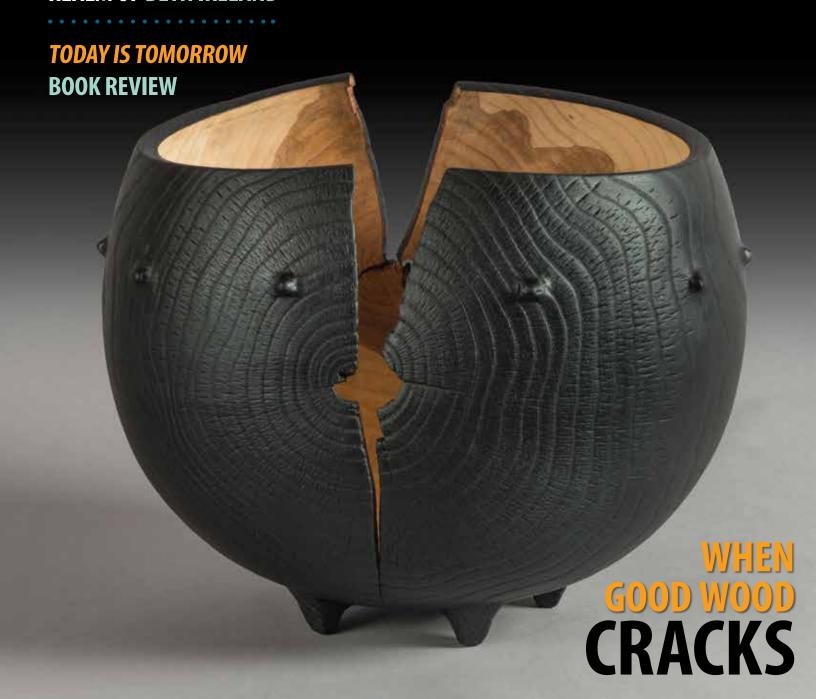
TURN AN ACORN BOX • TURNING AND CARVING ARCHITECTURAL ACORNS • AVOIDING CRACKS

AMERICAN WOODTURNER

Journal of the American Association of Woodturners

August 2015 vol 30, no 4 • woodturner.org

CRAFT AND ART: THE EXPRESSIVE REALM OF BETH IRELAND





Professional Outreach Program Pittsburgh Symposium 2015

Except where otherwise noted, photos by Steve Wolfe.



Collegian Awards





(Left) **Kailee Bosch,**Connection, 2015, Russian olive, rusted steel, 20" × 10" × 7"
(51cm × 25cm × 18cm)
Photo: Kailee Bosch

(Right) **Riley Stensland**, Modern Man, 2014, Spalted maple, copper, matches, striking paper, 16" × 3" (41cm × 8cm)

Excellence Awards



AMERICAN ASSOCIATION OF WOODTURNERS

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

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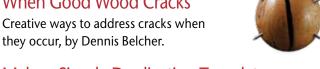


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AMERICAN

Journal of the American Association of Woodturners

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A NOTE ABOUT SAFETY

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

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

*Web address is case sensitive

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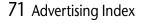


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COVER

Cover – Michael Hosaluk, Split Decision, 2014, Ash, 10" × 14" (25cm × 36cm) **Photo: Trent Watts**

Back Cover – Musical Molinology, 2015 Chapter Collaborative Challenge Winner





Editor's Note



Have you ever had a bowl or hollow form crack while it was drying? Yeah, me too. In this issue, David Ellsworth helps us understand the fundamental reasons for this outcome—and some sage tips for avoiding it. Sometimes, despite our best efforts to prevent them, cracks happen. Other times, we embrace the natural occurrence of cracks in wood. Dennis Belcher has compiled

a photo gallery that offers ideas for addressing cracks in your turned work. I hope you find it a visual treat as well as an inspiration to try something new.

Two important women are highlighted in this issue. Betty Scarpino offers an insightful profile of woodturning sculptor/teacher Beth Ireland, and David M. Fry exposes us to the creativity of Sophie Taeuber-Arp, an early-20th-century sculptor/designer. A noteworthy similarity is Sophie's and Beth's regard for the lathe: simply as a maker's tool that

can aid in producing a desired object—sometimes the right tool and sometimes not.

A couple of videos to look for in this issue, both demonstrating remarkable ingenuity:

- Scott Lewis's transportable human-powered lathe has brought joy to many children in the Dominican Republic. Find the video link on page 39. Measured drawings can be found on the Turners Without Borders webpage (tiny.cc/TWB).
- The back cover features this year's winner of the AAW's Chapter Collaborative Challenge, made by members of the First State Woodturners. The accompanying video shows this feat of musical engineering in action.

John Frier

-Joshua Friend

From the President



A journey of evolving interests

The AAW has just completed its 29th annual international symposium. If you were able to join us in Pittsburgh, you know what a great event it was.

A show of hands at the opening ceremony indicated a large number of first-timers. That group was contrasted by David Ellsworth and John Jordan, who have attended all twentynine symposia. Our event always has a wide range of attendees with varying interests and needs. The spectrum ranges from the "never turned but curious about woodturning" and "newbies" to the artistic professional and everyone in between. As we conclude this event and identify improvements for the future, I reflect on the different experiences I have had at AAW symposia over the years as my own interests and expectations have changed.

My first AAW symposium was in 2000 in Charlotte, North Carolina. I was a new turner with a few turned pens under my belt. I left the event stunned. Not only did I have the opportunity to sit in demos by Ellsworth, Pho, Sudol, and other greats of the woodturning world, but I also was overwhelmed by the depth and breadth of the work of my fellow turners in the Instant Gallery. Over the next few years, I expanded my turning horizons with the help of local chapter members. I finally got the courage to put some pieces on display in the Instant Gallery. Having seen

many of the leading turners, my interests in the event began to change. I took in the demos as before, but I also started following those with like interests and building a friend network. Time at the event was now shared between demos, the tradeshow, friend meet-ups, and outside viewing opportunities such as galleries and museums. I also found that as my interest in demonstrating and teaching grew, my takeaway from the various demonstrators changed from solely turning techniques to more about their presentation and demonstration skills.

By the Richmond, Virginia, symposium in 2008, I had the honor of being selected as a demonstrator. My view of the event took an immediate turn. Now the focus was on being prepared and delivering the best demonstrations I could. My needs for the event were even more altered. Of course, all of my previous interests were still there, but now the logistics and worries of being prepared and delivering my rotations were added to the mix. Now I had experienced symposia from three different perspectives: starry-eyed newcomer, newbie, and scared presenter.

More years brought slightly different interests, including the desire to spend time with woodturning friends from around the world, whom I would only get to see during each year's symposium.

Serving on the board and beyond

Later yet, having been active in leadership positions at local clubs, I became a member of the AAW's board of directors. Board members, staff, and the huge number of volunteers all have functions to perform at a symposium. From this perspective, the focus is not on yourself as an attendee, but on how you can perform your function to support the customers' experience. I have served as the tradeshow liaison twice, symposium chair for three symposia, and most recently board president during the Pittsburgh symposium.

The close of the Pittsburgh symposium prompted me to reflect on the various roles I have played over the years. Our focus for every symposium is to provide a quality product for each of our different customer groups that make up the AAW membership. While I have not experienced the event as a professional who makes a living in woodturning, I do teach, write, and aspire to be a "pro" at my turning. Every symposium I have attended, regardless of what perspective I brought in any given year, has been a joy. The AAW symposia have amounted to a personal journey on which I have learned and grown progressively. When I think back, I can't help but be thankful for the caring and sharing the woodturning community offers all year long—but especially at our annual symposia.

Lut Hertzog

Best, Kurt

AAW Annual Financial Statement for 2014

Dear AAW Member.

The auditors have completed their review of the AAW's 2014 finances. Although there was a slight net loss attributable to the Phoenix symposium, 2014 was still a very good year for the organization. The unrestricted net income resulted in a loss of \$25,714, but this amount should not have a significant impact on AAW's future financial well being. Measures initiated during 2014 will play an ongoing role in rebuilding reserves and ensuring the long-term financial health of the AAW. -Greg Schramek, AAW Treasurer

Revenues and Expenses Balance Sheet (as of 12/31/14)

Annual Dues	\$808,198
Symposium	335,348
Publications & Products	277,234
Contributions	152,573
Government Grants	–
Other Income	23,886
Investment	23,145

Total Income......\$1,620,384

•
.\$469,271
447,535
90,978
56,777
27,227
42,049
269,323
10,510
221,597
,635,267
(14,883)
10,831
(25,714)

Checking & Savings	\$457,312
Accounts Receivable	14,868
Grants Receivable	–
Inventory	30,865
Prepaid Expenses	123,193
Investment Securities	220,142
Permanent Collection	207,115
Property & Equipment	30,965

Liabilities

.\$28,011
20,115
649,096

Total Assets..... \$1,084,460

Total Liabilities \$697,222

Net Assets

Unrestricted	\$(99,491)
Temporarily Restricted	
Permanently Restricted	374,655

Total	Net	Assets	•••••	\$387	,238

Total	Liabilities	&
	_	

Net Assets \$1,084,460

Cascade Woodturners Marks 25th Year

The Cascade Woodturners Association of Portland, Oregon, will celebrate its 25th anniversary during its August 2015 meeting. We are very fortunate and honored to have three of the original members still participating in club activities: Dale Larson, Howard Borer, and Jim Hall. Their knowledge and expertise in orga-



Original and still active members of the Cascade Woodturners: (from left) Dale Larson, Jim Hall, and Howard Borer.

nizing and running a woodturning chapter have been instrumental. They have also assisted a number of other AAW chapters in the Pacific Northwest. All are welcome to join us for this special celebration August 20, 2015, at 4222 NE 158th Ave., Portland, Oregon.

—Peter Gibson, President, Cascade Woodturners Association

Prize Drawing for **AAW Members**

One of the many benefits of membership in the AAW is our monthly prize and year-end grand prize drawings. Thank you to the vendors who donated this year's prizes, which include tuition scholarships, \$100 certificates, sanding supplies, DVDs, chucks, grinding jigs, symposium registration, and lathes! Contact Linda Ferber if you would like to contribute a prize, linda@woodturner.org.

When you patronize our vendors, please thank them for their support of the AAW. To see a listing of each month's prizes and winners, as well as hyperlinks to the vendors' websites, visit tiny.cc/AAWDrawings (case sensitive).

At the end of 2015, we will draw another name from our membership roster to give away a Powermatic 3520B lathe. That winner will name a local chapter to win either a JET 1642 or five JET mini-lathes. The Powermatic and JET lathes are donated by Powermatic/JET. Included is free shipping in the continental USA, or up to a \$500 allowance for international winners.

2015 Donors

(Others may be added during the year.)

David Ellsworth

Easy Wood Tools

Hunter Tool Systems

John C. Campbell Folk School

IET/Powermatic

Mike Mahoney

North Woods LLC

Tennessee Assn of Woodturners

Thompson Lathe Tools

Totally Turning Symposium

Trent Bosch





2016 Board Candidates

The Nominating Committee is pleased to present the following six candidates who are running for the AAW board of directors. AAW members elect a nine-member board to volunteer their time and energy to represent the membership in moving the AAW forward. Board members may serve two consecutive three-year terms.

You may vote for up to three candidates. There are two ways to vote:

1) by electronic ballot, available on the AAW website at tiny.cc/BoardVote (case sensitive) or 2) by paper ballot. If you would like to cast your vote

by paper ballot, please request a paper ballot be sent to you by calling or emailing the AAW at 877-595-9094 (toll free) or inquiries@woodturner.org.

We encourage you to participate in the voting process and hope you will help make this election turnout significant. Your vote must be cast electronically or received by the AAW's independent auditing firm between August 1, 2015, and midnight CST October 16, 2015.

-Jeff Brockett, Chair, Nominating Committee

Allen Alexopulos, Maryland



After several marginal attempts to turn some simple objects, it became very clear that I needed some guidance and direction from people who knew the ins and outs of woodturning. This led me to

attend a meeting of the AAW's local chapter in my hometown. From that meeting on, I was hooked on the craftsmanship and artistic aspects of woodturning and the wonderful camaraderie of the woodturning community. I joined the Chesapeake Woodturners and the

AAW shortly thereafter and have actively participated in chapter events ever since.

Most of my 40-plus-year engineering career has been spent working side by side with customers solving complex test and measurement problems. The technical, communication, and presentation skills that I developed during my work in the public and private sectors have served me well in my journey through the woodturning world.

While I was serving as president of the Chesapeake Woodturners, our chapter produced dozens of belaying pins and finials used in the restoration of the historic USS Constellation. The chapter also turned pieces for the Annapolis and Maryland archives out of downed historic trees.

It is a special honor to get a chance to serve on the board of directors of the AAW and to be in a position to contribute to the woodturning community at large. As a board member, I will work hard to support the AAW's mission statement in any way that I can in collaboration with the organization's leadership team. It is important to every AAW member that the central organization continues to be responsive to our needs and provides the resources and support necessary for us to safely enjoy our adventures through the world of woodturning. This will be the guiding principle that I will follow as a member of the board. Thank you for your support!

David Heim, Connecticut



Like so many others, I became captivated with turning the minute I began my first bowl a dozen years ago. More recently, I've been able to combine my talents as an editor with my love of turning to help introduce new

people to the craft and help others improve and expand their woodturning skills.

For twenty-eight years, I was one of the top editors at Consumer Reports magazine. I then moved to Taunton's Fine Woodworking, where I was an associate editor for four years.

At present, I edit books on woodworking and turning (including *The Frugal Woodturner*, by Ernie Conover, and *Turning Toys*, by Richard Raffan). I have also had the pleasure of working with Betty Scarpino and Josh Friend at *American Woodturner*, editing a wide range of articles and writing others.

I am running for the AAW board for two reasons:

- One, to help the organization cement its reputation as the primary source of information and advice on turning techniques, projects, safety, trends, and design. The AAW has an unsurpassed store of knowledge. I want to be sure it benefits the widest possible audience and helps bring new members to our organization.
- Two, to give chapter information increased prominence, especially on the AAW website. I'm hopeful that this will make it easy for others to emulate what innovative chapters are doing with demonstrations, regional symposiums, and community outreach. I also want to help find ways to foster more and better community outreach from the chapters.

The AAW's current leaders have done a great deal to improve the organization's website and journal, and they have smart, ambitious plans for the future. I would like the opportunity to help bring those plans to life.

Joe Dickey, Maryland



"Son, you're going to be turning for a long time." These were the words of Mel Lindquist about halfway through my introduction to woodturning at Arrowmont in 1982. Since then, I've logged more than thirty years'

experience in non-profit governance, crisis management, board development, hiring/firing, etc.

I was a founding member of the Chesapeake Woodturners in 1992 and one of the organizers of a regional woodturning conference in Annapolis in 1991. I chaired the AAW ethics committee during the tumultuous period of executive director changes (2010–2012). Also, I was the primary instructor at and administered the Woodturning School and co-op at the Maryland Hall for the Creative Arts in Annapolis from 2000 to 2014. I will be teaching a woodturning design course at the John C. Campbell Folk School in North Carolina this summer.

I've twice been president of the Maryland Federation of Art (MdFedArt.org), a Maryland-based non-profit promoting artists and art. The second tenure of this was crisis management; i.e., form a board from scratch, hire staff, and deal with bankruptcy issues. They've emerged as one of the pre-eminent arts organizations in the greater Maryland area.

In another life, I was active in the governance of the Acoustical Society of America, where I formed and chaired its first long-range planning committee and chaired its membership committee for a decade. I am now retired from a research/teaching career in physics in the Navy labs and at Johns Hopkins University. I was a Congressional Science Fellow in 1984–1985.

In yet another life, I play banjo in several bluegrass and folk bands; and, in still another life, I tend an American Chestnut restoration orchard under the auspices of the American Chestnut Foundation.

I would be honored to be elected to the AAW board.

John Ellis, New Mexico



The American Association of Woodturners is already a major part of my life. My wife Carol and I hope to increase our contribution through my board membership. Deeply committed to

the annual symposium, I want to have a leadership role in that endeavor, if elected, and expand my actions to encompass other areas supporting AAW's high success and value.

For six years, I've been the national volunteer coordinator for the symposium, each year recruiting more than two hundred volunteers for the event. I've come to understand the

operations of the symposium in detail, serving on the symposium planning committee. In 2009, I wrote a *Symposium Volunteer Handbook* and update it each year as conditions and needs change. I also wrote the symposium slideshows for several years. An AAW member for over twelve years, I've attended every symposium except one since 2005.

My professional background includes practicing architecture for more than twenty years in California and New Mexico, then more than fifteen years of management and leadership consulting, strategic planning, writing, and teaching business seminars throughout the U.S., consulting to many major corporations.

My goals for AAW include increasing outreach to youth and those who are

disadvantaged in both the U.S. and overseas. By encouraging youth and new turners, AAW invests in its own future. Without this, it cannot continue to exist, much less increase value to existing members.

I would also initiate development of an AAW Guide to Mentoring for members who are willing to help new turners, expanding programs like Woodturning FUNdamentals so mentors can structure complete and safe approaches to training others. My vision is for all chapters to consider AAW their active partner in building woodturning skills. AAW must be the leading force in all aspects of woodturning, building on its success hosting world-class symposia and publishing the excellent American Woodturner journal.

Ken Ledeen, Massachusetts



Woodturning has been my passion for nearly twenty years. My eyes were opened when I attended the symposium in 2002. I had no idea that it was possible to do so much on a lathe. I had never seen so many great

artisans and teachers in one place. The enthusiasm I gained from that symposium led me to take classes wherever I could. What started as a casual interest quickly became a consuming passion.

