Long Island Woodturner's Association

APRIL 29, 2014 VOLUME 25, NUMBER 4

CLUB CALENDAR
Our next general meeting will be May 17, 2014 at BOCES at 9:00 am.

CLUB MEETINGS
Long Island Wood turners Association, Inc. is a member of the American Association of Wood turners. We usually meet on the 3rd Saturday of each month at 9AM at the BOCES, Wilson Tech Campus in Dix Hills. Please check our calendar for 2013 meeting dates.

Directions- LIE to exit 51 (Deer Park Avenue). Go east one block on the service road to Westminster Ave. Turn right and proceed to the BOCES entrance. Turn left and proceed to Bldg "D".

OUR MEETINGS
Our meetings consist of a brief business meeting followed by a "Show & Tell" of member's recent work and a demonstration by members or guest turners. All of our activities promote woodturning and opportunities for members to improve their skills. A wood and/or tool raffle is held at each meeting. A free video and text library is available for member's use. Workshops are also held at member's shops. See the Club Calendar for dates and times.
Our club website is www.liwoodturners.org . It is maintained by Marty Mandelbaum whose e-mail address is martymande@gmail

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General Business

- Our outside May demonstrator is Bob Lyons who will talk about shape and form.
- Please complete your Bob Brady pieces and bring them to the next meeting to be photographed. Also, bring all pieces for BOCES to the May meeting and give them to Norm.
- The mid-month meeting at John's shop is on Tuesday, 5/6 at 9:00 AM.
- Steve will organize a club dinner for June. Please bring money to the May meeting, if interested.
- A condolence card was sent to Joel due to the passing of his mother.

Events:

- Our next regular meeting is on Saturday 5/17/14 at BOCES
- The AAW Symposium is scheduled for June 13-15.
- Steve asked that we bring in the rest of the Bob Brady pieces for the April 26th meeting.
- Norm asked members to again submit pieces for BOCES by the May meeting.

Show and Tell

Les- holly vase with analyne dye, 2-piece sycamore vase, carved textured and colored, natural edge double bowl with 12 holes

Ken- carved, textured and colored box (geared series), small vase with 3 woods

Tiberio- tandem maple bowls on 1-piece carved stand

Don- cherry wedding goblet

Henry- 9 egg-shaped segmented turnings, various woods

Barry- analyne dyed bowl with silver surface

Sandra- ebonized bowl, padauk pen

Paul- hollow form with lid and finial, flared bowl, bottle top

Joel and Tiberio- natural edge red oak vase

John- large segmented vase, curly maple, bloodwood and ebony

More Bob Brady pieces were shown and photographed and more blanks distributed.

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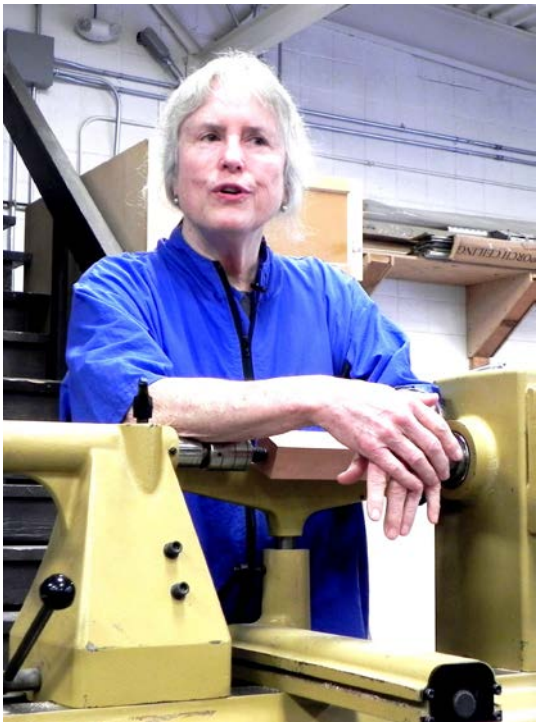
Demonstration

by Barbara Dill on multi-axis turning and ways to think about it

Barbara works between centers or with a 4-jaw chuck. She mainly uses 2 tools:

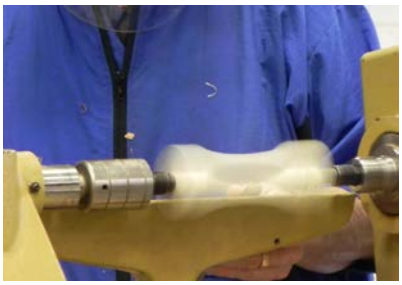
1. 1/2" bowl gouge with a flat front ground to 45 degrees for roughing and long coves
2. 1/2" spindle gouge with a 30 degree bevel



Barbara turns at very high speed to get smooth cuts and eliminate sanding. She makes V cuts with her spindle gouge and then rolls it to form beads or works downhill to form coves. She completes the coves with the roughing gouge.

Her first piece was 3-sided with parallel axes. She turned an blank round, mark 3 axes 120 degrees apart on the ends and numbered them carefully. She left 1/2" of wood on each end and turned each numbered axis to the same depth, never moving the tool rest. Using her roughing gouge and working from the center, she turned a long cove. When moving to the 3rd axis she cautioned us not to switch ends and to be careful since there is very little solid wood left. All sanding should be done by hand so as not to blunt the intersecting wood edges.

She then did a 3-sided piece with a twisted axis. She again turned a blank round and numbered 3 axes on each end 120degrees apart. This time she turned axis 1 and 2, then 2 and 3 and finally, (and carefully), 3 and 1. When making a pair of pieces, the second piece should be numbered in the opposite direction to produce the opposite twist.



Barbara explained her hand-out concerning the 4 main variables and other variables involving the number of axes, the profiles (beads, coves and v-cuts) and the shape and size of the blank. She then did a twisted, circular turning divided into 3 sections to show the 3 offsets. (These can be repeated depending on the length of the blank.) She showed how to form beads, discs and other elements and said that each should be sanded before changing the axis.

She then did a 3-sided cup as follows: Round off between centers, form tenons on

both sides (same size), mark 3 axes approx. 1/3 way from the edge, pressed the 4-prong drive deeply into each axis mark, turn 1-2, 2-3, 3-1 using the roughing gouge to form a long cove and referencing the depth of cut to the tenons, (a black background was used to help visualize the cuts), placed the blank back on center, remove the top tenon, cut into open end of cup with spindle gouge to form sharp edge and undercut the bottom to allow the cup to stand proud of a table, mount bottom into chuck using the tail-stock to center it, hollow cup with spindle gouge, measure wall thickness with (wire) calipers to prevent cutting through, sand inside only, reverse onto a pre-formed fixture to remove tenon.

HOW TO ORGANIZE THESE IDEAS

RESULTS/OUTCOMES:

ARC ↓ CIRCULAR ↓

VARRIABLES:

AXES: → QUADRANT 1: PARALLEL, ARC

-PARALLEL AXIS

(DOES NOT CROSS THE CENTER AXIS)

OTHER VARIABLES INCLUDE: THE AXES .....1)THE MANY OPTIONS FOR AXIS PLACEMENT AND NUMBER OF AXES USED; 2) DISTANCE FROM CENTER AXIS; 3) THE WAYS TO CONNECT THE AXES; 4) WHICH AXES TO USE TO FINISH THE PROJECT and PROFILE... 1) SYMMETRY OF PROFILES AND DEPTH OF CUT): 2) THE SIZE AND SHAPE OF THE WOOD

QUADRANT 3: PARALLEL AXIS, CIRCULAR

QUADRANT 2: TWISTED AXIS, ARC

→ TWISTED AXIS (CROSSES THE CENTER AXIS OR LINES PARALLEL TO CENTER AXIS)

