

RON BISHOP AND JIM BUMPAS EXAMINE HOLLOW FORMS AND CARVING TECHNIQUES

Ron Bishop: Hollow Turning without mechanical assistance



hole #1 on the hollowing chart

What is Hollow Turning – a vessel turned through an opening significantly smaller than the outside diameter.

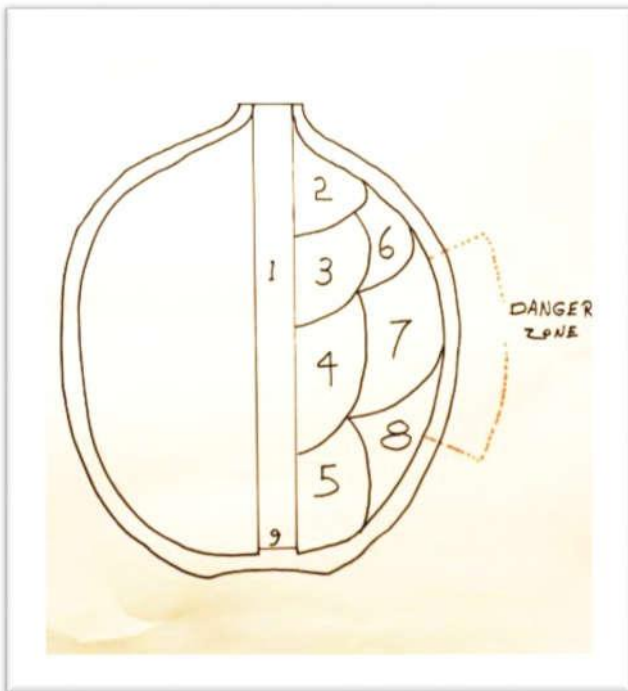
- We want to encourage and excite you to try hollow turning. It will add a whole new realm of forms and challenges as well as create new canvases to further enhance
- The same techniques can be used for bowls, but with poorer surface quality than with a gouge

Basic Hollow Turning

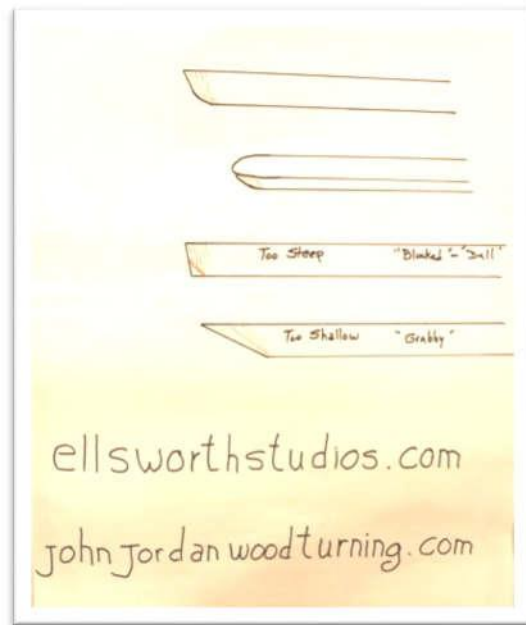
- Hollow turning generally includes making a pilot hole and removing sections of the interior. That is generally done inside to out and from top to bottom, see the hollowing chart. It's all about hand control and taking measured cuts.
- There are all kinds of vessel shapes and sizes to let the turner match wood with talent and creativity.
- Some of the works shown in the included pictures are from notable professionals and some are mine.
- Getting started
 1. Drill the initial hole #1 on the hollowing chart, a forstner bit works well, but you may need a bit extension or a longer drill for tall vessels
 2. Use bit diameter slightly smaller than intended final hole – stuff happens! And you may need to clean up the hole edge
 3. Drill to about 1/8" or 1/16" of final depth, clean-up of the bottom will use some of the remaining depth

Action

- Set up a turned vessel (outside) and drill the hole, measure the depth
- Focus on technique, pay attention to hand movement and cutter placement
- Refer to hollowing chart and begin to remove material from positions 2& 3 using large Ellsworth or Jordan Tool to demonstrate hand movement.
- Visualize where the cutter tip is located - don't get frustrated with catches, they go away with practice, practice, practice. Note the cutter tip is rotated about 10-15 deg. Counter-clockwise from the horizontal.
- Chips can be removed by scraping, blowing with compressed air or vacuum. I prefer a vacuum as it is the least dusty and reduces clean-up later.
- The more distant parts of sides, #2 and #3 on hollowing chart are removed with the angled or shoulder cut tool. Using the Ellsworth tool or the Jordan tool, the same kind of hand movement is used but with a bit less aggressive cut to avoid catches.
- Note: catches can lead to twists and torque which can cause the tool to become uncontrolled. You need to maintain a firm grip and slow approach to wood removal.
- When the cutter begins to lose contact with the wood, it's time to remove the chips.



