU. The right section is finished with Method 2-EU.

The maple cylinder, viewed horizontally. The same section, viewed at an angle in *Photo 11,* reveals some scratches that are not evident in this photograph.

Cherry: At this viewing angle, no scratches are visible. Scratches become obvious when viewed at an angle, as in *Photo 12.*

Poplar: The apparently smooth finish actually has abrasive scratches, which become noticeable when viewed at an angle, as in *Photo 13.*

Maple: The same cylinder in *Photo 8,* but viewed at an angle to reveal scratches.

Cherry: The abrasive scratches are revealed when the cylinder in *Photo 9* is viewed at an angle.

Poplar is the softest of the hardwoods used for this article. Scratches are present, but are not as evident as in the other woods.

Ash: This is the same cylinder in *Photos 3* and *4*. The three sections, left/middle/right, have been finished to 320 (Method 1 & 2-US); P400 (Method 1-EU); P400 (Method 2-EU). Two additional grits (P100 and P150) were used in Method 2-EU that were not included in the other sections.

If missing a grit in one system, what is the closest replacement in the other system and at how large a difference in particle size?				
USA grit	particle size	European grit	particle size	% change in grit from USA to European
80	188	P80	201	6.5%
100	148	P100	162	8.6%
120	116	P120	127	8.7%
180	78	P180	78	0.0%
220	66	P220	65	1.5%
		P240	58.5	
240	51.8	P280	52.2	0.8%
280	42.3	P320	46.2	8.4%
320	34.3	P400	35	2.0%
		P600	25.8	
400	22.1	P800	21.8	1.4%
		P1000	18.3	
600	14.5	P1200	15.3	5.2%
800	12.2	P1500	12.6	3.2%
1000	9.2	P2500	8.4	8.7%

Table 6. Nearest comparable grit from one system to the next. (From 80/P80 through 220/P220, the nearest grit is the same grit. After 220/P220 the average abrasive particle sizes begin to separate and best choice will be a different grit number.)

- abrasive particles are easily broken down as the paper is used, resulting in the creation of new, sharp edges; in effect, renewing the surface and extending the life of the abrasive
- most common abrasive in woodworking catalogs

Garnet

- softer abrasive than aluminum oxide and wears out more quickly
- produces a finer, softer scratch pattern on wood
- recommended by some as the last few grits because it will result in a much smoother final finish. I have found I do not have to use garnet to achieve a super-smooth finish.

Silicon dioxide

- often called wet/dry sandpaper and usually has a waterproof paper backing
- hard material not easily broken down on wood, is very aggressive
- usually used on metals
- too aggressive to use as a primary abrasive on wood

Reviewing backing material

The *backing* is the material used to hold the abrasive particles. Backings include paper, cloth and synthetic materials like Mylar. Some can be waterproofed.

Waterproof backing allows the paper to be used with water to rinse off dust that tends to clog the abrasive, or to finish sand with oil instead of using steel wool.

Papers are graded from A through F, with A being the most pliable. Coarser grits will have a heavier, stiffer grade of paper. Grade F is the stiffest and is used for sanding belts. The paper grade, if listed, will follow the grit number, for instance 800A or P60C. The paper grade is not always included with the grit number.

In the manufacturing process for coated abrasives, the backing is first coated with a resin that will hold the grit. As the paper is passed over and slightly above the abrasive particles, an electrostatic charge is introduced, resulting in the abrasive particles moving up and into the resin. The larger part of the particle embeds in the soft resin with the smaller, sharper end exposed. The resin with the embedded particles is then dried. A second coat of resin is applied over the exposed particles to extend the life of the abrasive.

This somewhat scientific approach to sandpaper selection has provided me with an understanding of the abrasive particle size used in the various grits, which has greatly improved the finishing portion of my turnings. I hope it will do the same for you. ■

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Humanizing the Skew Chisel

Russ Fairfield

I have yet to meet a woodturner whose skills weren't improved from learning to use a skew chisel. The skew teaches how wood is cut, and it teaches the importance of the bevel better than any other turning tool. Learning those two lessons will make anyone a more skillful woodturner, regardless of the kind of turning. In addition, the skew leaves the smoothest surface of any turning tool, and a sharp skew makes clean cuts easily in the most challenging of wood-grain patterns—more so than any other turning tool.

In my article, "The 'Compleat' Woodturner" (*AW*, vol 25, no 1), I described spindle turning as a skill to be learned before becoming a *compleat* and accomplished woodturner. There is one additional step, however: mastering the skew chisel.

My favorite skew chisels: a 1¼"- (3 cm-) wide rectangular skew with a curved cutting edge and a concave bevel (top) and a 1½"- (4 cm-) wide oval skew with a straight edge and flat bevel.

The *skew* does not make these lessons easy. The very name skew strikes fear in the hearts of woodturners, beginners and experts alike. We have all heard stories about the dreaded skew. Some will have mustered the courage to use the skew chisel, only to have a humongous catch that convinced them never to try again.

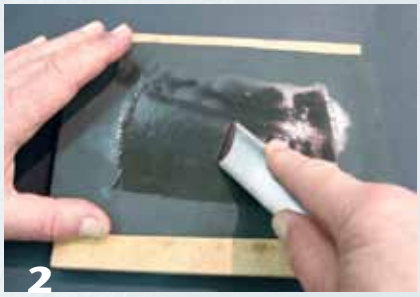
The reality is that the skew is no more difficult than whittling on a stick of wood or peeling a carrot with a knife. The only difference is the wood is spinning when the skew is cutting.

The tool

When you are learning how to use a skew chisel, practice with one that is at least 1" (25 mm) wide. Wider is even better—the wider the tool, the easier it is to see the cutting action and to control the cut. Additionally, a heavier tool causes less vibration. Save narrow skews for when you have mastered the use of this tool.

The cutting edge of the skew chisel *must be sharp.* Everything else is a personal preference. The skew can have a round, oval, or rectangular shank; the cutting edge can be straight or curved; and the bevel can be concave, flat, or slightly convex *(Photo 1).*

If the shank of your skew chisel has square edges, take it to the grinder and make the edges round and smooth. The skew has to slide smoothly along the toolrest, and a round edge will slide easily; sharp, square corners won't slide. It is worth the extra dollars to purchase a skew that already has rounded edges. There is an argument for rounding only one edge so the flat on top can be used as a reference for vertical cutting, but I prefer rounding both edges so they slide along the



The oval skew with the flat bevel is sharpened on a sheet of 600-grit sandpaper with some thinned mineral oil as a lubricant. The backing is a piece of particleboard that is ¾" (2 cm) thick.

The edge at the toe of the curved skew is at 90˚ to the top of the tool, and has a short (no more than ¼" [6 mm]) straight section before starting the curve.

The curved skew is ground on an 80-grit wheel, and then honed with a 600-grit India stone.

toolrest. An oval skew is fine just the way it is.

Sharpen a skew chisel

The skew should be the sharpest tool you own. A variety of machines can shape the bevels and form the cutting edges of skew chisels: a high-speed grinding wheel, a Tormek grinder, belt sander, or disc sander. Use a buffing wheel, slip-stone, bench stone, or sandpaper to hone—the wood doesn't know or care which was used. Honing will create a cutting edge that is razor sharp.

For skew chisels with a straight-profile cutting edge, I frequently hone or sharpen using a fine-grit bench stone or 600-grit wet/dry sandpaper placed on a piece of particleboard that is ¾" (19 mm) thick. I apply a few drops of oil to the sandpaper as a lubricant. I use a 50/50 mixture of mineral oil and kerosene (or mineral spirits) as a lubricant *(Photo 2)*. Over time, and after repeated sharpenings, this method gradually changes the bevel from flat (or concave) to slightly convex, which I believe is good; the tool seems to cut better.

For curved-edge skew chisels, it is important that the toe (long edge) meets at a right angle (90˚) to the top edge of the shank *(Photo 3)*. This holds true for all skew chisels with a curved cutting edge.

To shape the profile of a curved-edge skew chisel, grind the bevel to create the desired curve, using a grinder, and then hone the tool to a sharp edge with a flat stone *(Photo 4)*. In addition to creating a sharper cutting edge, honing with a flat stone bridges across a concave bevel, creating a narrow secondary flat bevel along the cutting edge. That tiny secondary bevel is what slides along the wood as the tool is cutting, making the tool easier to control.

Before applying the skew chisel to wood, make sure the top surface of the toolrest is smooth and free of dents and dings. A smooth toolrest is important when using the skew, more so than for larger-radii spindle and bowl gouges.

Carrots, rutabagas, and a permanent marker

A carrot is an excellent object to use when learning how to master the skew chisel. Carrots are easy to peel and there is no wood grain to catch. I give Ted Bartholomew of Tacoma, WA, credit for introducing me to the benefits of turning vegetables; rutabagas are his favorite.

Buy a bag of large carrots, the larger the better, and a rutabaga—several rutabagas. Cut a carrot into pieces that are 4" (10 cm) long, and mount one piece onto the lathe, between centers *(Photo 5)*.

Select a sharp skew chisel, and then blacken both sides of the bottom half of the bevel that is closest to the heel (short edge) with a permanent marker ▸

Cut a large carrot to about 4" (10 cm) long and mount it between centers.

Mark the lower half of the bevel with a permanent marker. This will identify the safety zone.

With the lathe off, make a flat cut, checking that the bevel is supporting the cut in the middle of the safety zone. Adjust the height of the toolrest so that you can hold the tool handle in a comfortable and controllable position.

Make the same flat cut in both directions with the lathe off.

Now make the same flat cuts with the lathe running at a slow speed.

Make the same sequence of flat cuts with the toe of the skew chisel down. Note that the safety zone is now located on the opposite half of the bevel.

Practice flat cuts on a piece of wood. Run your lathe at about 1600 rpm.

(Photo 6). This black mark is the *safety zone* for cuts that are made with the blade while not using the tip of the skew. The best and safest cutting will be somewhere near the center of this safety zone. For a 1"- (25 mm-) wide skew, this safety zone is ample.

The flat cut

With the lathe off, hold the skew with the shank at 30˚ to 45˚ from perpendicular to the lathe's centerline and with the heel closest to you. Roll the tool until the bevel in the middle of the safety zone rests flat on the surface of the carrot. Raise or lower the height of the toolrest so that you can hold the tool handle in a comfortable position. You have just gone through the ABCs of anchor, bevel, and cut. Now push the tool forward by sliding it along the toolrest, bevel touching the carrot, cutting edge engaged. A smooth curling carrot shaving should appear *(Photo 7)*.

