



## Long Island Woodturner's Association Newsletter

November Issue

Nov 19, 2022

Featured Speaker: Dennis Fuge

Adding Pewter to a Turned Bowl



*LIWA is a chapter of the American Association of Woodturners. Our purpose is to foster a wider interest and appreciation of woodturning on Long Island and in the Metropolitan area.*



**Upcoming Meeting Schedule for 2022.** All meetings run from 9:00 am to 12 noon on the 3<sup>rd</sup> Sat of the month. Dates subject to change. Live meetings are held at Northport High School (154 Laurel Hill Road, Northport, NY) and are also available via Zoom. Links will be sent to all members in good standing.

Dec: 17: TBA

**Club Officers for 2021**

President:	Barry Saltsberg	(516) 349-1914	<a href="mailto:woodartist@optonline.net">woodartist@optonline.net</a>
Vice Pres:	Paul Permacoff	(631) 261-7207	<a href="mailto:classakid@aol.com">classakid@aol.com</a>
Secretary:	Barry Dutchen	(516) 443 5342	<a href="mailto:bdutchen@gmail.com">bdutchen@gmail.com</a>
Treasurer:	Tony Fuoco	(631) 255-3956	<a href="mailto:sandman0830@aol.com">sandman0830@aol.com</a>
Chair of the Board:	Ken Deaner	(516) 239-7257	<a href="mailto:ggoosie@aol.com">ggoosie@aol.com</a>

**Members at Large**

Steve Fulgoni  
Jodi Gingold  
Les Hoffman  
John Kowalchuk  
Jim Maloney  
Pete Richichi

Thanks to Jodi for being our photographer.

**Summary of Meeting**

Barry S opened the meeting by reminding everyone of our mentoring program (See Jodi). Our thoughts go out to Carl Saenger's family. A memorial service will be held in the spring. David Storch's mother is ill and BS extended the club's best wishes. Bob Lee and Jim Cleary described their visit to Singh Hardwood, Far Rockaway. Anyone interested in visiting them or doing a cost-share in boards, please reach out to Bob Lee. Regards from Peter Schultheis to all the club members.

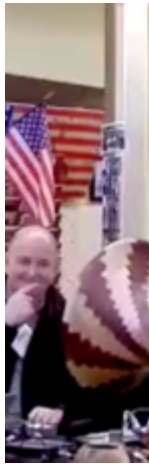
**Treasurer's Report**

65 paid members. Please send your dues check to Tony.

**New Member**

Mike Roberts, from Mineola

**Show-and-Tell**











## Main Event

### Featured Speaker:

Dennis Fuge

### Adding Pewter to Your Artwork

Pewter is an alloy of tin, antimony, bismuth, copper and lead. From Dennis' slide: Antimony keeps the pewter bright, reduces tarnishing. Copper softens the metal and makes it more workable. Tin makes up 85-90% of pewter today. Available today is lead-free pewter.

Be mindful of the temperature of the pewter – if it is too cool, it won't bond properly, too hot it will burn the wood. Here are some samples of Dennis' work:



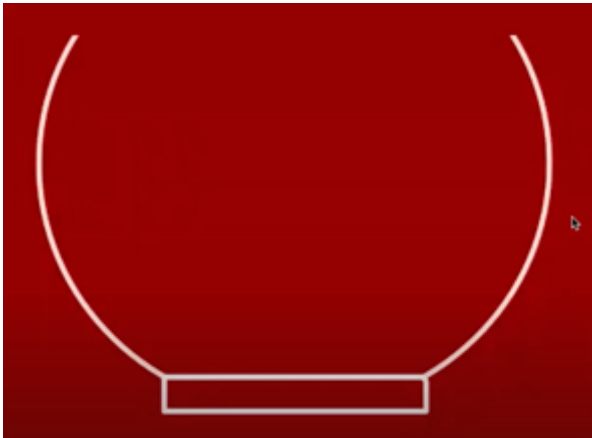


Making the perfect bowl: The “Golden Mean” or “Golden Ratio” is the number 1.618 - it shows up everywhere as the perfect form, most pleasing to our eyes.