The Hollowing Chart



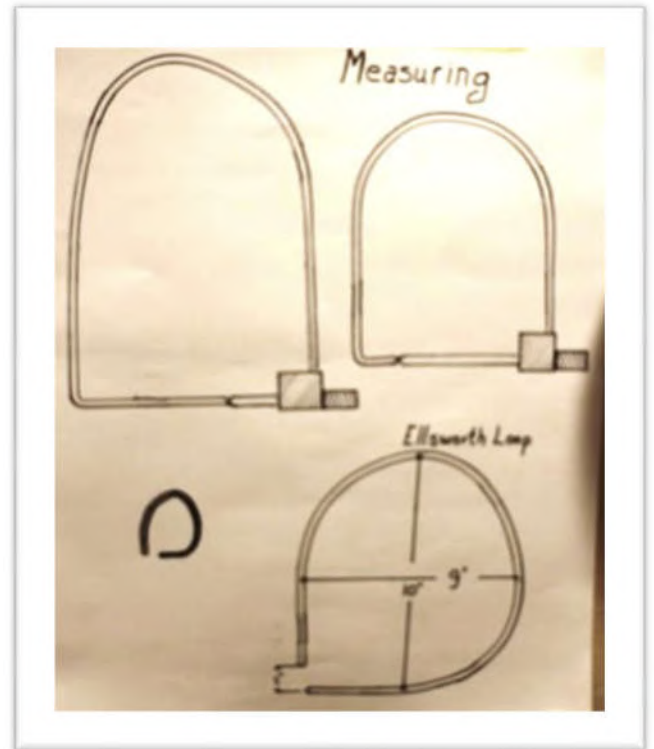
Large Ellsworth or Jordan Tool



Result of going too far in the Danger Zone



Parts of sides, #2 and #3 on hollowing chart are removed with the angled or shoulder cut tool



Measuring Tools – including a simple loop of fairly stiff wire

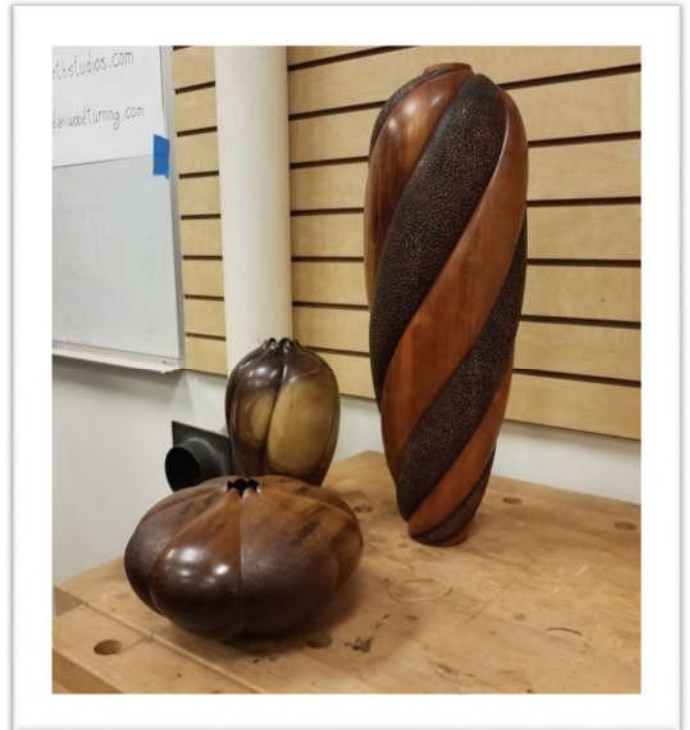


More Measuring Tools



Examples of Ron's Turnings

Jim Bumpas: Spiral Carving Techniques



Spiral – Carved Hollow Forms

Layout: Radial Lines

- Turn the HF (Hollow Form) to its final shape and sand to 120 grit. Wall thickness of 3/8" to 1/2" is good for first spiraled pieces.
- Use soft pencil (6B) to prevent making permanent marks on the wood.
- Hold pencil against tool rest and draw a radial line at the largest diameter.
- Draw radial lines approximately 1/8" from the opening and 1/2" from the bottom
- Draw radial lines midway between the largest diameter and the top and bottom lines. Your HF is now divided into four sections.
- Divide the top and bottom sections in half by drawing another radial line. This helps when drawing the spiral lines.