Do this several times in both directions, and left and right handed *(Photo 8)*.

Now turn the lathe *on*. Have it running at about 100 rpm (or at the slowest speed possible if 100 rpm is not an option). A slow speed allows you to see what is happening with the tool. Position the skew to make the same cut as when the lathe was off. Move the bevel along the surface of the carrot with the cutting edge engaged. Practice this cut in both directions, and right and left handed, until the carrot is used up *(Photo 9)*.

You have just learned how to make a flat cut with a skew chisel. Repeat this cut until the movements become natural and you can make them without having to think about what you are doing.

Practice some more, but this time try the cut with the toe of the skew pointing down *(Photo 10)*. Some turners will find this is an easier way to hold the skew for turning square pieces of wood into cylinders. Note that when you are using the skew with the toe pointing down, the safety area is at the other end of the bevel.

Clean up all of the carrot peelings and mount a piece of wood onto the lathe. A section of a green tree limb is ideal, but any soft hardwood or construction lumber that is about 1½" (4 cm) square will work. At this point, avoid hard, dense wood. To begin, turn the spindle into a cylinder using a spindle-roughing gouge.

Then, do the ABCs, and make the same flat cuts as you made on the carrot *(Photo 11)*.

The round cut (beads)

The next vegetable to tackle is a rutabaga. Trim the ends first, using a knife, then mount the rutabaga onto the lathe between centers. A spur drive may be the best drive center to use in order to get a proper grip. With the lathe *off*, peel the rutabaga by following its curvature with the skew. Always cut downhill by starting at the larger diameter. The toolrest may have to be raised so you can hold the tool's handle in a comfortable position.

Swing, twist, and raise the tool handle to keep the cutting action located in the center of the safety zone. All the while, keep the bevel (at the point where the edge is doing the cutting) in contact with the rutabaga. Make this cut as many times as necessary until every peeling of rutabaga is continuous and is the same thickness, from the center around to both ends *(Photo 12)*.

Turn the lathe *on* at a slow speed (100 rpm or less), and make the same cut *(Photo 13)*. Make as many cuts, and use as many rutabagas as needed, until the swing, twist, and lift movement of the tool handle becomes a natural motion. It is much easier to learn how to move the tool using a rutabaga than with a hard piece of wood where catches can be inspirational events.

Practice peeling a rutabaga with the lathe off. This is a safe way to learn how to follow a curve with the skew, using the bevel to support the cut.

Make rounding cuts with the lathe running at a slow speed.

When rounding the end of a piece of wood, make sure the cutting action is taking place in the safety zone, with the bevel supporting the cut.

This is what the wood looks like when a catch happens...and they do! Use light pressure and make sure the safety zone area of the bevel is supporting the cut.

Remove what's left of the rutabaga and mount a length of wood onto the lathe, about the same diameter as the rutabaga. Turn it to a cylinder, and use the skew to turn a radius on each end *(Photo 14)*. Keep practicing until there are no catches *(Photo 15)*.

The V-groove

Mount a new piece of soft wood or another tree trimming onto the lathe. Turn it to a cylinder, using the skew as in *Photo 10*, or use a spindle-roughing gouge.

Move to the center of the cylinder to make V-groove cuts. Use the tip of the toe of the skew chisel. Hold the tool almost vertical to the toolrest (angle it slightly to one side or the other). Start the cut by holding the tip lightly to the surface until the tip starts to penetrate the wood. Angle the tool slightly in the opposite direction and do the same thing to form the other side of the V. Keep making thin slicing cuts to widen and deepen the V *(Photo 16)*. V-grooves are made in a series of light cuts, first one side of the V, then the other.

Move a short distance away from the previous V, and do the same thing again to make another V that is separated by a short flat area *(Photo 17)*.

Round over the sharp edges at the tops of the Vs, using the rounding cut practiced with the rutabaga *(Photo 18)*.

You have just turned a bead using a skew chisel.

Now, grab another piece of wood and practice some more. If the wood is problematic, use another section of carrot or a rutabaga to practice V-grooves and beads.

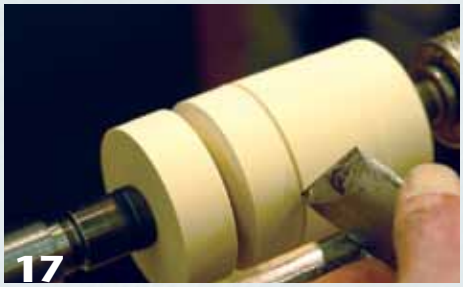
Other cuts

There are four other basic cuts using a skew chisel: *peeling, facing, pommel*, and *cove*. These will be easier after mastering the flat, V-groove, and beading cuts, and gaining confidence with using the tool.

The *peeling* cut is an efficient way to make a tenon on the end of a turned furniture part, or to quickly remove a lot of wood. Hold the skew flat on the wood, with the bevel rubbing. Raise the tool handle to start and maintain the cut, similarly to how a parting tool is used. I find this cut is easiest to make using a skew chisel that has a curved cutting edge and a flat shank (*Photo 19*).

The *facing* cut is made with the tip of the toe in the same manner as for the V-groove cut. The only difference is that the resulting shoulder is perpendicular to the axis of the lathe (*Photo 20*). If you are still getting catches with this cut, make sure you have enough (but not too much) ▸

To make V-groove cuts, use the toe of the skew, holding the tool almost vertical. Make light cuts on either side of the V. I am using an oval skew with a straight cutting edge, but any skew will work.



Move down the piece of wood and make another V. Leave a flat area between the two Vs. This space will establish the width of a bead.

Round the edges of the Vs using the same cut you practiced with the rutabaga to create a round end. Note that the cutting action is taking place in the safety zone.

The peeling cut is made with the skew held flat on the toolrest. The 90˚ angle between the cutting edge and the toe of the skew is important to make this cut successful.

The facing cut is made like the V-groove cut except that the result is a 90˚ shoulder on the wood. Make sure there is a slight clearance between the wood and the side bevel of the skew.

The pommel cut is also like a V-groove cut and is used for making a transition from square to round.

To learn how to make a cove cut, practice first on the end of a piece of wood. Next try turning a complete cove in the center of the cylinder by cutting from both ends and meeting at the middle. Most likely, you will find that coves, especially smaller ones, are a lot easier to make using a spindle gouge.

clearance between the shoulder of the wood and the side bevel of the skew chisel. The bevel that supports this cut is underneath the toe, not the side bevel.

The *pommel* (sometimes spelled *pummel*) cut is a transition from square to round, as at the top of a table leg. It is a one-sided V-cut that may be either straight (90˚) or slightly curved—the only difference is that the cut is started where the wood is square. It is made with the tip of the toe of the skew, the same as for a V-groove cut. Take a light cut and enter the wood very gently on the spinning square to avoid tearing the corners (*Photo 21*). A wood that splinters easily, such as oak, ash, or fir, can use some help from wrapping it with a layer of glass-reinforced tape (strapping tape), and then cutting through the tape into the wood.

The *cove* cut with its concave curvature has been saved for the last; it is not an easy cut to make with a skew chisel. Everything just stated about following the bevel is ignored. As soon as the skew enters an inside curve the tool is touching the cutting edge and the backside of the bevel, and we already know that is a sure way to lose control of the tool and get a catch.

Additionally, it is challenging to start a cove cut because the skew will want to run away when making a shallow entry. Follow the rule of always cutting downhill from the larger to the smaller diameter *(Photo 22)*. Cut downhill from both ends of the cove and have them meet at the bottom. Approach the cove cut with caution, and practice making the cut until you discover the limit of the curvature that can be cut with the skew. Shallow, wide curves are easier. Trying to turn a cove using a skew will illustrate why many of us prefer to use a spindle gouge or small scraper for cutting anything but the long sweeping curves of a large cove.

A functional turned object

After following the instructions and practicing the exercises, you will know how to use a skew chisel and will have learned the importance of the bevel on a turning tool. Now it's time to incorporate the use of the skew chisel into your repertoire of turning accomplishments on your way to becoming a compleat woodturner. I suggest additional practice.

A good project for practicing the use of the skew chisel is the candleholder described in my previously referenced article. Simply substitute a skew chisel for the large spindle-roughing gouge, follow the instructions, and turn a candleholder *(Photo 23)*. ■

Russ Fairfield is an active member of the Inland Northwest Woodturners and the INW Pen Turners Association. He teaches woodturning classes at the Woodcraft store in Spokane, WA, and has traveled extensively demonstrating at local clubs and regional symposiums. For more information, visit woodturner-russ.com.

Practice your new skills by turning a candleholder with the skew chisel.

Autumn Flowers

Patricia Spero and Gabor Lacko

Red and yellow chrysanthemums and the changing colors of leaves in the fall inspired this design of fallen leaves on a large platter, made from maple, surrounding three chrysanthemums. The chrysanthemums are made up of three concentric thin-turned bowls and a domed center disc. The largest bowl is about 5" (13 cm) in diameter, the next smaller one is about 4" (10 cm) in diameter, and the smallest is just less than 2" (5 cm) in diameter. The disc, made to fit into the smallest bowl, represents the stamens. ▶

Aim for an overall thickness of about 1/16" (1.6 mm). Check for uniform thickness by shining a light through the wood.

These three small bowls will form the flower.