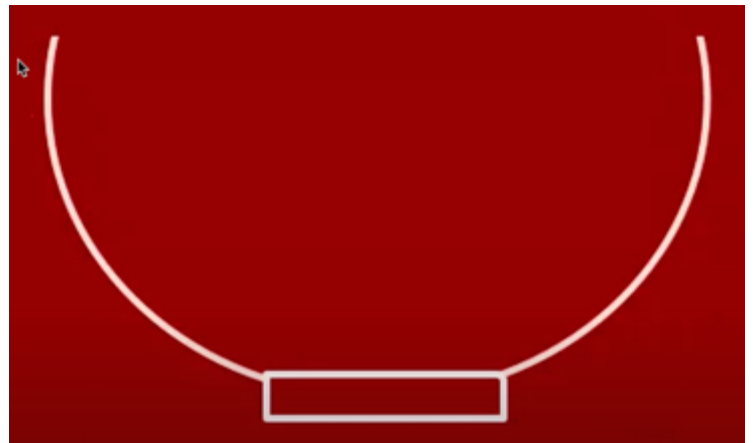


Examine the bowl forms below

(a)



(b)



(c)



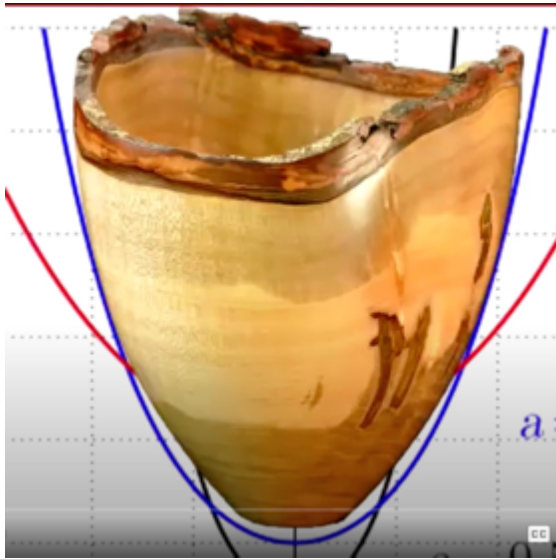
Most pleasing is generally (b).





To get the perfect bowl height, determine the width you want and divide by 1.618; Likewise, to determine the bowl's foot, divide the height by 1.618.

Make it easier by using the golden mean calipers shown (construction information available on the internet). Or, use a chain: A hanging chain forms a catenary. The shape is often used form arches (as in St. Louis).



Pewter sources. In addition to the sites listed on the handout, pewter is easily found at garage sales, in cups and medallions. To determine if the piece contains lead, use a swab test kit from Amazon. Dennis melts the items in a metal cup over a camp stove.



Inlaying of copper into pewter:

First make a mold. Turn a bowl (he used cherry). He uses three types of cuts: non-bevel rubbing to "hog off the wood" (remove larger amounts of material), bevel-rubbing, as shown below left, for a finer cut. And a scraping cut as shown on the right.



Next, he demonstrated the push cut (popularized by Stuart Batty and Ashley Harwood).

Next cut your tenon (using the dividers). Use your parting tool (1/4" deep) to define the tenon.

Then use the 1/4" bowl gouge to remove the excess wood. Raise the tool rest, use a square scraper at a slight angle outward to create





an inward sloping surface. According to Dennis, this makes it possible for the chuck to contact the bowl safely away from the inside of the tenon (at the base).

Remove the drive center. Dennis installed an Axminster chuck with straight jaws. Reverse and attach the bowl. Remove the tail vise. Hollow the inside. Watch the video for a demonstration of excellent techniques.

When the inside is finished, place the bowl in a doubled paper bag. Dennis says it's the perfect microclimate to allow drying, without getting cracks or mold.



Make a friction chuck, attach some leather or a rubber carpet mat (from Home Depot) to the front, install it in the chuck.



Place your dried blank with the inside toward the chuck. Bring up the tail stock and center it in the original "dimple".

Slow the lathe. Use the 1/4" bowl gouge, level off the foot, straighten out the edge of the foot and using the same set of dividers, re-mark the foot. Re-define the edge

with the parting tool.