It would be an honor and privilege to serve as a member of the board of the AAW and to give back to an organization that has given so much to me, and to all of us.

Earlier this year I retired after fifty years in information technology. For the past eighteen years, I led a company that does custom software development. The key to our success is our ability to listen effectively to what people want, and then motivate, organize, and manage to meet those needs. I believe that these skills and experience I've gained through a long business career will enable me to make a meaningful contribution to the AAW. My goal is to help the AAW

understand and ultimately meet the needs and interests of my fellow members.

When I wasn't in the workshop, at the office, or playing with our grandkids, I have taught at Harvard and published a book (with two esteemed colleagues) on how technology is changing our lives. I have done extensive work in fundraising and have held leadership positions in volunteer organizations.

Today's AAW does an excellent job, but there are always areas for improvement. I welcome the opportunity to work with the board and the AAW team to meet these challenges.

I respectfully ask for your confidence, support, and vote.

Wayne Furr, Oklahoma



I was first introduced to woodturning fifty-six years ago and rediscovered it in September 1994. I joined the Central Oklahoma Woodturners Association (COWA) in Oklahoma City and the AAW in 1995,

attending my first AAW symposium in Tacoma, Washington. That symposium started a wonderful experience of meeting woodturners who are willing to share their knowledge. The friends gained and the lessons learned have given me more than I can ever give back, but I am willing

to do all that I can. I feel that I will bring new experiences to help expand the mission of AAW.

In COWA, I have served as president, vice-president, program chairman, webmaster, and on training and bylaws committees. I have also served as the director to the Southwest Association of Turners (SWAT) for COWA and the Northeastern Oklahoma Woodturners Association. In SWAT, I have served on committees, as second vice-president, president, and currently past-president.

My leadership-organizational experience includes twenty-two years as manager of cartography for the Oklahoma Geological Survey and serving on the Oklahoma Board on Geographic Names. I have served nineteen years as

executive secretary of the Council of Geographic Names Authorities, a national association. My responsibilities include complete planning of annual conferences, negotiating contracts with hotels, and maintaining records. My educational background includes an associate's degree plus additional coursework from Community College of Denver, Red Rocks Campus, and a bachelor's degree in geography with graduate work from the University of Oklahoma.

In twenty years as an AAW member, I have seen change and growth, both providing challenges to the leadership. I feel that my education and leadership-organizational skills will help me to address the goals and challenges that lie ahead. It would be my honor to serve on the board; I ask for your support.



Call for Entries 2016 Juried Member Exhibit

The theme for the 2016 AAW member exhibition is "Turning 30," in celebration of our 30th anniversary. For three decades, the AAW annual exhibitions have encouraged members to present their finest work. Sometimes that means new and innovative ideas and techniques, sometimes presenting perfected techniques and classic forms. This is a proud tradition, and we are excited to bring that spirit forward into our fourth decade.

As always, the theme is open to interpretation. Certainly, turning thirty is a milestone in our culture, or one could turn thirty of something, or make a piece with thirty different wood species, but a simple yet excellent piece would also reflect AAW's spirit of sharing, which has been a constant practice these thirty years. It is up to you.

Two awards will be given during the 2016 AAW international symposium: a Masters' Choice Award of \$300 and a People's Choice Award of \$200.

Details

 All AAW members are eligible to enter this juried exhibit.

- "Turning 30" will premiere in June at the 2016 AAW international symposium in Atlanta before traveling to the AAW Gallery of Wood Art in Saint Paul.
- This is a touring exhibition; work must stay with the show until its conclusion.
- Sales: A 45% commission will be charged on sales made during the exhibition.
- Entry Dates: Entries will be accepted on the AAW website, woodturner. org, from November 1, 2015, through February 1, 2016. All applicants will receive email notification by March 31, 2016.
- Entry Fee: \$30 for up to three submissions.
- You may submit up to three pieces, but no more than one piece per artist will be accepted for the exhibition.
- Work will be evaluated in the following areas: overall appeal, technical quality, originality, and relationship to theme. Each piece will be considered individually, and also by how well it fits with the overall composition of the exhibition.

Guidelines

- Work must be created at least in part on the lathe.
- Work must have been created in the past 24 months.
- There is no size limit, but only a few oversized pieces will be accepted due to space and shipping requirements. *Oversized* is defined as shipping in a box that exceeds 108" (207cm) in overall dimension (2 × width + 2 × depth + length).
- The symposium venue does not accommodate wall-hung pieces.
 Artists must provide a simple means to display any wall-hung pieces.
- An artist statement (up to 100 words) describing how the piece fits the theme is required. Entries may be edited for length and clarity.
- You may upload up to three images per piece. Include one view of the overall piece. Additional detail images or alternate views are optional.
- Uploaded images must be in JPG format and 2100 pixels on the longest side. (There are free imageresizing sites on the Internet. Step-by-step instructions for resizing your images using free online sites will be available on the entry webpage.)
- A full-color exhibition catalog will be produced. Artists whose entries are selected will receive a complimentary catalog.
- Shipping or delivery to the Atlanta venue is the responsibility of the artist. The AAW will pay return shipping fees. Work will be insured while in the exhibition and during return shipping.

Questions? Contact Tib Shaw at tib@woodturner.org.

2016 Demonstrator Opportunity POP Artist Showcase

Each year the Professional Outreach Program (POP) of the AAW showcases two wood artists. They are either experienced artists who have made significant contributions to the woodturning field but have not received appropriate recognition or emerging artists who have the potential for making significant contributions to the field. The two selected artists each give two demonstrations and receive free symposium registration plus a small honorarium.

Their work is displayed prominently in the Instant Gallery. The 2014 artists were Jason Schneider and Steven Kennard, and the 2015 artists were Kristin LeVier and Helga Winter.

Artist applications are invited for the June 2016 AAW symposium in Atlanta, Georgia. Applications will be juried by the POP committee. The deadline is December 1, 2015, and the application can be found at tiny.cc/CallForEntry (case sensitive).

2016 POP Exhibition Call for Entries

For its 2016 exhibition at the AAW's international symposium in Atlanta, the Professional Outreach Program (POP) committee is once again opening its traditionally invitationonly exhibition to a limited number of juried pieces.

A highlight of the AAW annual symposium since 2007, the exhibition has always featured excellent work by an invited roster of both established and emerging artists. Following the noteworthy inclusion of a number of

juried pieces in the 2015 exhibition, POP is confident that this move will bring even more new faces and talents to light.

The theme for the 2016 exhibition is Patterns.

All pieces will be auctioned live at the Atlanta symposium with simultaneous online participation, as held very successfully at the June 2015 Pittsburgh symposium. Funds raised support POP initiatives, including merit and excellence

awards, fellowships, panel discussions, an artist showcase, exhibits, a Facebook page, and an online resource database.

Submitting artists are encouraged to document their creative process in detail (photos, blogs, videos, etc.). In 2015, this documentation added an extra dimension to the exhibition and generated significant interest in both the woodturner and collector communities.

Applications will be accepted online October 1, 2015, through December 31, 2015. Work must be new, relate to the theme, and be small in scale (maximum size 8" × 8" × 8"). Exhibiting artists may opt to keep up to 50% of the auction price and may place a reserve price if they wish. The \$35 entry fee covers jurying of up to three pieces, but only one may be accepted into the exhibition.

Applications are open to all AAW members in good standing. The jury will be looking for work of a high aesthetic and technical quality.

For full information, visit tiny.cc/CallForEntry (case sensitive).

Winners of the 2015 Best Chapter **Newsletter/Best Chapter Website Contests**

Congratulations to the following AAW local chapters for winning the newsletter contest:

- Tied for First Place: Chicago Woodturners, chicagowoodturners.com, Terry McCammon, editor, Georgia Association of

• Second Place: Tidewater Turners of Virginia, tidewaterturners.net, Steve Wilson, editor

Woodturners, gawoodturner.org,

Steve Pritchard, editor

Congratulations to the following AAW local chapters for winning the website contest:

- First Place: Detroit Area Woodturners. detroitareawoodturners.com, Roger Meeker, webmaster
- Second Place: Massachusetts South Shore Woodturners, msswt.org, Eileen Walker, webmaster
- Third Place: Chicago Woodturners, chicagowoodturners.com, Scott Barrett, webmaster





Links to the websites of past and present winners are posted at tiny.cc/chapterwinners.

Call for **Demonstrators** AAW Symposium 2016

The AAW's 30th annual international symposium will be held in Atlanta, Georgia, June 9–12, 2016. To apply to be a demonstrator, visit tiny.cc/CallForEntry (case sensitive) between July 1 and October 15, 2015. For more information, call the AAW office in Saint Paul, 877-595-9094 or 651-484-9094, or email inquiries@woodturner.org.



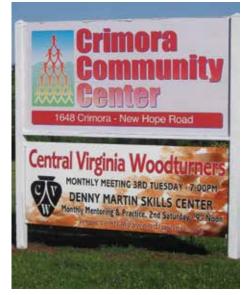
CVW Boosts Outreach with New Skills Center

After several years of membership growth, the Central Virginia Woodturners (CVW) realized a larger, improved skills center was needed to provide woodturning instruction for beginners and to continue attracting new members. We had five lathes, a sharpening station, and a bandsaw in our old storeroom at the Community Center in Crimora, Virginia. This facility is a repurposed 1926 school building where we hold our monthly meetings. Recently, we were able to rent a classroom in the same building for a minimal amount, provided we fix it up. The building managers provided the needed electrical work, and members did the rest: cleaning, plastering, repainting, installing air conditioning, and building cabinets for the tools that were purchased or donated by members.

In December 2013, we dedicated the new workspace, calling it the Denny Martin Skills Center in honor of a very active and innovative club member who had recently passed away. In January 2014, we initiated monthly skills sessions where five or six of our club mentors continue to give individual instruction to all who want to learn—both members and

the general public. Spindle and bowl turning, bandsaw and chainsaw safety, blank selection, tool sharpening, sanding procedures, and embellishment have been popular with our attendees. We started teaching basic turning skills and quickly realized the importance of teaching tool sharpening, too, so we purchased a second grinding station from our sister club, The Woodturners of the Virginias. Sanding created some problems with airborne dust, so our club president donated an air-filtration system and another member donated a dust collector to connect to a sanding station.

Thanks to a donated vacuum system, we can demonstrate vacuum chucking procedures. We have also added another lathe and protective shields for the lathes to allow safe, close-up observation. One of our members also recognized the need to upgrade the restroom facilities and found an opportunity to salvage fixtures and stall panels from a local school that had been closed recently. This project was completed in March and adds to the upgrades we have made as part of a long-term community service activity.



Central Virginia Woodturners has created and dedicated a new space for woodturning instruction: the Denny Martin Skills Center. Doing so has enabled the chapter to increase its community outreach and build membership.

To date, 131 individuals have received 336 hours of mentoring. Our youngest student started when he was nine years old, and a ninety-one-year-old member recently commented that he was learning new techniques in each session. The skills sessions last four hours with a

break for refreshments and open discussion. We have found that the real benefit of the Skills Center has been the outreach to bring in new members and advance the skills of current members.





Club members gave an old classroom new life by donating their time, tools, and skills to create an improved space for woodturning meetings and demonstrations.

—Jim Oates, Denny Martin Skills Center Coordinator

SWAT Continues Beads of Courage Donations

Donating boxes to the Beads of Courage program has become a long-standing tradition at the annual Southwest Association of Turners (SWAT) symposium, held this year August 21–23 in Waco, Texas. Attendees are once again encouraged to make and donate a box to this worthy cause.

Beads of Courage is a program that supports children who have serious illnesses. Woodturners make lidded bowls or boxes, which are receptacles for the beads children acquire as they go through stages of treatment. The vessels that symposium attendees donate are displayed in the Instant Gallery and then delivered to local hospitals. To the right is a sampling of boxes that were donated at the 2014 SWAT symposium.

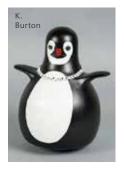
For more, visit beadsofcourage.org

—Johnny Tolly

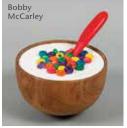
and swaturners.org.









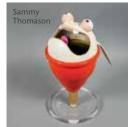






Dennis Ford and





MAKING A LIVING TURNING

Special Trees Become Heirloom Bowls

The bald cypress trees in my parents' backyard began as small saplings from the National Arbor Day Society. They proved to be the answer to my father's previously failed attempts at bringing shade to the property, despite poorly draining soil. He planted and nurtured the trees to maturity, which took more than twenty years. Our appreciation of the trees grew. They provided shade to the swing set where Grandma served ice cream to frolicking cousins. One tree was designated first base and another, third base during Whiffle® ball games.

In preparation for the inevitable sale of our old home, several of those bald cypress trees had to be removed. We decided to commission woodturner Paul Kaplowitz of South Carolina to use the wood to turn heirloom bowls. For nearly a year I waited, keeping it a

surprise for my family, as Paul meticulously proceeded through the slow drying process required to prepare the wood for turning, turned the bowls, and accommodated my stealthy trip to Charleston to collect them.

It was a joy to surprise my family with bowls made from Grandma and Grandpa's cypress trees. My hope is that the bowls will remind us of the family bonds formed under those trees and that such bonds will be repeated with future generations through the shared use of the bowls.

-Molly Wright

Molly Wright surprised her family with heirloom bowls made from cypress trees her grandfather had planted. Using wood from trees with an emotional connection linked this family's past and future.

JOURNAL ARCHIVE CONNECTION

In the April 2014 issue of American Woodturner (vol 29, no 2, page 32), Paul Kaplowitz describes his second career in an informative article, "Almost Making a Living

Turning." AAW members can access all past journal articles online at woodturner.org.





Cabinet for sanding accessories

My sanding cabinet is the handiest thing I have ever made for my shop. I use it to keep all of my abrasives organized by grit, with coarsest on the left and finest on the right. As I am sanding my bowls, I don't need to look at the back of the abrasive to see what grit it is—I can just reach for the next one in line. I keep various sanding attachments and other useful accessories in the drawers. Keeping these items organized has been a big timesaver for me.

Two important points if you decide to make one: my cabinet is on wheels,

so I can move it to whichever lathe I am using; and a lid is essential for keeping most of the chips out prior to sanding.

—Dale Larson, Oregon



Protecting a finished workpiece in a chuck

Sometimes it is necessary to remount a finished workpiece in a chuck. Here is a simple way to prevent the chuck jaws from damaging the workpiece.

Cut a ½"- (13mm-) long section of PVC pipe, whose inside diameter (ID) is slightly larger than the diameter of



the workpiece. PVC pipe up to 1½" (4cm) is readily available. Larger diameter pieces can be obtained from electrical or plumbing contractors who may have leftover sections of pipe. I have often used electrical PVC conduit ranging in size from 2¼" to 3" (6cm to 8cm) ID.

Cut out a small section of the PVC pipe so that when it encircles the workpiece it is about ¼" smaller than the circumference of the piece and leaves a gap. Place the pipe section into the chuck and secure the workpiece inside the PVC. Be sure to align the gap in the PVC between two of the jaws. Tighten securely.

—Ken Capie, California

Share your turning ideas!

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

—Joshua Friend, Editor

Shopmade burnisher for woodturning scrapers

I had always been disappointed when using my round-nose scraper after sharpening it on a grinder. I thought it should cut more effectively. Knowing that furniture makers routinely use a burnisher to create a sharp edge on cabinet scrapers, I decided to try this method on my woodturning scraper. I did not own a burnisher, so I made one myself, and the improvement in the scraper's performance was impressive.

I bought a ¾6" solid carbide drill bit and drilled it at a 10° angle into the edge of a scrap of oak, leaving just the shank of the bit exposed. I then unchucked the bit and left it in the wood. About 3" away, I drilled a standard ¾6" drill bit into the wood, again leaving just the shank exposed. The standard bit serves as a pivot point, and the carbide bit does the burnishing. It is important that the bit used for burnishing is solid carbide (tungsten carbide), which is much harder than the high-speed steel used for wood-turning scrapers.

To use the burnisher, clamp the block into a bench vise. Pressing your scraper against the pivot point, move the cutting edge back and forth against the carbide drill bit shank. This will roll a nice smooth hook, or burr, on the tool's edge.

-Bill Wells, Washington



Magnetic bowls hold jaws during changing

When I got my first scroll chuck, I searched the Internet for ideas on organizing and holding spare chuck jaws. I have long been an advocate of using magnets to hold lathe

accessories. I use a magnetic bar to hold T wrenches, tommy bars, and hex keys; I keep several small magnetic trays attached to the lathe for holding things like pen bushings and screws; and I use magnetic note holders to hold strips of abrasive to the lathe so they are at hand when needed. I soon found a solution for holding chuck jaws while I am swapping one size for another: 4" (10cm) and 6" (15cm) magnetic bowls available from auto parts stores.

The rubber-encased magnet on these bowls protects the surface of whatever they are stuck to. I found

that I can stick the magnetic bowl to the body of my lathe while changing chuck jaws, but I would not advise keeping them there while turning, as they could shake loose and become a safety hazard.

—Jim Turcott, New York





Locating buttons on jumbo jaws

When screwing the buttons onto my jumbo jaws, I sometimes have a difficult time visualizing the right hole pattern for a bowl or getting all the buttons in the same set of holes. So I color-coded the holes by "connecting the dots" with different colored markers.

I rotated the jumbo jaws on the lathe by hand while marking the lines, using large permanent markers. The differentcolored circles instantly show me what set of holes to use for a bowl and solve the problem of my putting one or more of the buttons in the wrong hole.

