

GUIDELINES FOR A SUCCESSFUL CRITIQUE • GETTING STARTED IN WEARABLE RINGS—PART 2

AMERICAN WOODTURNER

Journal of the American Association of Woodturners

June 2022 vol 37, no 3 • woodturner.org

MICHAEL
PETERSON
2022 POP
MERIT AWARD
RECIPIENT

.....

SEGMENTED
TURNING TODAY
A REMARKABLE
EVOLUTION

.....

GETTING
STARTED IN
CASTING



THE SPACE BETWEEN
2022 POP EXHIBITION AND AUCTION

Michael Gibson Georgia

My love and understanding of wood began when I started work as a teenager in the boatyards, working on wooden sailing yachts. When boats became plastic, I left but continued working with wood in other fields. Looking back, using tools, the continuous flowing lines of a yacht, and the balance and form needed in certain work all contributed to the way I produce work on the lathe today. I consider form to be the most important factor in turning. A great deal of my work leans toward being as realistic as possible.

I had never turned on a lathe until I retired but then was quickly drawn into the obsession. After going through the usual learning phases—making bowls, pens, etc.—I wanted to make more challenging projects. Being an Englishman, I thought a teapot might be just the ticket. During my working days, I performed many repetitive jobs; now I always look for ways to bring something unique to my work. In my latest pieces, I have been piercing, coloring, using pyrography, cutting up turned work, texturing, and reassembling. ■



Live Laugh Love, 2020, Pear, graphite,
5½" × 8½" × 4" (14cm × 22cm × 10cm)



Speckled Tea, 2015, Pear, airbrushed acrylic paint, 7½" (19cm) tall



Natural Edge Burl Teapot, 2016, Brown mallee burl, 4½" × 10" × 6"
(11cm × 25cm × 15cm)



Nest of Feathers, 2019, Pear, pyrography, 4" × 5" (10cm × 13cm)



Cycle of Life, 2019, Pear, pyrography, airbrushed acrylic paint, 3¾" × 5½" (10cm × 14cm)



Caught in a Whirlwind, 2021, Pear, pyrography, airbrushed acrylic paint, 5½" × 6" (14cm × 15cm)

This piece has been juried into the 2022 AAW member exhibition, *Bridging the Gap: The Craft and Art of Turning*, which will be on view during this year's AAW Symposium in Chattanooga, Tennessee.



Celebrate, 2016, Pear, pyrography, airbrushed acrylic paint, 9" × 8" (23cm × 20cm)

Celebrate was juried into the 2016 AAW Symposium Exhibition, *Turning 30*.

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

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website: woodturner.org
gallery website: galleryofwoodart.org

Executive Director Phil McDonald
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Journal of the American Association of Woodturners

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6" x 2" (15cm x 5cm)

In-Between is part of this year's POP show, *The Space Between*.

Photo: Tib Shaw/AAW

Back cover – Ron Katz



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EDITORIAL

**American
Woodturner** Joshua Friend
editor@woodturner.org

**Editorial
Advisors** Betty Scarpino
Terry Martin
John Kelsey
Jean LeGwin

**Journal
Production** **Albarella Design**
Linnea Overbeck
Art Director
Production Management

**Woodturning
Fundamentals** Don McIvor
editormcivor@woodturner.org

EDITORIAL SUBMISSIONS

Send article ideas to: editor@woodturner.org

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Erica Nelson
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tolerance, and mutual respect, thereby
engendering a welcoming environment for
all. To read AAW's full Diversity Statement,
visit tiny.cc/AAWDiversity*

A NOTE ABOUT SAFETY

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

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

*Web address is case sensitive.

Editor's Note



The theme for this year's Professional Outreach Program (POP) exhibition and auction is *The Space Between*. A sampling of works from this show is featured on page 50, and the entire show will be on view at the AAW's International Woodturning Symposium in Chattanooga, Tennessee, June 23-26.

As in prior years, the exhibition theme was open to interpretation, and the makers did not disappoint. I think

the theme is particularly intriguing now, as we seem to be in a transitional phase of the pandemic, which of course had mandated literal space between us. It seems apropos that *The Space Between* exhibition in Chattanooga will coincide with our return to in-person experiences. I hope to see you there!



—Joshua Friend

From the President



Strategic direction

Like all good organizations, the AAW periodically undergoes a "strategic reset."

In 2016, the Vision 2020 initiative began, focusing on growth,

service enhancement, improved access, demonstrator support, virtual galleries, improved symposium experiences, and development of communities of interest within woodturning. Many of the positive changes in our organization in recent years have come about because of the efforts of our resolute staff, Board, and committees responding to the direction of the 2020 vision. The development of WIT (our Women in Turning initiative, which actually pre-dates Vision 2020) and leveraging our woodturning collection for exhibitions and virtual galleries are just two examples. For better or worse, the pandemic has accelerated additional changes and forced us to put some initiatives on the shelf, at least temporarily.

Now that we are coming out of the pandemic, the AAW Board, with input from staff and select committees, has approved four new or revised strategic directions for the organization:

Membership growth and membership services

Our mission of educating, informing, and organizing activities related to woodturning focuses on our members, but there is a much larger population of people involved with or interested in woodturning. The Turners Without Borders committee is extending our international reach. The members forum supported by the AAW is

an example of our outreach to members. We hope to expand our impact on this wider universe with improved services to members, incentives to join the AAW, and exploration of partnerships with other woodturning organizations and woodworking publications around the world.

Programming

The AAW is known for the *American Woodturner* journal, its online publications, and the resources available to members on its website. The annual Symposium has been a high point of the woodturning experience for decades, but in any given year, only about 10% of our members are able to attend. The pandemic forced us to cancel two symposia in a row, but we were able to develop a series of virtual online experiences that have reached a much larger audience. Even as we restart our in-person Symposia (Chattanooga, June 23-26), we plan to continue offering high-quality online experiences and are considering "hybrid" presentations that allow a much wider audience to experience our demonstrations and tradeshows. In addition, we are exploring and in fact have collaborated with others in co-marketing high quality online experiences for interested woodturners.

Chapter relationships

Our affiliated chapters have always been key to our growth and evolution as an organization. Going forward, we will work to improve and enhance the relationship with chapter leaders and will explore ways to encourage AAW membership as part of the local club experience. The Chapter Leaders Forum, supported by the AAW staff, is one example of our growing commitment to this relationship.

Revenue mix

Member dues are a significant percentage of AAW revenue, but dues alone do not cover the full cost of provisioning member services. Our other sources of funds (journal advertising, modest profits from Symposia and virtual programming, sales of AAW merchandise, and donations) make up the difference. In the coming years, we plan to increase the diversity of funding sources. Specifically, we will update our donor base and develop a regular fundraising program.

These four areas of focus will result in improved services and new initiatives in the next few years. Stay tuned.

Chattanooga 2022

We are getting excited about the upcoming Annual Symposium. An outstanding roster of demonstrators is scheduled, and the tradeshow will be outstanding. Some of the activities will be recorded for later broadcast. In addition, the city of Chattanooga has a number of local attractions for visitors to experience. After almost three years without an in-person Symposium, folks will be catching up with old friends, making new ones, talking with demonstrators, learning new techniques, buying new tools and wood, and enjoying the area. We hope to see you there, perhaps at the annual members' meeting or chapter leaders' meeting, both of which are held during the Symposium.

Keep turning,



Mike Summerer
President, AAW Board of Directors



Join Woodturners from Around the World for...

AAW'S 36TH ANNUAL INTERNATIONAL SYMPOSIUM

Chattanooga, Tennessee • June 23-26, 2022

VOLUNTEERS HAVE THE MOST FUN!



Symposium volunteers get the most out of the AAW Symposium. You can too!

- Meet other attendees and demonstrators
- See behind the scenes
- Get ideas to bring home to your own shop, regional symposium, or chapter
- Free T-Shirt!

Symposium Venue

Chattanooga Convention Center
One Carter Plaza
Chattanooga, TN 37402

Hotels

Visit woodturner.org for updated information and preferred group rates for all official AAW Symposium hotels.

SIGN UP TO VOLUNTEER!



To sign up for a shift, visit tiny.cc/AAWVolunteer (case sensitive) or scan the QR code.

Short volunteer timeslots are available, and it is easy to sign up. Join us in:

- Registration
- Instant Gallery
- Youth Turning
- Volunteer Booth

DETAILS AND REGISTRATION

Come for the Day!

Single-day registration available for Friday or Saturday.

First Time at an AAW Symposium?

Plan to arrive in time for the First-Time-Attendee Orientation, Thursday, June 23. See website for schedule details.

For the latest information and to register for the event, visit our Chattanooga Symposium webpage, tiny.cc/AAW2022!



"Going to the AAW Symposium is one of the wisest investments you will ever make if you are serious about your woodturning."

—Janice Levi

"I remember my first Symposium. You can watch YouTube all day long, but to be able to learn from the very best and have them respond directly was golden for me."

—Cheryl Lewis

"When you walk into the Instant Gallery for the first time, it will blow your mind!"

—Derek Weidman

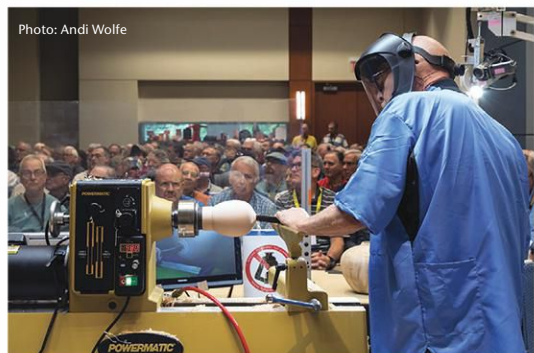


Photo: Andi Wolfe
John Jordan demonstrates during the 2019 AAW Symposium in Raleigh, North Carolina.



Photo: Andi Wolfe



INTERNATIONAL
SYMPOSIUM CONTINUED

THANK YOU, JPW INDUSTRIES!

The AAW is very grateful to JPW Industries (JET/Powermatic) for its longstanding partnership and support of AAW members.

In 2022, JPW Industries continues their sponsorship as the **Exclusive Lathe Provider** in the Symposium demonstration rooms and Youth Program. JPW's Youth Program sponsorship makes it possible for young turners to get hands-on instruction with experienced woodturning teachers.



WIN A POWERMATIC LATHE!

On Saturday evening, AAW Symposium attendees will have the opportunity to win and bring home a 100 Year Limited Anniversary Edition Powermatic 3520C lathe, generously donated by JPW Industries.

Thank you, JET/Powermatic!

Prize Drawing for AAW Members

One of your many membership benefits with AAW is the monthly prize drawings. Prizes this year include gift certificates, tools, kits, books, DVDs, event registrations, and online education. Member winners are randomly selected at the beginning of each month and notified of their prize.

Thank you to the many businesses that continue supporting AAW members with these engaging prizes. If your business would like to contribute a prize, contact memberservices@woodturner.org.

When you patronize these woodturning businesses, please thank them for their support of AAW members.

- Carter and Son Toolworks (carterandsontoolworks.com)
- David Ellsworth (ellsworthstudios.com)
- Glenn Lucas (glennlucaswoodturning.com)
- Hunter Tool Systems (huntertoolsystems.com)
- Mike Mahoney (bowlmakerinc.com)
- Nick Cook Woodturner (nickcookwoodturner.com)
- Niles Bottle Stoppers (nilesbottlestoppers.com)
- Preservation Solutions (preservation-solutions.com)
- Rockler Woodworking and Hardware (rockler.com)
- Tennessee Association of Woodturners (TAW) (tnwoodturners.org)
- Thompson Lathe Tools (thompsonlathetools.com)
- Trent Bosch (trentbosch.com)

Businesses will be updated throughout the year.

See the Promo Videos!



If you are still on the fence about whether to attend this year's AAW Symposium, check out our series of testimonials and overview/educational videos. Visit tiny.cc/Chattanooga2022 or scan the QR code.



Apply for an AAW Grant

AAW Grants are available to individuals, chapters, schools, and non-profit organizations. Examples include but are not limited to outreach programs and/or events to encourage youth and under-represented populations (women, minority, disabled, etc.) to learn and pursue woodturning, support of existing or developing unique woodturning programs, educational workshops or class participation, professional development opportunities, chapter projects, etc. In addition to monetary awards, up to ten mini-lathe packages are available for award each year.

Regular AAW Grants are awarded on an annual basis. To be eligible, applications must be received by December 31 for grants given in the following year. However, Women in Turning (WIT) grants and others for under-represented populations, events, and exhibitions are awarded quarterly.

Find detailed grant descriptions and application information at tiny.cc/aawgrants. If you have questions, please contact the AAW office by calling 877-595-9094 or emailing memberservices@woodturner.org. ■



Kip Christensen 2022 AAW Honorary Lifetime Member

The AAW Board of Directors, at its discretion, confers honorary lifetime membership to persons who, in its judgement, have made extraordinary contributions to the American Association of Woodturners and the advancement of woodturning. This year, the honor goes to Kip Christensen, in recognition of his ongoing commitment and exceptional service to the AAW.

An excellent profile article on Kip, “Kip Christensen: A Life Dedicated to Helping Others,” written by Terry Martin, was published in the December 2021 issue of *American Woodturner* (vol 36, no 6). The article covers some of Kip’s many contributions to both the AAW and the field of woodturning. Above all, Kip is a dedicated educator and has created a lasting legacy in this capacity alone.

Come see Kip Christensen in action, as he’ll be a featured demonstrator at this year’s AAW Symposium in Chattanooga, Tennessee.



2023 POP ARTIST SHOWCASE OPPORTUNITY

Application period: August 15 to October 1, 2022

Each year the Professional Outreach Program (POP) showcases two wood artists at the AAW’s Annual International Symposium. 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 to make significant contributions to the field.

The two selected artists give two demonstrations each and participate in a panel discussion of their work led by David Ellsworth. Artists receive a complimentary Symposium registration; a featured display in the Special Exhibitions area; demonstration and panel compensation; three days of lodging at the AAW host hotel, and up to \$300 in travel expenses.

Artist applications are invited for the 2023 AAW Symposium in Louisville, Kentucky, June 1-4, 2023. Applications will be juried by the POP committee. The application period is August 15 to October 1, 2022, and applicants will be notified by October 31, 2022. See online application at tiny.cc/Calls.

The 2022 POP Showcase Artists

Melissa Engler and Eli Polite will be the POP Showcase Artists featured at the 2022 AAW Symposium in Chattanooga, Tennessee.



Call for Online Presentations: “AAW Presents”

Are you demonstrating online? If you have experience creating high-quality, effective, and interesting demonstrations, have access to the technical capability for a live interactive presentation, and would like to reach a large and enthusiastic audience, we want to hear from you. Consider applying to be part of the AAW’s online series, AAW Presents. For full details and application, visit tiny.cc/Calls. Questions? Contact Tib Shaw, tib@woodturner.org.

Call for Demonstrators: AAW Symposium 2023

Application period: May 1 to August 1, 2022

The AAW’s 37th Annual International Symposium will be held in Louisville, Kentucky, June 1-4, 2023. To apply to be a demonstrator, visit tiny.cc/Calls between May 1 and August 1, 2022. For more information, call the AAW office in Saint Paul, 877-595-9094 or 651-484-9094, or email memberservices@woodturner.org.



A couple of years ago, one of our club members, Bob Donohue, brought some Beads of Courage (BoC) logo beads to one of our meetings. We had not heard of this charity before, so Bob explained to us how, through woodturning, we could help make the day a bit brighter for hospitalized children fighting serious diseases. Everyone wanted to help.

Our members sprang to action, turning numerous wooden vessels for Beads of Courage. Some were adorned with cartoon characters; others were constructed from segments of different wood species. A few were made of colored resin with pieces of exotic wood embedded in them. All of our BoC vessels are donated to Robert Wood Johnson Children's Hospital.

Since then, we've done several more BoC projects, and last year we started making wig stands for cancer patients. We have also gotten involved in Pens for Vets. All of our charity projects have helped others, while increasing the turning skills of our members. That's a win-win!

—Bill Stewart, Atlantic Shore Woodturners Club



Members of Atlantic Shore Woodturners donate Beads of Courage vessels to Robert Wood Johnson Children's Hospital, New Brunswick, New Jersey.

I really enjoyed D Wood's April 2022 AW article, "Education by Immersion: The Art-and-Craft School Experience" (vol 37, no 2). However, as a resident of Massachusetts, I was disappointed that Snow Farm (snowfarm.org) was not mentioned in the article. I took a very good woodturning workshop there, and its curriculum on woodturning is substantial. I'm sure there are other schools that are missing, but Snow Farm is a wonderful outfit with a wide array of craft classes, an excellent residential and internship program, convenient accommodations (great food!), and good teachers.

—Michael Waddell, Massachusetts South Shore Woodturners

Editor's Note: There is a useful listing of craft schools on the AAW website. Visit tiny.cc/Findaschool (case sensitive). Currently, if you select "Find Craft Schools" on the "Select a query" dropdown menu, and "United States" on the "Country" dropdown menu, there are thirty-nine schools listed. Our apologies for not including this online resource along with D Wood's article.

During the month of April, the combined group of the Alamo Pen Turners and Alamo Woodturners crafted a total of 117 pens for the USO Warrior and Family Support Center, located on the grounds of the San Antonio Military Medical Center (SAMMC) at Fort Sam Houston, Texas. This USO center works with the Wounded Warriors and their families during their recovery and rehab. Thanks to Rebecca DeGroot for helping us turn the pens, and to about twenty members of our combined clubs. We are planning to make this a yearly event.

—Jim Desbrow, Alamo Pen Turners



The Cumberland Woodturners (Crossville, Tennessee) shattered all previous sales records with our 2021 Christmas ornament sales. For the 12th consecutive year, all proceeds from ornament sales went to a local charity. The club made 750 ornaments for the 2021 sale and presented a check for more than \$12,500 to House of Hope (houseofhopetn.org).

House of Hope serves children displaced due to circumstances beyond their control, providing temporary shelter while the county's Children's Services arranges housing. They are also building a youth center, so these funds are already being put to beneficial use.

We take pride in being able to use our art to give back to the community. None of it would be possible without the tremendous support of Dogwood Exchange, the Village Green Mall, and First National Bank, where we sold the ornaments. We extend our sincere thanks to everyone who made, sold, purchased, and spread the word.

—Tom Neckvatal, Cumberland Woodturners



Club president Tom Neckvatal presents Denise Melton, Director of House of Hope, with a check. From left: Rod Smith, Garron Reichers, Tom Neckvatal, Denise Melton, and Larry Lewis.

Race Point Lighthouse in Provincetown, Massachusetts, offers adventurous tourists overnight stays in a rustic, isolated setting. Tourists can rent either the keeper's house or the lighthouse itself. During the pandemic, the all-volunteer organization lost significant revenue for the maintenance of the lighthouse facilities. One of our Women in Turning (WIT) members, Deb Chapin, is a volunteer keeper at the lighthouse and asked if Cape Cod Woodturners, WIT, would take on a project of raising funds for the lighthouse.



Over the course of several months, both women and men in the club turned and sometimes embellished lighthouse-themed ornaments, candle holders, doorstops, pens, table decorations, and boxes. At a December 2021 sale at the Cultural Center of Cape Cod, almost \$800 was raised for the benefit of Race Point Lighthouse. More lighthouse-related turnings will be sold in the Race Point Lighthouse gift shop.