Layout: Segment Lines

- Determine the number of segments based on the size of the HF and desired appearance. A 6" dia vessel typically looks good with 5-6 segments. More segments = more work. If doing an alternate pattern

Jim's Hollow Form Turnings



-Drawing radial and segment lines using a pencil holder to draw the lines - see photo below

(color/texture), use an even number of segments.

- Calculate segments by using the indexing mechanism on the lathe, by dividing and marking by sight, or by using indexing dials which can be made from cardboard, plastic, thin plywood, etc..
- Draw segment lines intersecting with the radial lines along the head/tail stock axis. Use a platform mounted in the tool rest post or a platform that slides on the bed of the lathe. If neither is available the tool rest may suffice if you use a steady hand.

Creating the Spirals:

- The intersection of the radial and segment lines will be used to draw the spiral lines.
- Flexible curves and battens will be used to draw the spiral lines. They can be created using plastic bottles or other plastic material. A non-flexible French Curve or protractor is useful for creating a variety of curved shapes. Begin the layout by drawing lines from the middle bottom line to the middle top line. Lines are offset by one or two segments depending on the number of segments being used.
- Draw the curved portion of the segment at the top of the HF. This may require some trial and error to get pleasant looking curves.



Drawing the spirals - using flexible pieces of thin plastic to draw the lines

Carving the Spiral:

Step 1.

- Cut grooves following the curved segment lines using a 60 degree V-grooved carving tool. Leave $3/16'' - 1/8''$ thickness in the wall of the HF. Check often to insure that adequate wall thickness remains. This is especially important for the first groove. Subsequent grooves can be judged visually with reasonable accuracy.
- The depth of the groove should gradually decrease in depth and you approach the top and bottom of the HF.
- You are trying to achieve an illusion, so small discrepancies in depth are seldom visible.



Carving the Spirals

Step 2.

- Once V-grooves are completed, it is time to begin removing sharp corners of the V-grooves and to develop the smooth contours of the planned spirals.
- Use a Stanley 92 Shoulder/Chisel Plane or similar to gradually remove material. I have also used rotary burrs (Saburrtooth). They work; however, it is more difficult to achieve a consistently even contour when using them.
- Pay close attention to grain direction to minimize tear out. If splinters or tear out happen, stop and glue them in place with CA glue.

Step 3.

- At the top and bottom of the HF, it becomes difficult to control the plane. When this happens, switch to a V-shaped sanding board or riffler.



A 60-degree V-grooved carving tool



Jig to hold pencil for drawing radial and segment lines – see photo above



V-grooves are completed ready to be smoothed with planes, rasps and/or files

SHOW AND TELL



Robert Gundel, Maple Burl, Buffed and Waxed, 5 X 8



Allen Harrell, Bradford Pear, Watco Natural Oil & Min Wax, 9½ X 3¼



Jared Parker, Spalted Maple, Butcher Block Condition, 9 X 3¼



Dick Hines, Curley Maple, Dye, 6½ X 5



Rollie Sheneman, Oak, Maple & Other Scraps, Dye, 15 X 7½



Dennis Day, Douglas Fir, Mineral Oil & Beeswax/Poly, 2½ X 1



Chuck Horton, Maple, Minwax – Buffed & Waxed, 8½ X 3¼



Ron Bishop, Spalted Honey locust, Mahony Oil Wax, 4 X 3



Jim Bumpas, Maple, Waterlox, 4½ X 5, Hand Held Hollowing



Wally Ubik, Red Oak, Watco, 9 X 3



Mack Derry, Maple/Walnut/Boxwood, Lacquer, 6", Pen



Mack Derry, Walnut & Holly, Lacquer, 10", Ornament 2017



Cody Walker, Black Cherry, WOP, 8½ X 4



Brad Miller, Poplar, Wax, 8½ X 3



Dennis Day, Sweet Gum, Mineral Oil & Beeswax,
5 X 4



Greg Glennon, Ambrosia Maple, Unfinished, 8 X 5



Jim Zorn, Various Woods, Woodturners Finish,
Freedom Pens



Kit Ferneley, White Oak, unfinished, 15 X 2½, Bed Wrench,
for tightening ropes of a rope bed – sleep tight!