—Larry Brooks, California



Vacuum chucking small items

Vacuum chucking is one of the most versatile holding techniques in contemporary woodturning—and one that has revolutionized several aspects of bowl and hollow form production. Commercially made aluminum drum chucks are available down to 3½" (9cm) diameter, but I frequently need to vacuum chuck objects smaller than my smallest drum. Being



inherently lazy, I realized that the smallest opportunity for a vacuum fitting on the naked lathe is the spindle itself.

By cutting a 2" (5cm) circle of foam sheeting (available at hobby stores), piercing a small hole in it, and placing it over the headstock spindle, I can vacuum chuck pieces down to 1½" (4cm) diameter. This foam sheeting is also available



with a self-adhesive backing for use as replacement gaskets for commercial and shopmade drum chucks.

The force holding the wooden piece against the spindle is about 14 pounds per square inch, which is enough for light cutting on smaller pieces. If you need additional support, bring up the tailstock. ▶
—Steve LeGrue, Texas



TIPS

Tailstock caddy

I read in amazement the ingenious tailstock and bed-extension caddy tip by Andrew Kuby in the February 2014 issue of American Woodturner (vol 29, no 1). I am getting up in years and find it cumbersome, if not dangerous, to be heaving a tailstock on and off the bed ways. I debated long and hard about making a cart of Andrew's design but opted to make a simpler one. Here is my version of a caddy for easily removing the tailstock from the lathe and for holding hollowing gadgets between uses. (Note that this is not a lathe bed extension that expands the capacity of your lathe. It is not meant for use during turning.)

For my rolling cart, I paid \$5 for an old typewriter table at a garage sale, but any rolling cart will do, provided it is sturdy enough and has locking wheels. I rolled the table up to the tailstock end of my lathe and took a measurement from the top of the table to the top of the bed ways. This told me what size I-beam I would need, which turned out to be 5", as that height, combined with the height of the cart, was closest to but not higher than the height of my bed ways. You may need taller or shorter I-beam material, depending on the height of your cart. I had a machine shop cut two pieces of $3" \times 5"$ (8cm × 13cm) I-beam, ¼" (6mm) thick and 20" (51cm) long.

I drilled four holes in what would become the bottom of each I-beam.

two per side, 5" from each end, so I could securely fasten the I-beams to the rolling cart. Set the two I-beams parallel and centered on the cart, each butted up against the ways of the lathe. Feel to see if they match the lathe's height. If the I-beams are too low, use shims to bring them up to the exact height of the ways. Carefully slide the tailstock off the lathe and onto the I-beams. When you have the I-beams in exactly the right position, screw them to the top of the cart.

Some adjustments may have to be made for smooth operation. For example, it may be necessary to bevel the corners of the I-beams and file any sharp edges to prevent catching during use. Because of sharp edges on my tailstock, I beveled the corners and edges of the lathe also.

To use the caddy, simply roll the cart up to the end of the lathe, positioned so the I-beams are butted up against the ends of the bed ways, lock the cart's wheels to prevent it from accidentally moving, and slide the tailstock from the lathe onto the caddy.

The total cost of this tailstock caddy was less than \$30, and assembly took about an hour. Next I will add shelves to the bottom of the table to make use of that space and add a little more weight to the bottom.

—Jim Creel, Louisiana



Lathe-mounted tool tray

When I watch woodturning demonstrations at our local club meetings and on videos, I see turners of all skill levels struggling to hold a lathe tool while they are adjusting the toolrest, measuring, or doing some other task in preparation for more turning. They often either tuck the tool under their arm or lay it on the lathe bed—a potentially dangerous practice. And how often have you lost a chisel to the floor when doing this? A lathe-mounted tool tray is by no means my original idea, but I present this design as a solution.

The tray measures $1\frac{1}{2}$ " × 6" × 12" (4cm × 15cm × 30cm), with $1\frac{1}{2}$ "-diameter half-circles cut in the ends. I sliced $1\frac{1}{2}$ " PVC pipe lengthwise and glued the halves into the tray (*Photo a*). There is a tab on the underside that holds the tray onto the lathe bed (*Photo b*). When the tray is turned sideways, it will lift off easily.

This tray holds three chisels in place securely, but you could make the tray wider with more pipe halves if necessary.

(Note that the tool tray should only be mounted at the far end of the lathe bed. Having tools lying near the cutting action of the lathe can be dangerous, as they can be disrupted suddenly by an errant workpiece and become dangerous projectiles.)

—Richard Mabie, Washington



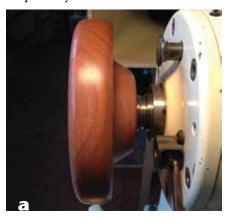


Custom handwheel

As wonderful as Oneway lathes are, they desperately need a safe hand-wheel. You might be tempted to use a faceplate for a handwheel, but this is dangerous—you could easily jam your fingers between the faceplate and spindle lock. I made a custom handwheel for my Oneway, but you could do this for other lathes, too. My handwheel provides increased space to keep my fingers away from danger (*Photo a*). Here's how to make one for your lathe.

The steps

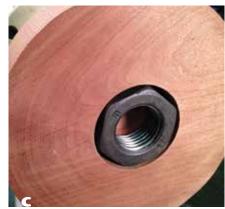
1. Buy a nut to fit your lathe's outboard spindle threads. Oneway does sell a threaded handwheel hub (Part No. 2802) that can be used for making your own handwheel, but you can accomplish the same result with an appropriately sized nut. I paid less than \$5 at my local nut-and-bolt supplier. Hardware stores do not typically carry odd-sized nuts, so it will probably be necessary to find a specialty outlet.



- 2. Start with a piece of hardwood about 2" (5cm) thick and 7" (18cm) square. Draw the largest possible circle on this blank and cut it round.
- 3. With the rough-cut blank between centers, turn a recessed groove in the side that will be the outside of your handwheel to fit your chuck jaws, in either expanding or contracting mode (*Photo b*).
- 4. Remount the blank in your chuck and drill a hole large enough to accept the nut. I used a 21/8" (54mm) Forstner bit held in a drill chuck in the tailstock. Drill the hole the same depth as the thickness of the nut. If you choose to turn this recess by hand, make sure the bottom is flat and the sides are straight, and size it so the nut will just fit. I found I had to widen my drilled hole a bit with turning tools. Test fit the nut in the hole (*Photo c*).
- 5. Drill a hole sized to accept the outside diameter of your spindle about ¾" (19mm) deeper inside the larger hole

- (*Photo d*). For my Oneway, the drill size was 1¹/₄" (32mm).
- 6. Turn your desired profile on what will become the side closest to the headstock. Allow for plenty of clearance room for your fingers during use (*Photo e*).
- 7. With the handwheel lying flat and level, put the nut in the hole and fill around it with epoxy, being careful not to get any epoxy on the nut's threads (*Photo f*). Let the glue cure completely.
- 8. Thread the handwheel onto the lathe using the nut and turn the outside face. If you use a "through-the-spindle" vacuum attachment, make a conical hole to accommodate it (*Photo g*). If not, at least create an open hole to allow a knockout bar to pass through.
- 9. Sand and finish the handwheel and mount it onto your lathe's outboard spindle. On my Oneway, there is a "step" on the outboard spindle that acts as a stop for the nut. Make sure your handwheel seats properly when fully tightened.
- —John Hill, North Carolina















Calendar of Events October issue deadline: August 15

Send information to editor@woodturner.org

Australia

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

Canada

July 16–August 30, "Turn, Turn, Turn," a juried exhibition of artistic woodturning sponsored by the Nova Woodturners Guild, Mary E. Black Gallery, Halifax, Nova Scotia. For more, visit novawoodturnersguild.com.

Colorado

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

Georgia

September 18–20, 2015, Turning Southern Style XXI, Georgia Association of Woodturners, Northwest Georgia Trade and Convention Center, Dalton. Demonstrators will include Nick Agar, Benoît Averly, Jimmy Clewes, Nick Cook, John Lucas, and Harvey Meyer. The event will include vendors, an instant gallery, a banquet, an auction, and a spouse/guest lounge. For information and registration, visit gawoodturner.org.

Minnesota

October 28—November 1, 2015, Fresh Cut - Green Woodturning Symposium, North House Folk School, Grand Marais. The symposium will include multi-day coursework, demonstrations, speakers, mini-courses, and community gatherings. Featured demonstrators to include Robin Wood, Michael Hosaluk, and Michael Cullen. For more, visit northhouse.org.

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

Montana

September 26, 27, 2015, Great Falls Woodturners Symposium, Great Falls Fire Training Station, 1900 9th Street South, Great Falls. Featured demonstrator Rudolph Lopez will conduct demonstrations of his extensive knowledge and creativity in woodturning. For information, call Barry Rockwell at 406-468-9857 or Sam Sampedro at 406-761-4145, or visit gfturners.org.

October 17, 18, 2015, Yellowstone Woodturners Symposium, Billings. Featured demonstrator/teacher will be Alan Carter, who will demonstrate turning long-stem goblets, suspended vessels, split-bowl vessels, and design, so you can find your own creative voice. For more, visit yellowstoneturners.org or call Ron Velin at 406-679-0902.

New York

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

North Carolina

November 6–8, 2015, North Carolina Biennial Symposium, Greensboro Coliseum, Greensboro. Featuring sixty-three demonstration periods in nine rotations. Featured demonstrators include Nick Agar, Jimmy Clewes, Don Derry, Ashley Harwood, Mike Jackofsky, Al Stirt, and eight regional demonstrators. Large tradeshow, instant gallery, and banquet with live auction. For more, visit northcarolinawoodturning.com.

Ohio

October 9–11, 2015, Ohio Valley Woodturners Guild's Turning 2015 Symposium, Higher Ground Conference Center, Cincinnati. Featured demonstrators to include Mike Jackofsky, Chris Ramsey, Neil Scobie, Mark St. Leger, Malcolm Tibbetts, and Derek Weidman. Event will feature a vendor area, auction, instant gallery, onsite lodging and meals, and a spouse craft room. For more, visit ovwg.org.

Oklahoma

September 11–13, 2015, Southeast Oklahoma Woodturners' "Masters at Work Toy Making Demonstrations," Forest Heritage Center, Beavers Bend State Park, Broken Bow. Four rotations by five turners, each turning four different wooden toys. The event is free to the public and will include an art show with more than 1,000 wooden toys submitted in a challenge contest to woodturning clubs. Over \$3,000 in prizes and stipends available. All toys will be donated to organizations that distribute to kids. If interested in being a demonstrator or competing in the challenge, please contact Ron Engel-Wilson at engelwilson@fullnet.net.

Pennsylvania

September 24, 25, 2016, Mid Atlantic Woodturning Symposium hosted by the Mid Atlantic Woodturners Association, The Lancaster Marriott at Penn Square, Lancaster. Eight nationally renowned demonstrators, thirty-two demonstrations, instant gallery, award banquet, and raffle. For more, visit mawts.com.

Tennessee

January 29, 30, 2016, Tennessee Association of Woodturners' 28th Annual Woodturning Symposium, Marriott Hotel and Convention Center, Franklin. Featured demonstrators to include Clay Foster, Rudolph Lopez, Glenn Lucas, and Bob Rosand. Event includes two days of demonstrations, an instant gallery, a large, well-stocked vendor area, and Saturday night banquet and auction. For more, visit tnwoodturners.org/symposium. For vendor information, contact Grant Hitt at voldad18@comcast.net. For symposium questions, contact Jeff Brockett at symposium@tnwoodturners.org or 615-973-3336.

Texas

August 21–23, 2015, Southwest Association of Turners (SWAT) 24th Symposium, Waco Convention Center, Waco. One of the largest woodturning symposiums in the U.S. Lead demonstrators: Joe Herrmann, Ed Kelle, Kurt Hertzog, Malcolm Tibbetts, Derek Weidman, and Dick Gerard. The symposium will also feature six regional demonstrators and more than forty vendors. On Sunday after lunch, there will be a raffle for valuable door prizes. For more, visit swaturners.org or contact Ken Mays, 105pltkm@gmail.com.

Virginia

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

AVOIDING CRACE In Bowls and Hollow Forms

David Ellsworth



have always been fascinated by how intently woodworkers, woodturners, and the general public fear the word "cracks" when it comes to wood. We woodies are so meticulous when it comes to considering moisture content, grain direction, clamping devices, drying schedules, species characteristics, miracle glues, impregnable finishes, and, of course, design considerations—all in an effort to control cracks. The fact remains that with all our technology, both scientific and applied, the universal law of all woodworking remains: Wood moves. And it continues to move... forever.

The dynamics of drying wood

We know that wood has moisture, and as that moisture evaporates, the wood shrinks. But we often overlook the fact that wood also has tension and mass. Tension is inherent in the growth process of any fibrous material. And the mass? Well, just look at the difference between a log and a sheet of veneer cut from that log. Dry them out and the log cracks, while the veneer simply crinkles. Unlike the log, there is just not enough mass in the veneer to get in the way of the tension being released during the drying process.

Wall thickness and drying time

When turning a bowl from green, or wet wood to a finished shape, we have learned there are two basic options. One is to rough-turn the bowl and leave it fairly thick, let it dry for a few months and change shape to a slight oval as it dries, then re-turn the thick-walled form into a thinner-walled, round bowl. The other option is to turn the bowl straight through to a finished shape and thickness, then let it dry and warp into an oval shape in the hopes that it looks good and doesn't crack.

In both of these cases, the common denominator in controlling cracking is controlling wall thickness and drying

Out of round but not cracked



This large maple bowl went out of round and distorted significantly during drying on top of the author's woodstove but did not crack due to its consistent wall thickness.

time. We dry the thicker, rough-turned bowl slowly in order to control its change in shape. But if there is a thinner area either in the rim or the base, that area will dry faster than the thicker areas of the bowl. The result is that the fibers in the thin area become brittle and can't move with the rest of the bowl when the thicker area eventually dries and tries to change shape. The same is true in the second example. If, for instance, the rim is 1/4" (6mm) thick and the bottom is 3/4" (19mm) thick, the rim will become rigid and unable to move while the base is still drying and moving. A crack would be almost inevitable.

I regularly turn demonstration bowls of around ¾6" (5mm) wall thickness and place them on my woodstove in the shop, much to the horror of my students. Three to six hours later, they are bone dry and distorted by as much as 2" (51mm) out of round—but no cracks! Why? The wall thickness is consistent and there is relatively little mass in the way that would impede movement as the wood dries (*Photo 1*). Choosing a log section that does not include the pith also reduces the chances of a crack during drying.

On occasion, I'll have a wood like hickory burl that is freshly cut and full of moisture and tension. If I turn small hollow forms ½6" to ½" (1.5mm to 3mm) thick, I can hang them up above my wood stove and force-dry them in order to gain a nicely crinkled surface (*Photo 2*). But the walls must be consistently thin in order to prevent cracking.

Other causes of cracking

Recognize that the beginner-level turner is at a natural disadvantage when it comes to controlling cracks. This is because it may take him or her numerous hours to complete an open bowl, while a more experienced turner will be able to cut that time way down. Both turners are throwing moisture off the bowl through the endgrain fibers. But the novice is taking so much more time to make the bowl that the entire surface is actually drying out faster than can be controlled. That uncontrolled drying, combined with the potential for an uneven wall thickness, is an invitation for cracks.

Sanding is another process that induces cracking, especially in dry wood. Why? Heat. High-speed

sanding is death to wood; a sanding speed of only 100 to 200 rpm is ideal. Slow-speed sanding—what I call "cool sanding"—not only cuts the heat way down, but it also speeds up the sanding process by allowing the aggregate of the sanding medium to work more efficiently. High-speed sanding basically causes this same aggregate to burnish the wood. Sanding a bowl that was turned from green wood and became oval from drying can easily be done in one's lap or by using a jam chuck or vacuum chuck if sufficient vacuum can be achieved.

As with open forms such as bowls, hollow forms can be made from green or dry wood. But because of the excessive heat produced when cutting the interior of a hollow form, it is important to cool the interior by making small and more efficient cuts and by cleaning out the shavings frequently with a shot of compressed air. Similar to open bowls, cracking in hollow forms is basically a matter of preventing moisture from leaving the surface, while at the same time controlling wall thickness. One easy solution is to wrap the outside of the form with plastic wrap (*Photo 3*). This prevents moisture from leaving the surface and virtually eliminates the problem of cracking. The sheath can be removed when the piece is completed, and then

the normal drying process begins, either by slow-drying thicker-walled forms or by hanging thinner-walled forms for quick evaporation. Almost any species with a wall thickness of $\frac{1}{16}$ " to $\frac{1}{4}$ " (1.5mm to 6mm) will dry in about four days in optimum humidity and temperature conditions.

Addressing cracks

If you do get a crack and want to salvage the piece, there are lots of ways to deal with it: inlays, butterflies, bridges, fillers, lacing, stitching, wire... I haven't seen chain used yet, but I'm sure it is coming. The one thing in common with most of these methods is that they require glue to fasten them. Woodturners often use cyanoacrylate (CA) glue, but this is not the best choice for fixing cracks in wood. CA glue is rigid and brittle when cured, and wood is constantly on the move. That is, when the climate or seasons change, humidity fluctuates and wood moves as it absorbs or loses moisture. Sometimes this wood movement is obvious and dramatic. Unfortunately, CA glue does not move with changes in humidity, and the result is that all those inlays and dust-filled glue plugs will eventually loosen and may even pop out. Epoxy is flexible, so it

eventually bulges out of cracks. The best choice for gluing wooden inlays of any kind to a turned vessel or bowl is regular wood glue, or carpenter's glue, which tends to remain stable in this kind of application. It is not a quick fix like CA glue, but it works and it lasts.