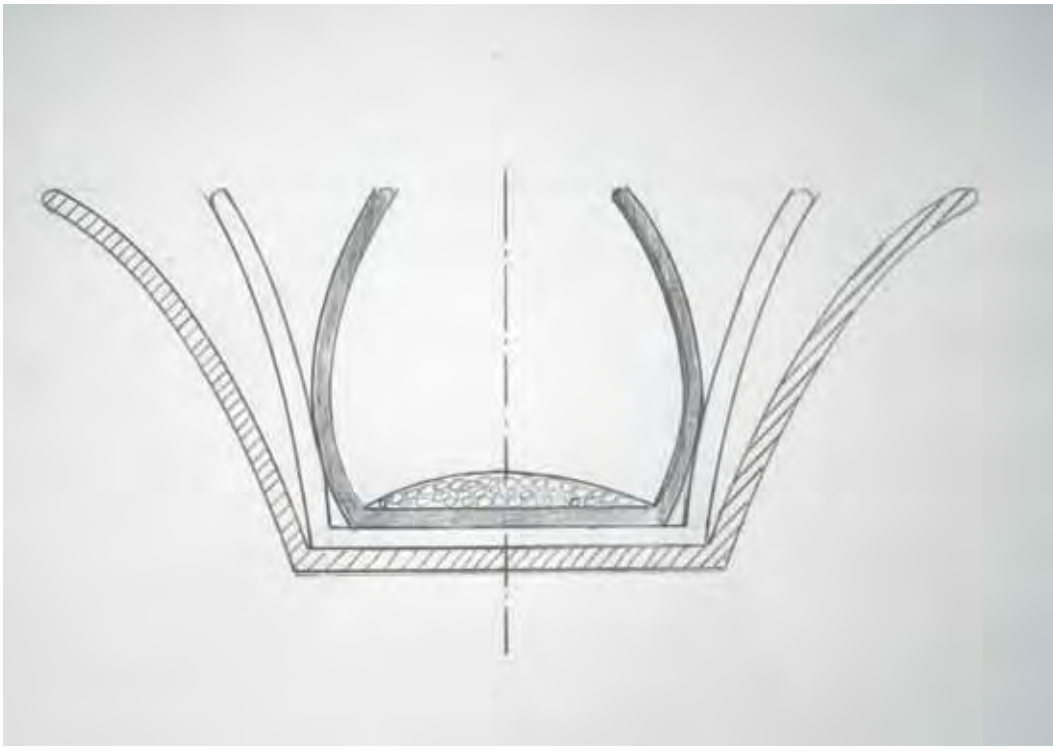


Figure 1. A sketch of the construction of the flower with the smallest bowl in the center shows how the bowls and the center dome touch and nest.

To create the flowers, three turned bowls are divided into petals and the petals are then shaped and formed. The underside of the petals is stippled, both sides are colored and varnished, and then the four components are assembled into one flower.

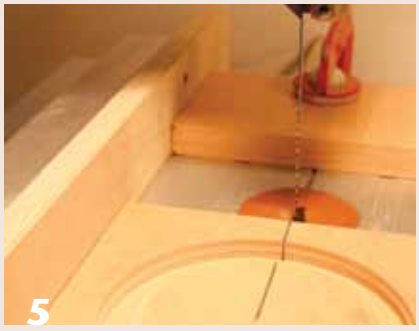
Turn the bowls

The shape of the three little bowls, which will be converted into three sets of petals, is shown in the sketch *(Figure 1)*. The bowls need to be approximately 1/16" (1.6 mm) thick. You can check the wall thickness and uniformity by shining a light through the bowl *(Photo 1)*.

The inside diameter of the base on the largest bowl must be the same as the outside diameter of the base on the center bowl. The smallest bowl has an inwardly curved side. It touches the second bowl at its maximum diameter and not at the base. On all three bowls, you need to form a spigot, which will be used

The toolrest, used as a guide when drawing radial lines, must be exactly at center height.

Draw radial lines for dividing the bowl into twenty-four segments for the petals.



A jig will safely hold the two larger bowls for cutting the radial lines. Note the stop clamped at the back of the bandsaw table.

to hollow out the inside, to hold the finished bowl onto the lathe while indexing, and for holding the delicate bowls during the processes that follow.

The best wood to use is maple—it takes a good color, stipples evenly, and holds up to boiling and shaping.

Turn the three little bowls, checking the wall thickness periodically and sand them to a good finish *(Photo 2)*. The finish on the outside of the bowl is not critical because that area will be stippled. However the finish on the inside is important because it will be colored and varnished and every scratch and sanding mark on the wood will be visible under the color.

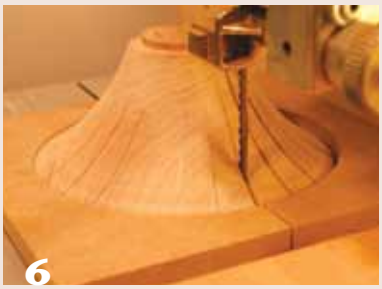
There is one additional small item to be turned, the domed disc. The disc must fit neatly into the center of the smallest bowl, just covering the bottom.

Form the petals

The two larger bowls are divided into twenty-four equal parts (15° each). The easiest way to do this is using the indexing on the lathe. It is imperative that all lines point at the center point of the bowl. The toolrest, which is your guide when you draw the radial lines, must be exactly at center height *(Photo 3)*.

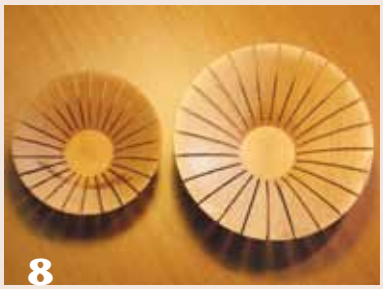
With the bowl mounted by its spigot into a four-jaw chuck, index around the bowl, marking the twenty-four divisions. (The smallest bowl will have only twelve divisions.) At every division, draw a line on the outside of the bowl using the toolrest as a guide *(Photo 4)*.

Using a bandsaw, cut along each line from the edge of the bowl to the edge of the base. To make sure that these cuts are straight, make a simple jig for each bowl. Each jig consists of a square piece of wood, about ¾" (20 mm) thick with a recess for the bowl *(Photo 5)*.



With the bowl held in a jig, cut along each radial line. Note the stop clamped onto the bandsaw table, behind the jig.

For safety, cut the twelve radial lines in the smallest bowl using a handsaw.



The bowls are ready for sanding between the radial cuts.

Using the parallel guide (fence) of the bandsaw, position the jig on the table in such a way that when pushed toward the blade, the saw will cut exactly through the center of the jig. Note how far you have to push the jig to finish the cut and set the end stop at this point. If your bandsaw does not have an end stop, clamp a piece of wood to the table at the correct place. Position the bowl in the recess with one of the pencil lines facing the saw line and make a cut *(Photo 6)*.

Sand and shape the petals using a belt sander.

The largest bowl is sanded and the petals are formed.

The petals are now ready for bending into shape.

Stop the bandsaw, carefully pull the jig back, turn the bowl in the jig, and position the next line to make the cut. Cut all twenty-four lines on the two larger bowls. For the smallest bowl with twelve lines, use a handsaw for safety *(Photo 7)*. The bowls now are ready for sanding and shaping *(Photo 8)*.

Sand and shape the petals

Sand and shape the petals using a 180-grit, 1"- (25 mm-) wide belt sander. Shaping the petals is easier if you draw ▸

Heat the two larger bowls in boiling water for two to three minutes until the wood is soft.

Manipulate the wet petals into shape. Use folded paper towels between the petals.

The flower is ready for decorating or it can be left as is for a natural-wood look.

the shape of the tip on each petal before sanding. Carefully sand between the petals to smooth the saw cuts and to shape the petals *(Photos 9, 10)*. The petals on all three bowls are now ready for bending into position *(Photo 11)*.

Bend the petals

First heat the two larger bowls in boiling water for two to three minutes, until the wood is soft *(Photo 12)*. Remove one bowl from the water, and force the wet petals into shape by manipulating them using folded paper towel. Push some petals up and some down. Be careful not to break the petals *(Photo 13)*.

Microwave each bowl for one minute. Let it cool for five minutes and then microwave it again for one minute. (Microwaving times may vary, depending on the power of your microwave.)

Leave the smallest bowl in its original shape.

The flower is now ready for decorating, although if you prefer a natural-wood look, then proceed to removing the spigot and attach the three bowls together *(Photo 14)*.

Decorate the flower

Stipple the underside of the petals of all three parts and the center dome using a round-headed burr *(Photos 15, 16)*. Then, airbrush the three individual sets of petals using transparent paints in your chosen colors. Use at least three colors to make the shading *(Photo 17)*.

When the paint is dry, apply several coats of varnish, letting each coat dry for at least twenty minutes before applying the next. Sand each petal with fine abrasive or steel wool to


15
Stipple the underside of the petals.


16
The underside of the largest flower is completely stippled and ready for airbrush coloring.


17
Airbrush the three individual flower-petal bowls using transparent paints.


18
Position and glue together the four parts of the flower.

smooth the finish before applying the last coat.

Spray the center disc, either with yellow airbrush paint or black ebonizing paint, and then varnish. Remove the spigot and glue together.

After all operations are finished (turning, sanding, bending, stippling, and coloring), remove the spigots from the three bowls. We sometimes remove the spigots earlier (as shown in the photos), but the bowls are delicate and difficult to hold; leaving the spigots intact can make the finishing processes less complicated. The spigots from the two larger bowls can be removed by sanding them away using a 120-grit sanding disc. For the spigot on the small bowl, remove the spigot using a sharp chisel.

Position and glue together the three bowls and the domed middle, using a thick adhesive such as epoxy *(Photo 18)*.

Make the leaves

Using a real leaf as a template, draw its shape onto a sheet of 1/16"- (1.6 mm-) thick veneer. Position the leaf along the grain to allow it to form itself into the final shape *(Photo 19)*. Draw the veins and cut out the leaf shape using a fine cutter *(Photo 20)*. Do not worry about sanding. Cut out the leaf *(Photo 21)*.

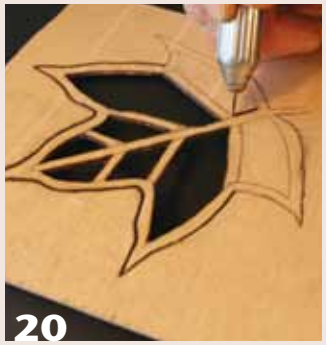
Heat the leaf in boiling water until the wood is soft. To achieve the final shape, microwave it for a minute to make it curl.

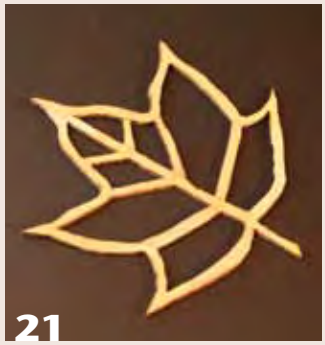
Stipple both sides of the leaf and the edges with a ball-tip burr, airbrush with your chosen colors, and varnish. Make two more leaves and place them with a flower *(Photo 22)*.

There are many ways to display the flowers and leaves. Let your imagination be your inspiration. ■

Patricia Spero and Gabor Lacko are woodturners who live in England. They have worked together for five years. Patricia plays the harp professionally and Gabor comes from an engineering background. Their work is primarily turned, pierced, carved, colored, and inlaid.


