

Inland Northwest Woodturners
July 2020 Pendant Turning Workshop Notes
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A little bit about turning pendants

- To create our pendants, we employ the Joyner Eccentric Backer Plate. The backer plate is made of two parts – the base and the indexing plate. The base has eight holes, tapped with a 3/8” thread to fit a standard bottle stopper mandrel. The mandrel fits into the headstock and we use a draw bar to secure it. One of these holes is centered, but the others are all offset varying distances from the center. It also has four holes for thumbscrews that are used to attach the indexing plate to the base.
- For eccentric turning, the indexing plate has twenty-four holes around the perimeter of the plate in equal increments. These holes are threaded to accept the thumbscrews that attach it to the base. The backer plate also has four countersunk holes on the indexing plate that allow for attaching a waste block to the plate.
- The wood for the pendant is attached to the waste block with cloth-backed double-sided tape. Woodcraft’s tape works best for us. This is a pressure-sensitive tape, about the thickness of masking tape, which strongly adheres the prospective pendant to the wood block, without being too difficult to remove. Since the piece is only held on by tape, gentle cuts are preferred.
- You can watch excerpts from one of the remote video demonstrations we made on the use of the Joyner Eccentric Backer Plate and embellishing with archival ink pens with this link:
<https://www.youtube.com/watch?v=3yTgGmT2EvE&feature=youtu>

Embellishment with Archival Ink Pens

When the piece is finished, it will be held, probably worn, and viewed up close and personal. Lauren wants to make sure it is as textured and interesting as possible. The old adage “less is more” doesn’t apply in this case. She wants to think about color and design juxtaposition, shading and layers of drawing, and whether or not to use the grain as a guide for the design or ignore it completely.

Wood Selection

- Look for light, less-figured wood with a tight grain
 - The grain should be tight enough not to impede the flow of the pen. Working with loose grain is like getting your heel stuck in a wet lawn.
 - Maple, ash, holly, sycamore, yellow heart, dyed or bleached wood
- The color and flow of the ink will be different for each piece, so test a small piece first.

Design

- Depends on the qualities of the piece you will be working on.
- Even though a wood is lightly figured with less prominent grain, the grain can still be used as a roadmap for the design.
- Lauren considers the natural wood to be another color in her palette. Don’t feel that you have to completely obscure the color and tone of the wood. She often uses a complementary color brush pen to create shadows where sections overlap. This adds depth to the piece. She experiments with which colors

work best with the wood color and temperature. For maple, she has found that a light warm gray, brown, or even orange work very well.

- If she is feeling less adventurous, or if there is a specific logo to draw, she will map out her design in pencil first, which can be erased after the design is drawn in pen.
- There is a drawing technique, called Zentangle, which uses sections called “strings” into which designs are drawn. It is a very pattern-oriented method. Designs created by zentanglers can be viewed and downloaded at no cost at
 - www.Zentangle.com
 - www.TanglePatterns.com
- Workbooks, coloring books, observation, take photos, draw, draw, draw

Setup, Tools, Supplies and Materials

Lauren uses a rig that is set up with a light to illuminate the subject, and a photographic ball head that is modified to accept the Joyner indexing plate. She wants to be able to work from all directions. The ball head allows her to easily rotate the piece. We have several indexing plates in the shop, so she can work on a number of pieces without having to remove them from the waste block after turning. This makes it easier to return the pendants to the lathe, centered precisely, to make changes or clean up errors.

Archival Ink Pens – Pigment-based

- Look for archival quality ink pens. Archival ink will be fade-resistant and purer in color than most other inks. Lauren prefers a pen as the vehicle for the ink as opposed to a paint brush. There is just more control, especially for the “texture” lines. She is always careful not to push hard on the pen, but to let it gently glide over the surface. Go with the flow and remember to breathe.
 - Several brands of pen are available in the marketplace. Her favorite is the Copic Multiliner SP.
 - These pens feature a durable aluminum body. The ink is waterproof and pigment based, providing a consistent ink flow that makes drawing and lining easy and crisp.
 - Available with pen tip of various sizes that creates distinctive line variations. Lauren tends to use very small points (.05, .1 and 0.5 most often).
 - The nib and ink cartridges are changeable so you only have to buy the pen body once.
 - Faber-Castell Pitt Artist Pens
 - Pigmented India Ink in multiple nib sizes and 58 colors. The ink is waterproof, lightfast, acid-free, and pH-neutral.
 - The pens come in superfine, fine, medium, bullet and brush tips which are not refillable or replaceable.
 - They have sets of colors and shades such as Landscape Colors and Shades of Gray.
 - Sakura Pigma Micron Pens
 - Acid-free and archival. The pen and brush tips are not replaceable or refillable.
 - All these pens are alcohol-based, which means they can blend with other colors to create new colors. Copic also makes an alcohol pen which helps with the blending and removal of pigment.