So the basic ways to prevent cracking are as follows:

- Try for consistency in wall thickness to prevent uneven drying.
- Stand at the lathe to hone your skills and cut down on the time it takes to make what you like.
- Reduce sanding speed to prevent heat.
- Contain moisture in the walls of hollow forms whenever possible and clean out shavings frequently to prevent internal heat buildup.

It should also be said that for all our best efforts, Mother Nature often has a mind of her own. So when we occasionally hear about cracks and other imperfections being "design opportunities," believe it!

David Ellsworth is a full-time studio woodturner and teacher living in Buck's County, Pennsylvania.



The author's *Spirit Forms* drying above his woodstove. Consistent wall thickness is the key to preventing cracks in the wood.



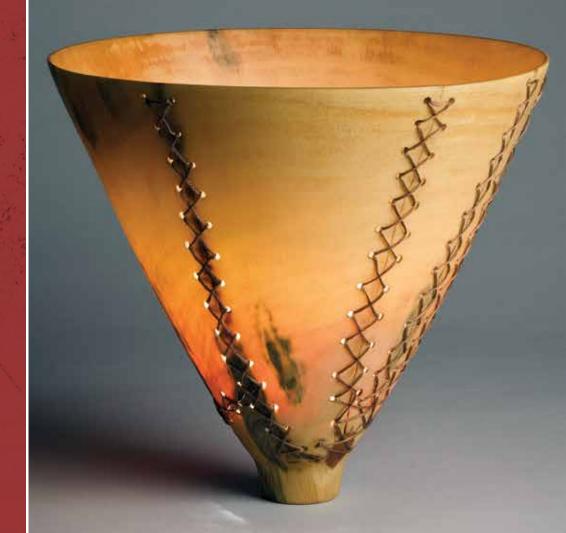
Plastic wrap traps in the wood's moisture during hollowing, postponing evaporation until the vessel's wall thickness is made consistent.

WHEN GOOD WOOD CRACKS

Dennis Belcher

Sometimes, despite our best efforts to prevent it, wood cracks due to natural forces. In woodturning projects, cracks can be viewed as a curse—or as an artistic opportunity. To offer some encouragement toward the latter. I compiled the following gallery of differing creative solutions. In each case, I offer a short description of the technique being used. These descriptions are only intended to get you started (not to provide the entire process) and to prompt you to explore your own creativity.

LACING



Ron Kent of Kailua, Hawaii, knocked this masterful, thin-walled vessel off its pedestal by waving his arms a bit wildly at his one-man show in Santa Fe, New Mexico. The piece broke into three separate pieces. Ron's creative solution was to lace the pieces back together, creating an entirely new look. Small-diameter wire is woven into a larger strand, providing greater flexibility and allowing the separate pieces to be cinched in tight. The path of the wire from rim to base and back to rim makes this a unique example of lacing. An inspirational source of lacing patterns can be found in books on leather.

Ron Kent (with Myra Kent), Post-Nuclear Series, 2005,

Norfolk Island pine, 8\%" \times 9\%" (23cm \times 25cm)

Photo: Robert Fogt

Gifted to Yale University Art Gallery

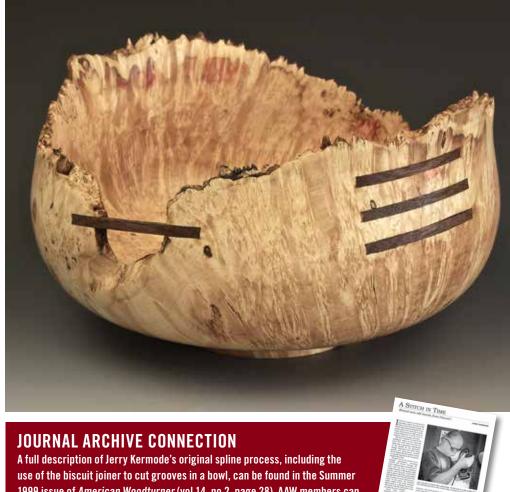
Provenance: The Waterbury Collection

SPLINES

Jerry Kermode, Natural Edge Calabash, Stitched, 2014, Box elder, walnut, 6½" × 11" × 10½" (17cm × 28cm × 27cm)

Jerry Kermode of Sonoma County, California, has incorporated splines into his work for many years, having been influenced by early Hawaiian methods of bowl repair. He enjoys focusing on what some would consider flaws in the wood but he considers natural character. Adding splines to cracked bowls strengthens the "flaw," while emphasizing the character. Jerry's process involves inserting the spline while the bowl is still thick, after it has been rough-turned and dried. Then the bowl is finish-turned and the spline is turned flush with the bowl's surface.

Jerry uses a biscuit joiner to create the slots but advises caution in exploring this technique, as a biscuit joiner is not designed to be used on a curved surface.



1999 issue of American Woodturner (vol 14, no 2, page 28). AAW members can access all past journal articles online at woodturner.org.

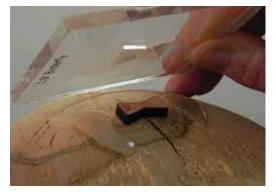


David Keller of Enid, Oklahoma, also uses splines in his work. In the piece at left, David accentuated the vertical ambrosia markings in the wood with horizontal splines of the same species, rather than choosing a contrasting wood. This subtle design element adds impact to the piece. Like Jerry Kermode, David cuts the grooves using a biscuit joiner. ▶

> David Keller, Untitled, 2012, Box elder, holly, 7" × 10" (18cm × 25cm)

DUTCHMAN, OR BUTTERFLY INLAY

Sometimes I use a carryover technique from my general woodworking days as a method of dealing with cracks in my turned pieces—an inlaid butterfly, or Dutchman. With flat work, a template and a small trim router are used to create both the recess and the butterfly that span the crack and hold the wood together. This process becomes more difficult when the surface is curved, as in a bowl's profile. The key to using butterfly inlays safely is to glue the template to the curved surface with hot-melt glue and then rout out the recess, as indicated *below*.





Dennis Belcher, Resurrection Series, 2010, Mineralized soft maple, padauk, 5" × 7" (13cm × 18cm)

Photo: Kevin May



REMOVE AND REPLACE

You can express your creativity by cutting the crack entirely out of the bowl and replacing it with another element—in this case, a cloth zipper. After cutting the opening, I made a groove around its edges to recess the zipper. I glued the zipper into the groove, which allows the zipper to actually function. The "stitches" were added with pyrography.

Dennis Belcher, *Smile #7,* 2013, Hard maple, 10" × 11" (25cm × 28cm)



Joe Dickey of Davidsonville, Maryland, cuts his Dutchman inlays by hand. Starting with a dried bowl blank, he first cuts two parallel lines from the rim downward with a pull saw. The length of the cut is marked on card stock and a curved line is drawn to connect the two end points. This curve is marked on the bowl and on the wood that will be used as the Dutchman. Joe uses a coping saw to hand cut the curve on the bowl wall and the matching curve on the inlay, which is fitted into the opening with chisels and files. Joe's secret to a tight fit is the use of graphite transfer paper, which, when pressed between the inlay and the opening in the bowl, indicates where the fit needs to be refined. When glued into place, the inlay should extend beyond both the outside and inside walls of the bowl so there is sufficient wood to bring the Dutchman flush with the bowl during final turning.

Joe Dickey, Untitled, 2001, Spalted holly, black walnut, 8" × 16½" (20cm × 42cm)

Scott Clark of Santa Rosa, California, uses copper plates to mend cracks in his work, placing one plate on the inside and one on the outside of the piece. He starts with a section of copper water pipe, which he cuts to size and hammers into matching plates. Each plate is bent to follow the curve of the bowl and glued to the wood. Rivets are simulated by using No. 4 cut tacks shortened and glued into pre-drilled holes. The final touch is to patina the copper for an aged effect.

METAL PLATE





Staples work well for mending cracks in hollow forms that don't allow sufficient access to the interior for methods like lacing. I form my own staples from wire, as shown *above*. To use a series of staples, drill holes similar in size to the wire thickness you have selected. My preference is to cut a length of wire such that the formed staple stays inside the vessel wall and does not extend into the inside of the vessel. The key is to form a barb at each end of the staple to keep it from pulling out. As a further precaution, put a drop of glue into each hole with a toothpick. When the glue dries, it will form an additional seal above the barb and keep the staples firmly seated.

Dennis Belcher, Infinity #4, 2015, Sandblasted and ebonized live oak, compressed wood, staples, 9" × 5½" (23cm × 14cm)

Michael Hosaluk of Saskatchewan, Canada, makes masterful use of staples, which become part of the overall design of the vessel's embellishment. In Michael's piece *at left*, he used staples that he hand-forged from copper nails by hammering both ends to a taper and bending them to accommodate the size of the crack. His thin-walled vessels require that the staples go through to the inside and are crimped to meet in the center of the crack.

Michael Hosaluk, Untitled, 2014, Yellow cedar, acrylics, 7" × 8" (18cm × 20cm)

Photo: Trent Watts

CUSTOM INLAY

David Ellsworth of Quakertown, Pennsylvania, found upon turning the hollow form *at right* that a groove formed by the tip of the chainsaw remained in the shoulder. A custom inlay was needed to not only match the curve of the piece, but also twist on an axis to span the gap. This turned a misfortune into an artistic statement. David left the spline proud of the vessel's surface for a tactile element.

To create this custom repair, David first formed the inlay and then marked its shape onto the vessel by tracing it with a needle. He used a rotary tool and various burrs to cut the vessel wall, then refined the opening with knives until the inlay fit in place.

David Ellsworth, *Curved Inlay,* 2008, Red oak burl, curly maple, 7" × 7½" (18cm × 19cm)





Derrick A. Te Paske, *Desperate Measures:* Spikes, 2005, Black cherry, cherry burl, landscaping spikes, 9" × 10" × 8" (23cm × 25cm × 20cm)

DESPERATE MEASURES

For Derrick A. Te Paske of Belmont, Massachusetts, there are times when it is fun to abandon all hope and just take desperate measures. In his case, the desperate measures include using landscape spikes, bolts, straps, clamps, turnbuckles, and even barbed wire to span a crack. In *Desperate Measures: Spikes*, Derrick aligned the spikes across the hollow form by first marking the entry and exit points by eye. Then he drilled a small-diameter hole at the marked points. A test rod was inserted through the hollow form and used as a gauge while he enlarged the holes with burrs to the diameter of the spikes. Sneaking up on the final hole diameter allows for adjustment in the entry and exit points.

Dennis Belcher retired in 1996 from a career in financial services and devoted time to his lifelong interest in working with wood. He lives on the coast of North Carolina and is a member of the Wilmington Area Woodturners and a past member of the Central Illinois Woodturners.

Make a Simple DUPLICATION TEMPLATE

Kalia Kliban

do not normally turn multiples but recently received a commission to make a matching set of salad bowls. After I turned the first bowl and refined its design, the problem arose of how to create an accurate template of the inside and outside curves for use as a guide in making the rest of the bowls in the set. Commercial profile gauges have several shortcomings for use on bowls: they are mostly made with moldings or short spindles in mind and tend to have pins too short to reach the bottom of a bowl; if the bowl rim curves inward at all. the pins of the gauge can't follow the line of that inside curve; the pins are likely to scratch or dent a sanded and/ or finished surface; and the resolution is poor on intricate shapes. I came up with a simple template technique that would not damage a finished surface and is adaptable enough to handle any shape. The idea is to create an accurate paper pattern that can be transferred to

a more durable template material such as thin plywood or hardboard. I use this technique for bowls, but it works equally well for spindle profiles of any depth or length, including architectural elements still in place.

Establish reference points for repeatability

When creating a template for duplicating, it is important to establish and mark reference points that will also be identified on the duplicate objects. Without consistent reference points, any transferred profile will not be oriented in the same way as the profile of the object being duplicated. The important reference points for making a template for the interior of a bowl are the center and two opposing points on top of the rim. For the exterior of a bowl, you will need a way to reference the centerline at the top and bottom of the bowl, or you can use the same

rim points you used for the interior template. For a spindle, you need the centerline marked at each end or an accurate diameter measurement at two marked points along the profile.

A plywood support for self-stick tabs

To start the process, cut a template support from 1/4" (6mm) plywood that touches the rim on both sides of the bowl and roughly follows one half of the inside curve. Leave a gap of about 1/8" (3mm) between the support and the inside of the bowl. The size of the gap is unimportant, and it does not have to be consistent. Set the plywood support on the rim of the bowl and bring the tailstock up to hold it in place with very gentle pressure (Photo 1). You don't have to do this on the lathe, but it is a convenient way of holding the bowl and template support steady and in relation to each other.

Record the profile







Create a paper pattern on a plywood support to capture the inside and outside profiles of a bowl.

If the object being duplicated cannot be mounted on the lathe, you can use non-marring masking tape to hold the template support in place.

Starting at the rim, apply tabs of selfstick notes to the plywood support so that their edges just contact the bowl. Where the gap between the support and bowl is small, place the sticky end of the tabs toward the wall of the bowl. If the gap is too large to adhere the tabs, put the sticky end away from the bowl wall.

To match the inside curves better, I created a slight radius on the end of a stack of self-stick tabs using a shallow gouge. The tabs can be trimmed to fit any inside or outside curve easily and quickly, and they can be picked up and readjusted as needed to make an accurate fit. Intricate or fiddly details can be cut with scissors or a knife or built up with a succession of tabs. You can buy pre-made self-stick tabs, or just cut slices off a pad of full-sized self-stick notes, which is what I did.

Apply self-stick tabs all the way to the center of the bowl, making sure the corner of the very last tab falls at the exact center of the bowl (*Photo 2*). Mark the bowl and the paper at the points where the paper tabs make contact with the top of the rim. The centerpoint and the rim marks are the reference points for transferring the curve onto paper and/or your eventual template material.

The rim marks can also be used as reference points for creating a template for the outside profile.

Take the outside profile using the same technique used on the inside. Using ¼" plywood, make a template support that spans the bowl from rim to rim and loosely follows the outside curve without running into your chuck or lathe headstock. As with the inside template support, the size of the gap between it and the outside of the bowl is unimportant. And as before, use gentle tailstock pressure to hold the template support in place. The process of following the curve is the same, too. Apply self-stick tabs all along the curve (Photo 3). In the example shown, I shaped the small curves of the foot and rim beads with scissors and combined several tabs to get the curve just right.

That self-stick tabs are so easy to shape and reposition makes them perfect for this task, but it also makes the resulting template delicate. To prevent the paper tabs from lifting while you are working with them, reinforce the template pattern with tape when you have finished taking the profile (*Photo 4*).

Transfer profile to final template

To transfer the curves to your final template material, flip the pattern

over so the self-stick tabs are under the plywood support. Align the rim and centerpoint marks on the template pattern with crosshairs drawn on the template material, then gently trace the profile created by the self-stick tabs (*Photo 5*). A .7mm or .5mm mechanical pencil with a soft, dark lead is best for this task.

Carefully cut out your new template along the transferred lines, and it is ready for use. When making duplicate bowls or spindles, simply hold the template to the workpiece (with the lathe off) to check your progress and see where more material needs to be removed.

I suspect there are many applications for this duplicating technique. In addition to its use in duplicating spindles and bowls, it also offers a safe, nonmarring way to take profiles from and make accurate section drawings of museum pieces or historic architectural details. I look forward to seeing what you do with it.

All photos by Dan Reynolds.

Kalia Kliban is a bowl turner and dance caller living in Sebastopol, California. She is a member of the Wine Country Woodturners and has been a professional woodworker since the early 1990s.

Transfer profile pattern to template material



Reinforce the paper pattern with tape.



Trace the pattern onto your final template material, then cut it out and start duplicating at the lathe.



ou do not have to play guitar to use the strings. Steel guitar strings make excellent burning wires for adding decorative black lines around your turnings. You can buy them as individual strings or in sets of six that include different wire gauges. But even better than purchasing them, you may know a guitar player who is willing to give you used strings that have been retired. From each guitar string, you will get about two good lengths of burning wire, and they last a long time.

Holding a burning wire during use can be difficult—and downright unsafe if you wrap it around your fingers. Many turners use a wooden handle with the wire fastened at one end with a screw and washer. This method may work for a while, but

the wire has a tendency to break at the point of fastening. My turned handles eliminate this problem. The idea is to turn handles, or grips, that are comfortable to hold and that firmly retain each end of the wire. The handles have a hole drilled through them to accept the wire, which is trapped within the hole with a single drywall screw.

To make these handles, you will need a length of steel guitar string, two 1" (25mm) drywall screws, and a piece of hardwood, such as ash, 1" square by 6" (15cm) long.

Turn the handles

Cut the hardwood blank into two 2¾" (7cm) lengths and mount one in a four-jaw chuck on your lathe. True up the end of the handle. I used a ¾"

(9.5mm) spindle gouge for this task. Then use the long point of a skew, presented flat on its side, to create a small recess, or starter hole, in the center (Photo 1). Mount a 1/8" (3mm) starter bit in a tailstock-mounted Jacob's chuck and drill an alignment hole about 1/4" (6mm) deep. Now, with the lathe speed fairly slow (about 500 rpm), drill a 5/32" (4mm) hole all the way through the handle. You can hold the drill bit in either a Jacob's chuck or by hand in a wooden handle (Photo 2); the 1/8" alignment hole will help keep the through hole centered. Withdraw the bit frequently to eject the chips. It is also possible to drill this through hole off the lathe, using a drill press or handheld drill.

I like to countersink both ends of the handle (*Photo 3*) for re-mounting

Drill and countersink



Make a centered starter hole using the long point of a skew.



Drill a hole through the blank.