—Robin McIntyre, Cape Cod Woodturners

When the Baltimore Area Turners (BAT) wanted to keep up the Turning for the Troops program last year, club members took up the challenge and rose to meet it. With the pandemic severely limiting our in-person meetings, we had to get creative to get pen kits out to BAT members. We set up central pick-up locations, and in some cases, pen kits were mailed or delivered to members' homes. We did whatever was needed to keep the program going.

Some people bought their own kits, which were often not the basic slimlines, but more elaborate kits. They also got creative with design and materials, using exotic woods and acrylics to make truly high-quality pens.

Individual BAT members made from ten to 250 pens to support our service project. Through the club members' efforts, we reached our goal of 1,000 pens, which were delivered to the Woodcraft store in Rockville, Maryland. The Turning for the Troops program is continuing this year, and we have been keeping up the pace to complete even more pens for the 2022 program.

—Tom Szarek,
Baltimore Area
Turners



Our thanks to Chris and Amy Bender, owners of the Woodcraft store in Rockville, Maryland, who support BAT's outreach efforts. From left: Chris Bender, Lori Szarek, Tom Szarek, and Amy Bender.

Stoney Lamar Receives ACC Award of Distinction



The American Craft Council (ACC) has named Stoney Lamar its 2022 Award of Distinction recipient. This award recognizes an organization, institution, corporation, or

individual who has made significant contributions to the field of craft with a minimum of twenty-five years of service.

This year's award is part of ACC's celebration of more than fifty years of awards, which include the College of Fellows, the Gold Medal for Consummate Craftsmanship, the Award of Distinction, and the Aileen

Osborn Webb Award for Philanthropy. The 2022 awards highlight sixteen artists, two arts scholars, and two advocates in the craft field.

Stoney Lamar, of Saluda, North Carolina, is a nationally recognized and exhibited artist, whose works in metal and wood are found in museums and collections across the country. He is also nationally recognized for a life of significant contributions to the field of craft, the mentoring of artists, and advocacy for groups that advance the role of craft in our society.

The American Craft Council is a national nonprofit dedicated to advancing American craft. For more, visit craftcouncil.org.

MORE ON STONEY LAMAR

EXPLORE!

In 2019, Stoney was awarded the

Professional Outreach Program (POP) Merit Award. Explore the AAW's online archives to learn more about this important artist. Log on at woodturner.org and use the Explore search tool.

- June 2019: "Stoney Lamar: 2019 POP Merit Award Recipient," by Andrew Glasgow (vol 34, no 3)
- June 2014: "Balancing on a Hard Edge: Stoney Lamar Finesses Gravity and the Predictable at the Asheville Art Museum," by David M. Fry (vol 29, no 3)



Calendar of Events

Send event info to editor@woodturner.org. August issue deadline: June 15.

See AAW's online Remote Demonstration Event Calendar at tiny.cc/IRDCalendar.

Colorado

CANCELLATION NOTICE: The Rocky Mountain Woodturning Symposium, The Ranch Larimer County Fairgrounds, Loveland, will not be held in 2022. "There are still too many uncertainties for us to ensure we can bring you the quality program we know you expect. We have not given up, just put things on hold a bit longer. We are still planning to return in September 2023." For more, visit rmwoodturningsymposium.com.

Illinois

July 29–31, 2022, Turn On! Chicago Woodturning Symposium, Crowne Plaza Hotel, Northbrook. Demonstrators to include Andy Cole, Cynthia Carden, Beth Ireland, Eric Lofstrom, Avelino Samuel, and Jacques Vesery. Event to feature fifty rotations from thirteen artists, instant gallery with People's Choice award, Women in Turning meeting, banquet/auction, tradeshow, and companion activities. Join us for hands-on pen turning, benefiting Pens for Troops, or bring Beads of Courage boxes (benefiting Chicago's Lurie Children's Hospital) and donations for Empty Bowls (benefiting local food pantries). For more, visit turnonchicago.com and follow us on Instagram, @turnonchicago.

September 22–25, 2022, The 7th Segmenting Symposium, Crowne Plaza Hotel, Northbrook. Demonstrators to include Malcolm Tibbetts, Jerry Bennett, Curt Theobald, Tom Lohman, Robin Costelle, Jim Rodgers, and Bob Behnke. Event to include instant gallery, companion activities, and tradeshow. For more, visit segmentedwoodturners.org.

Michigan

October 8, 2022, Detroit Area Woodturning One Day Symposium, Central United Methodist Church, Waterford. Event to include sixteen demonstrations, instant gallery, tradeshow, door prizes, and more. For the latest info, visit detroitareawoodturners.com.

Minnesota

Multiple 2022 exhibitions, AAW's Gallery of Wood Art, Landmark Center, Saint Paul:

- September 4–December 28: *Bridging the Gap: The Craft and Art of Woodturning* (AAW member exhibition)

- Ongoing: *Touch This!; Around the Hus—Turning in Scandinavian Domestic Life*; vintage and historic lathes and turned items

For more, visit galleryofwoodart.org or email Tib Shaw at tib@woodturner.org.

Montana

September 16–18, 2022, Yellowstone Woodturners Symposium, Roaring 20s Club House, 7400 Grand Avenue, Billings. Featured demonstrator/instructor Doug Schneider (Loveland, Colorado) will cover small hollow forms, a basketry illusion bowl, rough-turning a green bowl, turning tool handles, and segmented turning. For more, visit Yellowstone Wood Turners on Facebook or call Jane Kelly at 406-696-8777 (mjkelly08@gmail.com) or Dr. Van at 406-545-0777 (drvan@bresnan.net).

Pennsylvania

May 6 – July 24, 2022, *Spoons to Stir the Soul: The World of Norm Sartorius*, The Center for Art in Wood, Philadelphia. This exhibition, guest curated by Craig Edelbrock, is the first major career retrospective of the 30-plus-year body of work by renowned artist Norm Sartorius. A selection of Sartorius's distinctive carved works is presented alongside the artist's stories and relationships that have intertwined with his unique path. For more, visit centerforartinwood.org.

September 23–25, 2022, The Mid Atlantic Woodturning Symposium, Lancaster Marriott Hotel and Convention Center, Lancaster. Featured demonstrators to include Nick Agar, Keith Tompkins, Rudolph Lopez, Mark Gardner, Kimberly Winkle, and Laurent Niclot. For more, visit mawts.com.

Tennessee

January 27, 28, 2023, Tennessee Association of Woodturners 34th Annual Woodturning Symposium, Marriott Hotel and Convention Center, Franklin. Featured demonstrators to include Rebecca DeGroot, Stuart Batty, Nick Cook, John Beaver, and Tom Wirsing; additional demonstrators to be named later. One of the longest-running and most successful regional symposia in the U.S., the 2023 symposium will feature a tradeshow, instant gallery, people's choice award, and Saturday night banquet with auction. For

more, visit tnwoodturners.org or email David Sapp at symposium@tnwoodturners.org. Vendors, contact Grant Hitt at tawvendorinfo@gmail.com. Registration opens September 1, 2022.

Texas

August 26–28, 2022, SWAT (Southwest Association of Turners) annual symposium, Waco Convention Center, Waco. Lead turners to include Trent Bosch, Barry Gross, Mike Mahoney, Dennis Paullus, Martin Saban-Smith, Craig Timmerman, Andi Wolfe, and others. For more, visit swaturners.org.

November 18–20, 2022, Gulf Coast Woodturners Annual Hands-On Retreat, Deer Park, Houston. Club members teach a variety of classes for beginners, intermediates, and masters. Two, three-hour sessions on Saturday, one on Sunday. Each session offers eight choices of classes. Membership (\$25) required due to insurance concerns. Registration and details become available in July at gulfcoastwoodturners.org.

Virginia

November 5, 6, 2022, Virginia Woodturners Symposium, Expoland, Fishersville. "As of now, dates and location have not been established." Demonstrators to include Nick Agar, Bob Baucom, Joe Dickey, David Ellsworth, Joe Fleming, Barry Gross, Alan Lacer, Johannes Michelsen, Bob Rotche, Scott Schlosser, Mike Sorge, and Charlie Wortman. For more, visit virginiawoodturners.com.



Max Krimmel, 2009, Alabaster, ebony, 4⅜" × 10" (11cm × 25cm)

AAW Permanent Collection, Donated by the artist



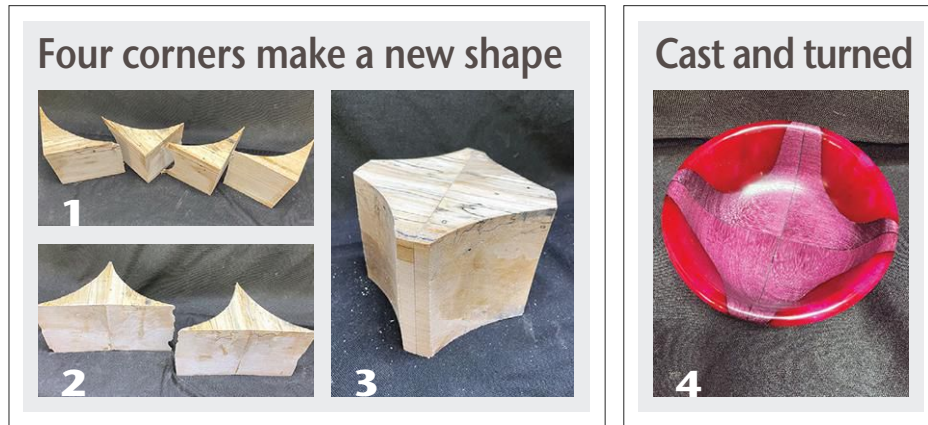
Tips

Reuse corner scraps

Like many turners, I sometimes buy turning stock either online or at a symposium tradeshow. Most of these blanks are square and have been sealed with wax. When I'm ready to begin a project, I take the square blank to the bandsaw and cut away the corners to make a round blank. Rather than throwing away the scrap corners, I decided to use them to make interesting turning blanks for bowls and boxes.

After cutting away the wax at the table saw, I glue the four corners together to form a core (*Photos 1-3*). I then cast this core in colored resin to make a unique turning blank. *Photo 4* shows an example of a bowl made using this process.

—Chuck Cohen, Maryland



Reuse condiment cups

In many parts of the country, Covid-19 limited restaurants to carry-out business only. Many meals come with small lidded containers holding condiments and sauces. These cups are perfect for holding small amounts of finish or dyes. The lids make great mixing trays for small amounts of epoxy, too.

—Bill Neff, Wisconsin



Cell phone collects dust

Recently, my cell phone speaker volume reduced dramatically. Then I had difficulty plugging in the charger. Before buying a new phone, I went to a cell phone repair shop. The owner removed a small pile of wood dust that looked like flour. It was a no-cost repair and gave me new reasons to wear a mask when turning in my shop.

—Tim Power, British Columbia, Canada

Cutting bench

Following my March 19, 2022, "AAW Presents" online demonstration, "Cutting the Best Bowl from a Tree," I received several requests for information about my chainsaw-cutting bench (*Photo 1*). I got the idea from a Tip by Bruce Bower in the Fall 1999 issue of *AW*. The bench allows for safe and comfortable cutting of logs in preparation for the lathe. The critical dimension is the height—mine is 23" (58cm). The width and length can be made to the size rounds you typically cut.

Two sawhorses made of white oak provide stability and have holes in their top rails to receive the dowels in the bottom of the top platform and ramp (*Photos 2, 3*). The top comprises a permanent base board that is 2" (5cm) thick and a replaceable board that is 1" (25mm) thick. I screwed the 1" board to the 2" board with brass screws in case I hit

them with the chainsaw. Over time, the top wears out and needs to be replaced.

The ramp aids in rolling logs up onto the cutting bench, which saves my back. I use wood dowels for the upright pegs and wedges that hold the rounds in place during chainsawing. These also get replaced as needed.

—Dale Larson, Oregon



SKILL-BUILDING PROJECT

Getting Started in WEARABLE RINGS—PART 2

Kurt Hertzog

This article is Part 2 in a series. The first article, which appeared in the February 2022 issue of *AW* (vol 37, no 1), covered turning a ring from scratch and the importance of accurately sizing it for the end user. In this follow-up, we'll cover a few of the specialized ring cores, mandrels, cutting tools, and alternate methods available for creating rings.

Ring cores

The old adage, “measure twice, cut once,” is particularly true when sizing a ring made from scratch. When using purchased ring cores, the saying could be “measure twice, buy once,” as little can be done to resize them. If possible, it's a good idea to have the recipient try on the core before you make the ring.

Ring cores are available in a variety of metals, ceramics, and composites. As the name implies, a ring core is fundamentally a base ring that can be adorned with a variety of materials. The obvious advantage is that the ring size is already established, so you don't have to spend any time tuning the size.



Ring cores come in a variety of configurations, including the flat single piece, two-piece with friction-fit assembly, two-piece with threaded assembly, and single piece with a channel (or channels) that can accept inlay materials (*Photo 1*). To illustrate this article, I'm using a solid single-piece core, as it is the easiest to use and illustrates the fundamentals very well. In this process, the ring core is glued into a carefully sized piece of wood, whose outer surface is then turned to final shape. All ring cores, regardless of configuration,

add mechanical strength to the ring, since there is a metal or ceramic core supporting the outer material.

Material selection

When you select wood for your ring body material, think grain. Bowl turners quickly learn the effects of wood movement, grain orientation, and cutting characteristics. Ring turners, too, should be aware of the moisture content of the wood, as well as the grain density and orientation. Remember, a ring core, whether metal or ceramic, will never change in size or shape due to moisture or temperature changes. As with any woodworking project, wood cladding on a ring will be subject to some movement. I prefer to use stabilized burl material, not only for its density and strength, but also for its natural beauty.

Fit ring core inside body material

There are several different workholding needs when turning a ring. To start, you'll need to hold the ring body material

Ring cores



1
Ring cores come in a variety of materials and configurations. Add wood or inlay material to make a beautiful custom ring.

Size the body material



2
Stabilized burl is a good choice, as it won't move much with humidity changes. Size the wood so there will be enough thickness all around the ring core, then cut off a slice slightly wider than the height of the ring core.

Mount and drill



The ring body material can be mounted to a wasteblock fitted with double-sided tape. The author first uses a hole saw to cut away excess wood and round the blank, then a Forstner bit slightly smaller than the outside diameter of the ring core.

for flattening, facing, drilling, and sizing prior to gluing in the ring core. The easiest and most straightforward method is to use a sacrificial block mounted in a chuck or on a faceplate.

To save time and minimize waste, I cut my ring blank slightly oversized. Not much more than 1" (25mm) diameter of wood will be needed (*Photo 2*). Cut off a square of material large enough for easy handling and mounting without too much extra. Flatten one face of ring body blank on a sanding block, and attach that flattened face to the wasteblock using double-sided mounting tape (*Photo 3*). You can use your tailstock quill to apply pressure for good adhesion. Once the ring blank is attached, flatten its exposed face using a gouge or scraper. This step is not critical, but it makes the drilling and sizing easier.

I remove the excess material by drilling with a hole saw (*Photo 4*). This rounds the blank while leaving it larger than the finished outside diameter. I then drill a hole with a Forstner bit just smaller than the required inside diameter (*Photo 5*). I find that these two actions

save time and help to prevent wood breakage while removing excess stock.

With the bulk of the inner portion of the ring material removed, sneak up on the final fit of the ring core. A parting tool can be used to widen the inside diameter. The goals are to have a tight fit, allowing room for glue, and a truly perpendicular cut. Any angle on the inside cut could result in a visible gap between the ring core and the ring blank material. For those willing to buy another “gizmo,” there is a specialty tool that is perfect for this job—a boring-head tool mounted in the lathe’s tailstock (*Photo 6*). This tool, from the metalworking industry, is perfect since it allows for minute adjustment and by design cuts perpendicular to the axis of rotation throughout the depth of the cut.

Remember, it is easier to remove stock than to add it back, so stop and test the fit often, using the actual ring core as a gauge (*Photos 7, 8*). When the inside diameter allows for a snug “slip fit,” stop removing material. A slip fit should allow enough room for adhesive yet be tight enough for proper assembly.

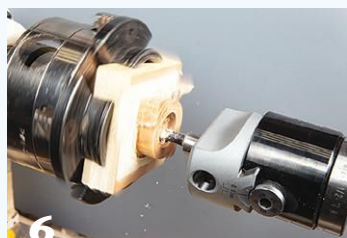
Glue in the ring core

Most metal or ceramic ring cores come with a high-gloss finish. I scuff the polished outer surface to provide some “tooth” for the adhesive. With metal cores, you can simply use a piece of abrasive flat on a table and abrade all around the surface by hand. With a ceramic core, the material is so hard that it takes diamond to cut it. In this case, mount the core on a ring-turning mandrel, run the lathe at a slow speed, and abrade the core with a diamond wheel-dressing tool.

I prefer to glue in the ring core on a horizontal surface such as my workbench or lathe bed (protected with wax paper). It is possible to leave the body material mounted on the lathe during gluing, but I think the gap around the ring core is more equalized when gluing takes place with the blank horizontal. The wood blank can be removed from the wasteblock easily. I usually remove it by hand, but if needed, you can use a thin knife to separate it from the tape mount.

Many ring turners use cyanoacrylate (CA) adhesive to bond the ring core into the body material, but I favor epoxy for ►

Fine-tune ring core fit



(6) For precision cutting to widen the inside diameter of the body material, the author uses a metalworking boring-head tool mounted in the lathe’s tailstock.

(7-8) Carefully sneak up on the perfect fit of the ring core in the wood.

Glue ring core into wood cladding



Before gluing the ring core into the wood, scuff up its surface with sandpaper to improve adhesion.

this job. Prior to glue-up, clean the ring blank's inside diameter and the scuffed ring core's outside diameter with denatured alcohol or acetone to remove any contaminants that could hinder adhesion (Photo 9). Mix the epoxy and lightly coat both gluing surfaces. Not much adhesive is needed, but complete coverage will ensure maximum surface bonding. Work on an easy-release surface such as a piece of wax paper or disposable plastic bag, inserting the ring core into the wood blank with a slight twisting motion. Leave the ring core centered in the width of the body material and clean off any epoxy that has squeezed onto the ring core's inside diameter (Photo 10). Allow the glue to cure; I let it dry overnight at a minimum.

Turn the ring

In addition to the shopmade mandrel noted in the first article in this series, there are several excellent commercially available ring mandrels. Some purchased mandrels thread directly onto the lathe spindle, while others can be gripped by a scroll or collet chuck (Photos 11-13). Regardless of your mounting method, proper alignment on the ring core axis is critical. Even with care in gluing, there can be some misalignment. Accurate mounting means your turning will be concentric to the ring core axis, resulting in even thickness of the turned wood.

With the ring mounted on a mandrel, turn the wood to size and shape. Turning at a high speed with sharp tools and a

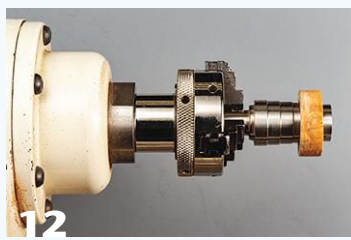
light touch works every time. I use a combination of cutting tools and sanding. I find nothing is needed beyond a spindle-roughing gouge, although I often use a box scraper to square the ring material to the ring-core edges (Photos 14, 15). With both sides of the ring blank trimmed flush to the ring core, shape the contour of the outer surface as desired.