19
Use a real leaf to draw the shape onto the veneer.

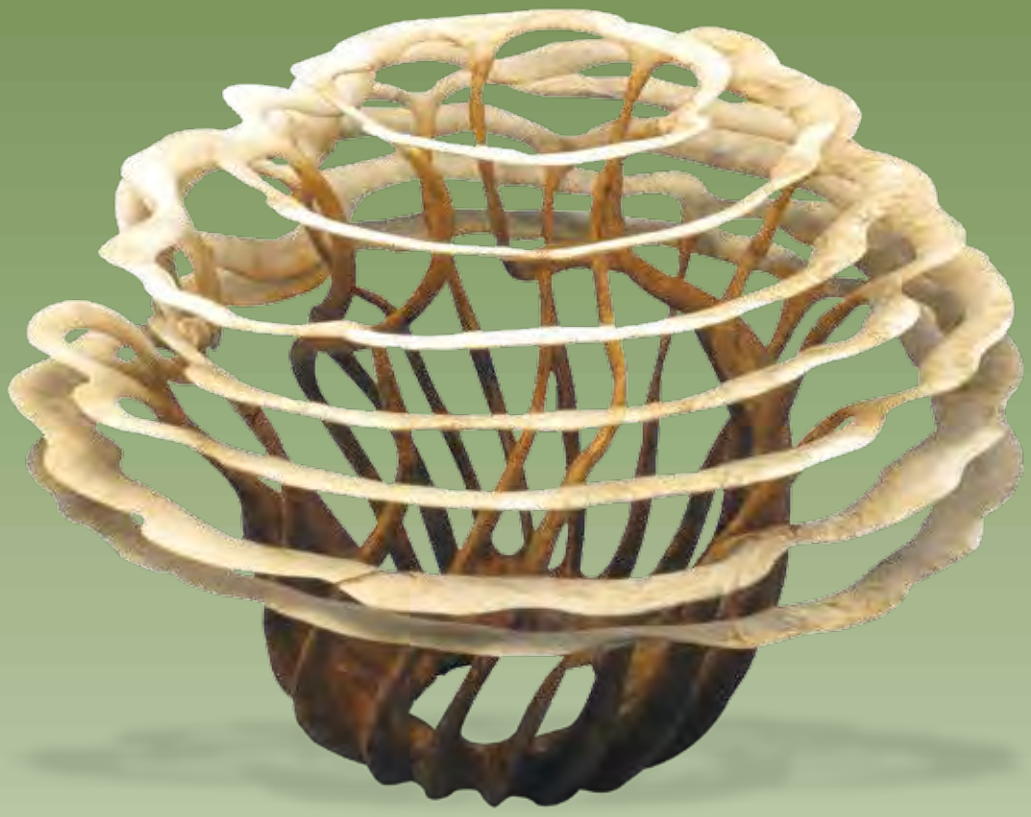

20
Draw the veins and cut out the shape of the leaf.


21
The cut out leaf is ready for boiling, curling, and airbrushing.


22
The four parts of the flower are glued together and the leaves are in place.

The Art of Contemplation

Neil Kagan



Alain Mailland,
Touch of Zen, 1999,
Locust burl,
7¾" × 9¾"
(20 cm × 25 cm)
The Bohlen Collection

In 1999, French artist Alain Mailland placed a spherical piece of locust burl on his lathe and created a turning that roughly resembled the shape of a flower with a hollow center. His work was far from over, for this was merely the first step toward creating a landscape of his imagination. He envisioned the white sapwood surface of the piece as a series of seven steps and then proceeded to carefully carve the wood away, linking each step to the dark wood base with three branches. As Mailland contemplated the delicate result of his work, he felt a sense of harmony and peace. The title, *Touch of Zen*, was inspired by the feeling of clouds hovering over a sacred mountain.

Aesthetic traditions of Asia

Mailland's work is part of a rich history in woodturning focused on contemplative sculptural form. The artists who create these timeless meditative objects share a deep reverence for and an understanding of wood. In the 1950s, California turner Bob Stocksdale produced thin-walled

Bob Stocksdale, untitled, 1994, Ziricote, 2¼" × 5" (5.7 cm × 13 cm)

Mint Museum of Craft + Design, Gift of Jane and Arthur Mason

David Ellsworth, *Vessel,* 1981, Walnut sapwood burl, 5" × 6½" (13 cm × 17 cm)

bowls whose shapes were inspired by Chinese and Japanese ceramics. Their main decorative feature was the color and figure of the wood. Over the course of five decades, working with exotic woods such as bubinga, harewood, rosewood, zebrawood, and ebony, Stockdale refined the turned wood bowl. His work is simple, contemplative, and elegant.

By the 1970s, the pioneering work of Mark Lindquist, David Ellsworth, and William Hunter took woodturning further into the realm of the art of contemplation and inspired a generation of artists who followed. Lindquist, also influenced by Asian art, translated Japanese ceramic ideals into the medium of wood. Lindquist notes, "The folk potters of Japan threw their pots in a few perfectly imperfect passes—the techniques gained only by years of hard work and practice—and accepted imperfections, celebrating them as providing the character of the piece. I set out to make wood do what the pot did. I sought new ways to capture the essence, the spirit, the presence of the tea bowl and ceremony vessels."

Lindquist has created thick-walled vessels from spalted domestic woods such as maple, elm, and cherry. He also used burl, much of which contained bark inclusions, knots, holes, and irregularities. Lindquist's work was characterized by the startling contrast between the smooth polished turned surfaces of the vessels and the rough natural bark inclusions and voids of the distressed woods. Through experimentation, he created dramatic contemplative sculptures. Lindquist reflects, "These first pieces which exploited the defects of wood were initially shocking and intimidating, even to me. At first, the vessels seemed ugly, coarse, and rustic, but gradually began to grow on me. I could see that what I had set out to do—translate form and philosophy from one medium to another—had actually happened."

Within this philosophy there are seven aesthetic principles for achieving *wabi-sabi*, the aesthetic defined as the beauty of things "imperfect, impermanent, and incomplete": *fukinsei*: asymmetry, irregularity; *kanso*: simplicity; *koko*: basic, weathered; *shizen*: without pretense, natural; *yugen*: subtly profound grace, not obvious; *datsuzoku*: unbounded by convention, free; *seijaku*: tranquility.

Revealing the spirit contained in the log

Ellsworth, along with Lindquist and Hunter, advanced the idea that craft could become formal sculpture. These artists learned to work in collaboration with their medium, connecting spiritually with what nature provides.

Ellsworth's enclosed thin-walled vessels were a radical departure from classic open bowls. He used the natural openings in the wood caused ▸

Dale Nish, *Nagaré Vessel,* ca. 1988, Wormy white ash, 18" × 8" (46 cm × 20 cm)

Mark Lindquist, *Meditating Vessel,* 1972, White birch root burl, 4" × 7¼" (10 cm × 18 cm)

Collection of Fleur Bressler

Photo: Paul Avis

by rot and insect damage to enter the vessel using bent-shaft cutting tools of his own design to perfect the "blind turning" process. His hollow vessels took on an almost spiritual persona, each one a contemplative sculpture highlighting a natural "pure" form, each one a study in nature revealing the spirit contained in the log.

Ellsworth's philosophy is rendered vividly in his 1981 landmark piece, *Vessel*, turned from walnut sapwood burl. He said, "There are moments in any maker's career when all of one's skills must be set aside in order to allow nature to have the final word, a reminder of who is in charge. This piece took only thirty-five minutes to make, twenty-four hours to dry, and the balance of my life to understand. It is the perfect example of the beauty of removing one's thought process from the process of making, in order to allow the energy of the experience to take over. Every element of the vessel, its surface texture, movement in form, and the expressions in the natural edge speak of an object that was not designed but simply, *made*, and could never be made again. This vessel is a constant reminder to me that the value in the connection between material and process is enough to describe the reasons I do what I do."

"I learned there is an essence to all things and my goal became the search for a way to reveal this essence in wood."

Over the years other artists explored this direction, making imperfections found in the wood central to the emotional impact of the piece. Dale Nish experimented with wormy ash. He comments, "I have always been intrigued by the natural surfaces of stone, wood, sand, and soil, and the impact that weather has on such surfaces over long periods of time. When I first started working with the borer-riddled ash bowls, I was fascinated by the random patterns and textures produced by the life cycle of this colorful insect. Sandblasting the surface cleaned out the borer holes and accented the natural surface textures, as well as graying the wood by the action of the high-velocity abrasive particles. The results reminded me of driftwood found along the shores of lakes, rivers, and the ocean." Nish called this series of contemplative sculptures *nagaré*, the lyrical Japanese word "to float, drift, or be washed away."

Turned and carved sculptures

William Hunter, working in his secluded workshop deep in the forest near Yosemite National Park, traveled his own path toward contemplative sculpture. For Hunter, the cut timber is still alive. Hunter says, "Looking into the endgrain of a log is like looking into the soul of the tree—how was the wood affected by the forces of nature? Did the tree grow fast or slowly? Was it windswept? Did the roots cling to life with the trunk bent over a canyon? Or, was the wood damaged by insects or decay? Each piece of wood is like a snowflake, each grain pattern unique, with its own compelling story waiting to be told."

The search for the most effective way to tell these stories has taken Hunter through numerous creative paths from seeking the essence of the pure form to the exploration of nature through the carved form. One significant early piece, *Vase*, created in 1971 from Manzanita burl, combines natural elements—cracks, crevices, and deep bark-lined cavities—and highly

William Hunter, *Chasing Infinity II,* 2000, European olive burl, 12" × 15" × 24" (30 cm × 38 cm × 61 cm)

Collection of the Long Beach Museum of Art

Christian Burchard, *Between Heaven and Earth,* 1996, Osage orange, paint, 5" × 5" (13 cm × 13 cm)

Collection of the Mint Museum of Craft + Design

Gift of Jane and Arthur Mason

I turned grooves, off-center from the top and from the bottom, to create tension, rhythm, and stillness. The wood, its grain and patterning quiet and simple, does not compete with the turned and carved grooves.

—Christian Burchard

polished carved and faceted surfaces, foreshadowing Hunter's future as an innovator in carved wood sculpture. "Carving gives me more tools for expression," Hunter says. "Creating the illusion of movement and adding life is my main goal. I carve rhythms into the wood and use negative spaces, texture, gesture, and relationships in harmony with the trees' stories to convey my thoughts and feelings to give the piece a strong spirit and distinct personality."