Countersink both ends of the blank.

the blank with a drive point and cone tailstock center. If you don't have a drive point like the one shown in *Photo 4*, a standard spur drive and tailstock center will work fine, as close to center will be good enough for this project. Countersinking also allows for the drywall screw to be inserted flush with the end of the handle later.

With the workpiece mounted between centers, turn the handle to %" (22mm) diameter, then make pencil lines to indicate the location of your turning details. I shaped my details using a 3%" spindle gouge (*Photos 4, 5*). The cove toward the top of the handle is a nice feature because it gives you a good place to grip and pull the wire tight during use.

I added burn lines to my burning-wire handles. To do this, use a point scraper, presented flat on the toolrest, to cut shallow V-grooves in the handle. Hold the burn wire taut and press it into a groove, applying downward pressure until you begin to see smoke and a dark line (see opening image). Lightly sand the burnt groove and surrounding surfaces to clean up any extra charring. I applied clear paste wax as a finish.

Remove the handle from the lathe and repeat the process for the second one.

Attach the wire

Steel guitar strings come with a small barrel attached at one end for mounting on a guitar. Cut this barrel off using a wire cutter. Insert one end of the guitar string into the hole in the top of a turned handle and push it in until it shows at the other end. Then thread a drywall screw into the bottom end of the handle next to the wire so it presses the wire tight against the inside of

the hole. Do this with the other end of the wire and the other handle, and your new burning-wire tool is completed (*Photo 6*).

Jim Duxbury, a woodturner and inventor, prides himself on creating wooden items that function with precision and stimulate creativity, while retaining the qualities and beauty of the wood grain. For more, visit duxterity.com/ec.

Re-mount and turn





With the blank mounted between centers, turn it round and add details. A cove near the top aids in gripping the burning wire during use.



Affix the wire to the handles using drywall screws. The wire is inserted through the top all the way to the bottom of the handle, where the drywall screw pinches it firmly in place. Note the screw at right is left unfastened for the purpose of illustrating the tool's construction. Tighten both screws to hold the wire firmly in place prior to using the tool.

Turning and Carving ARCHITECTURAL ACORNS

Beth Ireland

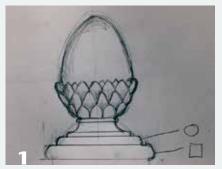
The acorn is a common architectural detail in New England. I am often asked to make them for clients' interior newel posts or exterior porch posts. During the three-month-long woodturning course I teach at the Center for Furniture Craftsmanship in Maine, the acorn is one of several traditional architectural turnings I teach my students.

The acorn is not a difficult detail to create—it just takes clear vision and careful planning. Anyone with basic spindle-turning skills can successfully complete this project, and it is perfect for turners who want to add carving to their repertoire.

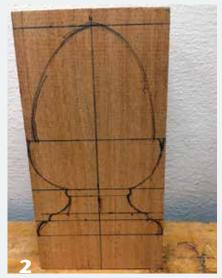
I have always believed that if you can clearly envision an object, you can make it. So the important place to begin with this project is a clear idea, which could be in the form of a drawing or photograph. I am usually working with a client, so I do a drawing to get us on the same page and then keep the client involved as the project progresses.



This architectural acorn was one of three I made for gate posts at a house in Cambridge, Massachusetts. The wood is mahogany, which is very even-grained, easy to carve, and resistant to water damage, making it a good choice for exterior work.



Starting with a drawing helps me envision the high and low spots in the carving. Don't worry about your ability to draw—just think of the drawing as mapping information relevant to your turning and carving. The symbols at the bottom remind me of what will stay square and what will be turned round in the finished piece. Your drawing should include the various diameters in the piece (not shown here).



Redraw the acorn on the actual turning blank. Since for this project I was making three identical acorns, I used these drawn dimensions as a reference for my caliper settings to turn the first acorn. Then I took my caliper settings directly from the first completed turning for the other two.



If you are making multiples, a story stick helps you consistently mark all the places that will show as a line in the turning.



Turn the blank to a cylinder and, with the toolrest close to the workpiece and the lathe off, use the story stick to mark the critical points. Spin the cylinder by hand with a pencil on the toolrest to extend the lines around the piece. This will allow you to see the lines during turning.



Turn the piece into a series of cylinders of different diameters, taking measurements from the original drawing. I use spring calipers that I have blunted and sanded smooth to determine when I have reached a desired diameter.



Turn the acorn shape. I often blacken the negative space of the drawing and hold it behind the workpiece until I get my curve to match.



When you have finished turning and sanding the acorn shape, begin laying out what will become the carved acorn "leaves." Draw circumference lines to represent the location of the upper and lower points of the carving. Being math impaired, I use a simple trick to determine the width of each leaf. Take a piece of thin paper and wrap it around the area to be carved. Mark a point that represents the circumference and cut off the excess paper. Repeatedly fold the strip of paper in half to create equally spaced sections. Do this until you reach the number of desired sections, keeping in mind that each time you fold the paper in half, the number of sections doubles. When you unfold the paper, the width of one of the folded sections will equal the width of the acorn leaves. In the example shown, I got eight equal sections, 15/16" (24mm) wide.



Create patterns based on the width you determined in the previous step. Each of mine was ¹⁵/₁₆" wide and as long as the height of the drawn circumference points. Note that I refer to these elements as "leaves." Although an acorn does not have actual leaves, thinking of the details this way helps me envision how the carving will go. I make templates to represent how the pieces grow over one another.



Lay the first pattern piece on the turning and trace eight leaves around the bottom.



The piece will look like this after the first layer of leaves is drawn. Now decide where you want the next layer. This could be laid out in several ways with the same templates, so play around until you get what matches your drawing, but be open to deviating from the drawing, too.



Hold second layer template on the acorn and decide where you want it. I decided to center the second layer of leaves between the leaves of the first layer.



Trace the second layer of leaves all the way around the acorn.



Draw the third layer of leaves. I decided to add an extra layer of smaller leaves in between the top layer points (not shown here but visible in finished pieces).



Begin carving the leaves. I could do all the turning to this point with any lathe and any turning tools, but you absolutely need good tools for carving. Carving tools are designated by their sweep, or amount of curve, with #1 being flat (no curve) and #9 being a half circle. Sweep charts can be found readily on the Internet. Use a carving gouge that matches the shape of the curve you are making, or design your carved details according to the tools you have. For my acorns, I used a #5 sweep, 5%"- (16mm-) wide carving gouge to outline the first row of leaves. As shown, I place the tool on the pencil marks and give it a whack with a mallet to incise a line about 1/8" (3mm) deep. For the second row, I used a #7 sweep to outline all the leaves and a #3 sweep about 3/8" (10mm) wide to clean out all the layers in between. I offer this only as a guide; if five carvers did this piece, the different combinations of tools used would surprise you.



Finish carving the leaf details, keeping in mind that carving takes time and patience. Using my drawing as a guide, I carve deeper where there is shading and hardly at all where the drawing is light. I leave the carving tool marks on the piece, as I think they are interesting and more natural, but you can sand if you prefer that look.

The lathe is a perfect tool for holding the piece while you carve, but it is hard on the legs and back. I use the clamp setup shown here, which allows me to sit while I carve. Notice there is a piece of wood to support the carving when you strike down. When carving on the lathe, I set the toolrest under the workpiece as a support.

Final thoughts

I cannot stress enough the importance of messing around. Try different leaf patterns on scraps before you start. There are many great references to help with layout and ideas. For architectural carving, I like using Frederick Wilbur's books as references. Chris Pye also has great reference books. I will always suggest a class or workshop, as they allow you to try a variety of tools before you invest and you can really get the techniques down quickly under the tutelage of a qualified instructor. Professional carvers have

worked through all the variables that might take an individual years to experience. The price of a class could be made up in several jobs, but like all skills, practice is the only way to develop a better product.

Beth Ireland is a professional architectural woodturner and sculptor with thirty years of experience. Her company, Beth Ireland WoodTurning, is located in Boston, Massachusetts. She teaches the three-month Woodturning Intensive and other workshops at the Center for Furniture Craftsmanship in Maine. For more, visit bethireland.net and turningaroundamerica.com.



Three acorns waiting for a post on which to rest.

have been making boxes since I started turning eighteen years ago. There is a certain mystery about the interior of a box that I like. I have read Richard Raffan's book on boxes. I met Chris Stott and was inspired by his boxes. I also met Willard Baxter and became interested in threaded boxes. All of these wonderful people and others have inspired me to continue my infatuation with box-making.

Acorns have been a style of box that I have always been drawn to. I have made acorn boxes, some with threads and some without, since I started turning. I have refined my design with carving to give the boxes a more organic look and would like to share my style of acorn box with you.

Getting started

My favorite color scheme for an acorn box is a dark top with a lighter-colored bottom, but by using all kinds of woods you can get a great diversity of looks. Start with two dry blanks for endgrain turning, one for the box bottom and one for the top. The bottom blank should be about 2" (5cm) square by 3" (8cm) long; and the top blank, about 2½" (6cm) square by 4" (10cm) long. I make the bottom of the box first. Mount the blank in a four-jaw chuck, true up one end, and make a tenon with a shoulder for a solid grip in the



chuck. Re-chuck the piece with the tenon in the chuck so the shoulder of the tenon is tight against the face of the jaws.

I use a basic set of turning tools for box-making: a roughing gouge, ½" (13mm) spindle gouge, ¾" (10mm) bedan, ¾" drill bit, small round-nose scraper, parting tools, ½" skew, and calipers. Start by truing up the blank with a roughing gouge and square the end with a parting tool. Use the long point of the skew, presented flat on its side, to make a small divot in the center of the endgrain. This divot helps to center the drill bit. Mark the depth you want to drill (about 2", or 5cm) with masking tape on the drill bit and start the drill in the divot, pushing gently (*Photo 1*). If you

are using a drill bit that is not mounted in a chuck or handle, secure the bit in a pair of locking pliers for a better grip. Pull the drill bit out to clear the chips as needed—otherwise, it could get stuck in the hole. Drilling out the center makes endgrain hollowing a lot easier.

Hollowing the box

I use a spindle gouge to rough-hollow the interior of the box, using the left wing of the gouge to cut from the center to the outside (*Photo 2*). Make multiple passes until you reach the bottom of the box, which is indicated by the bottom of the hole you drilled previously. I try to shape the inside of the box with a curve similar to the profile I want for the \blacktriangleright

Hollow the acorn body



With the blank re-chucked and trued up, drill a center hole to aid in the endgrain hollowing.



To hollow the inside of the box, cut from the center hole toward the outside edge. I prefer a spindle gouge for this step, but a round-nose scraper will do the job also.



Use a small round-nose scraper to refine the inside of box bottom.

outside. Switch to a round-nose scraper to refine and finish the inside. Light cuts with a sharp tool will usually produce good results (*Photo 3*). I have found that a modified scraper with side-cutting capabilities makes this job easier.

I then use a pencil as a depth gauge to mark the inside bottom depth on the outside of the box (*Photo 4*). This is a reference line that will help in shaping the outside profile. Start removing excess wood below this line. Cutting toward the chuck, finish shaping the box. In this direction, you will be cutting with the grain and, with a good bevel-rubbing cut, should get a relatively clean surface on the wood (*Photo 5*). Check the wall thickness as you go, with the goal being an even wall thickness from top to bottom. Leaving the wall a little

heavy in the bottom is fine, as it will give the box a little weight in that area.

With the box still attached by a small stem, sand the inside and outside. I like to use quarter sheets of abrasive folded into thirds. Folding them this way makes them a little stiffer and you have several edges and surfaces to use. To avoid confusing the grits while sanding, I stack the folded abrasives from fine to coarse grit (including 320, 240, 220, 180, 150, and 120), with the finest on the bottom of the stack so all I have to do is reach for the next grit in the stack.

The box bottom is ready to be parted off. Use both hands to start the parting cut and then hold the parting tool in one hand and catch the box with the other under the toolrest (*Photo 6*). I do not like reaching over the top of the

toolrest. As an alternative, you can part most of the way through the stem and finish the cut with a handsaw with the lathe off. The remaining nub at the bottom of the box will be turned away later, using the box's top as a jam chuck.

Box top as jam chuck

As you did with the bottom portion of the box, mount a piece of wood in the chuck to make the box top, or acorn cap, and form a tenon with a shoulder. Re-chuck the workpiece, true its surface, and square the end. I use calipers to transfer the size of the box's rim onto the endgrain of the top blank (*Photo 7*). This is just a starting point. Make the first hollowing cuts inside this diameter and work up to the finished size. I use a 3/8" bedan to rough the top out. I like the top

Shape the bottom



Make a pencil line on the outside of the box indicating the inside depth. This is an important reference for when you begin to final-shape the outside of the box.



Shape the outside of the box, being careful not to cut through its bottom.



Part off the acorn box.

Hollow the cap, finish the bottom



Using calipers, transfer the outside diameter of the box rim to what will become the top of the box.



After hollowing the box top, gradually reduce the inside diameter of its rim until the bottom fits inside with a good friction fit.





Using the unfinished box top as a jam chuck, finish turning the acorn's bottom.

Shape the cap







An acorn box turned and ready for carving.

Shape the outside of the acorn cap, sand only the inside, and part off.

to be pretty deep so the fit to the bottom will be fairly secure.

Once the roughing out is done, switch to a round-nose scraper to create a dome inside the box top. I do this to make the top lighter, and I like to add a little detail in the top, too. Now size the opening in the top by cutting a little at a time until you achieve a good friction fit with the box bottom. I use my skew, presented on its side, for this task. Check the fit to the bottom frequently (switching the lathe off) and continue to make cuts until the bottom fits securely in the top (Photos 8, 9). There is no need to "bottom out" the top of the box by pushing the bottom all the way in. I leave a small gap and also put a very slight taper on the sides of the top so that as the box expands and contracts it will always fit. With a good friction fit, use the top as a jam chuck to hold, finish-turn, and sand the bottom of the box (Photo 10). Set the box bottom aside.

As you did with the bottom of the box, mark the inside depth of the top on the outside surface. Rough-turn the basic shape of the top below this reference line, then refine the overall shape. Lightly sand the inside of the box top. Since you will be carving shapes and texture on the outside of the acorn cap, it is not necessary to sand the outside. Part off the top as you did the bottom, either catching it under the toolrest or cutting it off with a handsaw with the lathe off (*Photos 11, 12*).

Carving

With the turning done, it is time for carving (*Photo 13*). My carving is not meant to convey an overly realistic example of an acorn, but rather to approximate its look with an organic look and feel. I also want the operation to be simple and use only one burr shape for carving, though I do use two different systems to drive the burr. I use a flexible-shaft carver for roughing out and a micro-carver for detailing. The burr is a steel cylinder covered in carbide chips. I use the same burr shape in two sizes, but they have the same scratch pattern.

I lay out the divisions on the top by eye with a pencil so they don't look too refined. I usually lay out at least five lobes, but I have done as many as eight. I start with the flexible-shaft carver to rough-carve the entire top, pulling the cutter toward me for better control (*Photo 14*). Then I switch to the micro-carver to clean up and refine the lines (*Photo 15*). I am looking to introduce as much depth and as many shadow lines as possible.

Once you finish carving, you will need to sand the fuzz from the edge of the inside of the box top. You have completed the project now, except for applying a finish. I put at least two coats of urethane oil on the top and bottom, a sealer, and then at least one top coat (satin sheen) but more if I feel it needs it. I let the finish dry for several days and then buff the box bottom to a

smooth, soft gloss with a buffing wheel and Tripoli compound.

I like this style of acorn box and I hope you do, too. Try making a variety of them in different sizes and woods.

Process photos by Larry Sefton.

Dennis Paullus is a full-time artist, demonstrator, and teacher who lives in Arlington, Tennessee. More of Dennis's work can be viewed at dennispaullus.pro.



PORTABLE, HUMAN-POWERED **LATHE BRINGS WOODTURNING**



TO THE DOMINICAN Scott Lewis

chool was not my thing as a youngster, but it is funny how things have changed and now I find myself pursuing a career as a teacher. My attitude towards school and my life, for that matter—was changed forever when I wandered into my high school's woodshop. I gained a new passion for learning and it did not take long for me to dream up the idea of becoming a high school shop teacher. I could spend the rest of my life in that workshop.

After several years of gaining woodworking experience in professional shops, I entered a teacher-education program that consisted of lectures, classes, workshops, and four teaching placements. My first three placements were completed in high school woodshops. The last would send me on the adventure of a lifetime.

A plan is hatched

A friend of a friend helped me make contact with a great little school



One person provides the power, while another shapes the wood.



Scott Lewis and Eric Foster brought a human-powered lathe to the infield of a ball park in the Dominican Republic, where baseball is an integral part of the culture. Young players were keen on learning to make the iconic implement of their sport—the baseball bat.

near Punta Cana in the Dominican Republic. It didn't take much more than a phone call and I had my fourth teaching placement arranged. I would be spending three weeks at the Alpha Education Center, whose mission is to provide education for children without birth documentation. I knew the Alpha Education Center would be a much different educational experience than what I had seen in Canada and wanted to learn more as part of my preparation. I was reminded by one of my Canadian students that baseball is a hugely popular sport in the Dominican Republic. He shared that he and his father went there and brought a garbage bag full of old baseball gloves to give to the local children. He said the kids cried when they gave them the gloves because they were so excited and grateful. I decided right then that I too would bring baseball gloves, and then came the dream of turning baseball bats with the kids.

Turning bats was a cool idea but maybe a bit of a stretch, considering the school did not have a shop, a lathe, or the money for hydro-generated electricity. That's when I started to wonder about the possibility of a human-powered wood lathe. With the help of two of my classmates, Eric Foster and Chris Darnell, I scoured the Internet for pictures, videos, and ideas of how we could bring woodturning to the Dominican Republic. We faced the challenges not only of designing

a human-powered lathe, but also of shipping our supplies and building the lathe on-site with limited resources.