Remember that sandpaper is a cutting tool, too, and it may be all you need for final shaping, considering that the ring body material is turned very thin. Fresh sandpaper used at a modest speed can cut very nicely and remove stock in small increments (Photo 16). The note about modest speed is critical. Epoxy softens with heat, so any excess heat from fast sanding can loosen the adhesive bond to the ring core.

Finish the ring

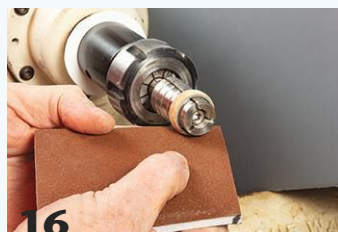
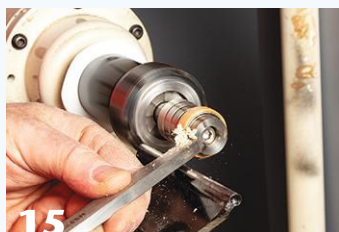
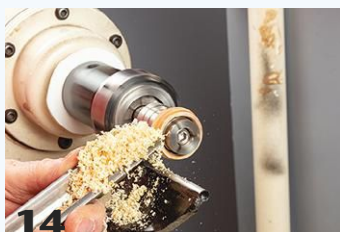
Finishes for rings are quite varied, from nothing at all, depending on the ring blank material, to the toughest you can find. A well-worn ring will endure a brutal life—from hot to cold and wet to dry, and it will be clanked against virtually everything. I typically use one of

Ring mandrels



A variety of precision ring mandrels is available commercially. You can also make your own shopmade version, as shown in Part 1 of this article series (February 2022 AW).

Turn ring



(14-15) The author turns the diameter to size using a spindle-roughing gouge, then uses a scraper to trim the sides flush with the ring core.

(16) Sand through the grits at a moderate speed to avoid generating excess heat.

Try UV-Curing Resin

Since most turners know about lacquer and CA finishes, I'll shed a bit of light on UV-curing resin, which may be a less-familiar finishing technique. I use a product made by Alumilite called Alumi-UV. Rather than an A/B mix of chemicals that creates a catalytic reaction and curing, this resin is sensitive to ultraviolet light, particularly in the 460nm range. While UV-curing resins are rather pricey, they go a long way and have a good shelf life, provided you store them properly.

I apply the resin with a disposable art brush in light coats, cure the resin by exposing it to UV light, and then repeat the process until I have achieved a sufficient build. There are small "flashlights" available that emit the proper wavelength of UV light, but I find it easier to put the turning into a UV-fingernail-polish-curing chamber. The chamber is a small, low-cost desktop device with several UV-emitting tubes inside. Rings, pens, and



other small turnings coated with UV-curing resin fit nicely inside.

Once the resin is cured, any drips can be sanded away, and the sheen can be punched up on a buffing wheel.



Apply a finish

(17) The author applies several coats of CA glue as a finish.

(18-19) A quick rub on some Micro-Mesh™ smooths the outer edges.

three finishes that I find are durable and beautiful: lacquer, ultraviolet (UV)-curing resin, or CA adhesive. For this demo ring, I used thin CA to build a multi-coat finish. I apply each coat with the corner of a paper towel as I spin the lathe by hand. After sufficient build, I clean up the edges on a piece of Micro-Mesh™ abrasive and call the ring complete (Photos 17-19).

Where to next?

The example shown in this article is the simplest of the ring core rings. You can use these fundamentals to explore the wide variety of ring cores, which come in many sizes, shapes, and materials. You can cast blanks, create laminated veneer rings, explore different finishes, and more. As with pens, the basics are simple, but you can also take it to the highest-level art. Enjoy the journey as you explore the possibilities. ■

Kurt Hertzog is a past president of the AAW, past chairman of the Rochester Woodworkers Society, and a council member of the Pen Makers Guild. He has written about woodturning and woodworking extensively for various publications. For more, visit kurthertzog.com.

Channel Ring Cores

Other than the solid single-piece core shown in this article, the main choices involve a core with a channel (or channels) to fill with some type of cladding before turning. Channel-type cores come in single piece or two-piece configurations that fit together. In addition to ceramic and metal, some cores are made from carbon fiber.

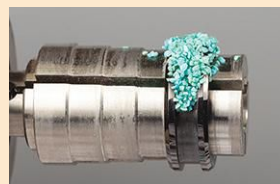


Wood-clad two-piece core



A two-piece ring core can be clad with a wood ring that is dimensioned correctly prior to the pieces being pressed or threaded closed. The two parts of the ring core sandwich and support the wood, which is then turned and sanded.

Inlay-filled one-piece core



There is little reason to use a two-piece core for inlay, since a single-piece channel works well. Glue your choice of inlay material, such as crushed turquoise, into the channel, then turn and sand it flush with the ring core. Some alternate materials turn best using carbide tools.

GETTING STARTED IN CASTING

John Underhill and Mark Dreyer



Photo: Julane Johnson

A popular trend in woodturning in recent years has been casting wood, or other materials, in resin to make interesting turning blanks. Pen makers have been casting blanks for over a decade, and the practice has become popular for other types of turning as well. Platters, lidded boxes, and large vessels have all been enhanced by the use of resins. Some use resin to embed an object; others cut a pattern and fill it with color; some use casting to “save” a piece of wood that would not otherwise be usable. In any case, combining wood and resin offers many possibilities for turners to explore.

Someone new to casting may have many questions:

- What products should I use, and in what circumstances?
- Are there different techniques?
- Do I need a pressure pot or vacuum?
- How safe are the chemicals used?
- How do I achieve a clear or colored effect?
- Do the various resin products turn and finish similarly?

In this article, we explore the basics of casting and will try to answer these questions. More importantly, we want to simplify the process and clear up any

hesitation you may have about getting started. Note that some casting techniques will require experimentation on your part. With that, we hope to inspire you to explore and find methods and techniques that work for you.

Resin properties

One of the first uncertainties people have when getting started in casting is what resin to use. There are several types on the market today, and it can feel overwhelming. Thanks to Internet forums, symposia, and articles like this, we can all quickly move past beginner mistakes and learn from each other’s success.

CHATTANOOGA DEMONSTRATOR!

Mark Dreyer will be a featured demonstrator at the 2022 AAW Symposium in Chattanooga, Tennessee, where he will cover pen making and casting. For more details and to register for the event, visit tiny.cc/AAW2022.



A Note About Safety

Casting involves the use of chemicals and special tools, which carry inherent risks, but with proper safety precautions, these risks can be managed. Each of the resins discussed here comes with its respective use and instruction sheet. Make sure to read, understand, and follow these instructions, and if you have questions or concerns, contact the product manufacturer. Eye protection, gloves, and a respirator are all critical when casting. Within proper safety guidelines, casting can be enjoyable and safe.

Heat thins viscosity



Heat thins resin, which makes it flow better, but it also hastens the curing process. So, if thinner viscosity is the goal, apply heat to the resin just prior to mixing it with the hardener.

It is important to understand that all resins are not created equal, and each has its pros and cons. Understanding their qualities will help ensure you have the correct resin for your project. When purchasing resin, it is best to buy from a resin manufacturer or dealer you trust to ensure you are getting the freshest resin possible, made to be used the way you intend to use it. Avoid hobby stores and retailers when possible. You never know how long a product has been on their shelf.

Always store resin in its original container in a cool area out of sunlight to maximize its shelf life. Most of the time, your project goals will dictate what resin you should use based on its viscosity, working time, adhesion, and durability.

Viscosity

Viscosity is the thickness or flow-ability of the liquid resin. It can have a large impact on your success. If your resin has a high viscosity (very thick), it is harder to mix and can use up much of your working time. It can also have an impact on your ability to flow resin into objects like pinecones or things with small voids. To give you an understanding of viscosity, here are a few common items measured in units called centipoise (cP):

Water	1 – 5 cP
Maple Syrup	150 – 200 cP
Honey	2,000 – 3,000 cP
Ketchup	50,000 – 70,000 cP
Peanut Butter	150,000 – 250,000 cP

The viscosity of casting resin is typically between 100 cP and 500 cP. You may find that resin will thicken over its shelf life, and when this happens, placing a clamp-style light near the resin to warm it to 80 to 100 degrees will thin the viscosity to an easier working state (*Photo 1*). It's important to know that resin cures with heat, so warming it will also shorten your working time. One solution is to let your resin cup sit for fifteen minutes, or until it reaches room temperature, before mixing it with hardener.

Working time

Working time is the time a resin remains “workable,” before it sets up

and can no longer be poured. Most of the resins on the market have their working time noted on the label. This includes time for mixing, coloring, and pouring and is very important when choosing a resin. You wouldn't use a resin with a two-minute working time if you were making a large cast that will take four minutes to mix, color, and pour; it would set up in the mixing cup before you finished. All resins have different working times, generally ranging from two to forty-five minutes.

Measure parts accurately

When you buy resin, it will come with a guide for preparing and mixing it, including key ratios. Most products are a two-part mix (resin and hardener), and it is imperative to mix the parts as directed. “Close enough” or “about” simply does not work with these products. When resin is mixed improperly, the result can range from prolonged hardening time to the colors not mixing to it simply being unusable. Always weigh the two parts in grams for a more accurate mixture.

Three resin types

Polyester resin

Polyester resin (PR) was one of the first being used in individual casting projects because it was readily available and is the least expensive. It has been used in the marine and composite ►

Polyester resin



(2-3) Silmar 41 is a popular brand of polyester resin. Be sure to add the hardener, or catalyst, accurately.

(4) Polyester resin cures to a clear, glass-like state and is well suited for “on-tube” casting projects such as pen blanks.

Urethane resin



Alumilite is the primary maker of urethane resins, which are ideal for clear, colored, and embedded-object casting. Color separation can be achieved easily with this product's shorter working time; it sets up before the colors can blend together.

industries for years, in products like carbon fiber and fiberglass applications. Silmar 41 (*Photo 2*) is probably the most widely used PR brand, though others are available. To keep your turning blanks less brittle, it is recommended that you mix only three to four drops of the supplied hardener/catalyst per ounce of resin (*Photo 3*).

PR has many good qualities. It is more affordable than other resins (about \$50 per gallon), has a longer working time (15 to 30 minutes, depending on temperature and amount of catalyst used), and is easily colored with both dyes

and mica pearls. PR does not have to be cured under pressure, and it cures to a glass-like state, making it ideal for clear casts or casts of one color. Its viscosity can be easily thinned with heat, and it adheres very well to itself for seamless layered pours. Lastly, it turns, sands, and polishes very easily.

The downside to PR is that it has a very strong odor in its raw state, so proper ventilation and a respirator are imperative. It is also more brittle than other resins and will not hold up to threading. It requires a long curing time (eighteen to twenty hours) and also shrinks during curing,

making it less than ideal for “worthless-wood” or embedded-object casts.

PR works very well for casting over labels, objects held down with cyanoacrylate (CA) glue, or other “on-tube” projects. It is ideal for casting blanks for pens, bottle stoppers, or eggs (*Photo 4*).

Urethane resin

Urethane resin is often referred to as Alumilite, as that is the name of the primary maker of this type of resin (*Photo 5*). Alumilite offers two clear urethane resins—Clear and Clear Slow—which are ideal for clear, colored, and embedded-object casting. They are both mixed the same way, with the two parts being measured in a 1:1 ratio. Both can be colored with dyes and mica pearls. The difference between Clear and Clear Slow is their working and curing times. Larger and deeper pours should be cast in Clear Slow to avoid thermal cracking from excessive heat in the resin during curing.

Although a bit more expensive than other resins (about \$80 per gallon), Alumilite resins are preferred by many because they are odorless, making them ideal for use in enclosed areas. Once cured, they are more durable and less likely to break or shatter during turning. Because of their shorter working time, it is also easier to maintain color separation during pours (*Photo 6*). They work well for worthless-wood, hybrid, and embedded-object casts. Note that objects being embedded, or cast, must be thoroughly dry. So it is a good idea to warm the objects in an oven prior to casting. Any moisture in the cast can lead to failure—uncured resin, separation from objects, and/or a white haze or foam in the cast.

One drawback to urethane resin is that it doesn't adhere well to itself in layered pours, creating a weak bond. It also doesn't cast well over CA glue and must be cured inside a pressure tank, which limits the size of your cast. As noted, Alumilite is very sensitive to moisture, so you should use only Alumilite dyes when coloring. Finishing

Epoxy resin



Many companies offer epoxy resins with various qualities, so this is a popular choice. Don't confuse epoxy resin (for casting) with epoxy adhesive (for gluing).

Pressure tank



A pressure tank is useful for removing air bubbles from the resin before it cures. This is particularly useful for urethane resins, which cure quickly.

a urethane clear cast can also require more effort to get a glass-like finish.

Alumilite makes other urethane resins that cure to solid colors: white, tan, and black. These are much thinner and easier to mix. Their working time is only two minutes, but you don't have to spend any time mixing color since they cure to an opaque, solid color. They are also lower in price (around \$60 per gallon).

Epoxy resin

Epoxy resin (*Photo 7*) is one of the most popular resins, partly because there are so many companies competing, and each has its own version with special qualities. Its name brings confusion, however, because we have both epoxy *adhesives* and *resins*. Adhesives are made to be used as a glue, while resins have broader applications, such as very thin pours as a sealer on floors, countertops, and furniture, as well as for making industrial and manufacturing parts and, of course, unique and original turning blanks. Some epoxy resins are a one-part product cured with UV light, but the majority come in two parts and cure through an exothermic chemical reaction when mixed.

Most of us have used the two-part five-to twenty-minute epoxies that comes in a “dual-plunger” package. They are great for gluing and sealing but not for casting. They do work fine for filling small voids in wood and can be mixed with dyes and mica pearls, but they offer a very short working time. And because of their thicker viscosity, it helps to warm them prior to mixing by placing them in direct sunlight or under a light bulb. The heat will thin the resin, making it easier to mix, color, and get into small cracks and voids. If you have several areas you want to fill, it is best to do them one at a time, mixing only enough to fill one void.

Epoxy adhesive is generally known for its ability to adhere well to objects, and this holds true for epoxy resins as well. It is readily available and comes in different forms to suit various tasks: coating epoxy is for thin pours but has

Stabilizing with vacuum



Stabilizing wood is not the same as casting, but it is a good idea to stabilize punky wood prior to casting it. Here, a vacuum pump “pulls” stabilizing solution into the wood pores. It is then baked to a hardened, useable state.

a higher viscosity, so it doesn't run, while deep-pour casting epoxy resin has a thinner viscosity, allowing you to get it in and around objects or small voids. It is very important to pick the correct epoxy resin for the job. Some popular providers are Alumilite, Liquid Diamonds, and West System. When in doubt, ask the manufacturer what they recommend for your application.

Epoxy casting resins generally come in two parts (A and B) that are mixed in either a 1:1 or 2:1 ratio. UV-cured resins do not require any mixing but are not intended for deep pours; they are used as a coating resin, rather than a casting resin.

Epoxy resins tend to have low odor and don't require a pressure tank to cure, making them ideal for large projects and molds that are too big for a pressure tank, or for filling open cracks in a project. They offer a very long working time, ranging from twenty minutes to two hours, and have minimal shrinkage during curing. Most of the time, air bubbles will float out on their own, but some people use a heat gun or torch to assist in their removal. Because of its long working time and adhesion qualities, epoxy resin is used for a wide variety of turning projects.

One disadvantage is that epoxy resin is more expensive than other resins (\$100 + per gallon). Some must be poured in overlapping thin layers to ensure proper

curing. They are UV sensitive and will turn yellow or amber with time, which is undesirable with clear casting. Epoxy resin can be harder to demold (remove from a mold). Lastly, it cures very slowly. While the casting may be firm to the touch in one day, many epoxy resins require up to seven days to fully cure.

Pressure tank and vacuum

A pressure tank is useful for compressing (and thus removing) the air bubbles in the resin (*Photo 8*). This is a necessity with urethane resin because it de-gasses and cures so quickly. Without a pressure tank, air bubbles could remain trapped in cured urethane resin. With epoxy or polyester resins, a pressure tank is not needed but will help reduce failures nonetheless.

Vacuum, on the other hand, is used in stabilizing. You could, for example, submerge old punky wood in a stabilizing solution (such as Cactus Juice) and “pull” the air out of the wood pores (*Photos 9, 10*). When you release the vacuum, the pores are filled with stabilizing solution, which is then baked to a hard resin state, securing the wood for either turning or casting.

Some like to use vacuum to remove air bubbles from their cup of polyester resin prior to pouring it in a mold. This step is not necessary if you are using a pressure tank. And if the resin has a ►

Molds



There are seemingly endless options for pouring molds. Aside from commercially available options, you can repurpose plastic food containers or cans, or you can make a custom mold with wood.

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low viscosity when mixed, most of the bubbles will float up within a couple of minutes anyway.

Casting molds

There are many mold options for casting. Your choice of mold is influenced by the size of your cast, the resin you choose, the number of blanks you are casting, your financial investment, and more. Options include commercially made molds, recycled (repurposed) items, and handmade molds (*Photo 11*).

Commercially made molds are great but are usually limited to smaller casts for pens, handles, and blanks

under 6" (15cm) square. They can be a little expensive but offer the most life because they are reusable.

Recycled or repurposed materials are economical and readily available, so it's not hard to find the right-sized mold for the project at hand; plastic food and product containers, mixing bowls, soda cans, and similar items are good choices. When using plastic as a mold, make sure the recycling code on the container is a 1 or 5. This is the number usually found on the bottom in the arrow triangle.

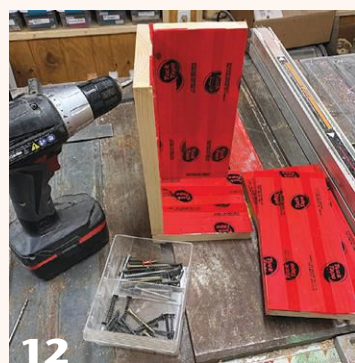
Shopmade molds may be required for large or custom casts and are

usually constructed for one-time use. Making your own molds can be advantageous in conserving resin (and money). Some materials well suited for making molds include high-density polyethylene (HDPE), Delrin®, silicone caulk or rubber, PVC, putty, and melamine. Any wood can be used as long as it's covered with a nonstick material such as sheathing tape, Mylar®, plastic wrap, or wax paper (*Photos 12-15*). A mold release will also help, and there are commercial releases made for specific mold materials that work very well. Other products such as vegetable or mineral oil, cooking spray, or petroleum jelly can work but should be considered as a last resort.

Colorants and other supplies

All casting resins can be colored, but to ensure success, it is best to use the brand of dyes that are sold with each resin. Dry colorants like mica pearls add a metallic or pearlescent effect to clear resin and can be mixed with them all. With a little experimenting, you will find other additives that work to color your resin, like acetone-based spray paints, fingernail polish, powder fabric dyes, and glitter (*Photo 16*).

Shopmade mold



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A wood mold should be lined with a nonstick material such as sheathing tape (in this case, Tuck Tape®).



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An olive burl is set in the mold, poured with a colored resin, and cured in a pressure tank (shown open for illustration purposes).



14



15

It's a good idea to make a designated casting area. This will keep your tools and work area free of resin, while keeping sawdust and foreign objects out of your casts. It's also a good idea to wear an apron or older clothing. You will also need wood stirring sticks or bamboo skewers (great for adding dyes to resin), an electric drill with a mixing bit (a 1", or 25mm, spade bit with the tips ground off works well), cups in which to measure and mix resin, and a postal scale that measures in grams.