For Hunter, who has been inspired by oceans and forests, by the microscopic world of the cell, and by the telescopic view of the heavens, "a successful sculpture can elicit a variety of responses from people: spark a memory, harbor some mystery, or create an illusion." Hunter's contemplative sculpture, *Chasing Infinity II*, created in 2000 from an olive burl, is the embodiment of *yugen*: subtly profound grace.

The search for personal vision

When I started working with wood ten years ago, I had in mind the goal of translating the form in nature, captured in my photography, into three-dimensional sculptures. I was captivated by the work of Lindquist, Ellsworth, and Hunter. I studied their sculptures and the contemplative works of others—the virtuoso carvings of Ron Fleming and Michelle Holzapfel; the ethereal woodturnings of Anthony Bryant, Christian Burchard, Bert Marsh, and Maria van Kesteren; the landscapes of Michael Peterson. I pored over books and magazines filled with contemporary wood, ceramics, and glass and I visited museums to study objects from ancient civilizations. I love the idea of using my hands to create something of beauty out of this "living material." Working with wood is meditative—it provides me with an opportunity to turn away from everyday life and focus inward.

In the end, it was my work as a photographer that gave me direction. A lifelong photographer, I spent countless hours observing nature—the play of light and shadows, the movement of the wind, the growth of a plant spiraling toward the sun, the way sand drifts and water flows. I learned there is an essence to all things and my goal became the search for a way to reveal this essence in wood.

Trilogy: Rock/Water/Plant, turned and carved from a holly tree that came down in a winter windstorm, is the embodiment of this vision. Light and shadows bring the beautiful white wood back to life in a simple contemplative study. ■

Neil Kagan (Neil@Kagan-Associates.com) is an editor and photographer living in Falls Church, VA. He has been working with wood since 2000 and is a member of the Capital Area Woodturners.

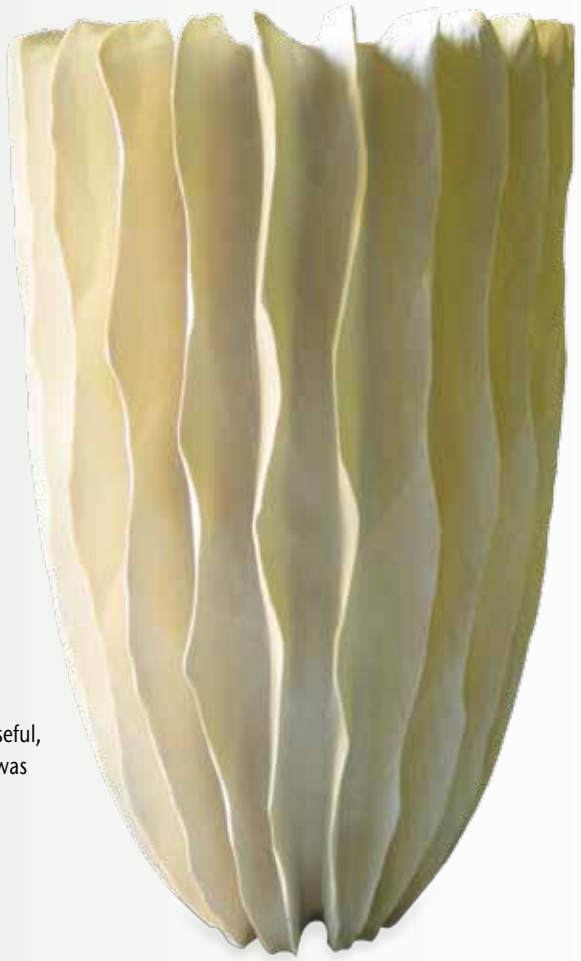
Neil Kagan, *Trilogy: Rock/Water/Plant,* Holly, 4½" × 1¾" to 5½" × 1½" (11 cm × 4 cm to 14 cm × 4 cm)

Private collection

Contemplation Gallery

One Destination, Many Paths

A reverence for nature and for wood, with its warmth, history, and soul, is the beginning. From there, artists follow personal paths that mirror the twists and turns of individual lives. The objects created reflect the creators' unique sensitivities to their surroundings. Some artists, such as Todd Hoyer, focus on pure forms and let the material have the final say. Others, like Michelle Holzapfel, work the wood, carving and shaping, until a sculpture of their imaginations is revealed. Here, eleven artists share unique perspectives on their contemplative art.
—Neil Kagan



Marc Ricourt, *Vessel,* 2007, Ash, bleach, 17½" × 10" (44 cm × 25 cm)

"I think the vessel was the first tool created and used by mankind. I find it a wonderful concept—useful, yet mysterious. I try to find harmony between the wood, the shape, texture, and color. This piece was inspired by sea shells and I like the contrast between wild texture and the purity of white."

J. Paul Fennell, *Leaf Form,* 2009, Mesquite, 8" × 8" (20 cm × 20 cm)

"As with many artists, I find the natural world provides a rich, diverse palette of inspiration. 'Seeing,' in the true sense of the word, not only means using your senses, but also your intellect and emotions to discover the remarkable world that surrounds us. My Leaf Form series is based on a vivid childhood impression of insect—'skeletonized' leaves, some left with only the leaf's veins intact. I took a conceptual leap in transforming this vague, distant memory into the creation of a piece that, in abstraction, communicates a fascinating aspect of the natural world. That conceptual leap, and the challenges of the physical process to achieve the desired effect, are very satisfying."

Christian Burchard, *Vessels,* 1995, Blackwood, 3" × 3" to 6" × 6" (7.6 cm × 7.6 cm to 15 cm × 15 cm)

"A lot of the work preceding these pieces relied heavily on strong grain pattern, color, and a natural edge. In this series I relied primarily on form to explore the subtle differences within a particular shape. I was interested in discovering how the feeling of each vessel changed, depending on its height, width, size of the opening, and curve of the belly."

Anthony Bryant, untitled, 1988, Figured sycamore, paint, 5" × 11" (13 cm × 28 cm)

Collection of the Mint Museum of Craft + Design

Gift of Jane and Arthur Mason

"I have always wanted to produce work that I felt comfortable with, work that would appear free of irrelevant embellishment and not overdesigned, yet was also easily recognizable as my own."

Michelle Holzapfel, *Pomona's Spoon,* 2009, Sugar maple, 4" × 13" × 22" (10 cm × 33 cm × 56 cm)

Collection of Fleur Bressler

Photo: David Holzapfel

"My working life has been much like that of my artisan ancestors: struggle is central, latent, and often disguised. I do violence to the wood, wear-and-tear my joints, and seek to wrest my viewers' attention. But when these forces are focused—and skill serves intention—a small, temporary truce may be won. Pomona, the Roman goddess of gardens and orchards, inspired this form carved from a single piece of blister maple. The smaller spoon's interior is textured; its underside is scorched to enhance the grain. The leafy fruit that sprouts from the scorched and textured leaf/spoon contrasts with the rich grain patterns of the polished bowl. It is a study in the range of palette of sugar maple. These articulated forms conjure the delight of a simple toy or a folk-carving." ▶

Alain Mailland, *Bonsai #4,* Heather root, 5" × 8" × 6" (13 cm × 20 cm × 15 cm)

"As a fan of Asian culture, I observe nature and its wonders. Every day is here to offer visions of beauty—you just have to look and be aware. The tree is a temple of what happens between earth and sky, and the bonsai is an artifact created to celebrate the tree and its beauty. I started growing bonsais four years ago, and I am learning this art with a Japanese master. Sculptural art is three-dimensional; with bonsais, I have entered the fourth dimension: time. I did not resist making some in wood, however, and *Bonsai #4* seems to be very strong, rooted to the earth, yet at the same time touching the sky, like a Tibetan temple."

Derek Bencomo, *Still Dancing, Second View,* Norfolk Island pine, 8¼" × 16" (21 cm × 41 cm)

Private collection

Photo: Hap Sakwa

"I have the material: a mass, already an object. I study, analyze, visualize. I embrace the task at hand, part spontaneous, part experience and knowledge. After a long and thoughtful observation, I realize the project has become more of a fight than a balance of harmony. I can only do as much as the material will allow. So I wait and think. Then one day it comes to me, the intermediate stage of illuminating the vision. Immediately I see the end and the struggle for balance and harmony is over and the piece can be finished. *Still Dancing, Second View* sat on the shelf in my studio for two years before the final vision was realized. The end is ecstasy."

Todd Hoyer, untitled, Conical Series, 1986, Emery oak, 7¼" × 12" × 10½" (18 cm × 30 cm × 27 cm)

Collection of the Mint Museum of Craft + Design

Gift of Jane and Arthur Mason

"I turned this Conical Series piece to have a rounded bottom that allowed the form to sit at its own equilibrium. Turning the form thin while the wood was still fresh gave the material the final say in shape, texture, and stance—a true collaboration between maker and material. The dark heartwood on the bottom grounds the image, while the rims give it lift and motion. Turning the form from the cross-section of the tree maintains a continuity of growth rings, which circle and radiate from the center. The eye moves about the piece smoothly, stopping at the internal inclusions that reflect the life struggles of the tree. What external forces created these holes and how did the tree heal from the damage? Viewing this vessel again after so many years allows me a calm remembrance of the struggles and successes of a satisfying career."

David Ellsworth, untitled, 1987, Spalted beech, 14" × 19" (36 cm × 48 cm)

Collection of the Mint Museum of Craft + Design

Gift of Jane and Arthur Mason

"If we consider ourselves to be the ultimate vessel, then we must also consider the full dimensions of who and what we are: our physical beauty, our quirky personalities, our strengths, our frailties, sometimes obvious yet so often hidden. This piece captures all of that in the bold monumentality of its form, the full dimension of its volumetric curves, the complexity of its multitextured surface and the single section of bark that is a reminder of a form identified, yet stripped of its protective skin, its mask removed, naked and with all its elements exposed."

Michael Peterson, *Bird Form,* 1994, Locust burl, bleach, 4" × 4" (10 cm × 10 cm)

Collection of Arthur and Jane Mason

"*Bird Form* is an early transition piece that departs from the vessel form and moves toward a series of organic objects. The subtractive process of direct carving allows for a contemplative experience. The tactile nature of wood and small scale of the piece all play toward this end. The piece is discovered in the hands. Bird imagery runs throughout my work and is referenced here in an abstract form, offering greater interpretations of a meditative nature. My work evolves out of the process of making and develops its own logic. There are few absolutes."