Galen Rice, Oak/Pine/Pergo, Wax, 6 X 7,
Bowl Depth Gauge



Bill Jenkins, Walnut, Polyurethane & Carnauba Wax, 14 X 22,
1 of 3

FROM OUR PRESIDENT

Early in January, the board met to iron out a few items in our by-laws. While doing so, there were discussions not only about the requirements for some board members to be members of the AAW national organization but the reasons why our club as a whole should be supportive of what I call the mothership. As is typical with any organization, opinions vary on the advantage of membership. When I first joined over 10 years ago, it was my go to source for tips, tricks and new ideas as I looked forward to each edition of the American Woodturner magazine that comes as a benefit of joining. When the national symposium was in Richmond, I was in heaven. In its infancy, our club benefited from a grant that enabled purchase of our two mini lathes. As host club of the symposium, our treasury grew considerably enabling us to build our tool library, support teaching expeditions and now greatly improve our A/V system. About 5 years ago, the penturners got a grant that led to four successful years running the Mid-Atlantic Penturners Gathering. This year, one of our members won an AAW sponsored scholarship to the John C Campbell Folk School to improve his woodturning skills, a tradition I hope will continue. And although I like it here in Richmond, I feel that I could move or visit practically anywhere in the country and find a talented group of like-minded wood turners with a chartered group willing to share the craft. While today I couldn't imagine trying to keep up with all the YouTube videos, Facebook groups, Pinterest posts, and plethora of wood turning forums and each have their place, none for me would replace the AAW.

On a separate but related note, another advantage of the club being a chartered group is that we can tag along with their group insurance policy. I don't pretend to be an expert in this field but would like to encourage all club members, whether or not an AAW member to read about the policy and what it does and does not cover. The link can be found here:

<http://www.woodturner.org/?page=InsuranceChapters>

For the last number of years, the club has subscribed to the "Group Plan" for \$95/year and will continue to do so at least for 2018. One thing it does not cover is activities such as mentoring in your home. I'm hoping to find someone more knowledgeable in the subject so we can create insurance guidelines that will inform members exactly who is covered for what and when, and what procedures may be necessary when we pay for demonstrators or as a group demonstrate at club sanctioned activities. Along with the growth of the club, is there a need to upgrade our policy? Better to find out before we need it than after. Stay tuned and let me know if you're that person.

Lastly, I would like to welcome Charlie Hamilton as the Chairman of Social Media. While the club has a beautiful website, and a rarely visited Facebook page, this is one area where we could use some help in getting the word out about our club and outside activities to a larger audience. I encourage you to pass along any ideas or hints to make this effort successful.

Happy and Safe Turning,

Bruce

CLUB JET MINI LATHES FOR SALE BY SEALED BIDS

The club owns 2 mini lathes which have been mainly used to bring to outside locations for club sponsored demonstrations. While these lathes have served their purpose, the board has decided to replace these with newer models. Both lathes have new bearings and belts installed. One has a new switch. Several more experienced turners noticed that there is some play in both of these and when turning larger objects, may experience some chattering. For smaller objects such as pens, bottle stoppers, small bowls, tops or even as a buffing station these would perform satisfactorily. In this same condition, they have been used at many demonstrations in the past few years.

What is for sale:

2 Jet mini lathes (10 x15) – **DOES NOT INCLUDE NOVA CHUCKS OR STANDS** - Will include accessories that we have other than the chucks and stands. Both should have tailstock centers and drive centers but may not have faceplates. Lathes are available for inspection in the storage room at Woodcraft opposite the meeting rooms.

How it works:

Sealed bids will be accepted at any time from members in good standing until the February Club Meeting. Envelopes with cards will be made available at the January and February meetings. Write your bid on the card along with your name and contact information, seal in the envelope and hand to Bruce Robbins. If you can't make either meeting, you may email your bid along with contact information to brobbins629@verizon.net Bids will be opened at the February 2018 Club meeting. The highest bid will get first pick, the second highest bid will get the remaining lathe. In the event of a tie, winners will be selected by random drawing. You don't have to be present to win.