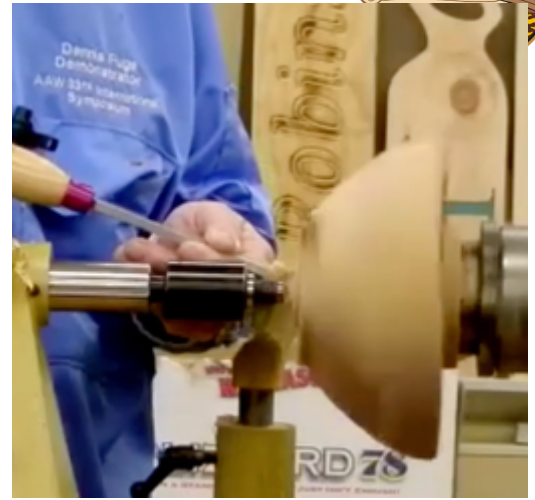






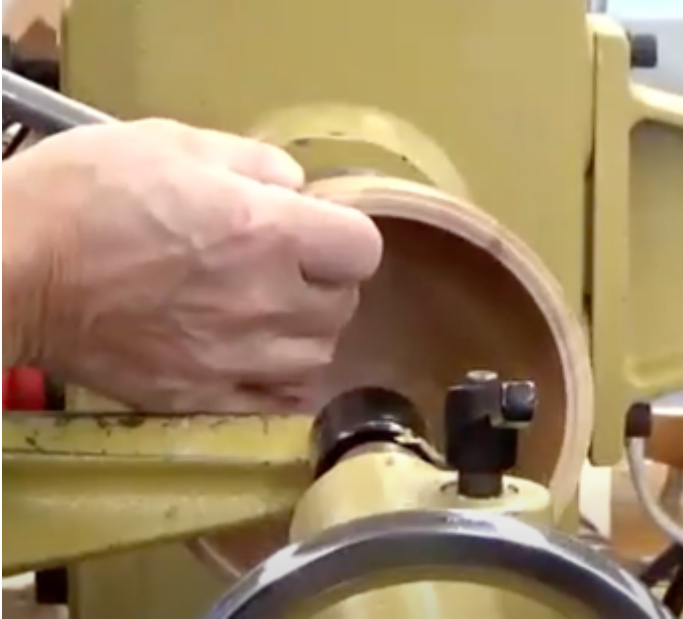
Remove the bowl, remove the little nib and reinstall the bowl. Clean up the tenon, by using a 1/4" bowl gouge, to even out the tenon. Use the square scraper (raise the tool rest) with a slight inward angle (as before).

Remove and reverse the bowl. Complete hollowing it, remembering the golden mean.



Dennis then discussed putting a pewter ring on the top rim and the foot:

This begins with using a parting tool to create a raised lip for the metal to hold on to. Then chamfering the outside and inside edges. This makes the raised lip so that it better defines where the pewter meets the wood. Make sure the inner and outer rings measure the same width and depth.



Create a mold for the pewter ring: Beginning with a disk of hard maple, mount it on the chuck. Use your bowl and press the tailstock in place. Mark the outer rim on the maple (it will be slightly larger than the bowl. Remove the bowl. Measure the thickness of the bowl rim. Measure in from the drawn ring and add another pencil ring that width. Use your parting tool and create a slight dovetail to give the pewter something to hold on to.