William Hunter, *Ahab's Garden*, 1997, Cocobolo with sapwood eye, 13¼" × 5¾" (34 cm × 15 cm)

Private collection

"Contemplation and an open heart during the sculpting process are essential to releasing the human spirit; thinking stops, and the hands and material become one. In *Ahab's Garden,* dancing flames metamorphose into undulating sea kelp lit from behind by the afternoon sun. When I turned the piece upside down I saw the image of a squid, a creature I have seen many times while snorkeling in the coves off Catalina Island." ■

Be Our Guest: A Progressive Invitational

J. Paul Fennell and Andi Wolfe

Jerry Bennett, *Feelin' Those Good Vibrations,* 2009, Yellowheart, maple, steel, brass, acrylic paint, 20" × 21" × 14" (51 cm × 53 cm × 36 cm)

With the cooperative efforts of the AAW, POP committee member Jacques Vesery, and AAW Wood Objects On Display (WOOD) committee chair Pete Kekel, The Ohio Craft Museum recently exhibited "Be Our Guest: A Progressive Invitational." The museum extended an invitation to fifteen established artists, who in turn were asked to select two emerging (guest) artists to participate, providing work "representative of current explorations in the field." The exhibition was held January 31 to March 28 this year.

The way in which the artists were selected sets this exhibit apart from many others. It is unusual that a group of artists are afforded the opportunity to choose additional makers whose work they deem significant for inclusion in an important exhibit. Further, the invited artists' interpretation of the criteria for choosing guest artists proposed by the museum (emerging) was broadly diverse; the exhibit benefitted significantly from this approach.

Some of the guest artists, well established in their own right, were not part of the initial group. Trent Bosch invited Ron Gerton, whose work resides in private collections and prestigious museums, such as the Museum of Fine Arts in Boston. Trent's selection was based on their mutual exploration of other materials (metals) in their respective bodies of work. Ron's work in bronze castings, in combination with turned wood, is exemplary. For the "Be Our Guest" exhibit, however, Ron submitted a deceptively simple form that indicates this artist's expertise in hollowing a shallow, wide vessel. Deceptively simple, yes, but the hollow form magnificently

Photo: Andi Wolfe

George Dubinsky, *Hollow Form #1,* 2009, Bronze, maple, milk paint, 8½" × 7" × 28" (22 cm × 18 cm × 71 cm)

Art Liestman, *Tower for JP,* 2010, Bigleaf maple, 14¾" × 5¾" × 4" (37 cm × 15 cm × 10 cm)
Photo: Kenji Nagai

showcased a spectacular piece of wood.

Betty Scarpino's guest artist, Helga Winter, has been an artist and teacher for more than twenty years. Regarding Helga's work and taking note that perhaps this artist's work is better known regionally than nationally, Betty says, "Helga Winter's vessels are quiet and thoughtful. They contain and offer much to those who take the time to experience their wholeness. Having Helga's work in this exhibit gives a wider audience the opportunity to discover an artist who is well known in the Pacific Northwest." Helga creates forms that naturally reshape themselves during the drying process, and with her use of colors, dyes and patterns, she offers expressive dialogue with the observer. Helga's vessel in this exhibit, however, retained the natural look of wood, its quiet presence requesting a moment of contemplation.

Closer to the concept of emerging artist, several makers known for their teaching in the field selected promising students, not yet recognized nationally in the woodturning field. Mark Sfirri, head of the fine woodworking program at Bucks County Community College in Newtown, PA, chose George Dubinsky and Jake Antonelli, two former students who continued their education in fine arts and have become established artists and teachers in their own right. The influence of Sfirri is visible from the approaches both students used, but each has found his own unique voice: Dubinsky in the exploration of metal casting of wood, and Antonelli in the traditional methods of turned and lacquered forms. George Dubinsky's bronze casting of a turned and carved vessel, displayed horizontally, resembled a landscape of a place seemingly familiar. Its powerful presence invited a view from all angles, capturing the essence of a long forgotten countryside.

Some of the other guest artists were chosen as a result of an emotional response on the part of the selecting artist when first observing their work and in consideration of their creative style. "I chose Mark Gardner and Douglas Fisher because their pieces have a depth that is pretty rare," says Al Stirt of his selections. "For me to really like a piece, it has to touch me deeply and draw me in, wanting to know more." Al did not know these ▸

John Goodyear, *Stillness of the Sleeping Forest,* 2009, Black cherry, acrylic paint, 16⅜" × 4" (43 cm × 10 cm)

Mark Sfirri, *Stubbed,* 2006, Claro walnut, pine, paint, 18" × 7" × 7" (46 cm × 18 cm × 18 cm)

Photo: John Carlano

Douglas Fisher, *Looking Through Tomorrow's Eyes*, 2009, Bigleaf maple, 2½" × 18½" (6 cm × 47 cm)

two artists personally—his emotional response to their work was the deciding factor. While Gardner and Fisher both heavily carve their turned forms, the resulting objects differ vastly in the feelings they bring forth. Mark's work suggests precious artifacts of an undefined origin. Douglas's large turned and carved platters clearly are a contemporary rendering of an art form that is well known in the Pacific Northwest.

Binh Pho's choice was based on his initial connection with the work of Jerry Bennett. A succinct "Wow!" and "love at first sight" sums it up for Binh. It is understandable that Binh would appreciate Jerry's tour de force airbrushing of this artist's rendition of a radio wave. The depth of intricacy in this piece, however, lies below its painted surface. The orange spiral is made from approximately one hundred individually turned and tapered rings. The radio face is turned. Jerry Bennett is definitely tuned into what he can create using his lathe.

The selection process that a few artists used when inviting their guest reflected an awareness of significant (or the potential of) steady conceptual growth within an artist's body of work. Having observed his work over a period of time, Marilyn Campbell describes John Goodyear's work as having "an organic yet organized quality to the forms. The work is layered in an intriguing way. The forms are open yet enclosed just enough to suggest mystery." *Stillness of the Sleeping Forest* eerily captures the sense of a place one might be lured into entering, ever so cautiously.

For her choice of Carole Floate, Marilyn remarks, "The work that Carole is now doing seems to be a wonderful coming-together of all her techniques and talents. She is

Ron Gerton, *Curley Que,* 2009, Quilted maple, 3" × 14" (8 cm × 36 cm)

Photo: Andi Wolfe

Mark Gardner, *Vessel #153,* 2009, Maple, 13" × 7½" (33 cm × 19 cm)

a master at marbling. She uses the technique in flowing veins and in such a way that it imparts an other-worldly, dream-like quality to her sculptures." Carole's formal combination of simple forms provides an ideal platform for using marbling to suggest narrative (see *AW* vol 25 no 3, p 23).

J. Paul Fennell selected Art Liestman and Andi Wolfe, well aware that Art and Andi are beyond the emerging stage and are already significant contributors to the field. Paul's great interest in patterns from nature and curiosity about innovative adaptations of traditional lathe techniques pointed him to his selection: Liestman for his contemporary adaptation of therming techniques and Andi for her exploration of the microscopic biological world.

Art Liestman's tower form is evocative of ancient ruins from various cultures. He is "intrigued by these remnants of old buildings such as ancient fortifications, towers, walls, houses, chimneys, cliff dwellings. The texture and form also remind me of formations of weathered, eroded rock." The piece was created by an innovative use of an old traditional method of lathe turning called *therming*. What an interesting idea this artist has of creating contemporary sculpture by using a long-forgotten method of turning to depict ancient ruins.

This diverse interpretation of the concept of "emerging" resulted in an outstanding and significant display of work. The exhibit was highlighted by a reception and a gallery talk by Fennell and Wolfe. Overall attendance for the exhibit was excellent, which is indicative of the interest that turned wood art is receiving. The Ohio Craft Museum's first exhibit of wood sculpture was in 2006 when the museum hosted the highly acclaimed exhibit "Our Turn Now: Artists Speak Out in Wood." ■

The invited artists and their guests who participated in the exhibit were: Trent Bosch (Ron Gerton, Steve Worcester), Christian Burchard (Jason Schneider, Dan Tilden), Marilyn Campbell (Carol Floate, John Goodyear), David Ellsworth (Curt Theobald), J. Paul Fennell (Art Liestman, Andi Wolfe), Ron Fleming (Pete Black, Bob Hawks), John Jordan (Ed Kelle, Molly Winton), Binh Pho (Jerry Bennett, Joey Richardson), Merryll Saylan (Kimberly Winkle), Betty Scarpino (Michael Stadler, Helga Winter), Mark Sfirri (Jake Antonelli, George Dubinsky), Al Stirt (Douglas Fisher, Mark Gardner), Jacques Vesery (Sharon Doughtie, Pat Kramer).

J. Paul Fennell is a retired aerospace engineer and has been a woodturner for more than forty years. His work resides in many private collections as well as in several museums, including the Smithsonian, Detroit Institute of Arts, and Museum of Arts & Design, jpaulfennell.com. Andi Wolfe is a botanist who uses the inspiration from her scientific studies to create works that reflect the natural world she observes, andiwolfe.com.

Helga Winter, untitled, 2008, Madrone crotch, bleach, 4½" × 12¾" × 11¼" (11 cm × 32 cm × 29 cm)

A Colorful Collaborative Partnership

Dave Long

Endres follows a computer-generated pattern to place one of twelve thousand beads in this piece. Each bead is set by hand. Some of the more complex beaded objects contain more than sixty thousand beads. All of the segmenting glue-up, turning, and finishing is done by Moore before Endres begins adding the beadwork.

Photo: Helen Sabin

The colorful and complex collaborations of Eucled Moore and Marilyn Endres possess the stare factor. At outdoor art fairs or indoor wood art exhibitions, strolling patrons usually spend a few moments sizing up what an artist has to offer and then move on. With Eucled's and Marilyn's work, however, the initial visual impact triggers a mental red light: Stop! Other displays can wait. What is this?

Step closer for a better examination. Take some time to absorb all the colors and patterns. Then examine the detail. Touch very carefully. Lovers of art are drawn in by the lines, colors, and beadwork. Seasoned turners shake their heads looking at the numerous woods and complex patterns in the segmenting.

Gazers' comments and questions are universal: How long does that take? You must be the most patient people in the world. How many individual pieces are in the work?