Turning cast resin

Turning a blank of resin and wood is different than turning either a wood-only or resin-only blank. Many woodturners use only high-speed steel tools, but when working resin and combination blanks, a broader tool arsenal could be advantageous. Consider that table saw blades vary depending on the task for which they are designed—cross-cutting, ripping, or cutting plywood or melamine. Why then do we turners expect our favorite cutting tool to be able to do all cuts on all materials?

During a bevel-rubbing cut, high-speed steel tools tend to slide across the resin and the transition areas more than on wood. This slide could cause a catch in the wood during transitions. As with all turning, if you have a catch or a jump, look at the piece and figure out what went wrong. Catches in resin are much different than catches in wood. Resin will chip, and the chip is not limited to just where the tool caught. You may see a series of small chips or catches in the resin. Resin chipping is common with dull tools, too fast or too aggressive a cut, or air bubbles in the resin. A resin catch can go much deeper and even crack the entire piece.

We suggest carbide tools for this type of turning. Carbide tools will provide a much more consistent, uniform cut

over transition areas and on solid surfaces (wood or resin). Carbide is always cutting on an edge, so there are no concerns that the bevel will slide out of control over the resin. Note that just because you do not have to sharpen carbide, does not mean you do not need to use a fresh edge. Rotate the cutting head when you feel the tool is not providing a consistently clean cut.

Sanding and finishing

When working a traditional wood blank, depending on the finish, most turning can be sanded to 400 or 600 grit. Resins are a different breed, requiring much finer scratch removal, possibly up to 12,000 grit, using Micro-Mesh™ abrasives. With resin, you will need to go through more grits, but each grit should require only a very light pass.

If you encounter a small imperfection in the resin, consider “patching” or “leveling” it with CA glue. CA is a good filler of small voids in resin and when finished is usually imperceptible. Note that after applying the CA, you will most likely need to go back and work your way through all the sanding grits again. Do not skip a step here, as you will see the patch if it is not worked properly.

As for an actual finish, we have had good luck with both oils and lacquer. An oil finish will have little effect on the resin but can make the wood stand out. Lacquer will make both materials stand out.

With experimentation, you'll find what works best for you. Consider casting a journey that you will continually refine as you explore new techniques and products. ■

John Underhill, of Ottawa, Illinois, is a retired deputy sheriff of twenty-seven years and an active woodworker for more than thirty-five years. He began turning and casting in 2007 and is now an award-winning pen and blank maker and demonstrator. John's work can be found at underhillcustomcreations.com and exoticblanks.com.

Mark Dreyer, of Aurora, Illinois, is an electrical engineer by education. He has been a woodturner for over twenty-five years and enjoys demonstrating and promoting pen making and woodturning across the country. Mark has demonstrated at numerous AAW Symposia and at regional events such as Turn On! Chicago and the Midwest Pen Turners Gathering, as well as for numerous local clubs. He is an active member of Chicago Woodturners and Windy City Woodturners. Mark's work can be found at markdreyerturning.com.

Colorants



A wide variety of colorants can be added to casting resins to interesting effect.

Gallery of Cast-and-Turned Work



Alan Hunt, Nevada

Cedar and Mesquite Bowl, 2021, Alumilite Amazing Deep Pour resin, cedar, mesquite, 8 $\frac{3}{8}$ " x 14 $\frac{5}{8}$ " (21cm x 37cm)



John Underhill, Illinois

Grogu, 2021, Alumilite Clear Slow urethane resin, buckeye burl, dried flowers, 4" x 3" (10cm x 8cm)

Photo: Julane Johnson



Alicja Solarska, Poland

Untitled Platters, 2021, Oak, dyed epoxy resin, largest: 1 $\frac{1}{2}$ " x 13 $\frac{1}{4}$ " (40mm x 34cm)

Benjamin Stuht, Thuringia, Germany

Untitled Bowl, 2021, Apple wood, bumblebee, Iceland moss, daisies, Wafe resin, 3 $\frac{1}{2}$ " x 7" (9cm x 18cm)



Mark Dreyer, Illinois

Pepper Mills, 2022, Left two (salt and pepper set): Alumilite White, pasta; Middle: Alumilite Black, colored pencils; Right: Alumilite Clear, dye, pinecones, sweetgum pods, tallest: 7 $\frac{1}{2}$ " (19cm) tall



Jeff Hart, Illinois

Untitled Orb, 2020, Alumilite Clear Slow resin, sky blue dye, Australian red mallee burl, 4" (10cm) diameter



Bobby Moffett, Louisiana

Patch Work Quilt Brush, 2021, Silmar 41 resin, colorants

The blank for this brush was made from a "remnant pour," meaning leftover resins from multiple pours (in this case, at least eight) were saved in a 60-dram pill bottle until there was enough resin to make a brush blank.



Ethan Phillips, England

Clearly Spherical, 2020, Easy Composites epoxy resin, spalted beech, American black walnut, tulip wood, sapele, oak, ebony, wenge, maple, boxwood, sycamore, unknown woods, 1¼" × 8¼" (32mm × 21cm)

The wood pieces cast in this bowl were cut from hand-turned spheres, comprising thirteen wood species.



George Partal, Maine

Cherry Burl Bowl, 2021, Alumilite resin, cherry burl, blue and lavender PearlEx mica powders, 5" × 12" (13cm × 30cm)



Don Metz, Connecticut

Rising Sun, 2016, Oak burl, casting resin, dye, acrylic paint, 4½" × 12" (11cm × 30cm)



Julann Troiano, New York

The Road Not Taken, 2022, Cherry, resin, seaweed, pyrography, acrylic paint, 2" × 11" (5cm × 28cm)



Keith Lackner, Illinois

Reverence (made after the passing of Ray Key), 2019, Alumilite Clear Slow resin, orange and yellow dye, gold mica powder, bigleaf maple burl, 7" × 5" (18cm × 13cm)

A TABLE SAW SLED FOR PRECISION-CUT STAVES

Dan Swaim

Stave-constructed turnings allow the turner an opportunity to exploit the grain and figure of woods, with a high degree of control over the shape and appearance of the finished work. Unlike the mystery of a solid, one-piece bowl blank, where the figure unfolds during turning, a stave-constructed piece is designed from the start with the end in mind. An additional benefit is that using flat-sawn lumber can be quite a cost savings, allowing the use of exotic woods one might not be able to afford otherwise.

One challenge, however, is that cutting staves accurately on the table saw can be problematic, even for experienced woodworkers. Since staves require compound miter cuts, sufficiently accurate setup is difficult, and the saw operation can be quite hazardous. Accurate angles are difficult to achieve, parts slip against the miter fence, and off-cuts can become trapped under the spinning blade. Even attempts to use “hold-down fingers” can expose the operator’s fingers to the angled blade extending above the cut. Trying to true up poorly cut staves can be tedious and could result in poor-quality glue joints or a “wobbly” blank, where most of the wood must be wasted just to true the blank for turning safely.

For segmented woodturners, Jerry Bennett’s Wedgie Sled (see example shown on page 32) solves these problems. After setup, one can expect perfect segments right off the table saw with no sanding or adjustments needed. After several failed attempts at different jigs for cutting staves, I realized that a



Stave-constructed bowls and vessels offer unlimited design opportunities, but cutting accurate staves can be challenging.

modified version of the Wedgie Sled was the answer. With all credit to Jerry Bennett, the stave-sled idea was born, and it is now possible to cut perfect staves and glue them up straight off the table saw with no tinkering.

You will need to make one set-up wedge for each combination of the bowl side angle and number of staves. However, set-up wedges are quick to make and can be saved for future work. A key feature of the stave sled is that the miter angle needs to be only modestly accurate and then the blade angle is “tuned” to bring the stave into an exact fit. Both settings are then “saved” by the set-up wedge.

Build the sled

Base and fences

Building the sled, shown in *Photo 1*, is fairly simple. Note that these construction notes assume a left-tilting table saw in order for off-cuts to drop clear of the saw blade. Choose a suitable substrate; Baltic birch, medium-density fiberboard (MDF), or particle board will work. A base of about 12" × 24" (30cm × 61cm) will allow you to cut staves for bowls as deep as 10" (25cm) and up to 25" (64cm) in diameter for shallow bowls or platters.

The sled runs lengthwise on the right side of the blade. Install a runner that fits your saw’s miter slot such that the

base overlaps the saw blade by about ½" (13mm) (to be cut off later). Hardwood is a good choice for the runner, but I've found that a piece of leftover T-track is a great option that always fits snugly, doesn't change with humidity, and wears well. Before installing the base runner, drill the two holes for the fences to pivot on about 1½" (38mm) from the left edge and centered length-wise about 3" (8cm) apart. Use these holes and a suitable router setup to route two arcs for both the fence and hold-down locking bolts.

Flip the base over and route recesses for the bolt heads. While carriage bolts will work fine for hold-downs, T-track bolts or, better yet, toilet bolts slide in the recess much better than carriage bolts.

Use a dimensionally stable wood for the fences, as they will be key to repeatable accuracy. Install the fence on the pivot hole, then use the routed arc as a guide to drill the second hole in the fence for quick and easy alignment and a smooth swing.

Hold-downs

The hold-downs are essential for this jig. In addition to safely holding the work, they provide the registration face to control the angle and width of the staves. Having the staves be identical in width is just as important as the miter and bevel angles. The hold-down material must be at least 1" (25mm) thick. If it flexes or lifts off of the base when applying the toggle-clamp pressure, it will cause errors in alignment. Select the hold-down thickness and toggle clamp based on the work you plan to do. On the sled shown, a spacer has been added to the hold-down to allow the toggle clamps to hold staves up to 2" (5cm) thick.

Safety Note: Do not build/use this sled without a mechanical hold-down, such as a toggle clamp. Regardless of your imagined strength, the stave cuts are long rip cuts on relatively small pieces of wood, which cannot be held safely by hand or hand-held

*hold-downs. At best, the staves will slip and be unusable. More likely, the slipping piece will catch the saw blade and be kicked back into your face or body. For cutting segments, which are generally short cross-cuts, holding the work by hand is appropriate, but this is **not** the case for the long rip cuts for staves.*

Chamfer or round over the edges of the fences and hold-downs to prevent trapping sawdust or debris. Assemble everything with nuts, bolts, and washers and you're ready to set up your first cuts.

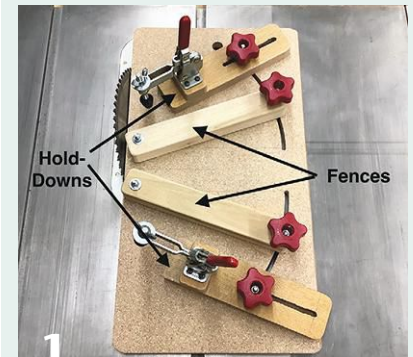
Important terms

Before cutting your first set-up wedge, let's clarify the terms that we'll be using.

The *slope* (S) is the side angle of your project as measured from the horizontal surface (tabletop) to the side. If S=70 degrees, the sides will be steep, as in a deep bowl, whereas if S=30 degrees, a shallow bowl approaching a platter will result.

The *number of staves* (N) can be anywhere from six to twenty-four or thirty-two, depending on the design and grain/figure of the wood you are using. A small number of staves (six to ten) tends to highlight the grain and ▶

Wedge Sled modified for cutting staves



The stave sled provides hold-downs for safety as well as precision cutting.

Compound Miter Angle Formulae

Miter Angle*

$$MA = \arctan \left(\frac{1}{\cos S \times \tan \left(\frac{180}{N} \right)} \right)$$

*Miter **gauge** setting will be (90-MA)

Blade Angle

$$BA = \arctan (\cos MA \times \tan S)$$

Commonly used compound miter angles

Compound Angles for Staves									
Slope	8 Staves		10 Staves		12 Staves		16 Staves		
	Miter Angle	Blade Angle	Miter Angle	Blade Angle	Miter Angle	Blade Angle	Miter Angle	Blade Angle	
0	22.5	0.0	18	0.0	15.0	0.0	11.25	0.0	
15	21.8	5.7	17.4	4.6	14.5	3.8	10.9	2.9	
30	19.7	11.0	15.7	8.9	13.0	7.4	9.8	5.6	
45	16.3	15.7	12.9	12.6	10.7	10.6	8.0	7.9	
60	11.7	19.4	9.2	15.5	7.6	13.0	5.7	9.7	
75	6.1	21.7	4.8	17.4	4.0	14.5	3.0	10.9	
90	0.0	22.5	0.0	18	0.0	15.0	0.0	11.25	

Figure 1. All settings are in degrees read directly from saw scales.

figure of the wood but causes a bit of “bounce” when truing up the bowl blank at the lathe. A small number of staves also leaves less wood for achieving curvature of the sides. A large number of staves gives a more even or consistent look to the bowl, but they can be tedious to cut and any remarkable grain or figure in the wood is lost in the final turning.

Together, S and N are used to determine the miter angle (MA) and blade

angle (BA). The formulae for determining MA and BA are shown in the *Compound Miter Angle Formulae* sidebar. This information is critical for cutting the exact trapezoidal wedge needed, though *Figure 1* provides some common examples of angles for a variety of vessels. The MA is read directly off your miter gauge or a protractor. The BA is read directly off the table saw’s blade angle adjustment scale. Tuning the blade, or bevel, angle is the trick to

getting an exact fit for the staves, and just how to do that will be described in the following paragraphs.

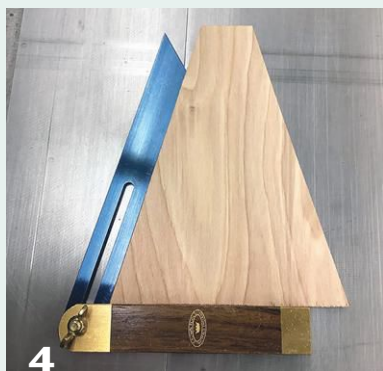
Make a set-up wedge

To make your first set-up wedge, use a protractor or after-market miter gauge to set the miter angle. Using thin plywood or MDF, cut a wedge about 8" to 10" (20cm to 25cm) long and about 4" (10cm) at the wide end (*Photos 2, 3*). Cut both sides of the wedge without

Make a set-up wedge



A miter gauge is used to cut the first side of the set-up wedge, which is then flipped before cutting the second side. The miter gauge angle remains the same.



Use a bevel gauge to confirm that the angles on both sides of the set-up wedge are the same.

Trim and label set-up wedge



Trim the small end of the set-up wedge to the desired blade angle (found in *Figure 1*). Label the set-up wedge for future use.



Cut staves to length



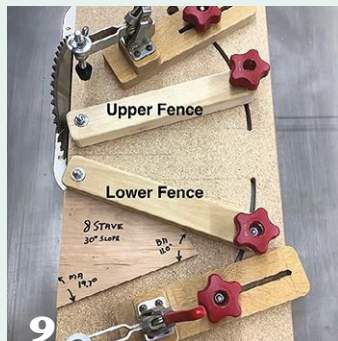
Cut the staff sections to length, using a stop for consistency. Number and mark the orientation of the staff sections as they come off the board to allow for grain matching during glue-up. Dark pencil lines across one end indicate the top, or wide, end of the staves.



Set blade and fence angles



8 A single set-up wedge is used for both blade and fence angles. Set the blade angle using the small end of the set-up wedge.



(9-9a) The long sides of the wedge are used to set first the lower fence, then the upper fence. The wedge ensures easy, accurate setup every time.

changing the miter-angle setting. While it is not critical that the angle measurements are exact, it is essential that both angles are equal. Use a bevel gauge to confirm the angles (*Photo 4*). This long taper is a bit difficult to hold steady, so you may need to slightly trim both sides of the taper until both angles are identical.

Using the miter gauge again, set up the required blade angle. With a long side of the tapered wedge against the miter gauge cut off a small portion of the wedge from the small end, resulting in an edge about 2" long (*Photo 5*). You'll save this set-up wedge for future projects, so it is a good idea to label it as shown in *Photo 5a*.

are cut to support grain-matching and orientation during glue-up. Only the rims, or tops, of the staves will be registered against the sled fences, so mark them with a heavy pencil mark and arrow as a reminder (*Photo 7*).

Using the beveled end of the set-up wedge, set the table saw blade angle (*Photo 8*). Since this is the first time the sled will have been used, advance the empty sled through the saw to trim off the overhanging edge of the base. Note that this edge will be trimmed away each time you use a smaller blade angle but will never be trimmed past the 0-degree setting on your saw. Using the set-up wedge, set the two fences,

first the lower fence, then the upper fence (*Photos 9, 9a*).

After setting the toggle clamp to a firm holding pressure, register the top of the stave against the lower fence, as shown in *Photo 10*, and use the hold-down to set the desired width of cut. If your board is a little uneven in width, it doesn't matter at this point because the final width is determined by the upper fence. Make your cut by advancing the sled through the table saw using a steady, even pace. Watch between the fence and top edge of the fence to ensure the wedge segment doesn't slip or rotate as you push through the cut (*Photo 11*). If it does, use a push stick or increase clamping ►

Cut the first staves

The first time the set-up wedge is used, the blade angle will be adjusted to exactly match the slope and number of staves for the miter angle. The initial staves should be cut about ½" larger than the final dimension to allow for a few trimming cuts to tune the blade angle for an exact fit.

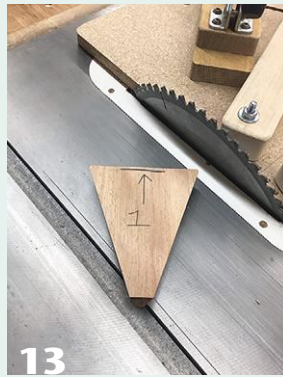
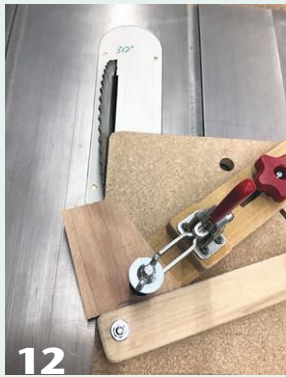
Start with a board of sufficient length to cut the desired number of staves. The lumber should be flat and, most importantly, the cross-cuts must be straight. Use a stop to ensure all staves are the same length (*Photo 6*). Number the stave pieces as they

Cut first side of stave using lower fence



Always register the top, or wide, end of the stave against the fence—never the smaller end. Adjust the hold-down position and clamp the stave in place. Use a steady, even pressure to cut the first side.

Cut second side of stave using upper fence



(12-12a) Flip the workpiece to keep the top edge against the upper fence, adjust the hold-down position according to the desired width (allowing for some extra at this point), and finish cutting the stave. Maintain safe hand position when cutting staves.

(13) A “perfect” stave, although still a bit wider than the final dimensions.

pressure to prevent movement. This is necessary only on the lower fence.

Now flip the stave to register the top edge against the upper fence. Again, always register the top, wider edge—never the smaller end—against the fence. Use the hold-down as a side fence, as shown in *Photo 12*, and set the width to a bit oversized to allow for a few “tuning” recuts. Now pass the stave through the saw to cut your stave. Note that for this final cut, the blade pressure is pushing the stave into the fence, so slippage is not a concern like it was when registering against the lower fence. Note the user’s safe hand positions when cutting staves (*Photo 12a*).

The resulting stave should be as desired, but a bit oversized in width (*Photo 13*). If all looks good, cut the remaining number of staves using the same process: use the lower fence to trim and true one edge, and use the upper fence to trim and true the stave to final width.