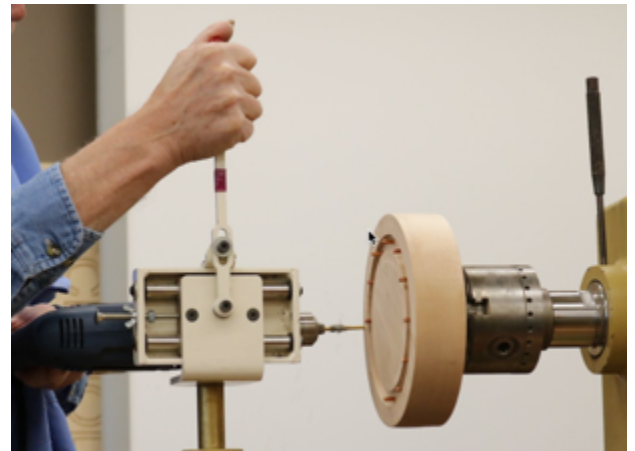
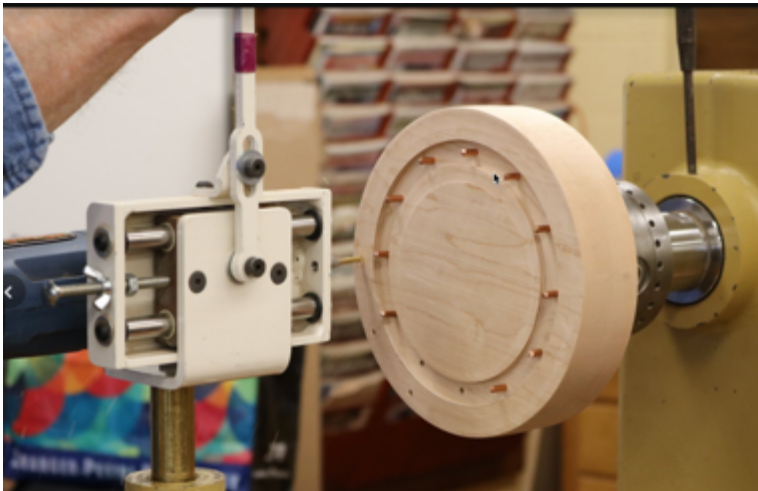


Remove the area between the rings.

(See photos to create a mold to hold copper rods.)



Dennis used a very interesting drilling system, or do it freehand with an indexing plate. Match the drill bit to the size of the copper, brass, etc. Inserts are wire from Home Depot (use a bit slightly smaller than the wire insert.) Just press in the rods.

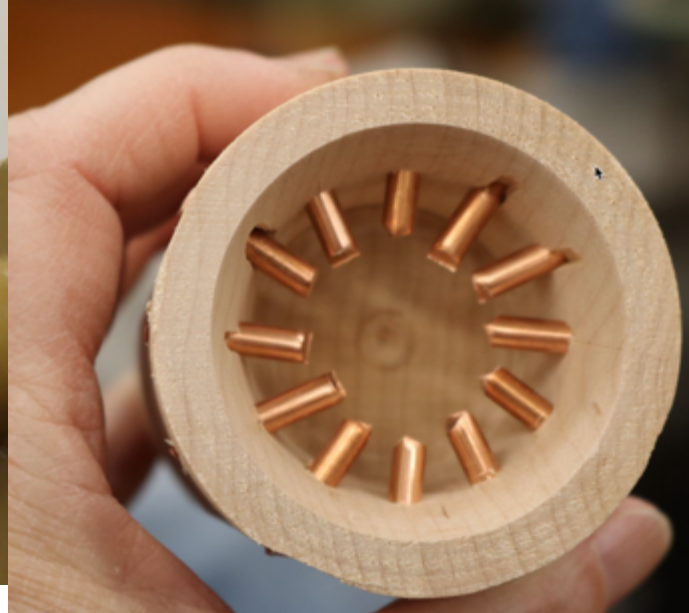






Do the same for a “foot” mold. Insert a short maple blank into the chuck. Use the tailstock for support. Use a bowl gouge to smooth the blank. Then hollow out the center, starting with a forstener bit to set the depth. Dennis suggests a 1 to 1¼” foot. Give the hollow a slight taper – wider at the top to enable the pewter to easily be removed. If using copper rods, the mold is a one-time use only.

Position the drill to the side and drill according to the pattern desired (12x). Put the molds in the microwave oven for 3-4 minutes, repeat 3 - 4 times to drive out any moisture. Wear heavy duty gloves.



Insert the rods. Make sure no wood is loose inside the mold.



Now, turn your attention to melting the pewter: Dennis allowed the pewter to reach 700 degrees (350 to 280 degrees to melt the pewter) in a stainless steel cup. To remove the top slag, use a stainless steel spoon.



Aluminum melts at 1400 degrees and burns a wooden mold. Dennis explained that he would use a sand mold.





Dennis also torched the molds that had copper rods, so the pewter bonds better (also suggested, slightly sand the rods.). The pewter rose to 700 degrees before Dennis skimmed off the slag. Then poured the hot liquid into all the molds. We watched as the pewter rang around the ring to meet\* at the opposite side.

*\*Spoiler alert*



Allow time for the pewter to cool. LUNCH TIME!!