Since 1989, Moore and Endres, both age 56, have been making some of the

Beaded platter, 2007, Padauk, lacewood, wenge, curly maple, glass seed beads, 3" × 38" (8 cm × 97 cm)

Hummingbird Mandala beaded platter, 2007, Padauk, curly maple, wenge, glass seed beads, 2¾" × 22" (7 cm × 56 cm)

Lizard Mandala beaded platter, 2009, Padauk, curly maple, wenge, glass seed beads, 2¾" × 22" (7 cm × 56 cm)

Beaded platter, 2007, 2½" × 18" (6 cm × 46 cm)

largest and most intricate segmented pieces in the woodturning field. A decision by Moore about nine years ago to intertwine beadwork with segmentation nudged their collaborative work onto a more complex plateau.

Their work is unique because few individuals combine the disciplines of woodturning and beading with such a degree of difficulty and beauty. Their signature pieces are platters ranging from 12" to 38" (30 cm to 97 cm) in diameter. Many of the platters contain five thousand or more pieces of wood. Anywhere from twenty to sixty thousand antique glass beads are added to the pattern, one bead at a time.

Vases and hollow forms feature solid-colored brick-pattern segmented wood with elaborate feature rings and accent bands containing up to twenty-five thousand beads. In a productive year they may produce between thirty and forty for-sale pieces. Many years, that number is smaller because of the number and complexity of custom orders.

Their work is seen almost exclusively at high-end art fairs, mostly in the Southwest and on the West Coast where their motif fits into Spanish/Mediterranean-style homes. Prices range from $1,500 to more than $10,000 depending on size and materials.

Living in two countries

The collaborations would be challenging if Moore and Endres were next-door neighbors, so imagine the logistical adventures the pair has experienced for twenty years, with one living in rural Texas and the other in the mountains of central Mexico. Endres resides at the end of Cowpoke Canyon, five miles outside Driftwood (population 1,570), some twenty-five miles southwest of Austin. Moore and his family live in the artist enclave of San Miguel Allende, a picturesque city two hours north of Mexico City.

"When I first moved to San Miguel, it was tough," said Moore. "It was an ▸

Beaded vase, 2009, Lacewood, Padauk, curly maple, wenge, glass beads, 16" × 13" (41 cm × 33 cm)

Look Within, 2009, Mesquite, redwood burl, curly maple, wenge, 22" × 17" (56 cm × 43 cm)

Vessels, 2007–2009, sizes range from 10" to 22" (25 cm to 56 cm) tall and 9" to 17" (23 cm to 43 cm) in diameter, various woods, beads

eleven-hour drive from the border on a lot of dirt roads. We'd make trips back and forth six or seven times a year with wood and supplies. Now computers make communication easy and we have some of the big-box stores here where I can buy what I need. Delivery companies can ship work back and forth in two or three days."

Inspirations

The original inspiration for their segmented wood designs came from Navajo rugs and pueblo pottery, symbols from rituals of Huichol (we-cholll) Indians who live in Sierra Madre Mountains in Northwestern Mexico, or tribes in Eastern Africa where Moore grew up in a missionary family.

Their work in the 1980s and 90s sold well in some parts of the country. Many traditional turners and collectors, however, found the pieces too cluttered for wide acceptance. Never ones to follow market trends, Moore and Endres continued on their path building a niche following.

"The beadwork grew out of techniques used in Huichol art for decades," said Moore. Their dreams are interpreted in colorful scenes using beads and single threads laid onto a flat board in beeswax. "I thought it would be interesting to try combining some Huichol beadwork and Navajo rug patterns with segmenting. At first it was trial and error trying to figure out how to match up the segmenting with the bead designs. I designed mostly on graph paper to begin with. Then my brother put together a basic computer program of how to arrange the beads. Now there are several computer programs available that beaders use on different materials. I've learned to adapt those programs to fit our needs."

Patterns inspired by kaleidoscopes, Ukrainian Easter eggs, Middle Eastern ceramic tiles and rugs, or Central/South American fabrics continue to be added to their menu.

Beaded vase, 2009, Lacewood, padauk, curly maple, wenge, glass seed beads, 12½" × 10" (32 cm × 25 cm)

Beaded vase, 2009, African mahogany, wenge, curly maple, glass seed beads, 11" × 10" (28 cm × 25 cm)

Technique and assembly process

Finding an adhesive for the beads that would bond with the glue holding the segmented wood together, and a tung oil finish was the most difficult part of the process. Moore tried

various combinations until he settled on a beeswax/resin mix. "The Huichol have been using something similar for decades to hold their beads and threads in place," he said. "In the ten years or so we've been selling these pieces we've never had to take one back, either for wood movement or beads falling out."

The assembling process is tedious. Moore and Endres agree on the patterns, woods, and bead colors. Then a virtual piece is constructed on the computer, assessed, and changes made before any work begins.

Moore does most of the bandsaw cutting, glue-up, turning, and finishing at his shop in Mexico. Often he will have ten or twelve pieces in different stages of assembly. He leaves recesses on various parts of a piece where the beadwork will be applied. The recess must be precise so the beads will fit flush with the surface. Each finished segmented platter, vase, or hollow form is covered with ten to twelve coats of tung oil before the beading process begins.

Marilyn Endres places antique glass beads on a 12" (30 cm) purpleheart and maple pattern. A mixture of beeswax and resin, which took Moore and Endres years to develop, holds the beads in place.

Photo: Helen Sabin

Once finished, pieces are either shipped to Endres in Texas or given to his wife, brother-in-law, or sister-in-law for beadwork. The printed pattern of the beadwork is kept with each segmented piece. To help with placement of design patterns, Moore has cut quadrant lines in recessed areas to help measure off for the size of feature elements, background, and border in the pattern.

Then the tedious work begins of applying the sticky bonding substance and hand-setting each bead individually. "A twenty-two–inch platter has about forty thousand beads in it," said Endres. "For beading we use a tool we made that looks like a small screwdriver with a nail sticking out of the end. The tip is ground so it is just a little smaller than the diameter of the bead. Then you pick each bead out of a tray and place it in pattern." Obviously patience and great concentration are required.

"I've developed eye exercises that help me keep my focus and I stop about every twenty or twenty-five minutes and rest my eyes," Endres said. "It usually takes two or three weeks to finish a piece. Some [take] longer if the pattern is more complex. We've had some big commission pieces which took up to nine months because the client wanted specific patterns and colors."

Once the beading is complete, the pattern is scrubbed with a soft toothbrush to remove the excess adhesive. Then several coats of clear lacquer are spread on the beads for protection. Moore gets all the finished work, does touch up, and ships the pieces to Endres at their business, Kazi Studio, in Driftwood.

Types of beads and wood

Over the years Moore and Endres have tried different types of beads. "We decided to use only antique glass beads mostly made in France and Eastern Europe before World War II," said Endres. "The beads made today don't have the same brilliance as the antiques. I've been collecting beads since I was a teenager and used them in my kaleidoscopes. Over the years I've developed sources in Europe for beads. I get a lot of leads from people at the shows we go to. Sometimes it's other artists. Other times, people who stop by the booth have old beads their mother or grandmother had." ▸

Their vast bead palate allows them to buy woods that coordinate or enhance the overall work. The result is designs that are becoming more intricate and diverse.

"There are so many patterns from so many cultures, the possibilities are endless," said Moore.

Early years

Moore's formative years were spent in Eastern Africa with his missionary parents before they moved to Austin in 1972. "I first started turning in high school in Kenya," he said. "When we moved to Texas I continued to turn for fun and made the odd furniture part. For a couple of years I did production turning of lamp bases and candleholders out of mesquite. I turned hundreds and hundreds of them, first for some other guys back in 1976 and then with my dad around 1984.

"In 1986, I read an article in *Fine Woodworking* by Bud Latven and Addie Draper on segmented bowls. I was blown away by their work and started to do my own interpretations, putting in Native American and African patterns."

Moore began going to some seminars put on by the newly formed American Association of Woodturners. Eventually he became a demonstrator at the AAW national symposiums. His work was carried by several galleries, including del Mano Gallery in Los Angeles.

Moore was showing his segmented work at some of the same local and regional art fairs in Texas where Endres was selling high-end kaleidoscopes.

"I've always worked with wood. When I was a teenager, I helped my parents build the ranch where I still live," said Endres. "I learned to build kaleidoscopes at an art class, got pretty good at it, and was doing well selling them at craft shows. Some friends of mine saw Eucled's work at one of the shows and told me I had to see it. I had never seen anything that beautiful and complex out of wood. I introduced myself and told Eucled I wanted to learn how to make them."

So Moore took on a partner, showing Endres woodturning basics, along with designing, cutting, and gluing segmented pieces. "It was frustrating at first, but Marilyn caught on after a while," said Moore. "She's a meticulous person and learned how precise the construction had to be in a segmented piece. Her putting pieces together helped me spend more time on the complicated designs I was using and doing a lot of final turning and finish work."

When their working partnership began, Marilyn was a divorced single mother. Moore was recently married. They found financial success in the growing wood art market. But there was a restlessness Moore couldn't cure. "Because I grew up in East Africa, I found adjusting to life in the United States difficult. I never felt I found my niche. So in 1990, my wife, Laura, and I decided to move to Mexico," he said. "Laura was born in San Miguel. When she took me there the first time, I fell in love with the place. If I couldn't go back to Africa, then Mexico would be a good alternative. I was right. I find it an inspiring place to live and work."

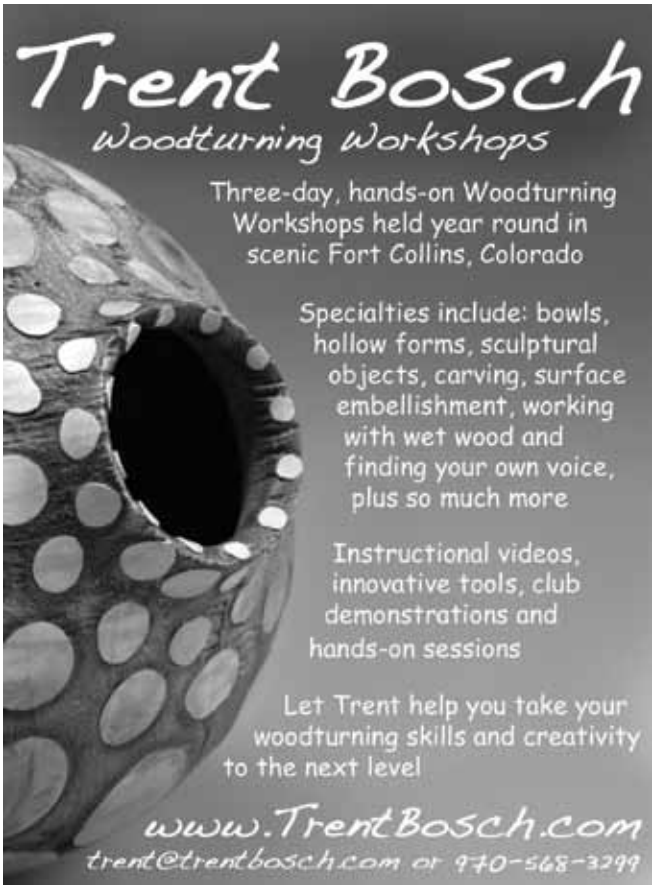
He and Laura have two boys, Eucled and Gabriel. "Doing this kind of work is very labor intensive. It takes a lot time and patience," said Moore. "So when I'm not in the shop, I'm with my family. I get back to the U.S. a few times a year to see my family in Texas and maybe do one or two shows. I know a lot of turners thought I fell off the face of the earth, but I'm doing fine."