Adjust the blade angle for a perfect fit

Although your initial staves may seem “perfect,” it is unlikely they will glue up without any gaps. So now you will tweak the blade angle just a bit for perfect fit and glue-up. Using masking tape or other holding methods, assemble the staves to check their fit (*Photo 14*).

If you have a gap at the outer edge of the assembled staves, increase the saw blade angle slightly (moving it in the direction of horizontal). If the gap is on the inside edge of the assembled staves, decrease the saw blade angle (moving it in the direction of vertical). Only small adjustments should be required—don’t overdo it! Now recut all of your staves, trimming both sides. Reassemble with tape and test-fit again (*Photo 15*). If there is still a gap, repeat the blade-adjusting process.

When you are happy with the fit, use your miter gauge to re-trim the set-up wedge to the final blade angle (*Photo 16*). You now have a set-up wedge for repeated, accurate use.

Dry-fit and adjust



Test-fit the staves before glue-up. Held by hand pressure and masking tape on the back (not visible here), a gap at the inside edge of the staves is evident. To correct this, decrease the blade angle (i.e., move it towards vertical) and re-trim both sides of the staves. After this small adjustment, the staves fit perfectly.

Finalize set-up wedge



When your staves fit together with no gaps, re-cut the small bevel angle on the end of the set-up wedge. For future projects, you’ll be able to use this wedge for quick, precise setup—no test cuts or wasted time and material trying to get an acceptable fit.

Helpful sidebars

- See *Gluing Up Staves* sidebar for tips on final assembly of the turning blank.
- See *Mounting a Staved Workpiece* for tips on mounting a staved assembly on the lathe.

Conclusion

By varying the stave thickness, width, or length, a limitless variety of bowls or vessels can be turned using one set-up wedge and the stave sled.

Though it takes a few minutes to tune up the blade angle when first making

the set-up wedge, it should seldom take more than three test “trimmings” to adjust the blade angle for an acceptable fit. You can then make numerous stave turnings of various height and diameter from the same set-up wedge (*Photo 17*). ■

Dan Swaim is retired from the nuclear operations industry and lives in Fort Collins, Colorado. A lifelong woodworker, he has been turning since 2014 and focuses mainly on segmented and other “constructed” work. Dan is a member of the Rocky Mountain Woodturners and the AAW.

One wedge, many variations



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If you vary the stave thickness, width, and/or length, numerous variations of bowls and vessels can be made using just one set-up wedge.

Gluing Up Staves

Your accurately cut staves must be glued up into a circular assembly that runs true for turning. Glue-up for stave-constructed turnings is considerably messier than for segmented rings. For one thing, you are gluing up an entire vessel, not just a single ring. Additionally, clamping a flat ring is considerably easier than a multi-sided, conical shape. A typical approach consists of several rings or “doughnuts” and multiple threaded rods to squeeze the assembly together. At least once, I’ve had the entire masking-taped assembly fall apart just after applying glue but before I could get the clamps on. Scrambling ensued, resulting in an off-centered glue-up and large glue lines and gaps. A much faster and more certain method is to attach small blocks to provide a surface for hose clamps to provide the clamping force.

Helpful tips

First, instead of masking tape, use gummed paper tape to hold all of the pieces in alignment (*Photo a*). This tape is much stronger than masking tape and will prevent the assembly from falling apart.

Using $\frac{3}{4}$ " $\times$ $\frac{3}{4}$ " (19mm $\times$ 19mm) scrap wood, cut 1"-long blocks at the same angle as your planned side slope. Using cyanoacrylate (CA) glue or hot-melt glue, attach the blocks to the stave segments, evenly spaced from the top and bottom of the staves (*Photo b*). Allow the glue to set a few minutes (or use accelerator), then fold up the assembly and apply hose clamps to bring it into alignment (*Photo c*). Dry-fit the assembly a few times to get the feel for how much force to apply to the hose clamps. If you over-tighten them, you’ll probably pop off one of the glue blocks. Because the staves should fit very well, less pressure is required than you might think. Apply pressure evenly, alternating between the top and bottom hose clamps to draw the glue

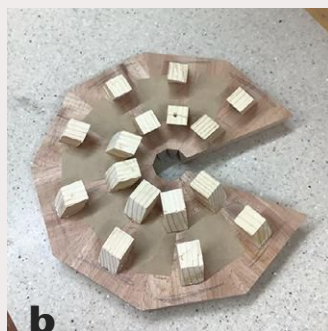
joints tight. When you are comfortable with the operation and have a good fit, fold out the assembly, apply an even layer of glue, fold up the assembly, and reapply the clamps.

For shallow bowls, generally 45-degree side angle or less, apply the hose clamps to the glue blocks directly. For deeper bowls, generally 45 to 75 degrees, just glue a few of the blocks on and apply the hose clamps directly to the staves just below the blocks. The glue block keeps the hose clamp from sliding up the tapered side when tightened (*Photo d*).

Although cutting and attaching the glue blocks sounds as if it would take a lot of time, it is actually faster than fiddling with multiple rings and threaded rods, especially if you need to make a new ring. After the glue has dried, pop off the glue blocks with pliers; they can be re-used many times.



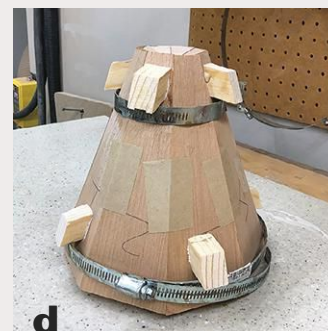
a Paper shipping tape has superior holding power over masking tape and allows for better handling.



b Small glue blocks attached directly on the staves with CA or hot-melt glue aid in keeping hose clamps in place.



c Hose clamps draw the glue joints tight. Dry-fit the assembly first to get a feel for sufficient pressure.



d For deeper bowls, the glue blocks just keep the hose clamps from sliding up the tapered sides.

Mounting a Staved Workpiece

For your glued-up stave construction to run true on the lathe, allowing the maximum amount of wood to be available for final shaping, the workpiece should be as round as possible, mounted parallel to the lathe axis, and co-aligned with the lathe center. Perfect staves and a good glue-up provide the roundness needed. To mount the workpiece to run true, I use a shopmade drawbar and four-jaw chuck to cut an internal recess for mounting on a four-jaw chuck (*Photo a*).

Flatten top and bottom

First, check that your workpiece top and bottom are flat and parallel to each other. Examine the edges of the large diameter and knock off any glue blobs or obvious high spots. Set the workpiece on a flat surface and ensure it doesn't rock. If it does, rub it on a piece of sandpaper until it is

stable. Place a ruler across the small end and check that it is level. If it isn't, flattening the small end on a drill press with a sanding disk is a quick way to true that area (*Photo b*).

Drawbar centers workpiece

With the large and small diameter rims flat and parallel, the workpiece will be parallel to the lathe axis, but not necessarily centered on the axis. A drawbar mounted through the lathe's headstock is the solution. With the four-jaw chuck open fairly wide, press the small end of the workpiece against the flat bottom of the jaws, install the drawbar with a centering disk or cone of appropriate size and draw the workpiece snugly, but not tightly, against the jaws (*Photos c, d*). Tighten down on the jaws to center the workpiece on the chuck, but not so tight as to lift the workpiece off the flats. Then tighten the drawbar to firmly hold the workpiece.

At slow speed, rotate the workpiece to confirm it runs true. If it wobbles, loosen the jaws slightly and tap the workpiece in the direction needed to true it up. Check that the drawbar remains tight. At this point, all of the holding power is between the drawbar and the flats of the chuck jaws; the jaws' gripping surfaces are just providing alignment to center the workpiece.

Using a slow speed, 600 rpm or less, cut a very small recess with a parting tool or bedan just slightly larger than the minimum opening of your chuck jaws (*Photo e*).

You're all set for a perfect turning. Pull the workpiece off the chuck/drawbar, flip it over, and mount it on the four-jaw chuck in expansion mode. With the work mounted in this fashion, you can completely turn and sand the outside, attach a foot with a mounting recess or tenon, and then flip the piece to finish the inside turning and finishing (*Photo f*).



a A simple shopmade drawbar comprises all-thread rod and a centering cone.



b The base can be flattened using a drill press with a sanding disk.



c The small end of the workpiece sits on the flats of the four-jaw chuck, while the drawbar centers and holds the workpiece firmly.



e Because the jaws will hold the workpiece in expansion mode, only a small recess is needed.



f Reverse-mounting the piece with the jaws in expansion mode allows excellent access for complete outside turning, sanding, and installing a foot. Turn a recess or tenon on the foot for remounting the piece to turn the inside.

Segmented Turning Today: A REMARKABLE EVOLUTION

Al Miotke

Malcolm Tibbetts' 2011 article, "Segmented Turning Comes of Age" in the AAW's 25th-anniversary publication, *Woodturning Today: A Dramatic Evolution*, summarized the history of segmented woodturning to date and discussed how this specialty area was growing in popularity. Eleven years on, segmenting has exceeded all expectations and continues to evolve. Today, segmenters are experimenting with new techniques, investigating multimedia, and breaking through previously perceived limits of complexity to produce forms more complex than ever thought possible.

It is expected that every generation will build on the advances made by those who came before them. But what are some of the influential events, notable tools, jigs, and technologies

that are driving the advancement in segmenting? These are the questions explored in this article.

A brief history

Segmented, or polychromatic, turning, as it was originally known, has been around for many decades. *Fine Woodworking* magazine featured a partially segmented bowl on the cover of its very first issue, December 1975. The December 1989 issue of *American Woodturner* was dedicated to articles on polychromatic turning and the early pioneers such as Lincoln Seitzman, Euclid Moore, Yosh Sugiyama, Virginia Dotson, and Mike Schuler, to name just a few who deserve recognition for the work they did developing this field. In the 1990s, Ray Allen brought more recognition to segmenting with the large

body of work he created during the decade, which was closely followed by notable artists Malcolm Tibbetts, Curt Theobald, Bud Latven, and Bill Smith. Each of these makers had a significant influence on the artistic evolution and education of segmenting as we entered the 21st century.

Even with the incredible work of these trailblazers, segmented woodturning was still in its infancy at the turn of this century. For many, it was like trying to learn a new craft while living on a deserted island. You were lucky if there was another segmented woodturner in your local chapter to explain the many techniques you had to learn. There were limited publications available, so people were left to their own persistence to learn the craft. That began to change rapidly as we entered the 21st century and ►



Malcolm Tibbetts, *Power of Seven*, 2017, Ambrosia maple, 20" (51cm) diameter

Photo: Malcolm Tibbetts



Tom Lohman,

Eye of the Diamond, 2019, Cherry, maple, wenge, bloodwood, yellowheart, purpleheart, 9½" x 13" (24cm x 33cm)

Eye of the Diamond comprises 180 segments per row, 13,185 total segments.

Photo: Tom Lohman

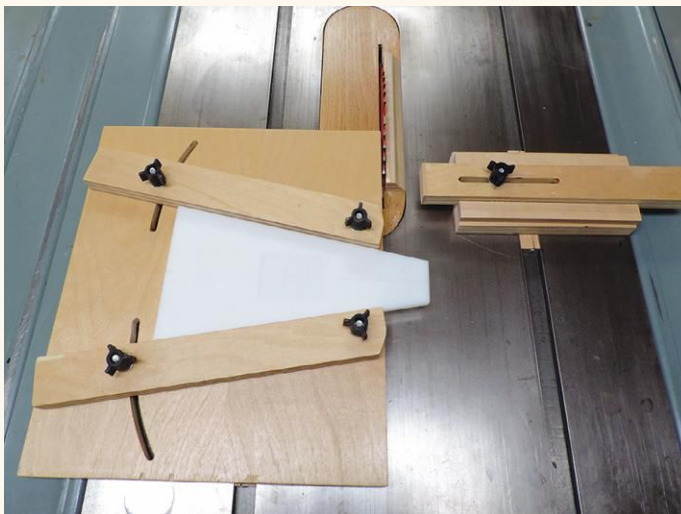


An early *American Woodturner* edition featured articles on “polychromatic” woodturning, now known as segmenting. The bowl shown on this December 1989 cover was made by Virginia Dotson.

creative individuals started offering a variety of useful products.

Bill Kandler introduced software called Segment Project Planner in 2001. Lloyd Johnson formed Woodturner Pro in 2001 and released the first version in his series of software programs. Jerry Bennett formed Seg-Easy in 2002 and offered a software program before expanding into other segmenting jigs. Curt Theobald introduced a set of educational videos in 2003, which were the first videos that taught the basics of segmenting. In 2005, Malcolm Tibbetts released the popular book, *The Art of Segmented Woodturning*, which was followed by a series of DVDs a few years later. Bill Smith educated turners about open-segmenting techniques with his popular book in 2004. Dale Nish shared the techniques of Ray Allen in his 2004 book, and Bud Latven was selling segmenting plans and kits through his company, The Bowl Kit Company. This was just the beginning of the growth in segmenting tools and education. The resulting advances in quality, complexity, style, and innovative techniques are evident in the work we see in instant galleries or posted on the various woodturning forums today.

Game-changer: the Wedgie Sled



A shopmade Wedgie Sled system shown with a Seg-Easy Wedgie used to set the angle quickly and accurately. Jerry Bennett originally designed this segment-cutting jig and freely shares information about how to make one.

Photo: Al Miotke

Jigs and tools

Unlike many forms of woodturning, segmenting requires a detailed plan and hours of preparation before you ever step in front of the lathe. Making clean cuts and precise angles and placing the segments accurately involve a learning curve that everyone who gives segmenting a try must conquer. Without this attention to detail, you will see gaps between segments and rings, or possibly have rings that are the wrong size, which causes assembly issues and often poor form of the final piece. Fortunately, climbing that learning curve has become much easier, in part due to advancements in tools and jigs.

For decades, one of the debates in segmenting focused on which tool was better for cutting segments, a table saw or a miter saw. Both work well and have their advantages. In 2007, Festool introduced its precision miter saw, branded the Kapex. This saw’s clean cuts benefited segmenters, but it still took trial and error to set the accurate angles required in segmentation. Then in 2014, at the segmenting symposium in San Antonio, Texas, Jerry Bennett introduced a table saw jig for cutting

segments that he called the Wedgie Sled. This sled was very accurate, could be set up quickly for any number of segments per ring, and was inexpensive and easy to build yourself. Best of all, Jerry shared the assembly details at no charge and explained its advantages through a series of YouTube videos titled, “Segmentology.” That turned out to be a significant gift to the segmenting community, and today the majority of segmenters have either built or purchased one of these jigs. Jerry, through his company Seg-Easy, then began making a product called the Wedgie to help segmenters accurately set the precise angle needed for making segmented rings. Today, there are more than eighty Wedgies for both open and closed segmenting, from nine to 288 segments per ring. Thanks to innovations like these, the potential defects in a segmented design are no longer the challenge they used to be.

Another important requirement of segmenting is the proper centering of rings as you stack them to build a bowl or vessel. This can be done manually, but jigs are helping segmenters here also. In 2004, Seg-Easy introduced the

Seg-Easy Plates to help segmenters build both open and closed segmented rings. Then in 2011, Woodturner Pro introduced a centering device called the Stomper after its designer Lloyd Johnson saw how labels were precisely centered on CDs. Then the two companies realized that the products could be used together, and another option was available to segmenters.

Twenty years ago, segmented rings typically had twelve or sixteen segments. For many in the field, that limit has been blown away. Would you believe 144 or how about 288 segments to build one ring? These advances have been made practical by using a horizontal segment placement jig originally developed by Ray Feltz for his small open-segment designs and subsequently enhanced by Tom Lohman. The jig uses a very precise horizontal index wheel with an adjustable segment positioning arm. Jigs like these are often used in conjunction with software developed by Woodturner Pro for laying out complex patterns (more on software later). Just as Jerry Bennett freely shares the Wedgie Sled concept, Tom Lohman advises anyone how to make a version of his jig and will also supply custom-made components if desired. With this jig, plus a few YouTube training videos

Russ Braun,
Pathway to Awareness,
2020, Bloodwood,
holly, yellowheart,
purpleheart, wenge,
maple, 21½" × 10½"
(55cm × 27cm)

Pathway to Awareness
comprises 25,202
individual segments.

Photo: Russ Braun



developed by Tom, you are on your way to a design with potentially over 10,000 segments that will amaze your family and friends.

The piece shown *below* is a vase made by Russ Braun in 2020 with the help of the Lohman jig and Segment Pro software. It comprises 175 rings with 144 segments per ring. That is an amazing 25,200 total segments.

Software to the rescue

The requirements of design drawings along with a little bit of math are enough to keep some turners from ever trying their hand at segmenting. After all, the freedom to determine the size and final shape of a turned piece while at the lathe, associated with turning a solid block of wood, can be appealing. Segmenting requires planning, followed by hours of assembly, before you approach the lathe for final turning. For most segmented projects, the math is basic, but lack of accurate planning can result in a project's failure.

There are several books and video resources that can get anyone started, but if you don't want to pull out graph paper and a calculator, there are moderately priced software programs such as Woodturner Pro, Segment Pro, and Segment Project Planner to assist you. These programs allow you to visually design a project or select from a library of templates. Once you determine the design goals, including form, segments per row, row height, wood types, and patterns, these programs will provide you with a detailed cut list with all the sizes you need specified. There are also free options on the Internet to help you calculate segment lengths, and some segmenters just use an Excel spreadsheet to do the calculations and create a basic cut list. ►

Game-changer: the Stomper



The Stomper, designed by Lloyd Johnson of Woodturner Pro. This jig aligns segment rings for accurate blank assembly. Above: in use with a Seg-Easy plate developed by Jerry Bennett; right: in use with a Longworth chuck.

Photo: Lloyd Johnson

Game-changer: horizontal placement jig



A horizontal assembly jig, originally developed by Ray Feltz and subsequently enhanced by Tom Lohman, accurately places thousands of segments. This version of the jig was designed in 2018.

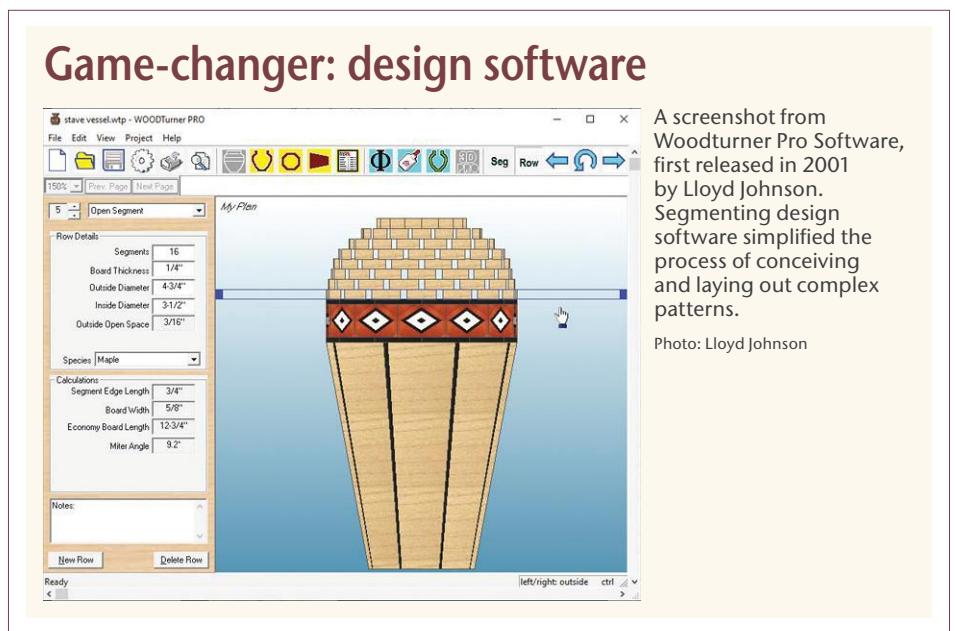
Photo: Tom Lohman

These software tools aid in the design process and continue to grow in popularity. Can you imagine making the vase designed and built by Russ Braun without the help of a CAD-based software package? Sure, it can be done, but it would be a much more tedious process.