Visitors	New/Returning Members
Peter Osborn	Mike Hyland, Mechanicsville
Bogdan and Clara Petrescu	Dennis Day, Rockville
	Greg Glennon, Charlottesville
	John Snead, Colonial Heights

UPCOMING DEMONSTRATIONS

February: How do they do that? Join us for “The Jig is Up” - a look at some popular jigs to facilitate your turning.
 March: Explore the fascinating world of Segmented Turning with Bob Silkensen, Terry Moore, and Bill King

THE WOODTURNING COMPETITION AND EXHIBITION

The Woodturning Competition and Exhibition is scheduled for Saturday, April 21, 2018. The Categories for entry are: Bowl, Hollow Form, Lidded Box, Mandrel, Spindle, Free Form, Turned and Embellished, and Exhibition Only. The Eligibility Classes are Novice, Experienced, and Expert/Professional. Ribbons will be awarded for each Category and Eligibility Class. A Best of Class ribbon will be awarded for each Eligibility Class and one Best of Show will be awarded from among the three Best of Class winners. The complete set of rules is available on the club website. Each entry must have its own Entry Form. The Registration Form is available below (see last page), attached (as PDF) and on the club website.

Coming in April: the Second Annual Richmond Turn-a-thon.

2018 Challenges
 1st Qtr: Something made of 3 or more species of wood
 2nd Qtr: Functional utensil that is not a bowl
 3rd Qtr: Hollow form
 4th Qtr: Shop tool
 2019 1st Qtr: Jigs
 Further definition of these maybe forthcoming.

February Snacks & Drinks

Georgia Wood.....Ice and Cooler
 Bill Walters.....1-Liter of Coke
 Bob Hudson.....1-Liter of Coke
 Bob Silkensen.....1-Liter of Diet Coke
 Bob Tingle.....1-Liter of Caffeine Free Soda
 Bonnie Cross.....Chips
 Brad Miller.....Cookies
 Brian Witt.....Sweet Snack
 Bruce Robbins.....Salty Snack
 Cecil Barrett.....Salty Snack

You can switch with someone if you are unable to bring those items for the month assigned.

Richmond Woodturners Quarterly Challenge

The Challenge will now be regularly scheduled for the third month of each quarter (March, June, September, and December). Entries will be placed on a table separate from the Show-n-Tell table.

FROM AAW

AAW EXPLORE! STAFF PICK

In his article, "As the Wood Turns: A Light-Hearted Look," from the December 2013 issue of *American Woodturner*, Gary A. Kaplan explains that, "Only 'by doing' can someone appreciate the thrill of turning."

FEATURE

As the Wood Turns A Light-Hearted Look

Gary A. Kaplan



Gary A. Kaplan, (inset, 2011, Oak, poplar, walnut, maple, 7" x 19" (6cm x 38cm))
Photo: David Kaplan

Sometimes we avoid practitioners become so invested in woodturning that we lose perspective of how novices view our favorite activity. It is important for those who teach, mentor, demonstrate, or sell to be aware of the novice's perception of woodturning. We don't want to lose our audience before the shaving fly.

Let me take you back twelve years to my first woodturning class at a local wood-supply store. For a number of years, I built furniture as a hobby. I had a well-equipped workshop, but the one machine I lacked was a lathe. A woodturning class seemed appropriate.

The instructor started by discussing wood selection. He talked about "green wood" and said it would take one year per inch, plus one year, to properly air-dry a chunk of wood. All I could think was, "Well, at least I'll be able to get this wood ready for my grandchildren." But, he went on to say, green wood could be turned thin and then left to twist and warp, taking its natural shape. Twist and warp? These woods were the enemy to furniture builders. The thought of building a table with only three of the four legs touching the floor was decidedly unappealing.

The demonstrator went on to say that another alternative was to turn a bowl thick—about one tenth of the diameter of the bowl—was it, and then let it dry for up to a year. Well, at least I would be providing wood for my children, not my grandchildren, he noted, but not exactly instant gratification.