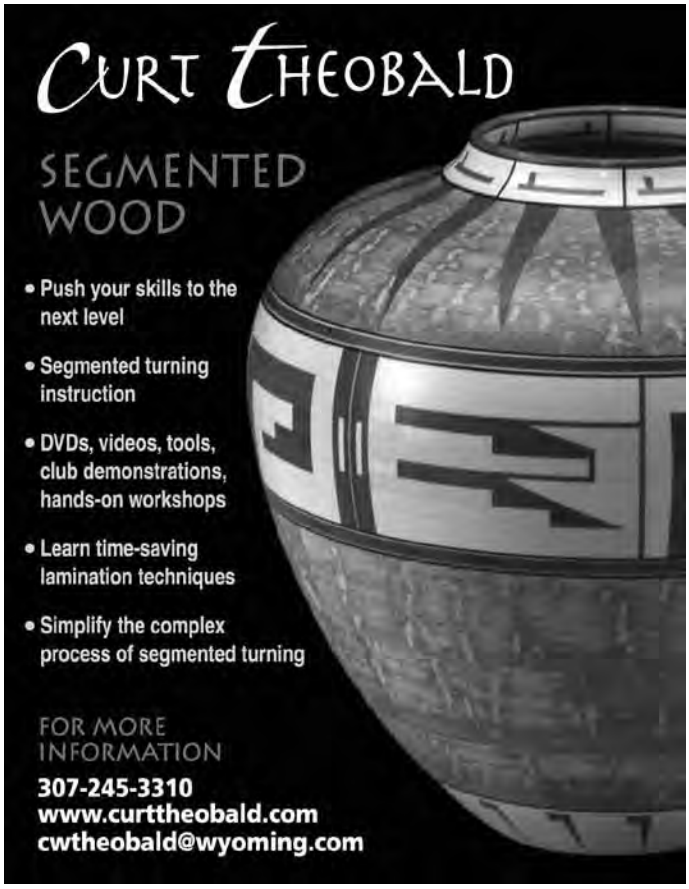
This colorful collaborative partnership continues to thrive with Marilyn as the marketing person, selling at art fairs. She is also running the studio, dealing with clients, finding deals on large quantities of wood, spending endless hours searching for beads, and doing beadwork. ■

Dave Long is a member of the Collectors of Wood Art and lives in Ohio. More of Eucled Moore's and Marilyn Endres's work can be seen at kazistudio.com.

Photos by Mark Bennett unless otherwise noted.

Platters, 2007–2009, sizes range from 14" to 38" (36 cm to 97 cm) in diameter, various woods





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Year-End Drawing for New Lathes!

A Powermatic 3520B lathe will go to one lucky person, just for being an AAW member. Additionally, a local chapter, named by the winner of the Powermatic, will win either a JET 1642 or five JET mini lathes, donated by Walter Meier Powermatic/JET. Included for all lathes is free shipping in the continental U.S. (or up to $500 shipping allowance for Canadian or international winners). Winners will be announced in the December issue of *AW*.

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All current members of the AAW are automatically entered into the drawing. When you patronize our supporters, please thank them for their support of the AAW!

July Winners

Donald Street, AL
$100 gift certificate provided by D-Way Tools, d-waytools.com

Johan Vanmol, Belgium
$100 gift certificate from Hunter Tool Systems, hunterwoodturningtool.com

Charles Emery, MI
$100 gift certificate from Thompson lathe tools, thompsonlathetools.com

Michael Parker, VA
A five DVD set, *From the Tree to the Table, Bowl Basics, Mike Mahoney on the McNaughton Center Saver, Hollow Forms and Urns,* and *Making Heirlooms*, provided by Mike Mahoney, bowlmakerinc.com

Robin Piscitelli, NC
A three DVD set, *Decorative Utility Bowls, Sculpting Wood: Beyond the Lathe*, and *Vessels of Illusion*, provided by Trent Bosch, trentbosch.com

John Ross, CA
$100 gift certificate toward abrasives supplies from The Sanding Glove, thesandingglove.com

August Winners

Eugene O'Malley, NY
A 16 oz. bottle of walnut oil and an 8 oz. container of wax from Mike Mahoney, bowlmakerinc.com

William van Zelm, MD
$100 gift certificate from Thompson lathe tools, thompsonlathetools.com

Jeff Engebretson, MN
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Robert Anderson, IN
A five DVD set, *Open Bowls, Shop Stuff, Hollow Turning, Tools for Hollow Turning,* and *Signature Gouge/Sharpening Jig,* provided by David Ellsworth, ellsworthstudios.com

Gil Badeer, OH
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George Counts, WA
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September prizes

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November prizes

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December prizes

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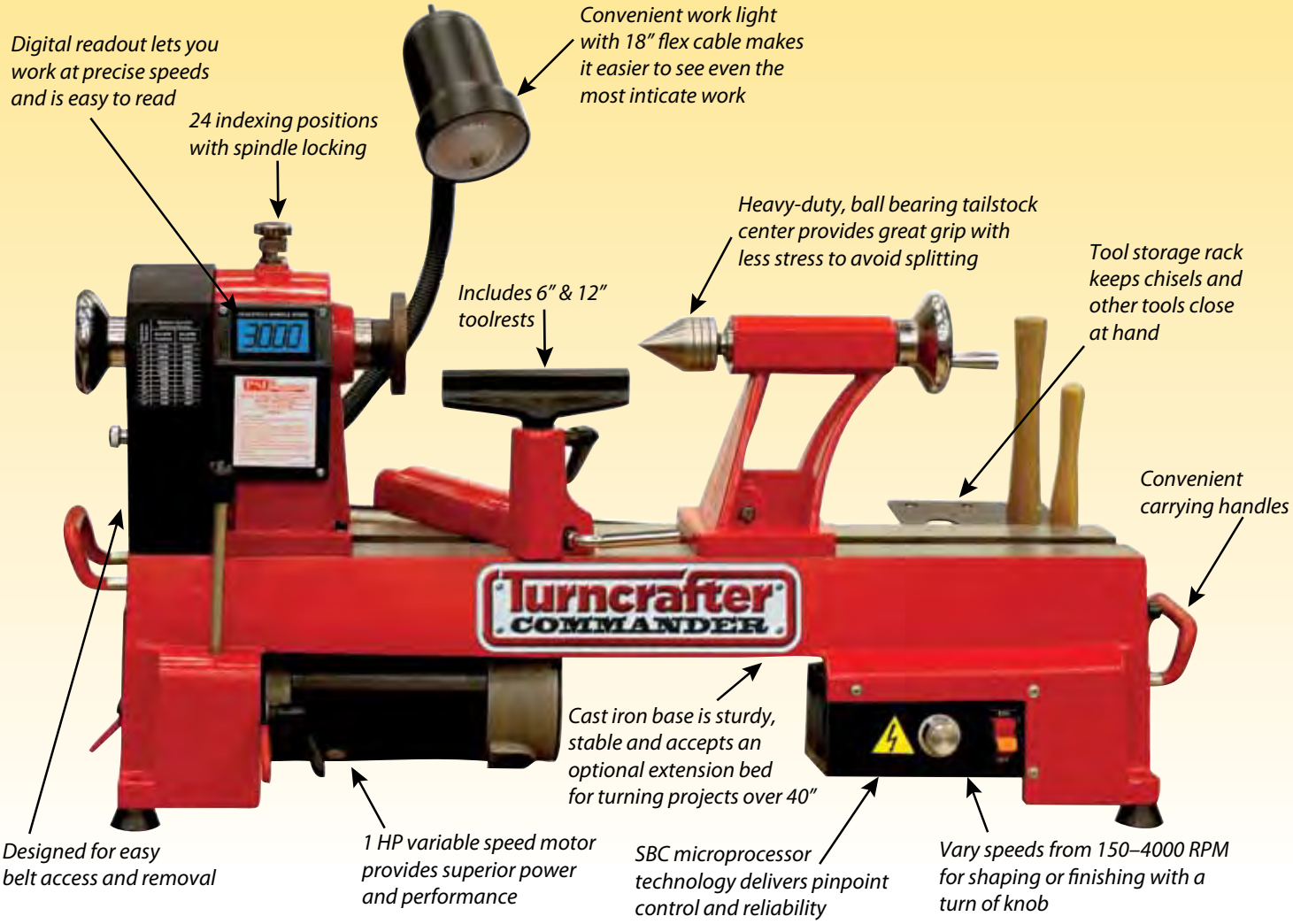

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Jason Breach

Jason Breach, untitled, 2010, Amarillo, blackwood, 10½" × 7⅔" × 7⅔" (270 mm × 195 mm × 195 mm). The lids are 2½" (65 mm) in diameter.

Jason's box won first prize in the plain box-making category of the Worshipful Company of Turners competition, 2010, England. More of Jason's work can be seen on his website, jasonbreach.co.uk.

AMERICAN WOODTURNER

Dear AAW Member,

*It is time to renew your membership! This is a milestone year for the AAW and we want to make sure you are a part of it. Membership ensures you will be able to follow the special gallery exhibits, journal enhancements and demonstrations planned for this anniversary year. Note the **online-only** membership option.*

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Thanks and happy turning!

Linda Tacke,
Interim AAW Executive Director

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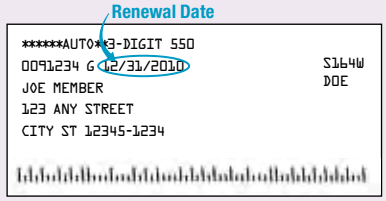

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