At first, we decided to look at simple ideas like a pole lathe, and it didn't take us long to build a working model. However, it was easy to see the limitations of a pole lathe, such as turning speed and versatility. Next we built a treadle lathe with hopes of higher speeds and the potential for faceplate turning. We spent quite a while trying to resolve the design of our treadle lathe and got it working, but using it was quite a task even for an experienced turner in good physical shape—not the ideal machine for teaching young kids. The brainstorming continued and we revisited one of our original ideas of incorporating bicycle parts into our design.

Adapting bicycle power

We wanted to use a heavy flywheel powered by the cranks of a bicycle. I started examining an old bicycle wheel to see how I could remove the cassette driver and attach it to a plywood flywheel. Then it hit me: Why not just use the bicycle wheel as the flywheel? The old wheel spun beautifully on its bearings and the cassette driver was already in place. The bicycle wheel just needed to be a larger diameter and a bit heavier. No problem—I cut out two plywood circles and fastened them to the rim of the wheel using metal screws and silicon. The plywood compartment could be filled with sand to add weight, which creates momentum. The wheel would of course be transported without the sand to keep our luggage light and give us an excuse to visit the beach upon arrival. I divided the plywood compartment into chambers to keep the sand distributed evenly (see Sidebar).

With size and weight restrictions in mind, we salvaged other drive parts from an old bicycle, using only what we needed to spin the flywheel. We welded a small plate on the bottom of the bicycle frame, which would be bolted to the



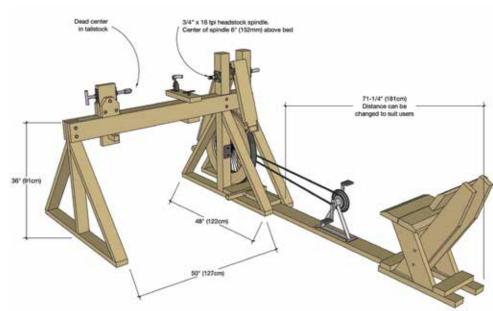


Adding a threaded spindle allowed us to use a faceplate or threaded drive spur on the inboard side of the headstock. The outboard side of the spindle features reverse threads for mounting a grinding wheel to keep turning tools sharp.

wooden frame of the lathe. We joined a few bicycle chains together to get the power source a reasonable and safe distance from the operator and the spinning project. Just like that, we had a heavy flywheel spinning away, smooth and fast. Now we had to transfer the power from the flywheel to the lathe spindle. We tracked down a flat rubber belt from a transport truck. The belt was about the right length and would offer good grip on the wooden flywheel. Before we tried to run the belt on the flywheel, we had to profile the surface of the flywheel so the belt would track nicely.

You might think a belt would ride nicely and in a groove or concave shape, but it is actually the opposite: a belt wants to climb to the highest point of the wheel. With a temporary toolrest in place, we spun the flywheel with the cranks of the bike and used a roughing gouge to cut a slight crown on it.

The lathe spindle was mounted using readily available flange-mounted bearings, which were bolted to the inboard and outboard sides of the wooden frame. Between the 4" × 4" uprights of the frame we mounted a ▶



Complete working drawings of Scott's human-powered lathe can be found at the Turners Without Borders area of the AAW website. Visit tiny.cc/TWB (case sensitive).



Traveling with lathe parts to be assembled on-site.



Turning yo-yos was an instant hit with these kids, who didn't have much to play with.



Spin tops are a quick and easy project easily brightened up by some dollar-store markers.

drive pulley made of wood. We turned a simple wooden pulley with the same crowned profile for the drive belt and a hollow center to accept the spindle. Two hose clamps worked well to fasten the pulley to the spindle. We threaded each end of the ¾" (19mm) steel spindle rod so we could mount lathe accessories. The inboard thread was ¾" × 16 tpi, which allowed us to mount a faceplate and threaded drive spur. The outboard side of the spindle received reverse threads of ¾" × 12 tpi, which allowed us to mount a grinding wheel for sharpening tools.

Now we just needed some tension on the belt and we would be in business. The tension pulley would spin very quickly because of its smaller diameter. The front wheel of that old bicycle had bearings and an axle perfect for a tensioning pulley. We turned a wooden pulley that would cover the hub of the bicycle wheel once the spokes were removed. A few wood screws through the spoke holes joined the wooden pulley and the hub. Although the tensioning pulley would be applying pressure to the outside of the belt, we used the same crowned profile knowing the belt would track to the highest point. With the tensioning arm pivoting off the top of the lathe frame, we were able to adjust the tension of the belt.

We were in business. The bicycle chain transferred power from the pedals to the flywheel, and the rubber belt transferred power from the flywheel to the lathe's spindle. Counting the number of pedal rotations per minute helped us decide which sprockets to use and how big to make our flywheel and drive pulley. Using the smallest sprocket from the bicycle cranks gave us slower speed and good power—perfect for larger-diameter projects like a bowl. Using the middle sprocket on the bicycle cranks gave us a higher speed—perfect for smallerdiameter projects like a baseball bat. When the flywheel was full of sand, it

weighed about 35 pounds and gained a lot of momentum on those bicycle bearings. All things considered, our spindle speed could vary from about 300 to 1500 rpm—not bad for a human-powered lathe. It was nice to know there would be no shortage of human power with 150 kids enrolled at the Alpha Education Center.

Dominican-bound

Eric and I broke the lathe down and packed up only what we needed and could not acquire in Punta Cana. The sand of the flywheel was emptied and the other little bits of the bicycle were put into boxes and suitcases. We took dimensions and made drawings of the lathe frame that we would reconstruct out of locally purchased lumber. We took the most basic tools like a cordless drill, a handsaw, and a block plane. Our patience and hand-tool skills would be tested under the Dominican sun.

Traveling through the airport with boxes and suitcases full of tools and strange-looking bicycle parts was relatively easy. We packed strategically and kept each piece of luggage under the standard size and weight restrictions. Our host generated a letter in Spanish for anyone who might have questions for us when we arrived at the airport. Our supplies were looked at with some curiosity, but we were welcomed with enthusiasm once we presented the letter explaining our mission.

Arriving at the school came with quite a shock. Everything looked much different than any school we had ever seen. We learned quickly to show a friendly smile and we would be overwhelmingly welcomed by the curious Dominican children. We were advised by the school's principal to tell the children about our mission to make baseball bats in order to gain their interest, but that was not necessary—the children already wanted to be a part of it. We would keep the baseball bats a surprise until they began to take shape.

Lumber was relatively expensive in the Dominican Republic, but I was impressed with its quality. Because of its high price, the lumber piles had not been picked through and it was not hard to find 16-foot lengths that were straight and without defect. We bolted the lathe frame together and mounted all the hardware we brought with us.

The children

For our first project, we made wooden yo-yos out of a maple bat blank. The kids were absolutely thrilled to have their new toys and a chance to try their hand at turning. For the remainder of our trip, we were hounded by all of the children who wanted to make a yo-yo. But we wanted to move on and show them more of what the lathe could do. We turned other items like spin tops, bowls, and finally baseball bats, all of which were made from maple blanks donated by Sambat of Carleton Place, Ontario.

Luckily, there was never a shortage of pedal power. The only challenge was to keep the rider pedaling at a consistent speed—the kids loved to see how fast they could "ride" the bike. With the chain stepped up one sprocket, the blank spun at a high enough speed to put a beautiful polish on the bats. To finish, we spun the bat slowly and used spray paint to add the kids' favorite colors. The kids signed the bats with a black marker and we sealed the whole thing with a clear lacquer. They were beautiful and much appreciated.

We were pleased with the lathe's performance and how it enabled us to share woodturning with the kids. It felt satisfying to teach them to make something for themselves, rather than to just give them gifts. Of course, some students were more adept than others at turning wood, but they all came to appreciate the possibilities and immediate rewards of the lathe. It didn't take long for them to pick up the basic concepts and start helping each other.

One student in particular, Samil, advanced his skills very quickly and showed promise as an instructor himself. Within a few minutes of showing him how to use a bowl gouge, he was making smooth, beautiful cuts on his own. A day or two later, a new friend of ours from the local hardware store came by to see the lathe. We asked Samil to show him how to make a bowl and a bat. Sometimes when they looked to Eric and me for help, we shrugged our shoulders in mock ignorance because we wanted to confirm that Samil and the others had learned enough to continue turning and teaching one another after we left. Samil was indeed able to recall the various techniques we had taught him and helped our friend create a beautiful bowl and baseball bat. This was a reassuring moment for us—and just in time, as Eric and I had to return home to Canada. We left the lathe and all the tools at the Alpha Education Center so the kids could continue turning items for themselves and, hopefully one day, to sell.

You read the articlenow see the video!

This article has an accompanying online video that shows Scott Lewis's human-powered lathe in action during his



trip to the Dominican Republic. To view the video, visit tiny.cc/bikelathe or scan the QR code with your mobile device.



Special thanks to AAW's Turners Without Borders program, which generously provided woodturning tools and other resources toward the success of our mission.

Scott Lewis was born and raised in Ontario, Canada. He became interested in the trades at a young age and began an apprenticeship as a cabinetmaker when he graduated high school. After several years in the trade, Scott began to pursue his dream of teaching high school woodshop. Scott can be reached at scotty.lewis@hotmail.com.



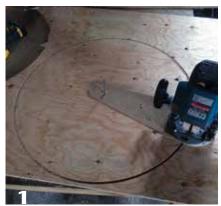


(Left) Baseball bats were a popular turning project for boys in the Dominican Republic.

(Right) One particularly adept student, Samil (left), was able to convey the basic woodturning techniques to others.

Out for a spin A lathe designed for travel

Scott Lewis's shopmade, human-powered lathe, which employs a heavy flywheel for momentum and torque, can bring woodturning to places without access to electricity or modern equipment. But shipping the entire lathe would be costly and impractical, so it is designed to make use of only a few critical parts that can be easily transported and assembled on location with locally available lumber. The flywheel assembly, which is driven by bicycle parts, can be made heavy by adding sand upon arrival at its destination.



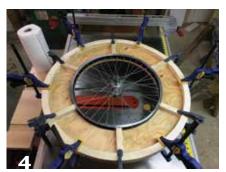
Scott used a router attached to a radius beam to cut the circular parts for the flywheel chamber.



A drill jig made from a piece of metal allowed holes to be positioned perfectly on the bike rim. Scott drilled a hole at every other spoke.



With the plywood clamped in place, Scott drilled through the rim to create a pilot hole in the plywood. He then used self-tapping metal screws and silicon to fasten the plywood to the rim.



Plywood rings and dividers create chambers that keep the weight of the sand evenly distributed.



The lathe is assembled and tested prior to transport. Using two different sprockets allowed for lathe speeds of about 300 to 1500 rpm.



The chambers of the flywheel are filled with sand upon arrival. The wheel is then closed with silicon, wood glue, and screws.



CRAFT AND ART: THE EXPRESSIVE REALM OF BETH IRELAND

Betty Scarpino

ven though I know better, it seems as though Beth Ireland and her new work represent the epitome of an overnight sensation. But success requires years of intense, focused, sustained work and Beth had to have earned every bead, cove, and complex curve of her new work from long hours and years of practice. Where has she been all these decades? Does it matter? Yes, it matters a great deal.

From whence she came

I first met Beth about twelve years ago when she was fully involved in her architectural turning business in the greater Boston area. She developed skills and learned problem-solving during thirty-one years in the craft, turning architectural elements, one-of-a-kind objects for toy designers, and odd elements for lighting companies and plumbers, some seemingly impossible to accomplish. Initially, she may not have known the solution to turning or recreating a particular object, but eventually she would figure it out and that persistent ingenuity would prove to be a defining trait.

You may know Beth from her relatively recent Turning Around America collaborative, where she toured America for a year in a machine-and-tool-decked-out van, teaching anyone who desired how to make small projects out of wood. Beth literally lived her

motto, "Empowering people through the act of teaching art/craft," by interactively teaching thousands; many had never whacked a nail with a hammer or sawed a board in half. By offering simple projects where basic skills could quickly be taught, Beth planted the seeds to instill a love of making. Fun. Beth knows that a person's positive first experience with woodworking can germinate years later to bloom into lifelong creative endeavors.

Atlas, made in 2011, documents in three dimensions a map of Beth's travels. The rolled map, viewed as a sculptural object, can be considered a talisman mapping the direction Beth would take in the next few years to explore her longdormant interest in art. Before her career as an architectural turner, she studied art at State University College, Buffalo, earning a Bachelor of Science degree in art education. Thirty years later, she earned a Master of Fine Arts degree in sculpture from Massachusetts College of Art and Design. Of her schooling, however, Beth notes, "My real education was thirty years in a woodshop, where I developed the technical skills and problem-solving abilities to easily accomplish whatever I envisioned in the realm of sculpture." As Atlas suggests, Beth was on the road to somewhere, not necessarily away from craftsmanship, but headed toward a greater understanding of the role of art in craft and the importance of craft in artwork. For Beth, "There is not enough art in craft, nor enough craft in art." This maker has already closed the gap for herself—she works in that in-between realm. The teacher in Beth will, perhaps, carry that message further afield.

JOURNAL ARCHIVE CONNECTION

David Heim chronicled Beth Ireland's Turning Around America project in the August 2012 issue of *American Woodturner* (vol 27, no 4, page 61). AAW members can access all past journal articles online at woodturner.org.



Architectural Reliquary, 2011, Cherry, holly, blown glass, 8" × 13" × 31/4" (20cm × 33cm × 8cm)

The encapsulated objects represent Beth's life work as an architectural woodturner.

Collection of the Center for Art in Wood, Philadelphia

Atlas, 2011, Wood, deconstructed leather jacket, 4" × 14" × 14" (10cm × 36cm × 36cm) unrolled

"Atlas represents my tool roll as a woodworker. It is built and turned the way I turn big columns, then split into pieces. Each section has the map from my first Turning Around America adventure. Each spine is imprinted with my favorite destination." —Beth Ireland

Collection of Martha Plusquellec





Artist residencies

Major excursions were part of Beth's journey these last four years. She participated in three artist residencies: the Center for Art in Wood's Windgate ITE International Residency in 2011; the SUNY Purchase Windgate

(Left) Totem 1, 2011, Cherry, holly, 8" × 9" × 2¾" (20cm × 23cm × 7cm)

"Totem 1 represents the community it takes to be able to travel and do the projects I do."

—Beth Ireland

Collection of Albert and Tina LeCoff

(Right) Gear, 2011, Basswood, rust paint, 12" × 12" × 2" (30cm × 30cm × 5cm)



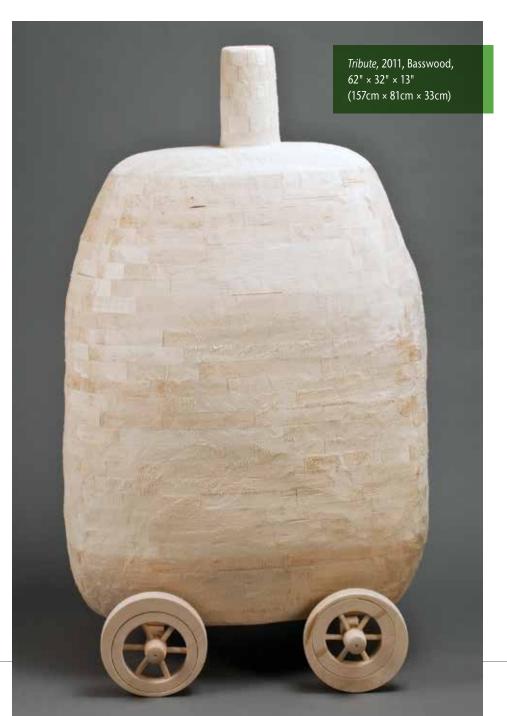


Artist in Residency Program in 2013; and a residency at IUP in Indiana, Pennsylvania, in 2014. Beth had time during these full-time, semester-long residencies to rekindle her interest in artwork, resurrect her artistic skills, and undertake lots of thinking.

Beth's Architectural Reliquary, made during her 2011 ITE residency, pays homage to her life's work as an architectural woodturner. By encapsulating what these elements represent, she is saying it is time to stow baggage and head in an unknown direction, past the clearly visible. The sculpture looks almost boat-like—this crude vessel suggests Beth has launched herself into uncharted waters.

Beth knows that successful journeys require a boatload of help from others. *Totem 1*, 2011, is an enchanting combination of "people" and wood. The chunky, unfinished plinth could, perhaps, represent Beth; the totems topside help navigate. She also needs propulsion. The title of her 2011 piece, *Gear*, suggests something mechanical, yet it looks very much like a paddlewheel. Either way, *Gear* symbolizes movement.

Beth mentions in a 2014 video (http://hosting.soundslides.com/lm4db/) her desire to move away from the rigid constructs of architectural turning. Does her loose and quirky *Tribute*, made in 2011, foreshadow that direction? It has wheels. Is Beth paying tribute to >



FOR ME, A PIECE BECOMES IMPORTANT WHEN IT LEADS ME TO A WHOLE NEW INVESTIGATION. BETH IRELAND

other artists or simply acknowledging her desire for greater self-expression?

Of these residencies, Beth writes, "The three residencies have been life altering because of the collaboration. At ITE, I learned so much watching others work. Kim Winkle introduced me to milk paint, which I now frequently use. Dan Hoffman taught me to pay as much attention to the debris as to the piece."