Sharing knowledge

Segmented turners, like most in our field, are open to the sharing of knowledge, tips, and new ideas. This has been the foundation of our craft that has enabled the rapid grassroots growth we have seen. Jigs and software are powerful advancements in segmenting, but they are of limited value without the growing ranks of experienced segmenters to help the next generation climb the learning curve and move segmenting to new and even more exciting levels. Today, there are many more active segmenters than there were twenty or even ten years ago. More of these individuals are writing books, publishing DVDs, posting YouTube videos, teaching classes, actively advising others on forums, and helping each other through one-on-one mentoring. That deserted island that I mentioned earlier is now an active sharing community.

This sharing of knowledge is resulting in higher quality designs due to a better understanding of the materials, wood



A screenshot from Woodturner Pro Software, first released in 2001 by Lloyd Johnson. Segmenting design software simplified the process of conceiving and laying out complex patterns.

Photo: Lloyd Johnson

movement, and construction techniques. Turners are exploring many more unique and interesting forms beyond the standard Southwestern vase that dominated segmenting in the earlier years. There is also more use of mixed media like glass, leather, metals, carving, and even painting, which was never considered twenty years ago.

The Internet and social media

Do you remember when we spent countless hours at the card catalog searching for information? That all changed when the Internet came of age. This advancement changed the woodturning education landscape and segmenting is no exception. Today, there are many online options to help you climb the segmenting learning curve.

One of the key advancements began in 2008, when a few leaders in

the segmenting movement, including Malcolm Tibbetts, Bill Smith, Curt Theobald, and Lloyd Johnson, worked with Marc Adams School of Woodworking to hold the first segmenting symposium. At that event, the approximately 100 attendees decided to form a new online chapter of the AAW, the Segmented Woodturners. Currently, this chapter has an international membership of approximately 500, with an online library of photos and forum discussion topics that number in the thousands. This chapter also hosts a symposium dedicated to teaching segmenters of all experience levels, while sharing their latest designs and tools in a segmenting-focused tradeshow.

There is also a dedicated segmenting Facebook page for the sharing of photos and to post questions. The ability to get inspired from the work of others and get prompt answers to your segmenting questions is a welcome advancement that is clearly influencing the evolution of segmenting.

Final thoughts

The topics discussed in this article are just a sampling of the advances that are making segmenting easier to

Curt Theobald, *Family Series*, 2011,
Wenge, glass, 6" × 3" × 2¼" (15cm × 8cm × 6cm)

Family Series combines segmenting with the use of alternate materials.

Photo: Curt Theobald

**Wen Ping,**

Gimmick Vase with Music, 2014, Maple, purpleheart, black walnut, Taiwan cypress, 33" × 25" (84cm × 64cm)

Gimmick Vase with Music includes sixteen hidden drawers; each plays a unique song when opened.

Andy Chen,

Corian Sake Set, 2011, Corian®, 6" × 10" × 8" (15cm × 25cm × 20cm)

Photo: Andy Chen



learn and as a result more popular and enjoyable. This article did not focus on other techniques such as stave construction or “bowls from a board.” How about the use of CNC equipment to cut complex components? There is just not enough space, but you can count on much more innovation as segmenters push the limits of creativity and complexity, aided by new jigs, software, and the sharing of ideas. So much has happened in the last ten years. Only our imagination and the drive to experiment will determine what the next ten years will bring. ■

Al Miotke lives in Mount Prospect, Illinois, and is a retired engineering program manager. He has been a woodworker most of his life but has been focused on segmenting since 2005. Al is president of the Segmented Woodturners chapter and a board member of the Chicago Woodturners. See Al's work at almiotkestudio.com.

Helpful References

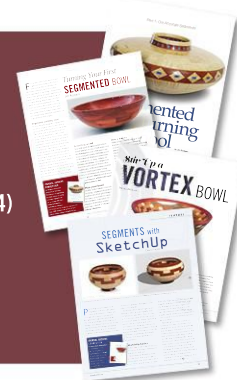
SegEasy	Jigs	segeasy.com
Tom Lohman	Jigs	segmentedturning.org
Woodturner Pro	Software, Jigs	woodturnerpro.com
Curt Theobald	Videos, Tools	curttheobald.com
Malcolm Tibbetts	Books	tahoeturner.com
Pete Marken Custom Woodturning	Jigs	petemarkenwoodturning.com
Segment Project Planner	Software	segmentedturning.com
Chefware Kits	Jigs	chefwarekits.com
Segmented Woodturners	AAW Chapter	segmentedwoodturners.org

FOR FURTHER READING

EXPLORE!

The AAW archives offer valuable information about segmenting. Log in at woodturner.org and use the Explore! search tool to find these and other online resources from *American Woodturner*!

- “Segmented Turning School,” by Jim Rodgers, Winter 2005 (vol 20, no 4, page 24)
- “Turning Your First Segmented Bowl,” by Jim Rodgers, October 2015 (vol 30, no 5, page 18)
- “Stir up a Vortex Bowl,” by Steven Mellott, October 2016 (vol 31, no 5, page 28)
- “Segments with SketchUp,” by David Heim, August 2016 (vol 31, no 4, page 29)



GUIDELINES FOR A SUCCESSFUL CRITIQUE

Keith Welsh, Jim Christiansen, David Buskell

“No man has the right to dictate what other men should perceive, create or produce, but all should encourage to reveal themselves, their perceptions and emotions, and to build confidence in the creative spirit.”
—Ansel Adams, American Photographer, 1902-1984



Giving and receiving feedback on our turned work can be both rewarding and challenging. In some instances, woodturning clubs have experienced members who share their knowledge. But let's face it, club critiques are mostly done by fellow woodturners, not art experts, and the criticism often occurs in an ad hoc manner. Sometimes the comments are spot on and well received, but sometimes they are misguided and inadvertently discourage progress. Since giving critical feedback is inherently tricky, we offer some ideas on how to improve critiques. We suggest

approaches that will give the average woodturner a practical way to evaluate turned works and communicate feedback in positive, useful ways.

It's important to emphasize that judgement often boils down to perception. Anyone who evaluates an object is using his or her own experience, point of view, and perception of what is "good" or "bad," and this varies from person to person. Thus, seeking more than one opinion increases the value of an assessment.

The ideas expressed here come from demonstrations, classes, symposia, meetings, discussions,

books, mentors, and critiques. These sources provide opportunities to learn about how to offer useful feedback to each other and to improve our work at the lathe. The first step is to determine design elements that could be useful for woodturners. We use design terms such as proportion, line, balance, continuity, form, finish, etc., most of which come from traditional art design theory. In a non-woodturning context, these terms have different meanings and applications. We will try to address these elements in a way that can help woodturners understand how to give a useful critique.

A positive environment

The critique leader's most important goal is to help their members accept criticism. A good first step is to model the behavior of accepting criticism. Experienced woodturners and club leaders should have their pieces critiqued in an open meeting and then demonstrate their acceptance of the advice given. Leaders should also consider highlighting their own mistakes. By showing that even the most experienced woodturners make mistakes, members learn that admitting to mistakes and accepting suggestions for improvement are part of the process.

We recommend the emphasis of a critique be focused on suggestions for improvement, not "criticism." The club-meeting gallery should be separated into two groups, a "Critique" table and a "Show and Tell" table. Make clear that only the pieces on the critique table will be critiqued. It is not a good idea to critique a piece without permission from the maker. Also, give everyone the opportunity to get a private critique without observers. With these strategies, the member decides how and at what level to receive feedback.

Once criticism is accepted within this "safe" format, more members will discover the advantage of critiques, and participation will increase on both tables. If possible, critique leaders should learn the backgrounds of recipients, including their level of experience, attitude toward criticism, and health and physical limitations. If you don't know, then you can ask about their design intent, how long they have been turning, and what they have turned the most. Anyone critiquing someone's work must have empathy and be aware of his or her body language. When it appears that a member may not accept the

feedback, shorten your comments and move on.

The critique

It is critical to treat others' work as if it is precious. Start by picking up the work as if it is delicate and give it the utmost respect. A critique begins with a careful examination of the basic observable elements of the work, so take an objective inventory of features. Examples of observable features include wall thickness, surface marks, texture or surface treatments, orientation or pattern of grain or figure, uniformity, finish, and form. Point out

the features that are obviously "eye catchers," and discuss how they attracted your attention.

Your purpose is not just to give the maker feedback but to educate other interested members, too. Invite the audience to agree or disagree with your initial observations. You might ask, "What is the first thing that catches your eye?" or "What is the focus?" or "What was your intent?" or "What influenced your design?" Questions like these will allow for positive comments without seeming fake or insincere. Just saying nice things about someone's work is not ►

Texture and proportion



Bill Ooms, *Ceremonial Goblet*, 2013, Bloodwood, African blackwood, sterling silver, 7½" × 3" (19cm × 8cm)

Photo: Bill Ooms

Bill Ooms used several aspects of design in *Ceremonial Goblet*: good lines, proportion, surface treatment, color, symmetry, good form, and finish.

Surface treatment and form



Andi Wolfe, *Bronze Autumn*, 2005, Walnut, pyrography, acrylic paint, 4" × 3" (10cm × 8cm)

Photo: Jerry Anthony

Andi Wolfe effectively used surface treatment to accentuate form on *Bronzed Autumn*.



The critique

Dale Larson evaluates a piece at the 2016 AAW Symposium, Atlanta, Georgia. Public critique serves to educate observers as well as the maker of the work being critiqued.

Photo: Andi Wolfe

adequate; people can detect fake empathy.

Never use evaluative statements that might result in hurt feelings. Terms such as “bad” or “ugly” really don’t help the woodturner to improve. Instead, make comments such as, “You did so many things very well; if I had to find something to improve, I would suggest...” It is good to emphasize that none of your comments are “set in stone.” It’s more about creating a dialog, and you are simply offering your perspective.

Technical skills vary for each maker. A critique leader should take into consideration the skill level of the maker before offering comments. Excessive wall thickness can be a design choice, but it can also belie a turner’s lack of experience. Point out that consistent thickness improves the appearance of a piece and lowers the risk of cracks or checks.

Consider that surface marks can be left by nature (cracks or voids) or by the maker (tool or sanding marks). Surface treatments are intentionally made. These treatments may be difficult to evaluate, but you can discuss their use and effectiveness from your perspective. Any surface treatment should maintain and support the form.

Orientation refers to the pattern of grain or figure. Most often it is advantageous to have the grain or

figure evenly distributed across the piece, but there are many exceptions, and the member should be asked about his or her intentions.

Uniformity refers to the overall look. Do all the features work together?

You can also discuss the type or brand of finish. Is the piece oiled, waxed, painted, stained, etc.? You can objectively describe the sheen and the quality of the finish—blotchy, rippled, cloudy, or streaked—and offer suggestions for improvement. Also note if there is no finish and the effect of this choice.

Line and grain orientation



Bill Luce, Untitled, Black elm (sandblasted)

Photo: Bill Luce

Bill Luce spent years working to develop the perfect line, here complemented by sandblasted grain.

Design for woodturners

There is no definitive consensus in the design community as to the main principles of design, including just how many principles there are. If you research “principles of design,” you will find articles and books that claim there are anywhere from five to more than a dozen separate principles. And articles that agree on the number of principles don’t necessarily agree on which ones should be *recognized*. So for this article, we have focused on some of the most observable design elements and have tried to select the ones that will most likely apply to woodturning. This list is not all-inclusive but could establish the basis of a good critique. Anyone interested in doing critiques should learn as much as they can about art and design.

Form is the key to good design and is an essential goal for woodturners. Hopefully, by the time your focus as critique leader turns to form, you have evaluated the turner’s body language and willingness to accept criticism. After this initial evaluation, the conversation should move to more specific suggestions for improvement. A discussion on form could include line, color, contrast, space, and/or symmetry.

Line is an element defined by a point moving in space. It can be vertical, horizontal, diagonal, or curved, and it defines the physical profile of a piece. Lines and curves are the basic elements of a form. The profile is what we observe to determine whether the line is “clean,” meaning it is smooth, crisp, and absent of flats, bumps, or dips.

It is important as critique leaders to show others how to identify subtle details of a piece. These little details can ruin the line of your piece and are often very difficult to see without being pointed out. Over time, you can develop an eye to pick

them out, and you can often feel the bumps, dips, and flats that you cannot clearly see.

Color can be an important element of design. It comprises three properties: hue, intensity, and value (the lightness or darkness of tones or colors). Value can apply to wood grain, stain, or paint. Color can enhance or devalue a piece. Gauge how color affects your perception of a piece.

Contrast can be seen in other elements such as space (positive or negative), form (elegant or clunky), size (too big or too small), color (complementary or non-complementary), or texture (under done or over done). Contrast across a piece can enhance or degrade a piece.

Space refers to positive and negative areas. Simply, an area with wood is positive space and without wood is negative space.

Texture refers to the physical and visual qualities of a surface. In woodturning, it is the perceived surface quality and is distinguished by its perceived visual and physical properties. Texture can be made by carving, coloring, piercing, finishing, etc.

Closing the critique

After the critique is completed, the critique leader should maintain the positive environment. Thank all those who participated, acknowledge how much was learned, and ask for any additional feedback. Acknowledge or question whether the information was useful, understandable, and actionable for the recipient.

Finally, consider that the best way to improve is to turn what you enjoy and thoughtfully consider input from others. If you enjoy what you are turning, then you will turn more. And it is important for us to adopt positive attitudes: be proud of whatever you create because it is the best

you can do with your current skills; refuse to let criticism stop you from creating; and focus on technique before art and design.

We hope that this article offers some practical and tangible ideas to assess turned works. It can be tricky and there are no perfect solutions, but we hope you will find these guidelines helpful. ■

Keith Welsh worked for the U.S. Department of Interior for more than thirty years. He is a charter member of the Bayou Woodturners and has served as vice president and president.

Contrasting negative space



Art Liestman, *Oh Void*, 2004, Bigleaf maple, ebony, 11" (28cm) tall

Photo: Kenji Negal

Art Liestman used color, contrast, texture, symmetry, and negative space in *Oh Void*. He strategically arranged the negative spaces (missing pieces) and the black top to draw the viewer's attention.

FOR FURTHER READING

EXPLORE!

For more on critique, see these *American Woodturner* articles in the AAW's online archives. Log in at woodturner.org and use the Explore! search tool.

- "The Art of Critique," by Jim Christiansen, Spring 2004 (vol 19, no 1, page 52)
- "Aiming for Quality Design," by Jim Christiansen and Gerrit Van Ness, Summer 2004 (vol 19, no 2, page 14)
- "Critiques at Local Chapter Meetings," by David Ellsworth, Fall 2009 (vol 24, no 3, page 18)
- "Line: An Element of Art and Design," by Tania Radda, June 2013 (vol 28, no 3, page 39)



Keith is now a retired geologist and amateur woodturner.

Jim Christiansen, a retired educator, has been a full-time woodturner for twenty-five years. He has served several years as president of the Inland Northwest Woodturners and promoted woodturned art by helping to organize exhibitions.

David Buskell is a long-time hobby turner based in the U.K. He is an active member of Cheam Woodturners Association and the AAW. David is a director of World Domination Music Ltd., an independent music publishing company, and is a director of Hunter Tool Systems (Europe) Ltd. For more on David, visit atthecuttingedge.co.uk.

Artistry in Wood

RETURNS TO MUSEUM OF SONOMA COUNTY

After a truncated pre-vaccination, online-only show last year, the Sonoma County Woodworkers successfully mounted the 33rd-annual *Artistry in Wood* show at the Museum of Sonoma County, from November 2021 through January 2022. Two years of creativity burst upon the scene in one of the most spectacular shows yet. Outstanding entries featuring marquetry, furniture, sculpture, and boxes were joined by stellar turned pieces from many local turners and a few out-of-towners.

Best Turning went to Texan Ric Taylor for his *Bleached Boxelder Bowl*, a substantial piece with ghostly, sublimated grain highlighted by a bright red bead. Awards of Excellence were bestowed on a wide range of turnings. Brian Cullen's ebonized oak piece, *Undulation*, featured characteristic oak grain burnished to quiet perfection. For sheer spectacular wood, there was Bob Nelson's *Fungus Among Us* of spalted liquidambar, and Steve Griswold's *Bookmatched Maple Platters*. Hugh Buttrum's flawless giant *Claro Walnut Calabash Bowl* started as a 256-pound blank. Charlie Saul's realistically carved *California Diamondback Rattlesnake* bowl was also recognized for excellence.

In addition to a furniture award, Alex Hunt was recognized for his elegant walnut piece *Growth*, featuring spheres increasing in size according to Fibonacci proportions. Don Ketman's little *Whimsy* surprised the viewer with three wings flaring up and one slumping down, a subtle and delightful touch. Steve Forrest's *Red Gum Eucalyptus Bowl* was an homage to the timeless forms championed by Bill Luce. In addition, the collaborative

mobile, *Alternate Universe*, was awarded Best Miscellaneous Work. Featuring various spheres turned by Steve Forrest, the delicately balanced metal structure was designed and built by Don Jereb and Harvey Newman. Finally, while not displayed in the turning category, David Marks' turned, veneered, and inlaid masterpiece, *Ocean*, was recognized as Best of Art.