Next came a discussion on various processes, such as the use of microwave oven (as I making fish sticks), soaking

the wood in detergent (was hygiene a concern?), putting the bowl in a refrigerator with a light bulb on (this sounded cool, but bright), and a host of other strange-sounding drying approaches. My eyes kept turning toward the door as I contemplated a hasty retreat. (I decided to persevere.)

He went on to discuss various types of turning segments—hundreds of pieces cut at exact angles and glued together ("get a file" flashed into my mind). Then came hollow-form turning: Make a small hole and turn away the wood inside without seeing what the tool was doing (yeah, right, and I might consider using my table saw while blindfolded). Facelate turning, but wait... many turners don't actually use a facelate—they use a screw chuck or turn between centers using spurs. (I moved my seat closer to the door.)

The instructor picked up a few turning tools. The primary tool: a gauge. He meant gauge as a noun. To me, gauge meant making a massive (and painful) laceration on one's skin. (Why not just call it a skin slicer?) Then came the skew. (Aren't skewers used to pierce meat for shish kabobs?) And, let us not forget the parting tool. (Could he be considering removing an appendage?) Sharpening techniques, of course, came next. He discussed the Irish grind, or the sweep-back grind, or the Ellsworth grind. (What is an Ellsworth?)

Out the door
After two or three hours, I decided woodturning was not for me. It wasn't

until six years ago, when another wood-supply store offered a free pen-turning experience, that I discovered the pleasures of turning. I am now a devoted turner and especially enjoy making bowls, platters, boxes, and suspended forms—with a gauge.

Only now do I realize that to try to explain woodturning to a novice is like describing a sport. Baseball, for instance: Try to hit a ball using a stick, and there run around three bases. Measurings. Words fail. Only "by doing" can someone appreciate the thrill of turning. At times, though, I still find myself wondering what intelligent person would spend his or her time watching wood go around and around and get excited. Can't me let it

Gary A. Kaplan has published a number of humorous articles in *The Boston Globe* and other publications. He is a member of the Association of Revolutionary Turners in Massachusetts and can be contacted at gakabob@comcast.net.

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23

AAW EXPLORE! STAFF PICK

Wes Jones wanted to add custom enameled accents to his turnings, but thought he needed a kiln to do it. Then, he found out he could use his MAPP gas torch to melt vibrant ground glass enamel onto copper tiles. He was delighted with the results and will explain how you can do it in his article, "Add Enameled Accents to Your Turnings," from the October 2015 issues of *American Woodturner*.

- ADD ENAMELED ACCENTS -
to Your Turnings



White Art Bowl with Enamelled Top, 2011, White oak, mounted flat, 5 1/2" x 8 1/2" (14cm x 21cm)

Wes Jones
I am always looking for something new to make my pieces different and interesting. Over the years, I have used out-art-glass pieces, metals, contrasting woods, rock magnets, crushed minerals, beads, fossils, and shells to decorate bowls and hollow forms. Given the materials I have tried, using enamel pieces on my turned work was a logical next step. Enameling involves melting glass and fusing it onto a metal substrate. You can enamel on gold, silver, and copper. The usual method is to sift finely powdered glass onto the substrate and fire the blank in a temperature-controlled kiln, but that is not the only method of firing.

I have always wanted to add the brilliant colors you can get by enameling, but I did not have a kiln to melt and fuse the glass. Then I learned, through a weekend enameling course at John C. Campbell Folk School, that

it is possible to do the firing with a torch. Ah, ha!

I had so much fun at the enameling course that I later took a week-long course on the subject. I started out like the rest of the class, making simple jewelry pieces, learning the techniques, and building my skill level. When I took the two courses, I arrived at class with a couple of bowls ready for the enameled tiles. The bowls had a 1/2" (19mm) high recess cut around their periphery to receive the enameled tiles.

Cut and form the substrate
I use 24-gauge sheet copper (.021" thick) as the substrate because it is much cheaper than other metals. The underside of the tiles will never be seen, so there is no reason to use precious metals as a substrate in this case. For the first bowl I made with enameled tiles, I cut the copper

blanks 1/2" x 1/2" square. When you cut the recess, you can cut it flat from top to bottom, but it will obviously curve as it goes around the bowl. When I fired fitting the square blanks into the recess around an 8" (20cm) diameter bowl, I found the copper blanks needed to be formed into a slight curve to conform to the curve of the bowl. To make curved tiles, you will have to bend or firm the copper blanks before you fuse the glass to them. If you try to form a completed tile, the glass will crack and break away from the substrate.