Drawing and music

During her SUNY Purchase artist residency, Beth realized she had stopped drawing while being busy building things. Spark, 2013, combines her longdormant drawing skills with her vast woodworking knowledge. Ironically, it was Beth's lack of satisfaction with drawing and printmaking that led her to join a construction crew, which eventually caused her to establish her own woodworking business. Drawing did not represent something worthwhile during those years, which is why Beth's masterful Pencil Box, 2013, is so meaningful. Drawing has become bigger than life for Beth.

Peter Park, an emerging artist during Beth's time at IUP, was working on an aspect of guitar-making different from Beth's initial experiments years ago. Peter shared his methods and techniques, which led to a combined research effort. Their friendship spawned in Beth a growing appreciation of music.

She says, "It was amazing to hear Peter play my instruments, something I had been unable to do. I took formal music lessons while there and learned some music theory. Now I can read music and play with direction, something not conceivable five years ago. The residencies have given me the space to step out of my day-to-day grind to do my unimaginable, like writing and music."

Inspirations and ideas

Archeological objects inspire Beth Ireland. I can see that—and playfulness, too—in her recent work. Archeological fetishes are objects integral to someone's life, not things separate or apart. Beth's Fetishes Installation, 2013, denotes her circle of friends. A compass in the middle, amulet inside, represents her. Beth will not lose her way, not when surrounded by close friends. All artists need a resilient support network. Beth has hers—one is Shy, another has Four Eyes. When needed, the circle closes to protect, yet the way this circle is constructed, it is ever expansive, open to the outside world. Fetishes Installation seems to achieve the often-tricky balance of protection and openness.

Each fetish is mounted onto a tall, turned column—Beth's work as an architectural turner has re-entered the picture. These columns, expressive fetishes perched on top, combine past and present, craft and art. They are oldworld artifacts supported by a contemporary presentation. As monumental as these totems are, their quirkiness brings a smile. Each one is simple, yet powerful.

Beth makes her own contemporary tool fetishes, unlike anything an archeologist would have unearthed. Meaningful to Beth, the larger-than-life Coping Saw unquestionably helped her negotiate tight curves. From the Factory (Artifactory), made in 2009, was a foreshadowing of current work. I can almost feel the relief of stress with these delightful, almost-useful, not-quite-understandable doohickeys. I want a drawer full of them, not to use, but to whip out when I need to attack a thorny problem: I would have just the right gadget!

Beth has given much thought to what she makes. She states, "I know the instant I complete a successful piece. I get really excited. I keep it around instead of selling it right away. I study it to try and understand why it is successful. Success to me may be different from others' definitions. Just because I think a sculpture really works does not mean it has market value. For me, a piece ▶





From The Factory (Artifactory), 2009, Maple, largest object is 4" × 16" × 4" (10cm × 41cm × 10cm)



Coping Saw, 2013, Basswood, 57" × 30" × 7" (145cm × 76cm × 18cm)

Beth made these "artifacts" as a spoof about producing artifacts on machines.



(Right) Four Eyes, 2013, Holly, sapelle,

57" × 7" × 7" (145cm × 18cm × 18cm)

becomes important when it leads me to a whole new investigation. It is usually raw compared to the work that comes after it, but I guess that is what I like."

Beth's ideas come from many sources. Sometimes ideas surface while driving or after being told a joke. Personal interests play a role. Beth realizes that coming up with new ideas can be challenging for emerging artists. After acquiring a skill, then what? From Beth's six years of art training and all her life experiences, she offers this advice: "Whatever you make, put yourself into it. Each person is a unique accumulation of experiences. Draw upon that for your work. If you are not truly interested and passionate about what you are making, no one else will be either."

Craft and art

Beth understands that most of us compartmentalize our lives. She explains how this relates to artwork: "This is turning, and over there is my interest in archeology, and over there is my interest in trailers. Individually, each interest is fun, but when combined, they become an incredible combination unique to my work. I often ask students what they would do if they had an extra hour. Would it be gardening, nature, architecture, cooking, or reading? Whatever it is, add it to the thinking about your work. If it is important enough to spend precious time on, it can be a well to draw from for your turning work."

Craft and art are often compartmentalized and separate. Not, however, for

Beth. In *To-Go*, another larger-than-life sculpture where a wheel makes an appearance, craft pairs with art. This cup, saucer, and wheelbarrow suggest a combination of work and leisure. Wood for the wheelbarrow is unfinished and the formal white teacup is poised to receive a yet-to-be-known beverage. What would you pour into that vessel? Your heart's desire? A strong amber liquid? This cup is full of potential carrying, wheeling something precious from one place to another. Perhaps for Beth it symbolizes being receptive to combining craft with art.

Currently, Beth continues with her musical-instrument-making, often using objects found along her journey's pathways. Her *Instruments* can be viewed as an example of how an artist explores a



To-Go, 2014, Basswood, milk paint, cup is $24" \times 48" \times 23"$ (61cm \times 122cm \times 58cm) Beth made this sculpture for a show called "Modern Kylix" (Greek drinking vessel). All parts are turned.

concept—why make one when ten or more are effortlessly accomplished? There's nothing like doing iterations in quick succession and Beth is supremely capable. Make no mistake, though. Sing praises for the years of hard work Beth devoted to learning skills, advancing her craftsmanship, and incubating ideas. Only in this way can artists effortlessly make music.

Beth, the teacher, understands that not everyone will have the opportunity to participate in a residency or devote the years she did to developing skills. She recommends taking a one- or two-week class. Many are offered for wood-turning at schools such as the Center for Furniture Craftsmanship (CFC) in Maine, Arrowmont School of Arts and

Crafts in Tennessee, and Anderson Ranch in Colorado. The students Beth has for her twelve-week intensives, taught at CFC every winter, all agreed they could hardly believe how much they learned. Beth notes, "A one-night-a-week class can teach specific skills, but immersing yourself in your craft for a week or more cannot be beat." She also encourages pushing yourself with these sage words, "If you do not take a risk and do something beyond your abilities, you will never improve your skills."

The natural progression of Beth's life led her to this body of expressive new artwork. Perhaps thirty-some years may seem an extreme detour, but it is what it is, and for Beth the timing is right. For most of us, there are no shortcuts, only interesting diversions where we might acquire necessary keys that will unlock the next entryway. Beth abounds with keys.

In between the often strict and limiting definitions of craft and art there is extensive fertile ground of inclusiveness and creativity. Beth Ireland lives and works in this realm, planting seeds for herself and others. Her six years of art training are the wellspring from which Beth releases a creative flow of ideas. Beth's highly advanced skill level allows her to create whatever she envisions. Skills matter. So does focused, concentrated work.

Betty Scarpino lives and works in Indianapolis, Indiana. Her sculpture can be seen on her website, bettyscarpino.com.





Instruments, 2015, life-size

One instrument is a recycled Seagull guitar; the rest are made from scratch with found objects. The necks are turned; many of the bodies are turned and have turned tuners.



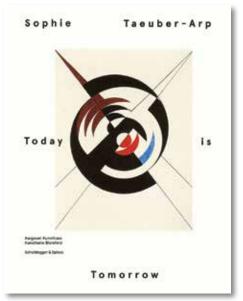
BOOK REVIEW: SOPHIE TAEUBER-ARP: TODAY IS TOMORROW

Aargauer Kunsthaus/ Kunsthalle Bielefeld, Scheidegger & Spiess, 2014, 288 pages

King Stag: Deramo (original title), 1918, Wood, turned and painted; oil; metal: brass, metal eyelets, bell filled with fabric; textile: brocade, lined, 23" × 5½" × 4" (58.5cm × 14cm × 10cm), Zurich University of the Arts, ZHdK/Museum of Design, Zurich, MfGZ/Applied Art Collection (KGS-14002_03), © ZHdK (Marlen Perez)

n 1918, a young Swiss textile artist and teacher, who secretly moonlighted as a cabaret dancer, received a commission to design marionettes, costumes, and stage sets for a new puppet theater production. The play—Konig Hirsch (Stag King) enjoyed an enthusiastic reception among Zurich's avant-garde, but after only a few performances flickered out in a deadly influenza pandemic fueled by global war. Few could have foreseen the ultimate significance of the artist's contributions to this project, which in some ways encapsulated a career that has increasingly gained recognition as an unapologetic fusion of the fine and applied arts, including woodturning. Today, images of Sophie Taeuber-Arp (1889–1943) and one of her painted turnings cover the 50 Swiss franc note, while worldfamous museums showcase her output, and scores of scholarly publications parse her work and personal life.

Last summer, Aargauer Kunsthaus (museum) in Aarau, Switzerland, launched a major exhibition of Taeuber's legacy and produced a handsome catalog featuring 300+ objects more than ever assembled before under her name. (The show, which subsequently traveled to Kunsthalle Bielefeld in Germany, closed in March 2015.) The impetus for this enterprise was to present the full sweep of her creativity, which extends beyond textiles to drawings, paintings, collage, jewelry, sculptural reliefs, furniture, and architectural design, without any assumption of hierarchy. Two dozen turnings number among the catalogued works, including sixteen puppets, four sculptural "Dada heads," a candlestick set, lamp, and tumbler toy. Also displayed are several working drawings of the marionettes and sketches for stage scenery. At the exhibition, the importance of the Stag King characters was reflected in the dedication of a gallery to their display.



Cover: Construction d'un Cercle Noir et Segments Bordeaux Rouges et Bleus, 1942 (WV 1942/16 [verso and recto Construction, Penetration de Diagonales et Cercles, 1942 (WV 1942/22)]), India ink and gouache, 13³/₄" × 10³/₄" (35cm × 27cm), Arp Museum Rolandseck (LS 354), © Mick Vincenz

50 Swiss franc note

Taeuber was the first of several distinguished artists, including Le Corbusier and Giacometti, to be commemorated in a Swiss currency series issued during the late 1990s.



Art on a string

It may seem unlikely that someone determined to win respect as a fine artist would take an interest in puppetry. Such theater, however, had flourished for centuries in Europe among both working class and intellectuals. At one time embraced by the church—marionette derives from little Mary—the tradition eventually shifted from devout instruction to slapstick and occasional bawdiness as the emergence of comedy pushed performers outside cathedral walls to secular stages and carnivals. Sometimes dubbed a prankster

and Lord of Misrule, the Italian Pulcinella (Punch in England and Kaspar in Germany) grew out of this migration to become a stock dramatic figure that survives to this day. On a grander level, puppet theaters have performed Shakespeare and Shaw, as well as operas composed by Haydn and Respighi specifically for the genre. Most important for Taeuber, a number of contemporaries in the Modernist movement, particularly within her own Dadaist circle, were exploiting puppetry to establish parity between art and craft and to challenge what ▶



Cat. 125, King Stag: Freudanalytikus (original title), 1918, Wood, turned and painted; oil; metal: brass, metal eyelets, $24" \times 63/4" \times 63/4"$ (61cm × 17cm), Zurich University of the Arts, ZHdK/Museum of Design, Zurich, MfGZ/Applied Art Collection (KGS-14002_02), © ZHdK (Marlen Perez)



they viewed as bankrupt artistic and social values.

Fairy tale meets Sigmund Freud

Like a theater casting director, the puppet-maker must know the script. Stag King, an eighteenth-century fantasy written by Venetian playwright Carlo Gozzi, presents the monarch Deramo in search of a worthy bride. An enchanted statue of the court signals that just one prospect is sincere. After the wedding, the powerful father of an unsuccessful contender magically turns the king into the quarry of a stag hunt and usurps the royal's appearance, throne, and young queen. Only through a wizard's skill is the





(Left to right)
Cat. 118, King Stag: Guard (descriptive title), 1918, Wood, turned and painted; oil; metal: metal eyelets, 16" without arm/22" with arm × 7" (40.5cm/55.5cm × 18cm), Zurich University of the Arts, ZHdK/Museum of Design, Zurich, MfGZ/Applied Art Collection (KGS-14002_11), © ZHdK (Marlen Perez)

Cat. 113, King Stag: Smeraldina (descriptive title), 1918, Wood, turned and painted; oil; textile; feathers; metal: metal eyelets, 17½" × 6" × 5" (44cm × 15cm × 13cm), Zurich University of the Arts, ZHdK/Museum of Design, Zurich, MfGZ/Applied Art Collection (KGS-14002_09), © ZHdK (Marlen Perez)

Cat. 122, King Stag: Stag (descriptive title), 1918, Wood, turned and painted; oil; metal: metal eyelets, brass sheet, 1934" × 7" × 7" (50cm × 18cm × 18cm), Zurich University of the Arts, ZHdK/Museum of Design, Zurich, MfGZ/Applied Art Collection (KGS-14002_12_1), © ZHdK (Marlen Perez)

imposter eventually exposed and Deramo restored to power.

Onto this fanciful story, Modernist puppet dramatists René Morax and Werner Wolff grafted a parody of newly fashionable psychoanalysis, embodied by the characters Freudanalytikus (Freud) and Dr. Komplex (Freud's protégé, Jung), who wrangle about the theory of the libido. Although the king's romantic quest and sudden stag identity provide fertile material for skewering the clinical preoccupation with sex, Freudanalytikus nevertheless saves the day as the wise magician.

Designing puppets

Despite the play's prominence in the exhibition and catalog photography,

the book's text makes only passing reference to *Stag King*. The marionette images themselves, however, convey a wealth of information, some of which is not available in other published sources. Conspicuously absent are chiseled cartoon features, plush bodies, and the wide-eyed innocent faces later enshrined in Disney's Pinocchio and today's anime. Unlike traditional puppets, Taeuber's wear masks, which held deep fascination for her and contemporaries like Picasso and Klee. She was drawn to masks' implicit otherworldly powers and, in her dancing, the anonymity and protection they afforded. They also dovetailed well with Freud's ideas about disguised emotions and the unconscious.

Catalog essayist Medea Hoch has observed (elsewhere) that overall, "Taeuber-Arp's modern marionettes mark a sea change from their predecessors. Their basic elements, pieces of wood that have been turned rather than carved, are round and sculptural.... The mechanics of her puppets are not concealed. Their extremities, mostly monochromatic in color, have ringbolt joints, making them unnaturally limber and allowing movement in many directions. A variety of formal, chromatic, and material features characterize the relations between the typified figures. King Deramo and his bride, Angela [in modest white], have golden pupils; Pantalos and his children wear conical hats; Freudanalytikus and his alter ▶

Dada and Taeuber

According to some historians, the Dada movement in painting, literature, and the performing arts emerged in 1916 at Café Voltaire in Zurich, a neutral haven for expatriates during WWI. Notable activists included Hans Richter, Marcel Janco, Tristan Tzara, and Taeuber's future husband, Hans (Jean) Arp. The name Dada—nonsense syllables or perhaps a reference to hobbyhorse—refers to a wave of protest questioning the sanity and costs (36 million casualties) of bellicose nationalism and the institutions that supported it. After hostilities ended in



Cat. 6, Portrait Jean Arp, 1918 (WV 1918/1), Wood, turned and painted (oil), 10" (25cm) tall Private collection

late 1918, the protests faded from view over the next five years.

Many of the cause's adherents described its vision as not only antiwar, but also antireason and anti-art because of the perceived decadence of established scholarship and high culture. Dada vaunted the superiority of intuition, spontaneity, and primitivism over conventional sophistication. Taeuber's ritualized dance performances at Café Voltaire, staged with exotic costumes and ecstatic movement, seemed to embody the new aesthetic. Trained in the famous Laban method, she had mastered many of the techniques that had come to be called free dance. Dada poet Hugo Ball described one of her performances as "full of points and fish bones, full of flickering sunshine and glare and a piercing acuity." Her wartime appearances could nevertheless be disturbing, displaying prosthetic limbs and grotesque head gear. It has been suggested that such performances anticipated the form and dynamics of the Guard in Stag King. Certainly her knowledge and practice of dance informed the overall designs for the puppets, and perhaps less obviously, her lifelong artistic preoccupation with the moving line.



Eduard Wasow, Sophie Taeuber (portrait), handmade carnival ball costume, Munich 1914

TAEUBER REFUSED TO LET DADA, CRAFT BOUNDARIES, AND GENDER EXPECTATIONS DEFINE HER.

As studies for her marionettes, Taeuber produced a small series of what came to be known as Dada heads, custom turned or appropriated from wooden hat stands. Much has been read into these sculptural yet functional painted objects—for example, that they represent severed heads, a personal manifesto about art and craft, or startling reinventions of the artist and husband. Whatever their meaning, they have remained perhaps the most recognizable icon from the Dada period.

What does seem clear is that ultimately Taeuber refused to let Dada, craft boundaries, and gender expectations define her. Although sometimes described by her husband as a dreamer and intuitive artist, she had early on internalized the complexities of choreography and textile design. Her working sketches reflected a deliberate approach to creativity. She once noted that "artists have developed ideal forms resulting from mechanical production processes." Indeed, the discipline of craft undoubtedly helped keep her muse alive.

Sophie Taeuber-Arp died in 1943 from accidental carbon monoxide poisoning while staying at a friend's house in Zurich. Today, her estate is managed by several foundations and museums in Switzerland, Germany, and France.

ego, the *Parrot*, share the same pastel color scheme; and the would-be king, *Tartaglia*, and his daughter are distinguished by the cinnabar color of the throne." The nuptial candidate *Smeraldina*, who harbors another love interest, plays the vamp, with an hourglass figure, shapely thighs, and florid decorations. Accoutrements such as feathers, crests, or garments fill out all the characters.

The varying sizes of the puppets, from 15" to 24" (38cm to 61cm) in height, sometimes suggest their authority. Standing on his built-in pedestal, a gaunt Freudanalyticus looms above everyone but Deramo. Though much shorter, the faceless Guard, a composite of several sentries, has the furthest lateral reach. The villain, *Tartaglia*, stands almost 4" (10cm) shorter than the king. Unfortunately, the catalog presents many of these figures at the same small scale in large blank fields. As a result, the visual impact of Freudanalytikus' stature and the masks of most cast members are substantially diminished.