Pewter turns with the same tools as wood. However, it does not work well with a bevel cut.

Dennis places a cardboard box on the bed of the lathe under the cutting area to catch pewter bits for re-use.

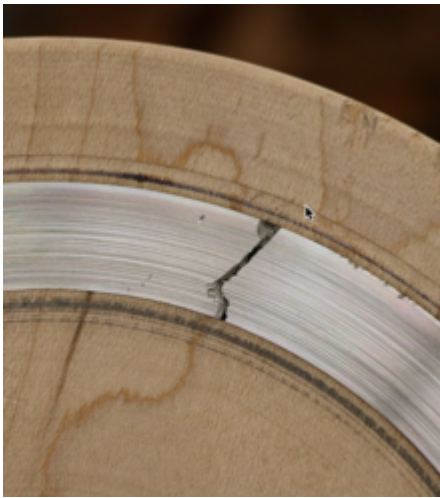




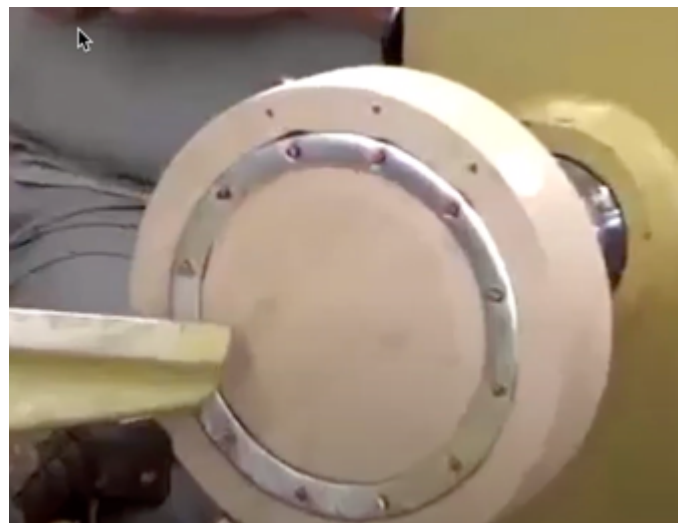


\*Unfortunately, the two tails of the liquid pewter met at a cold joint, resulting in a break.

Dennis used a portable torch to reheat the joint, then added more pewter allow it to cool. He remounted it on the lathe to smooth it out.



Next Dennis mounted the copper rod example. Since the rods are all at different heights, take care when turning them down.



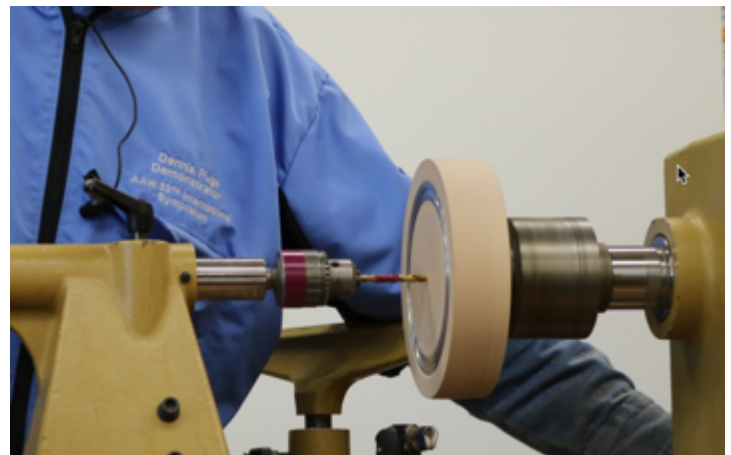
Use your dividers to determine the exact distance across from pin to pin.

Then use the parting tool to make a groove in the pewter to match the ridge on the bowl.



Test fit. Adjust as needed.

To remove the ring: drill a hole in the center of the mold.