Archival Ink Pens – Dye/Alcohol-Based

- Copic also has dye-based pens that are less rich, more translucent, and blendable than the pigment-based pens, and they come in more shades of colors. However, be aware that using a wipe-on finish might wipe off or smear your work when using dye-based pens, so use a spray.
 - Copic Sketch Markers and Original Markers

- Two versatile tips on each pen produce a range of strokes from fine lines to wide color fills. The roll-proof flat barrel is filled with alcohol-based ink.
- Colors are more like water colors and easily blend and fuse.
- Comes in sets and as single pens.
- Can be used with the Copic Airbrush System
- The ink cartridge is refillable.
- Pens can be found online and at art/crafts stores
 - www.Amazon.com
 - www.dickblick.com
 - Blick, Michaels, Jo-Ann's, AC Moore and other fine craft stores

Hold and Rotate

- Lauren needs some way to hold the pendant and allow it to move and turn while working on it.
 - Bean bag
 - Photographers ball head or other custom setup
- A wrist rest allows her to anchor her pinky finger as well as support her wrist. She finds that anchoring in this way helps her to stabilize her hand and makes drawing more precise.

Magnification & Lighting

- She usually uses a headband magnifier with 5x magnification. She sometimes uses the camera on her iPad mini to magnify a section, especially when working on a specific drawing, but this takes some getting used to since the hand-eye coordination is different than when using the headband magnifier.
 - Head magnifier – 5x
 - Use cell phone or iPad with Camera App
 - Camera-Lucida App (<https://itunes.apple.com/us/app/camera-lucida/id362499096?mt=8>) to overlap graphics
 - Using Live Video in Woodturning Projects <https://www.youtube.com/watch?v=0kYF3fgwhBs>
- Lighting
 - Ikea 201.696.58 Jansjo Desk Work LED Lamp Light
 - Manfrotto Lumimuse 3 LED Light

Airbrushing with Ink Pens

Copic Airbrush System

- Insert the broad or medium-broad end of a Copic Original Marker or Sketch Marker into the air grip and hook it up to an air compressor or compressed air can. Changing colors is as easy as switching markers.
- The Copic system is environmentally friendly; the air can's propellant gas is chlorine-free and non-combustible. There is no clean up; when changing colors, simply change pens.

Drawing, Shading, Texture

- Do not be afraid to draw over your drawing. Make sure to use the workable fixative between layers.
- Shading, usually with a brush pen, adds depth and a 3-D quality.
- Drawing hash marks, straight and curvy lines, circles, etc. with different size and color pens creates another level of texture and interest to the piece.
- Once Lauren starts drawing with the ink, it is difficult to erase, unless she gets to it immediately. A kneaded eraser works best. She also has a “pencil” eraser (the lead is the eraser), which is good for getting into tight areas. Tombow Mono and Mono Zero are her erasers of choice.

- In working with inks, it is difficult to introduce light colors over dark colors. Adding more of the same color does not make it darker. As with watercolors, start with light colors and proceed with dark colors. Lauren found that using the ink in Uniball Signo Gel Pens over dark colors works for some applications.
- New design opportunities are created if she draws something unexpected. If she really doesn't like what she has done she can always sand it off, or go back to the lathe, turn it off and start over, or start on another piece.

Working and Finishing Techniques

Workable Fixative

- After each section, it is important to take the piece outside and lightly spray it with a workable fixative. This is not a final finish. This kind of spray is used for charcoal and pastel drawings to prevent smudging and works very well with the ink. The workable fixative dries almost instantly and she can continue with the area she was working on, or go on to the next section.
 - Blick
 - Krylon
 - Grumbacher

Final Finish

- Lauren hangs pendants by a wire in a cardboard box and lightly sprays one side, then turns the wire and sprays the back side. The wire is fastened to the finding she used to attach the necklace, making sure to mask it with blue artist tape so it is protected from the spray. The Polycrylic finish takes about a half hour before she can spray again. After the first two sprays, she gently rubs the pendant with 0000 steel wool to remove any roughness. Be sure to wipe off any steel wool residue before spraying again. Add another 3-4 sprays on both sides. When the pendant is completely dry, she uses Renaissance Wax and a soft cloth to buff it to a light shine. Renaissance Wax minimizes fingerprints on the piece.
 - Minwax water-based Polyacrylic spray (clear semi-gloss, gloss, satin). Lauren likes the semi-gloss.
 - Woodturners Finish by General Finishes (WTF)
 - 0000 steel wool (after first 2 layers)
 - Polish with Renaissance Wax & buff

If using dye-based inks, do NOT use a rub-on finish or you will rub OFF your work

Making the Necklace

- There are many ways to attach a chain to a pendant. Sometimes we will turn an off-center hole at the top of the pendant, using the eccentric backer plate during the turning process. A jump ring can be inserted (if the hole is very close to the top) or, if the hole is large enough, Lauren can insert the chain and back out through it, creating a knot.
- Our preferred method is to drill a very small hole in the top of the pendant using a Dremel tool on a vertical stand, using a very small carbide burr. The pendant is held in a micrometer stand, which allows for precise positioning of the drill bit, and it cushions and protects the piece. A tiny silver or gold screw eye finding is carefully inserted into the hole, and a drop of CA glue is added for extra hold.
- Another way to attach a necklace chain is to use a finding with a combination pin back and a bail. A bail is a component with a loop that is attached by glue to the back of a pendant; a chain is passed through the loop so the pendant will hang from the chain. Adjustments will need to be made if beading is included on the chain. This type of finding allows the owner the flexibility of wearing a hanging necklace or a brooch. The pendant will not have the tendency to flip as much with this finding.
- Of course, necklaces can be embellished with precious and semi-precious stones and all sorts of beads that complement the design. Beading is an entirely different subject and can be very addictive.