OTHER VARIABLES INCLUDE:
THE AXES...1) THE MANY OPTIONS FOR AXIS PLACEMENT AND NUMBER OF AXES USED; 2) DISTANCE FROM CENTER AXIS; 3) THE WAYS TO CONNECT THE AXES; 4) WHICH AXES TO USE TO FINISH THE PROJECT and PROFILE... 1) SYMMETRY OF PROFILES AND DEPTH OF CUT): 2) THE SIZE AND SHAPE OF THE WOOD

QUADRANT 4: TWISTED AXIS, CIRCULAR

BARBARA DILL 3/2012

www.barbaradill.com

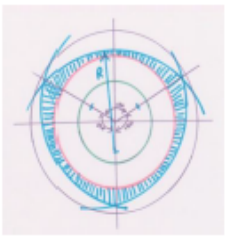
HELPFUL HINTS:

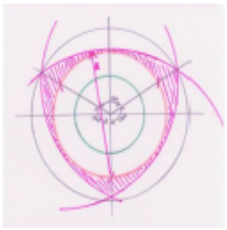
- **Turn spindle round**
- **Press holes in wood between centers**
- **Number CONSISTENTLY AND CLEARLY**
- **Use chalk to find axis IF CONFUSED**
- **High speed and sharp tools**
- **About tools (type, sharpening angle)**
- **Safe driver vs. four prong drive center**
- **Sanding**
- **Depth of cut**
- **Make sample pieces and take notes**

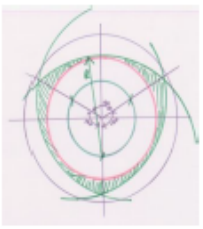
HOW TO MAKE A 3 SIDED CUP/VASE WITH TWISTED AXES

THE FOLLOWING IDEAS WILL GET YOU STARTED ON A SUCCESSFUL PATH. THESE IDEAS ARE A RESULT OF HIT AND MISS EXPERIMENTATION AND PLAY.

If the goal is to make this object symmetrical, then the most problematic issue is to find a way to make each axis equally deep. The strategy I use is to make a tenon on each end and put chalk on it to make it more visible. These tenons are a guide for the depth of the cut at the top and the bottom. The tenon is also the outside edge of the opening on the top. So this size becomes a design element.

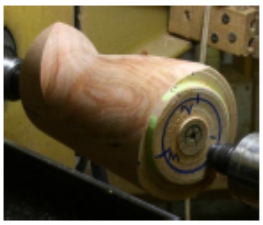






The next issue to be solved is where to place the new axes. The requirement is to place them so that the arcs will intersect within the cylinder and create the 3 points. It is interesting to find that they can be placed almost anywhere within the cylinder, even fairly close to the outer edge. It is convenient to place them inside the tenon. In the above drawings, the new axis is placed in 3 different locations related to the center of the cylinder. The red circle represents the tenon and the blue circle is used for reference and is about one third of the radius, as is the red circle. This demonstrates that the tenon, which represents the size of the opening, must be at least a third of the radius from the outside edge of the cylinder for the arcs to intersect and form the points. I'm sure that this dimension could be found mathematically as well.

The next challenge is to match the curves on each side. I use the tool bar as a reference point for both the depth and the narrowest part of the curve.



After the outside curves are turned, place the wood on the center axis and make the tenon on the bottom to fit the 4 jaw chuck. Now this can be hollowed and finished. I do carve the top of the inside of the cup to match the points on the outside.

THESE IDEAS CAN BE USED TO CREATE ANY BOWL, VASE OR CUP WITH 3 OR MORE SIDES!!!

Barbara Dill
www.barbaradill.com
Rockville, Virginia
April, 2012

SUMMARY:

- Turn wood into a cylinder;
- Turn tenons on each end that represent the size of the opening and the bottom;
- Color tenons with chalk for visibility;
- Mark angles and number the axes;
- Turn each axis using the tenons to determine the depth of the cut on each end and then turn the desired curve;
- Place between centers and form the tenon for the 4 jaw chuck;
- Hollow the form.