All works were juried in by Guild members of the Sonoma County Woodworkers, and judged by three professionals with varied backgrounds. After two years, it was truly inspiring to see the skill and creativity of the woodworking community on full display once again. ■

—Steve Forrest



Best of Turning

Ric Taylor, *Bleached Boxelder Bowl*, 2020, Boxelder, bleach, enamel, acrylic paint, 4" x 17" (10cm x 43cm)

Photo courtesy of the artist

Awards of Excellence



Don Ketman, *Whimsy*, 2021, Madrone burl, tung oil, 3" x 6" (8cm x 15cm)

Photo: Joe Scannell



Brian Cullen,
Undulation, 2021, Coast live oak,
Danish oil, 5" x 9" (13cm x 23cm)

Photo: Joe Scannell



Photo: Joe Scannell



Photo: Joe Scannell

(Left) **Steve Griswold**,
Bookmatched Maple Platters,
2021, Silver maple, wipe-on poly,
3/16" x 11" (5cm x 28cm)

(Right) **Bob Nelson**,
Fungus Among Us, 2021,
Liquidambar, lacquer, 6" x 12"
(15cm x 30cm)

Charlie Saul,
California Diamondback Rattlesnake, 2020,
Sycamore, permanent inks, wipe-on poly,
lacquer, 5 3/4" x 11 1/2" (15cm x 29cm)



Photo: Joe Scannell



Steve Forrest, *Red Gum Eucalyptus Bowl*,
2020, Red gum eucalyptus, ebony, oil/varnish,
6" x 9" (15cm x 23cm)

Photo courtesy of the artist



Hugh Buttrum,
Claro Walnut Calabash Bowl,
2021, Claro walnut, oil,
12" x 20" (30cm x 51cm)

Photo: Debbie Wilson



Alex Hunt, *Growth*, 2021,
Claro walnut, oil, 9" x 14" (23cm x 36cm)

Photo: Joe Scannell

Best of Art

David Marks, *Ocean*, 2021, Quilted Honduran mahogany, ebony,
betelnut, tagua nut, mother of pearl, pau shell, green rippled abalone,
black lip mother of pearl, dyed
stabilized pen blanks,
recon stone, oil
varnish, 8" x 36"
(20cm x 91cm)

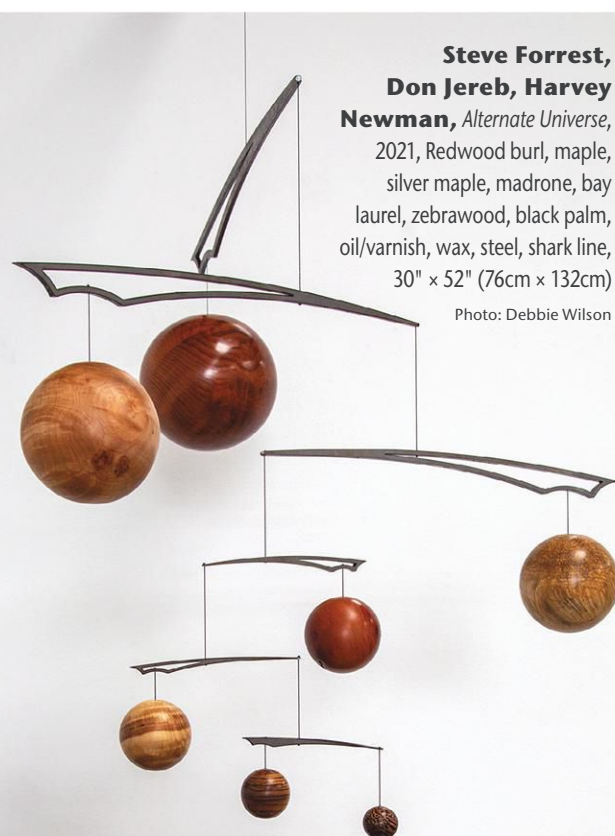
Photo: Debbie Wilson



Best of Miscellaneous

Steve Forrest,
Don Jereb, **Harvey Newman**, *Alternate Universe*,
2021, Redwood burl, maple,
silver maple, madrone, bay
laurel, zebrawood, black palm,
oil/varnish, wax, steel, shark line,
30" x 52" (76cm x 132cm)

Photo: Debbie Wilson



Michael Peterson

2022 POP Merit Award Recipient

Photos courtesy of Jean Peterson, unless otherwise noted.

The AAW's Professional Outreach Program (POP) grants the Merit Award to individuals who have shown exceptional development in their careers as artists and whose artworks have directly influenced or had a significant impact on other artists within the field of woodturning. This year, this prestigious award goes to Michael Peterson.

Watching someone grow creatively is one of the great benefits of hanging out in the art-and-craft world for nearly forty years. I first met Michael Peterson when he was an assistant in my class at Arrowmont in 1988. At that time, he was experimenting with making hollow forms with an emphasis on natural-edge designs, using madrone burl, which, as many of us know, changes shape once turned as a result of the extreme tension within the fibers. It was clear that Michael had the technical and design skills to grow in numerous directions. When I see someone begin to make these creative spurts, I can only guess how long it will take for them to find their true voice. The real thrill is when they begin to balance the growth of technique with the power of aesthetic intuition and come up with what appears to be a giant leap in their work, rarely knowing where they're headed when they begin, or if there will be a safe landing with their ideas once manifested. It's always a good question: Do they even



recognize this shift when it's happening? Possibly. Everyone's different. And that's the beauty of making art for the "self" first, all of which helps to define one's personal path, which includes the courage to take that first step.

If we look at Michael Peterson's evolution—from his early hollow forms to his present stacked forms—it is clear he has not only mastered his use of the chainsaw, he has engaged the unique complexities of his materials to a point where *change* is a necessary, integral part of the process. Put simply, madrone burl *moves*,

not only after the work is completed, but also while it is being cut. The ultimate goal remains: How does one predict this movement during the making process such that it supports the original idea? Or does this change actually help define the original idea as the material evolves? In either case, Michael has a wickedly powerful sense of magic that I'm sure a lot of other makers would like to tap into.

I also love how Michael's stacked pieces challenge our understanding of the term *beauty* in vessel design, especially since these new forms—at once

conceptualized vessels as well as sculpture—border on architecture. Imagine the wonder of living in a full-sized structure where every surface appears to be carved instead of pre-fabricated; this is exactly what Michael is doing in exposing surfaces cut with a chainsaw.

It will likely take time to develop an adequate language suitable to accurately reference this body of work. In the meantime, we can simply enjoy the wonder of its existence and how each of us interprets the beauty through our own life experiences.

—David Ellsworth, POP Committee

Joe Seltzer, Wood Art Collector

I first met Michael Peterson in the 1980s. In those early years, Michael was primarily making hollow forms in native American pot shapes. What was distinctive about his work was that he used mostly burls—Western maple, madrone, and black locust—and created an opening in the pot with a natural edge. His shapes often incorporated natural voids at the widest part of the vessel. After admiring these for many years, I acquired one from the Irving Lipton collection in 2013, *White Stone Desert III*. The natural void extends about 270 degrees around the piece.

But I do get ahead of my story. In 1991, I visited Michael and his wife Jean at their home, along the Washington coast north of Seattle. They were renting a large but basically one-room cabin. Michael had set up a lathe outdoors, under a tarp, and he was making some of the best turnings in the world there. A second distinctive aspect of his work was his attention to the surface of the piece. I distinctly remember he had just finished some pieces and had them sitting in the sun on his front steps. I thought it was a mistake to leave them in the sun, but he explained that he was trying for a particular surface look. He also used

pigment to achieve the color and very organic feel to these items in what he called his *Stones* series.

I really wanted to acquire a piece of Michael's work and looked at several pieces set on shelves in the cabin. I found a small, egg-shaped piece that was open at one end. Michael said, "It isn't finished. It has a hole in it." I couldn't see the hole until I looked through the piece and saw a little sliver of light. From the outside, it was a very small void in the center of a burl eye. I said I didn't mind the hole, but Michael got some sandpaper and began working as we were talking. After a while, he got some wax, rubbed it in his hands, and then gently rubbed the piece, which made the grain suddenly stand out. I told Michael I wanted to buy the piece, and he quoted a very reasonable price.

Several years later, Michael and Jean moved to Lopez Island off the coast of northern Washington. In this new setting, his work gradually changed. He did more pieces that looked like the stones and shells you could find on a nearby beach. He also did more carving and began using a chainsaw to create "boxes" that fit together into what Michael called his *Coastal Stack* series. These also incorporate the attention to detail in the surface treatment and a very organic feel.

I consider Michael Peterson to be one of the finest wood artists of his generation. ►



Untitled maple burl vessels, 1983-1985



White Stone Desert III, 1988, Maple burl (bleached), 5" x 9" (13cm x 23cm)

Photo: Joe Seltzer



Untitled, 1991, Madrone burl, 3" x 6" x 2 3/4" (8cm x 15cm x 7cm)

Photo: Joe Seltzer

Albert LeCoff, Executive Director Emeritus and Co-Founder, The Center for Art in Wood

Michael Peterson's extraordinary work became known to me in 1988, when he was accepted to the Wood Turning Center's International Lathe-Turned Objects Show (ITOS). I was the coordinating curator and executive director of the Center (now the Center for Art in Wood). Michael's entry, *White Stone Desert*, was turned with a shoulder that included the natural burl surface of the wood. This shoulder set him apart from other turners of the time and reflected his love of his environmental surroundings, specifically the upper elevations of mountain ranges. The piece was bleached and sandblasted, which stood out against other work at the time, although James Prestini had sandblasted pieces as early as 1933. Much of Michael's work reflects his deep love of and inspiration from nature, often credited as part of life with his beloved wife, Jean, on an isolated island off the northwest coast of the U.S.

Michael evolved into a master sculptor, utilizing hollow turning, bleaching, sandblasting, and chainsawing. In 2006, he was among a small group selected by guest curator Mark Richard Leach for the Craft Alliance of St. Louis,



White Stone Desert, 1987, Maple burl (sandblasted and bleached), 8" x 14" (20cm x 36cm)

Collection of John and Robyn Horn

Missouri, and the Center's *WOOD NOW* exhibit. Michael's *Earth and Stone Series III* sculpture featured his beloved hand-size stones as part of an experimental landscape series, which he chainsawed to hollow out the madrone burl. In the catalog for this show, Michael said of this series, "They explore the potential of green material through a subtractive approach to sculpture. This approach allows me the contemplative nature of direct carving along with experiencing the dynamic transformation made by the material as it grows from the geometric into the organic."

By 2010, Michael was featured in a major retrospective, *Michael Peterson: Evolution/Revolution*, organized by

the Bellevue Art Museum (Bellevue, Washington). Curators Michael Monroe and Stefano Catalani also created a powerful, large-format book to feature the evolution of Michael's work. This set up the Wood Turning Center to take the exhibition and feature Michael's work on the East Coast from November 2010 to February 2011. This also gave me an opportunity to present Michael's work to curators at the Philadelphia Museum of Art. Once they reviewed the work, the museum purchased a large, multifaceted stack. Michael and Jean traveled to Philadelphia for the formal acceptance ceremony at the Center, a very happy occasion for all, and a major accomplishment of my career.



Earth and Stone Series III, 2006, Madrone burl and blackwood (sawn, carved, and pigmented), 9" x 34" x 10" (23cm x 86cm x 25cm)

Elisabeth Agro, The Nancy M. McNeil Curator of American Modern and Contemporary Crafts and Decorative Arts, Philadelphia Museum of Art

My relationship with this talented artist began in 2010, when Bellevue Art Museum's *Michael Peterson: Evolution/ Revolution* exhibition traveled to the Wood Turning Center in Philadelphia (now the Center for Art in Wood), giving me the opportunity to see the full range of Michael's output, including his larger sculptural explorations. Leading up to the exhibition, conversations with Michael were frequent and wide-ranging in subject; I found them extremely meaningful. Those who know him will agree, he is a kind, humble, and peaceful human being. What I was unprepared for was the visceral response I had when encountering Michael's work directly. His sculptural work is strong and singular within the field; it personifies the man. *Coastal Stack V* (2008) was the latest example in his *Coastal Stack* series on view in the exhibit; I was drawn to it by its sheer beauty, impressive volume, and mastery, but also its ability to transport the viewer emotionally. Purchased directly from the show for Philadelphia Museum of Art, it became an important teaching tool about contemporary craft and woodturning's trajectory in the recognizable blur that was stirring within contemporary art in the early 2000s.

Michael took up the chainsaw in 1994; his work departed from turned vessels to double-form sculpture, piled and stacked assemblages, and monolithic work either on pedestals or mounted on the wall. It is hallmarked by his returning interest in solids, voids, and orifices, created to engage the viewer's eye to both plane and space. Michael began to address formal issues of support and position in his work. His sculptures became infused with issues of ecology,



Photo courtesy of Bellevue Art Museum, Rex Rystedt, 2011

Coastal Stack V, 2008, Madrone burl (carved, sandblasted, bleached, and pigmented), 46" x 34" x 30" (117cm x 86cm x 76cm)

Collection of Philadelphia Museum of Art: Purchased with the Leonard and Norma Klorfine Foundation Endowed Fund for Modern and Contemporary Craft and Windgate Charitable Foundation, 2010-192-1a--q

animism, the figure, and preservation of wildlife habitat.

In *Coastal Stack V*, Michael combines twelve hollow blocks and a stylized object into one form stacked like a cairn on a mountain summit. Recalling the atmospheric and geographical features of the Pacific Northwest coast, *Coastal Stack V* reflects the tranquil and simple life that Michael leads on isolated Lopez Island, in the San Juan Islands, Washington. Influenced by the effects of wind, water, sand, and sun, he observed of how nature and its geological processes took effect on the shaping of a tree's growth or the eroding of color and surfaces of rocks on the coastline. Aligned with these natural processes,

Peterson explores modulations of light and subtle arrangements of color and tonal values in his work. *Coastal Stack V* is the perfect marriage of these surface modulations and textures, with forms that are skillfully stacked and balanced. When *Coastal Stack V* was acquired by the museum in 2010, it acknowledged contemporary practices in sculpture that pushed the boundaries beyond the wood-turned vessel of past decades, a pivotal moment for the field of wood art and contemporary craft, writ large. It changed the conversation about the field itself, both within and outside the walls of my institution. In retrospect, it was a powerful moment, one that I am honored to have made happen. ►

**Sarah Myerscough,
Managing Director,
Sarah Myerscough
Gallery, London**

I first encountered the sculptural work of Michael Peterson at SOFA Chicago in 2012, and never had I seen contemporary craft look so dynamic and uncompromising. The piece, *Coastal Stack VI*, instantly reminded me of the monumental steel sculptures of Richard Serra combined with the compositional complexity of a piece by Anthony Caro, artists I greatly admire. I read that *Coastal Stack VI* was made of madrone wood and that added another layer of intrigue. This species is native to the western coastal area of North America and is apparently disregarded by industry, as it is considered too brittle and impractical. Yet, in Peterson's hands, it revealed such a munificent palette of rich character, tonal patina, and organic form that it took my breath away. This voluminous piece spoke of the difficult yet potentially



Coastal Stack VI,
2010, Madrone burl
(carved, sandblasted,
and pigmented),
24" × 34" × 10½"
(61cm × 86cm × 27cm)

harmonious relationship between nature and humanity through the artist's hand—defiant and exquisitely constructed with a poetic nuance and, it was clear to see, an exhausting process of crafted brilliance.

The process of making, I later discovered, was physically demanding. Huge madrone burls are chainsawed into roughly hewn geometric forms, which are subsequently dried to find their own rhythm and organic

shape. Each section is then carefully and sometimes precariously placed to form the artist's larger sculptural composition, stacked and balanced with a delicate and thoughtful eye. These sections are precisely constructed and held together with tiny wooden pegs which reveal such thoughtful intent that it runs contrary to the rough textured surface and irregular structures.

It seems to me now that, standing in front of that wonderful piece in Chicago, such careful execution asked a lot from the viewer and relied on an element of knowingness, which felt like an undiscovered secret. I sensed the visual intelligence, the innovative creativity, the passion, the brilliance of making, and the love of material. I was humbled by it, and this emotive response continues every time I see a new work by Michael, as it travels across the Atlantic to our gallery in London.

His work is borne from the earth and speaks powerfully of place and the expansive landscape of the Pacific Northwest. It speaks of a commitment to the natural world, and even more intimately of home: Lopez Island, much loved by Michael and his wife Jean.

“His work is borne from the earth and speaks powerfully of place and the expansive landscape of the Pacific Northwest. —Sarah Myerscough



Where it begins, a 3,300 lb. madrone burl.



Photo: Gregg Blomberg

Michael and Jean Peterson on Lopez Island, Washington.

Jen Padgett, Associate Curator, Crystal Bridges Museum of American Art

It has been my honor to get to know Michael Peterson at a key moment for Crystal Bridges Museum of American Art, as we've been expanding our presentation of craft in exciting ways. We featured Michael's *Coastal Stack XV* (2017) in *Crafting America*, our first major exhibition presenting a broad picture of craft, co-curated by Glenn Adamson and me in 2021.

Michael exemplifies the dynamism of an artist in tune with his material. When looking at his work, you are deeply aware of the liveliness of the wood and his transformation of the organic material into something new and expressive. While many of craft's sources come from living organisms—soft tufts of cotton, pigments made from crushed insects, leather hides—Michael's approach to wood creates perhaps the most direct and vivid awareness of a material's prior life. By carving wood while it is still green, then allowing it to twist and distort according to its internal logic

before assembling the elements into complex compositions, Michael harnesses the wood's inherent nature to marvelous effect. In seeing his work and being made aware of the life and rhythm of the material, we can feel more present and alive ourselves. For me, that's the most you can ask from art—to make you feel alive.

Michael has a remarkable ability in explaining both his conceptual approach and process in approachable ways, even to someone (like me!) who will fully admit to being an outsider to the world of wood art. His generosity of expertise is truly a gift.

I'm thrilled *Coastal Stack XV* has joined the Crystal Bridges permanent collection as one of the first works acquired with our newly endowed Fund for Craft. As we grow our collection to include greater texture and variety through key acquisitions of craft, Michael's work is in the forefront of these developments. His sculpture speaks to themes central to the museum's story, especially the relationship between art and nature. We're excited about displaying *Coastal*



Coastal Stack XV, 2017, Madrone burl (carved and sandblasted), sumi ink, 32" x 24" x 24" (81cm x 61cm x 61cm)

Stack XV in the future with paintings, drawings, prints, and other objects in our collection to spark new visual and thematic connections. I know our visitors will be drawn to his work in our collection galleries, as they were in *Crafting America*, and I'm so appreciative of the opportunity to share Michael's vision and skill with our audiences.

Robyn Horn, Wood Artist and Collector

My husband John and I first met Michael Peterson at an AAW Symposium in Louisville, Kentucky (2006). Michael would always show up at the gatherings with little jewels wrapped up in his backpack, small turned and carved vessels that were incredible. John and I had just started collecting wood, and at the same time, I had started turning wood. It helps collectors to work with wood in order to understand the difficulty of executing what they see. It also helps them to adequately appreciate the work.

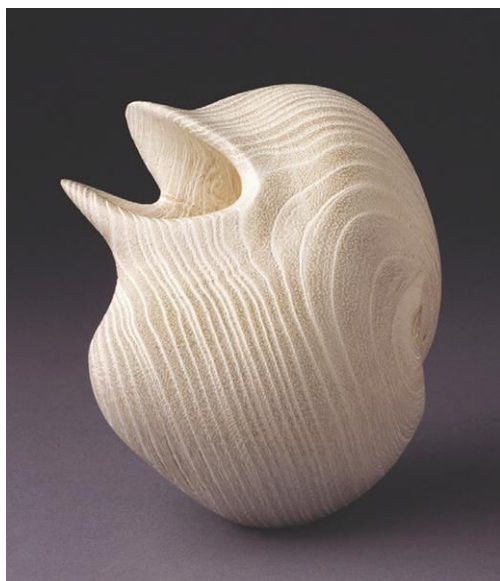
Michael would get fairly attached to his work and not be willing to sell

it on the spot. He wanted to refine it a bit more or buff it up a little more. Maybe he just wanted to sit and enjoy it for a while before sending it off. Whenever I would tell him I was interested in a piece, he would shake his head and tell me he would remember. A few months later, or sometimes a year later, the work would arrive at our doorstep. Each time, I was very glad I had told him I wanted it. I have never been disappointed in the results or the execution of any of his pieces.