Kinetics

As segmented dolls animated by strings and fingers/wooden controllers, marionettes require far more engineering than glove puppets. As the script demands, they walk, jump, dance, embrace, slump, kneel, lecture, or thrash. Taeuber's could likely dramatize a wide range of actions and emotions. This is especially evident in Freudanalyticus, who with three separate torso sections and eleven points of string attachment is one of the most articulated forms. (Like virtually all the characters displayed in the catalog, he shows fewer tethers than fasteners/ eyelets, probably for photographic clarity.) With no more than five strings, many marionettes in Stag King could have been easily operated, with a single puppeteer handling one or



Jackie, detail from Marionette Puppet Show for Kids, Asbury Park, New Jersey, Wiki Creative Commons, Attribution 2.0, generic license granted via Flicker/Man vyi. Note the use of both controllers and fingers.

possibly two figures. *Freudanalytikus*, however, would likely have called for the undivided attention of a seasoned operator. The photo of the *Guard* shows eleven strings, but untethered hardware implies twenty. A pair of puppeteers may have manipulated this fused character, whose flailing swords could have served up pure slapstick, or ominously reminded the audience of the ongoing war at large. Regrettably, there seems to be no record of how many stagehands were needed overall to work the marionettes, supply voices, and change the sets and lighting.

Fabrication

Did Taeuber actually make the works she designed, including the puppets? This may seem an odd question for someone renowned for her artisan roots. But it was accepted practice in her time, as it is today, for artists to sub out fabrication without widespread acknowledgment of the maker. (Brâncuşi, Calder, Warhol, and Chihuly come to mind.) The catalog

occasionally notes that certain textile works were "realized" by others, perhaps because professorial responsibilities sometimes left few opportunities for the designer to execute her own laborintensive projects.

Like many other Taeuber catalogs, Today Is Tomorrow does not address the turning of the commissioned marionettes. The Swiss Puppet Theater probably never expected her to make them, even though she had studied wood technology and made furniture in school and had a lifelong affinity for wood. Unlike her weaving and embroidery, woodworking required equipment that she was not likely to possess after finishing her education. Producing working drawings, painted stage sets and characters, and costumes would undoubtedly have left little time for turning more than 150 body parts and wiring them for action. Two sources attribute puppet construction to a colleague, Carl Fisher, and given the silence of many publications on ▶

TAEUBER REMAINS A FIGURE OF IMPORTANCE FOR WOODTURNERS EXPLORING THE POWERS OF ABSTRACTION TO CREATE COMPELLING ART.



the subject, there may be little basis for assuming Taeuber was an active woodturner. But she remains a figure of importance for woodturners exploring the powers of abstraction to create compelling art.

2-D to 3-D

Although the catalog features a number of three-dimensional objects, the overwhelming majority of works are paintings, drawings, and textiles (including wall tapestries). For artistic woodturners, some of these could well serve the same general function for

sculpture as her drawings did in detail for the marionettes. As Walburga Krupp has observed (elsewhere) about Taeuber's fiber art, "Transforming the formal repertoire of her textile work—rectangle, triangle, circle, square—into three dimensions, these become the cone, the sphere, and the cylinder." In both contexts, the artist does not attempt to approximate the features of the subject—whether human, tree, or animal—but through simple geometry lay bare its core and let the viewer encounter it afresh. Like an infrared image, abstraction can expose underlying sources of

Cat. 132, Carpet, 1918, Wool, woven, 31½" × 27½" (80cm × 70cm), Fondazione Marguerite Arp-Hagenbach, Locarno (FMA28), © SIK-ISEA, Zurich (Philipp Hitz)

Against the inherent grid of the loom, Taeuber wove in movement large and small with the diagonal thrust of triangles.

energy. Discerning the essential form, however, takes practice, for both maker and viewer.

Taeuber's Carpet of stylized figures illustrates her approach to abstraction at the time of the *Stag King* performances. What at first appears a Native Americaninspired patchwork of colorful shapes gradually resolves in the middle section into two human figures. The standing one on the left with legs spread wide is composed of opposing triangles beneath a pink circular head with prominent blue eyes. Arms stretching out and up hold a ball and an enormous checkered triangle. The other figure sits on a jagged blue stool and holds up triangular forms/ open hands; a pink cross at the head suggests a chess king facing a playing board. Three dogs with rectangular bodies and legs and triangular ears inhabit the lower third of the carpet, while a dachshund with large eyes and wheels underneath poses inconspicuously at the very top. Though more abstract and subtle than her marionettes, the kinship of the forms is apparent.

Taeuber as the woodturner's muse

The marionettes, along with the Dada heads, represent the most obvious forms for contemporary woodturners to explore, not just in puppetry, but in freestanding or grouped sculptural figures, dolls, or chess pieces. As with Taeuber's sizable puppets, scale remains important; unlike realistic profiles, abstracted forms do not usually retain visual power in miniature. Color and anatomical proportion also have dramatic significance. In place of detailed carved features,

flourishes in other media like textiles or metal can extend character.

Beyond the human form, *Today Is Tomorrow* presents an imposing array of graphic studies investigating the circle and its fragments, sometimes in three dimensions. Late in life, Taeuber produced a series of large (3" × 24", or 8cm × 61cm) painted disks with shallow flat-bottom cutouts subtly overlapping at several levels. In Coquilles et Fleurs, for example, the arcs of the recessed, stylized flowers and shells continue across their intersections, creating continuous but terraced lines. As Krupp observes, "The translation of the circular experiments into the spatial dimension of reliefs led to working again with the material of wood. Yet the decisive aspect here is not materiality, but rather plasticity, space, light, and shadow, whose effect she carried into three levels of depth."

Although Taeuber's reliefs were probably routed out of solid wood or built up from jigsawn layers, multicenter woodturning offers a viable alternative for producing both flat- and round-bottom cutouts. Because the turning centers often lie near the periphery of the work, a heavy lathe with ample swing—24" to 30" (61cm to 76cm)—is required to provide stability and clearance for diameters 12" (30cm) or larger. Wood counterweights can reduce vibration and provide an unbroken cutting surface.

Taeuber's designs also lend themselves to less demanding forms of woodturning. Simply mounting a rectangular board on the lathe with a back plate slightly wedged on one side will yield concentric, intermittent arcs that somewhat resemble the pattern of the catalog's cover image, Construction d'un Cercle Noir et Segments Bordeaux Rouges et Bleus. Beads, coves, or V-grooves can be added between the arcs, and color introduced for thematic reinforcement. The pattern can then be sawn in two and offset for asymmetrical tension or

remounted on another center to add cusps to the scored painting. The field for experimentation is infinite.

Book appeal

Although the catalog text comes up short in examining Taeuber's marionettes, it more than compensates in its far-ranging treatment of artistic ideas holding promise for woodturners. Essays examine her exquisite line compositions, both abstract and highly figurative, and her foray into international publishing. The impact of dance on her artwork receives extensive coverage. And excerpts from 445 recently released letters offer revealing glimpses of her personal life. Published separately in German and English, Today Is Tomorrow marshals contributions from some of Europe's leading authorities on

Taeuber. The commentary is enlivened with instructive illustrations. The austere layout of the essays, without display type for section headings, makes navigation tricky at first but presents no real obstacle. All together, this unprecedented collection of images and engaging scholarship will undoubtedly reward readers drawn to a life brimming with artistic expression that after a century remains timeless.

−David M. Fry

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David Fry, Cycles—A Woodturner's Homage to Sophie Taeuber-Arp, 2015, Poplar, paint, 1½" × 14½" (4cm × 37cm)

Turning shaped about 80 percent of this relief. Photo: David Fry



MEMBERS' GALLERY

Colin Parkinson, New Zealand



An original steel Thermette kettle *(above)* and Colin Parkinson's turned wooden version, complete with turned "enamel" mug.

Thermette, 2012, pine fence post, paint, coat hanger wire, Thermette is $8\frac{1}{2}$ " × $3\frac{3}{4}$ " (22cm × 10cm); mug is 3" × $2\frac{3}{4}$ " (8cm × 7cm)



The Thermette was a New Zealand-made brand of water-heating kettle. It consisted of a steel cylinder jacket around an open-ended cone that formed a central tapered chimney. The resulting large surface area meant water could be heated quickly by burning only a small amount of wood. In fact, we often used only dried rushes, bracken, or scotch thistle stalks.

Kettles like this were made in a few variations and paint schemes over the years, but in use they quickly became like every other one—blackened, scratched, and dented. These kettles can still be purchased but are not as common as they were in my youth, when every road-crew worker, linesman, farmer, scout, and army recruit had at least one in his kit.

Jim Scarsella, Michigan

When I was very new to turning in 2008, I happened upon images of pieces done by Dixie Biggs and Jacques Vesery and was truly mesmerized by the sculptural nature and beauty of their work. I started to experiment with carving on my own pieces and really enjoyed the process and, after much practice, the results. My more intricate pieces can take many hours off the lathe carving and coloring, so I mix them in with less complex designs because I really do love to be at the lathe turning. My main focus now is on hollow forms and boxes, with carving, texturing, and coloring a mainstay in my designs. I have also begun teaching over the past couple of years and find it very rewarding.



Bob Callinan, Australia

The Lyre depicts the tragic Greek myth of Orpheus and Eurydice. Orpheus descends to the Underworld to beg the Gods to allow his deceased wife to return to life. The Gods are persuaded by the beauty of Orpheus's lyre music, and Eurydice is permitted to return on the condition that Orpheus not look at her until she reaches the Light. But he does look, and she is lost forever.

The hollow sphere with its black interior represents Orpheus and his dark despair. Eurydice is shown as two small spheres, precariously balanced between the Light and the Underworld.



The Lyre, 2014, Brown beech, Monterey cypress, Japanese raisin, red cedar, $13\frac{3}{8}$ " × $23\frac{1}{2}$ " × 10" ($34\text{cm} \times 60\text{cm} \times 25\text{cm}$)



Remember Elephants? warns of a future when elephants no longer exist—a hypothetical but not unlikely eventuality. The carving in the vase depicts their signature feature, the trunk, and the turned, bent, and bleached tusks serve as a reminder of the cause of extinction.

Remember Elephants?, 2015, Beech, bleached ash, vase is 121/2" × 8" (32cm × 20cm)



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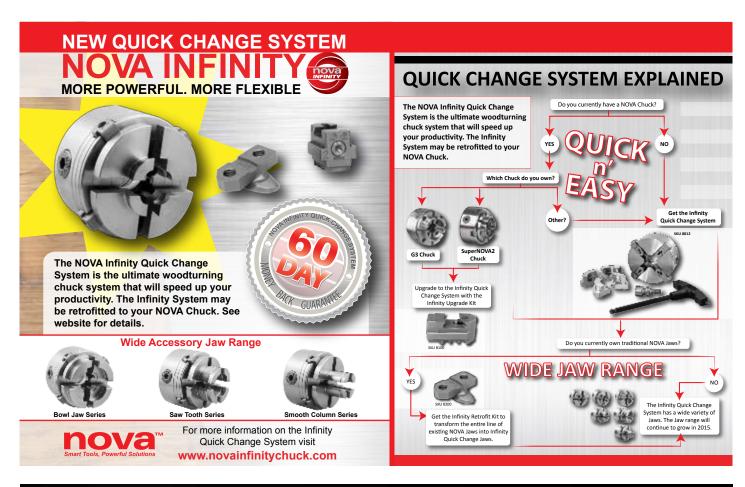
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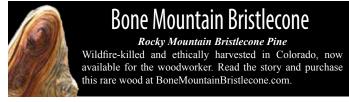






























Unique mechanical features seldom found on competitive lathes:

Bed - steel torque tube design Legs - adjustable for height Headstock

- -welded steel, torque resistant Spindle
- -chrome alloy, hardened and ground
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- -locking groove for reverse

Patented Banjo clamping 48 position indexing is standard Acme screw tailstock Much much more!

Electronic Features:

1-1/2 to 3 hp available Electronic AC drive accepts 220 single or 3 phase

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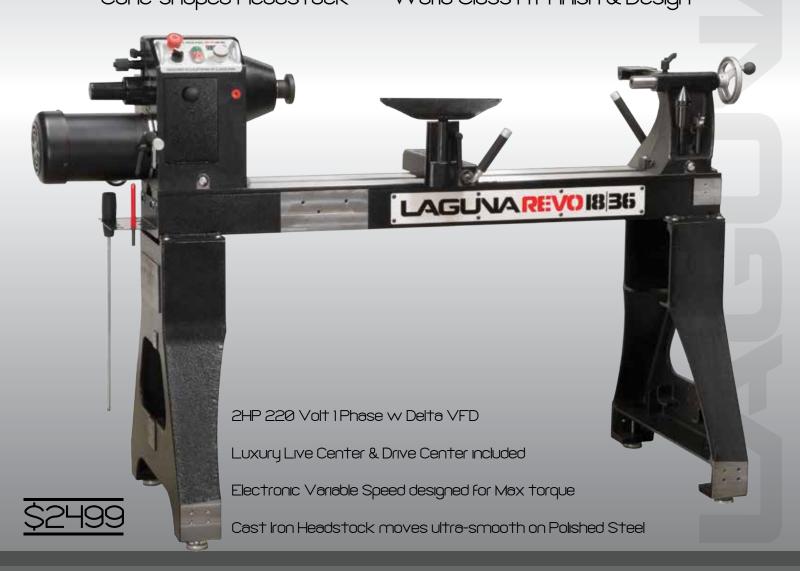
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verb: to disrupt, change, transform, shake up

Cast Iron Headstock Polished Steel Bed Perpendicular Banjo Mount
Cone-shaped Headstock World Class Fit Finish & Design







20° Extension w Tall-Stock Base & Tool-Rest Extension

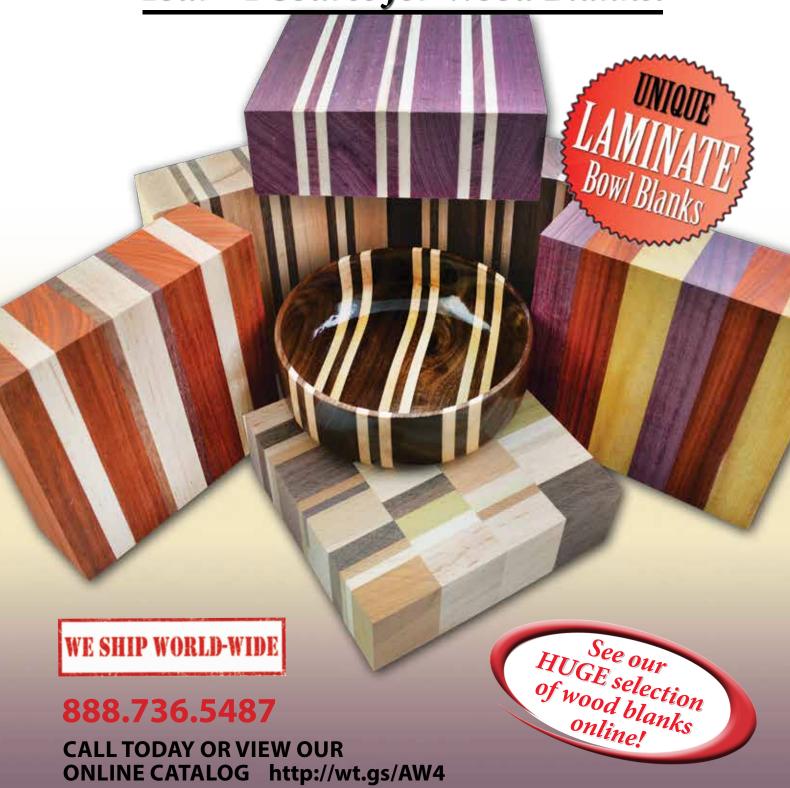


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MUSICAL MOLINOLOGY



Each year leading up to the AAW symposium, AAW chapters are invited to participate in the Chapter Collaborative Challenge (C3). Symposium attendees vote for their favorite entries in various categories, and this year's Best in Show winner is *Musical Molinology*, made by members of the First State Woodturners, including Mike Adams, John Bacino, John Cargill, Steve Childers (Project Coordinator), Clem Clements, Jim Dandy, Dennis Dow, Jim Gafney, Don Hart, Eric Krum, Fred MacFarland, Frank Nowak, Thomas Sloan (Project Coordinator), Baxter Smith, Jeff Turi, and Ron Wilson.

Molinology is concerned with the use of moving water, wind, or animal or human muscle to drive mechanical devices. In this project, a hand crank sets in motion a train of six plywood gears, the largest of which rotates a shaft with thirteen turned cams held in place by segmented spacers. As the cams rotate, they cause wands to rise and fall, raising and lowering turned Christmas ornaments. Another gear is attached to a turned mahogany shaft with thirteen sets of twenty holes drilled around the circumference. As the shaft rotates, pegs inserted in the holes raise hammers that then drop onto marimba keys—making music. The pegs are removable so the tune can be changed easily. The tune currently in use, "Marimba Etude 3 + Summertime," was composed especially for this project by New York musician Anna Huang.

For more information about how your local chapter can create an entry for next year's C3 at the symposium in Atlanta, visit tiny.cc/C3 (case sensitive).

See Musical Molinology in action!

Members of the First State Woodturners have created a short video that offers further explanation and a demonstration of



this unique musical feat. To view the video, visit tiny.cc/1stState (case sensitive) or scan the QR code with your mobile device.