Tools and other resources

Joyner Off-Center Jig (Pendant backer plate)

- Most bottle stopper mandrels will fit. Mandrel needs a 3/8" x 16tpi thread, you can make your own
- Ruth Niles
 - Pendant Samples and step by step <https://nilesbottlestoppers.com/product-category/joyner-offset-chuck/>

Additional tools/materials

- Turning supplies
 - Abranet sanding sheets <https://www.turningwood.com/store/category/AN>
 - Adhesive tape
 - Home depot carpet tape, or preferably
 - Woodcraft Double Faced Turner's tape 1"x36 yards
 - <http://www.woodcraft.com/Product/2000390/3903/DoubleFaced-Tape-1-x-36-yds.aspx>
 - Draw bar shop made 1/4" all thread
 - Universal work holder (pin clamp) - search Google for Universal Work Holder (there are lots of vendors)
 - Ours came from MicroMark (a slightly higher quality than found elsewhere, but pricier)
 - <http://www.micromark.com/universal-clamp.6743.html>
 - www.amazon.com
 - Thompson spindle gouge <http://thompsonlathetools.com/>
 - Hunter Carbide Tools <http://huntertoolsystems.com/>
 - Easy Wood Tools carbide chisels <http://www.easywoodtools.com/>
 - D-Way beading tools <http://www.d-waytools.com/tools-beading.html>
 - NanoTools beading tools and small carbide tool
 - (may no longer be available, so check with supplier)
 - <http://www.nanotoolsr.us/www.nanotoolsr.us/HOME.html>
- Jewelry and embellishment
 - Craft stores: Michaels, Joanne's
 - Beads: The Innovative Bead Expos: www.IBExpos.com
 - Tools and findings: www.JewelrySupply.com, www.RioGrande.com
 - www.zentangle.com www.tanglepatterns.com

Alan Z. Videos that might be of interest

(Zentient1 channel on YouTube <https://www.youtube.com/channel/UC6O1nhjNHf4lo7Ew6KbicaA>)

- Tips for working with woodturners tape - AAW Woodturning FUNdamentals
 - <https://www.youtube.com/watch?v=dMH9XYIHeeY>
- AAW Fundamentals Sticky Stick - A Lathe Sanding Accessory
 - <https://www.youtube.com/watch?v=lsK63tSbkfg&t=89s>
- Using a drawbar with a Morse taper drive - AAW Woodturning Fundamentals
 - <https://www.youtube.com/watch?v=Sgg6ClrWk2k>
- Using a Morse taper collet in a wood lathe's tailstock
 - <https://www.youtube.com/watch?v=23VmTDUIQxg>
- AAW Fundamentals - Using Magnets in the Woodturning Shop
 - <https://www.youtube.com/watch?v=cWLNi8kelw4>
- Using Live Video in Woodturning Projects
 - <https://www.youtube.com/watch?v=0kYF3fgwhBs>
- Using an inexpensive CCTV camera in making a woodturned hollow form
 - <https://www.youtube.com/watch?v=pidLwThKHSw>
- Woodturning with Physical Limitations
 - <https://www.youtube.com/watch?v=3gu4Rg8RZBg>
- Rethinking Woodturning Demonstrations – 2016
 - <https://www.youtube.com/watch?v=PnxKFbc0tnk>
- Rethinking Woodturning Demonstrations – Panel Discussion 2017
 - <https://www.youtube.com/watch?v=UjAKn3pzvWc>

Lauren Z. Video

- Anatomy of a Wood Lathe
 - <https://vimeo.com/206116445>
- Personal Protection Equipment for Woodturners
 - <https://vimeo.com/253526223>

Alan & Lauren Zenreich's contact information

- Any questions... call 201-261-3325 info@zenreich.com
 - www.etsy.com/shop/StudioZ42
 - www.facebook.com/StudioZ42
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Older pendant tutorials made by others:

Tutorials

- <http://www.penturners.org/forum/showthread.php?t=49636&highlight=pendant>
- <http://www.penturners.org/forum/showthread.php?t=55731>
- <http://www.penturners.org/forum/showthread.php?t=316>

Videos

- http://yoyospin.com/videos/pendant_1.wmv
- http://yoyospin.com/videos/pendant_2.wmv