Whenever you get to see a really talented artist evolve from small, exquisite hollow vessels to incredibly unique and masterfully executed sculptures, it's an extraordinary

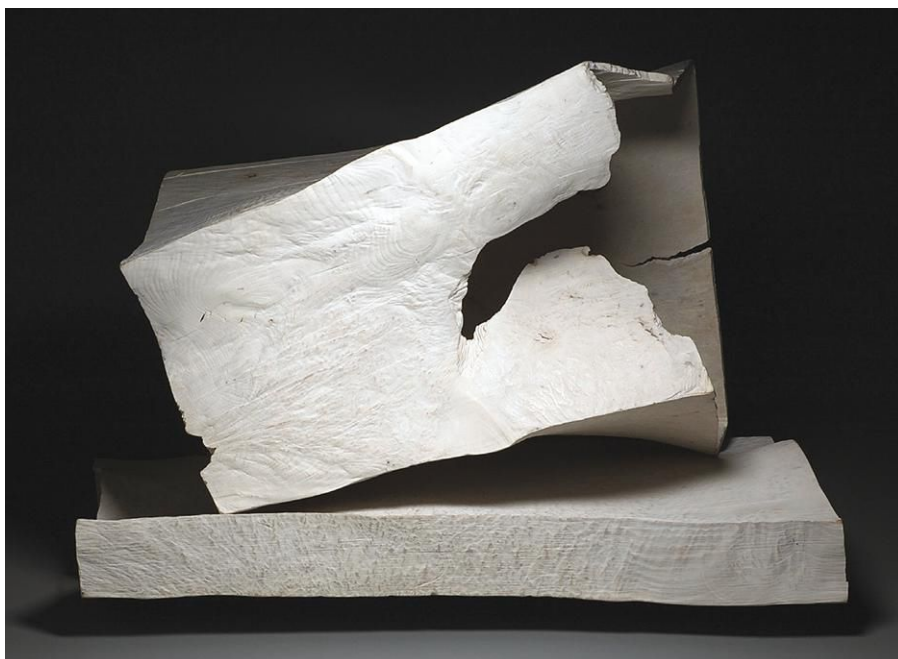
thing. Michael has done just that over the last thirty years. I am continually impressed with his combinations of shapes, each one a little different and each stunning. His eye for form and the detailed texturing and coloring of his surfaces make a strong combination that has evolved into sculptures that astound the viewer while they ponder how these pieces could possibly have been made with a chainsaw. Having done some chainsaw carving myself, I am continually in awe of Michael's carving abilities, designs, and attention to detail. In addition to being a great artist, he is a good friend. He is truly deserving of this POP Merit Award, and I commend the AAW for selecting him. ►

More Works by Michael Peterson



Bird, 1994, Locust burl (turned, carved, sandblasted, and bleached), 4" x 4" (10cm x 10cm)

Collection of Jane and Arthur Mason



Berg, 2013, Madrone burl (carved, sandblasted, and bleached), 21" x 27" x 13" (53cm x 69cm x 33cm)



Photo courtesy of Bellevue Art Museum

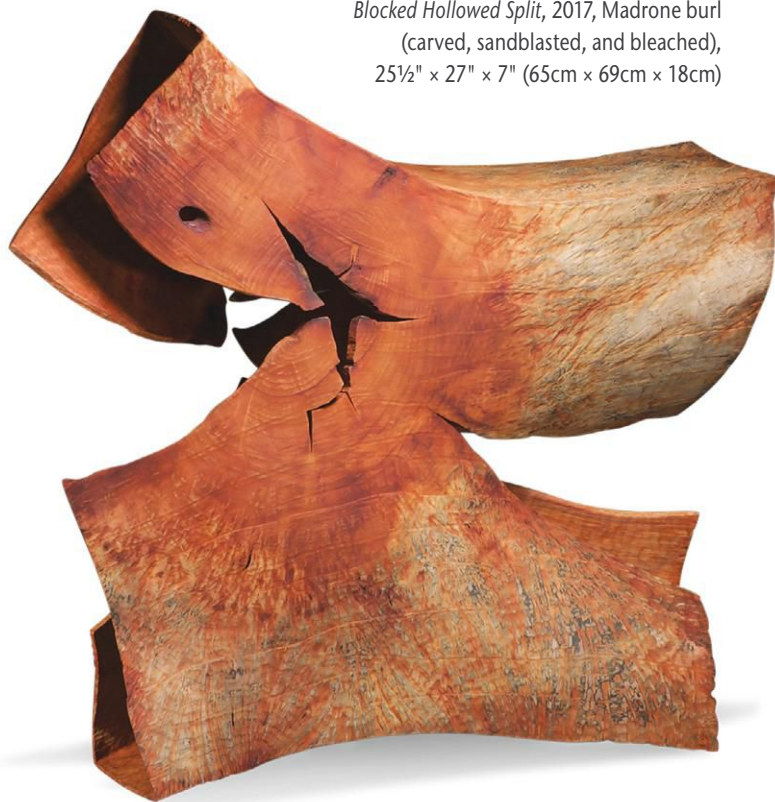
Coastal Stack III, 2007, Madrone burl (carved, sandblasted, bleached, and pigmented), 21" x 36" x 11" (53cm x 91cm x 28cm)

Collection of Jon and Diana Sebalý



New Terrain, 2016, Madrone burl (carved, sandblasted, and bleached), 22" x 15" x 13" (56cm x 38cm x 33cm)

Blocked Hollowed Split, 2017, Madrone burl
(carved, sandblasted, and bleached),
25½" × 27" × 7" (65cm × 69cm × 18cm)



Coastal Stack XVII, 2019, Madrone burl (carved and sandblasted), sumi ink, 18" × 28" × 28"
(46cm × 71cm × 71cm)

Longhouse, 2019, Madrone burl (carved, sandblasted, and
pigmented), 55" × 9" × 4½" (140cm × 23cm × 11cm)



THE SPACE BETWEEN

2022 POP EXHIBITION AND AUCTION

Photos by Tib Shaw/AAW, unless otherwise noted.



The Space Between, AAW's 2022 Professional Outreach Program (POP) exhibition and auction, features small-scale work by forty-six artists from ten countries and fourteen states. The theme, which grew from a discussion on the artistic concept of negative space, brought out a wide variety of responses: from Gerrit Van Ness's humorous take on the male/female left brain/right brain divide and Joshua Salesin's dual definition of space, to Kailee Bosch's elegant meditation on volume and Roberto Ferrer's homage to Binh Pho and all who bravely step across the space between an old home and a new one.

Don't Miss the POP Auction!

Works in *The Space Between* will be displayed and auctioned at the AAW's 36th Annual International Woodturning Symposium in Chattanooga, Tennessee, June 23-26. All pieces in the exhibition will be available for online viewing and pre-bidding starting June 10, 2022. The auction benefits POP programs, including the Instant Gallery, Artist Showcase, Merit Awards, Symposium panel discussions, as well as fellowships and grants. For more information on the Symposium and the live/online POP auction, visit the AAW website, woodturner.org.

The POP exhibitions started in 2007 with *Japanese Bowls: A Western Perspective*, and have been produced annually since then. A showcase of excellence, the shows have always reflected the international nature of the AAW; the POP actively seeks out under-represented and emerging artists, with 25-30% of the artists in each show reflecting those goals.

Initially an invitation-only exhibition, the series now includes an average of five juried-in artists, and although the great majority of pieces

are turned, a small number of non-turners are invited annually.

"I love the POP shows because they are always a surprise—I might know what an artist usually does, but all bets are off when it comes to how they will interpret the theme. Between the invitations going out and the work arriving at the Gallery of Wood Art, magic happens," says AAW curator Tib Shaw. ■



Alan Mailland (France), *Temple Tree*, 2021, Arbutus root, 4" x 4" (10cm x 10cm)

"The Tao says that what is important in a pot is not the clay, but the empty space inside. Same with a basket or a house with its rooms, windows, and doors. I have always been celebrating the space in my work: space means wind, energy, light, spirit. This little piece is just to celebrate the tree and its wedding with wind, rain, and sun."

Malcolm Zander (Canada),

Swan Song, 2021, Basswood, Brazilian rosewood,
6" x 6" x 5¾" (15cm x 15cm x 15cm)

"Negative space can bring lightness and delicacy to a sculpture and can also imply movement. Frank Cummings III created pierced vessels evoking childhood memories of carousels, with undulating rim waveforms reflecting his love of music. Rotating Frank's vessels had an optical effect. Arthur Jones also used movement in his *Black Hole* series, where light passing between numerous close-spaced wooden rays flickered as one walked around the sculpture. *Swan Song* is my own exploration of negative space and movement."



Elisabeth Mezieres (France),

In the Space, 2022, Hackberry, acrylic paint,
3" x 3½" (8cm x 9cm)

"Space contains so little matter that it can be considered empty. Reduce the material as much as possible, refine it as much as possible, and thus reduce the space between."

Art Liestman (Canada),

Little Village, 2022, Quilted bigleaf maple, walnut, acrylic paint, each: 5½" x 2¼" x 2⅝"
(14cm x 6cm x 7cm)

"Two whimsical buildings to be played with. They are bending and twisting from prevailing winds or perhaps bad wolves. The two can be repositioned to present differing negative spaces between them. Are they friends, enemies, or simply ignoring each other? Their relationship can change as you wish."



Elizabeth Weber (Washington),

Threads of Time, 2022, Sycamore, acrylic paint,
3" x 5½" (8cm x 14cm)

Photo courtesy of the artist

"The threads on this bowl tie together the space between past and present. Like time, the colors are both united and separate; they flow in a color wheel, but each color is separate, marking the space between memories. My grandfather worked for DMC, the largest thread manufacturer in France. His family was in the business of dyeing wools and cottons for 200 years in Alsace. My parents, both history professors, taught me that understanding time and our past is essential to moving forward in more positive ways."



Cory White (Texas), *(De)Composition*, 2022,

Spalted pecan, 6" x 6" x 6" (15cm x 15cm x 15cm)

"There is a crate weathered by harsh elements and the passage of time. And while this crate is crumbling, inside is a vase of all things, immaculate and somehow perfectly intact. We, as woodturners, undergo a continual struggle as we work. To create beauty, we must first tear pieces apart. *(De)Composition* shows how sometimes we must destroy in order to create."

Photo courtesy of the artist



Kalia Kliban (California),

Rough Years, 2022, Redwood burl, 3¼" x 4" (8cm x 10cm)

"Years of adversity leave their marks on a tree. We can look at the space between the growth rings and say, 'Here it was—the drought, the flood, the hard time.' In the end, when we are broken wide open, what will we point to within ourselves to say, 'Here it was...?'"



Roberto Ferrer (Illinois), *The Rubicon*,

Maple, steel, acrylic paint, 1½" x 6" (38mm x 15cm)

"As human beings, we all come to a point in life where we must make an important decision and take the next step. It is up to us to go back or to cross the river, knowing that this decision will change our lives forever. Dedicated to all those who, like Vietnamese-born woodturning artist Binh Pho, had to leave their homeland, in some cases forever."

Gerrit Van Ness (Washington),
Common Man, 2021, Wood, paper, wire, acrylic paint,
 6" x 5" x 6" (15cm x 13cm x 15cm)



Terry Martin and Zina Burloiu
(Australia, Romania),
Embrace, 2022, Chilean myrtle,
 6" x 5" (15cm x 13cm)

"In the dappled light
 between the trees,
 people find shelter
 and new hope for a
 better world."



Kailee Bosch (Colorado),
Volume(x2), 2022, Maple, bronze, brass, 5" x 4 1/4" (13cm x 11cm)

"I cast the bronze connections to hold the turned spindles apart from each other, creating two designated volumes. The most apparent is in the center, as with any vessel. The second, hidden inside the space between each set of spindles, is a continuous volume with no identifiable start or end."



David Fisher (Pennsylvania), *Between the Handles*, 2022, Black walnut, 4½" × 6" × 5¾" (11cm × 15cm × 15cm)

Photo courtesy of the artist

"The theme reminded me of a line from chapter eleven of the *Tao Te Ching*: It is the empty space within that makes a bowl useful. Most of the bowls I carve are long and shallow, very open between the handles. By condensing the form and pushing the handles up and toward each other, the eye is drawn to the space between them, to the important emptiness within."

Keith Holt (Maryland),

Life, 2022, Cherry, birch, 5½" (14cm)

"This work is a representation of the space between conception and death."

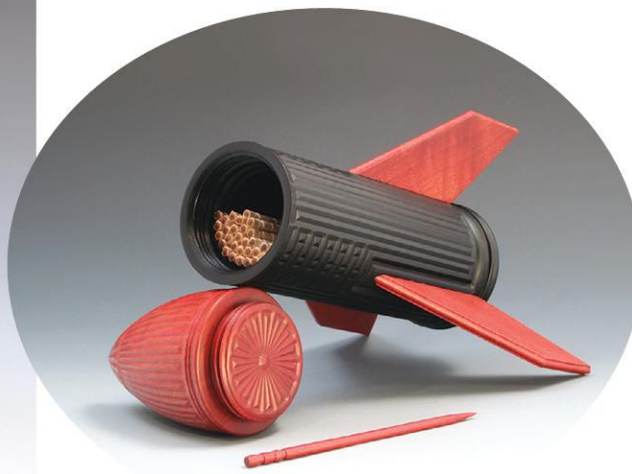


Joshua Salesin (California),

Rocket Box, 2022, African blackwood, pink ivorywood, betel nut, 6" × 3½" (15cm × 9cm)

Photo courtesy of the artist

"*Rocket Box* explores the space between our planet and the celestial skies beyond. And inside the threaded box are toothpicks—to explore the space between your teeth!"



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Ron Katz, Ontario, Canada

I have always had a passion for carpentry and for many years combined fine detail and innovative design to build fine furniture. In 2009, I dedicated myself to woodturning and developed a unique style of composing segmented platters and bowls from exotic woods.

My primary attraction to this style of work is my love of modern art and uncluttered geometric design. The variety of exotic woods plays well into my passion for vibrant color composition.

I have a background in electronic engineering and had a forty-year career as a professional photographer, having owned a graphic design studio. Now, computers and a CNC router play an integral role in composing forms and designs for various turned pieces.

All works are treated with food-safe oils and are made with non-endangered woods.

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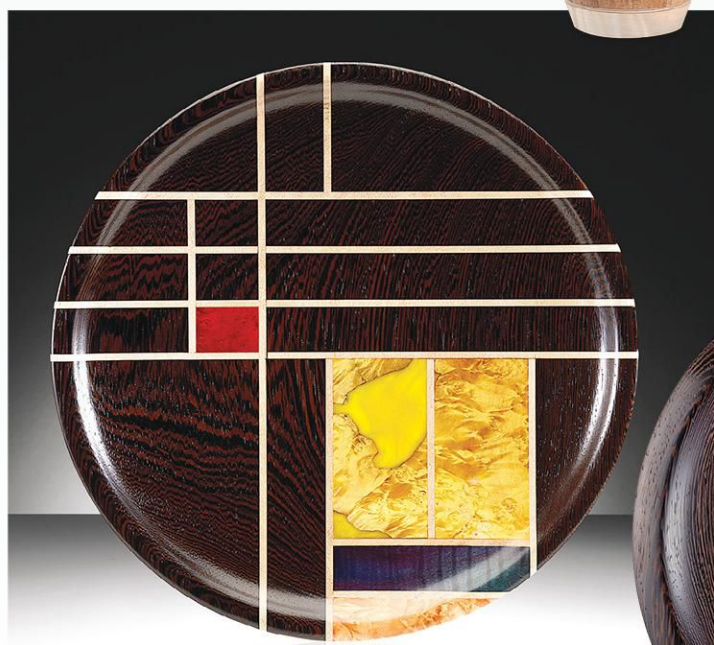
Taz Jar, 2022, Tasmanian blackwood, curly maple, beech veneers, 10" x 6" (25cm x 15cm)



Lacewood Seg Vase, 2020, Australian lacewood, padauk, Macassar ebony, birch veneers, 10" x 7" (25cm x 18cm)



Madrone Dome, 2020, Madrone burl, curly maple, holly veneers, copper rod, 7" x 6" (18cm x 15cm)



Mondrian Platter, 2018, Wenge, maple, stabilized and dyed maple burls, 2½" x 12" (6cm x 30cm)



Wenge Leopardwood Bowl, 2019, Wenge, leopardwood, 2½" x 12" (6cm x 30cm)

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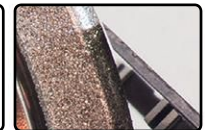
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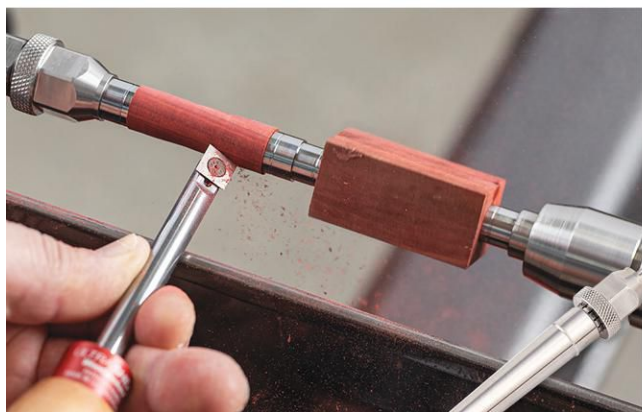
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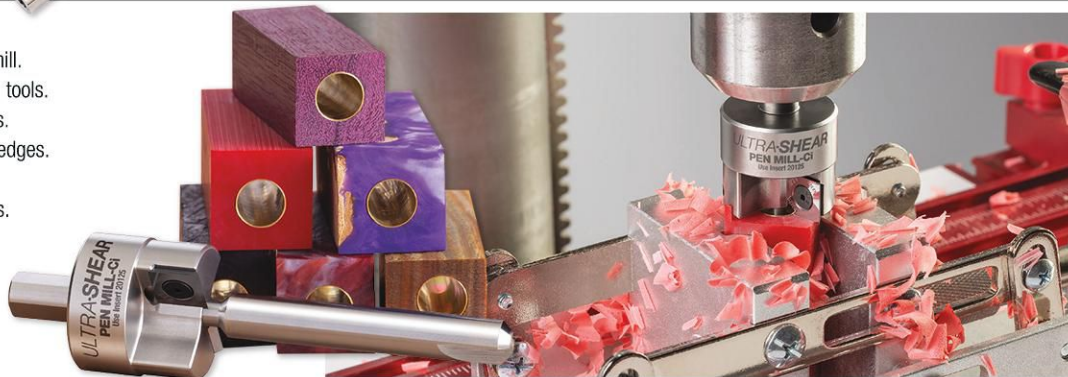
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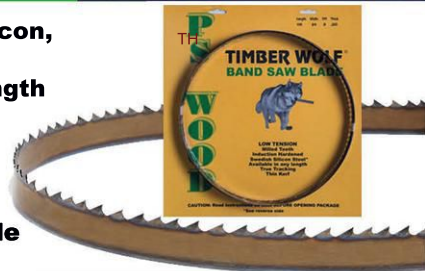
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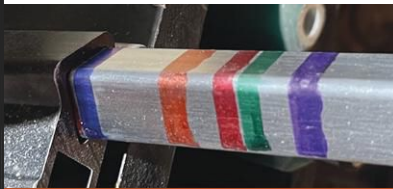
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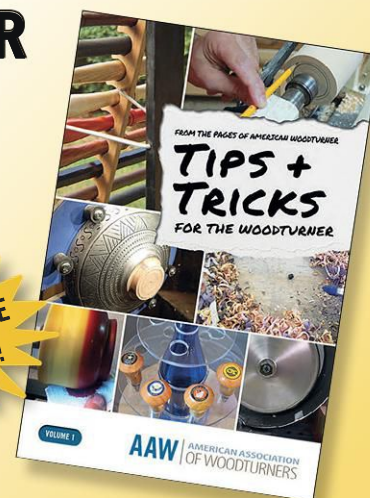
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