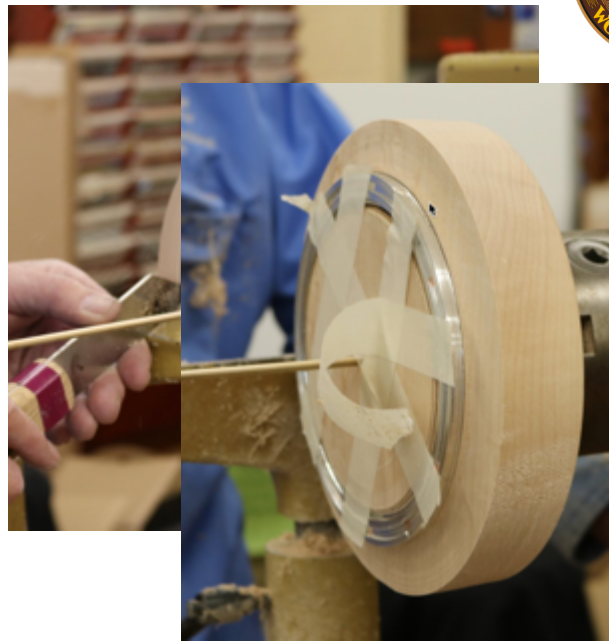
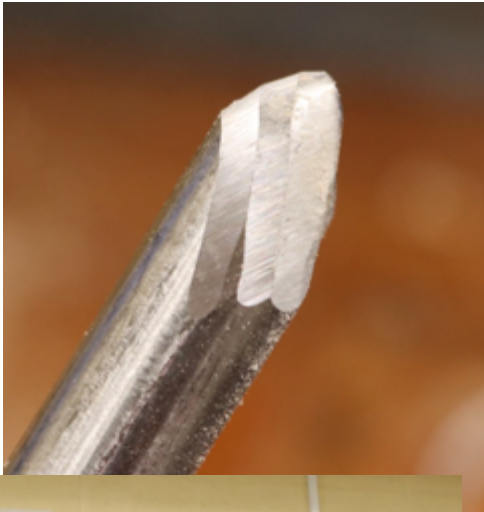
Insert a bamboo skewer into the hole to catch the ring when it becomes free. Use a parting tool to remove wood from around the ring. Hold the bowl against the ring to check size. Dennis wants it to be about 1mm larger than the bowl. Chamfer the outer edge. Now, work on the inner edge.



Measure the ring, adjust as needed.

When it fits perfectly, apply masking tape to the surface for added safety. Use a 1/4" bowl gouge to remove some of the side.

*Side note: Dennis use the Vector Grinding System to keep his tools sharp.*



Next use a parting tool from the side to release the ring.



This one broke where there was a cold pour. Heat the pewter least 50 degrees more.



at





Now, the base: Turn the mold with a 1/4" bowl gouge (it's a one-time use mold). Remember, pewter works best with a scraping cut.



Dennis imbeds a 1" signature medallion into the base. Turn it down and remove it from the mold. Slowly drill a hole into the base of the pewter about 1/2" deep. Too fast and the pewter will fracture.



Finish by sanding/polishing, then fit the ring to the bowl.

Make a jamb chuck from the remainder of the mold.

Fit the cut to the ring. Then use small pieces of double-face tape. Apply the ring to the tape, press.



Test fit by pressing the bowl against the ring with the tail stock for two minutes.

Now, you can finish by polishing the ring. Use a paper towel with Tripoli wax (The Beale buffing system). “wax on – wax off”

Then buff with a pad loaded with 1000g in your drill. Get all the polishing done BEFORE attaching the ring to the bowl, else the black residue will stain the bowl.



This bowl has a few defects. To fill them, first spray the bowl with wax free shellac to protect the bowl.

A few drops of CA glue, followed by aluminum powder (leave proud.)

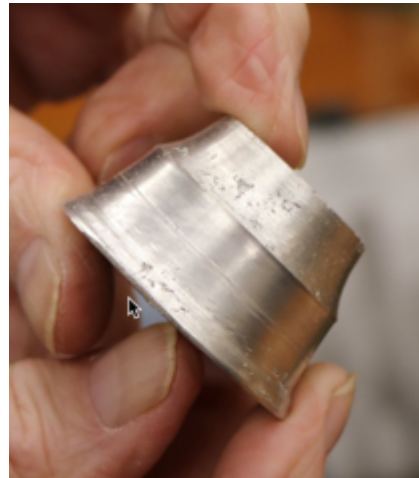
Use 220 paper in the drill to remove the excess. Repeat with finer grits.







Assemble. Epoxy the signature medallion, foot, ring.



Thank you, Dennis.