Twenty-four-gauge sheet copper is easy to bend, so you can shape the blanks with only finger pressure against a curved surface. I used a curved surface with a slightly smaller radius (tighter curve) than that of my bowl, so that with a little spring-back my formed blank would then closely match the curve of my recess.

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American Woodturner October 2015

Elected board

President: Bruce Robbins

1st Vice President: Bill King

2nd Vice President: Georgia Wood

Treasurer: Cody Walker

Secretary: John Anderson

Newsletter: Bob Marchese

Resource Manager: Chuck Bajnai

Membership Manager: Dan Luttrell

Information Manager: Stan VanDruff

Past President Board Members:

Dick Hines

Lee Scarbrough

Jim Bumpas

Dan Luttrell

Committee Chairpersons

Charlie Hamilton Chairperson of the Social Media Committee

Barbara Dill Chairperson of the AV Committee

Jim O’Hanlon Chairperson of the Turning Competition Committee

For sale or trade

If you have any items to list in the For Sale or Trade Section, Please email me at forsale@richmondwoodturners.org.

Please remember that each item needs a description, price, city, seller's name and contact info (phone/email).

You can include pictures if you like. They will run 1 month unless notified to “re-run”.

Financial Report

Our balance will be \$7616.86 after paying the bill for electrical work and additional purchases for the new A/V setup. This lower balance also reflects the purchase of two new lathes.

Meeting Schedule

February	2/15/2018	August	8/16/2018
March	3/15/2018	September	9/20/2018
April	4/19/2018	October	10/18/2018
May	5/17/2018	November	11/15/2018
June	6/21/2018	December	12/20/2018
July	7/19/2018	January	1/17/2019

AAW Membership

Experience the remarkable world of woodturning with the American Association of Woodturners (AAW). With the largest portfolio of woodturning-related material in the world, AAW is the go-to source for woodturners of all skill levels. A membership with the AAW can help you learn and thrive in your woodturning experience, as well as connect with others who share your passion.

General: \$60 annually worldwide

Family: \$65 annually worldwide includes up to three family members who live in the same household.

<http://www.woodturner.org>



Contact the store at: [804-355-3945](tel:804-355-3945)

Fax: 804-355-2532

Email: richmond-retail@woodcraft.com

9862 West Broad Street
Glen Allen, VA 23060

Organizations such as the Richmond Woodturners, Penturners and carving clubs would not exist if it weren't for the kindness of their sponsors. We are blessed to have the Richmond Virginia Woodcraft store supporting us and our activities. Because of this, the Richmond Woodturners might still only be an idea.

Please remember this and support them at every opportunity!

For the classes provided at this location see: <https://www.woodcraft.com/stores/richmond/classes>

Look for classes taught by Ray Deyo, Clark Brummett, David Sterling and Brian Noble-Marx.

RICHMOND WOODTURNERS' 2018 TURNING COMPETITION & EXHIBITION REGISTRATION FORM

Fill out one form for each item entered. Fill out both top and lower portion of form. The upper portion will be retained for Richmond Woodturners' records; the lower portion will be attached to your entry when it is registered for competition.

There is no entry fee for this competition.

EACH ENTRY MUST HAVE ITS OWN ENTRY FORM

– PLEASE PRINT NEATLY –

Entry No. _____

(For RW Use Only)

Indicate your level of eligibility and category

(N) Novice (EX) Experienced (EP) Expert/Professional

Bowl Hollow Form Lidded Box Mandrel

Spindle Free Form Turned & Embellished Exhibition Only

Piece Name/Description _____

Name _____

Phone _____ Email _____

**TURNINGS AND REGISTRATION FORMS MUST BE RECEIVED
BY CLOSING ON THURSDAY, APRIL 19, 2018**

Cut here - - - - -

Entry No. _____

(For RW Use Only)

(N) Novice (EX) Experienced (EX) Expert/Professional

Bowl Hollow Form Lidded Box Mandrel

Spindle Free Form Turned & Embellished Exhibition Only

Piece name/description _____

Additional forms can be obtained from

http://www.richmondwoodturners.org/pdf/forms/2018_turning_competition_entry_form.pdf