

## Parallel Axis Turning Thames Valley Woodturners Guild



**Purpose:** To produce a wavy candlestick using parallel axis turning.

**Demonstration:** by Eric Deckert  
– reproducing Barbara Dill's procedure in the Winter 2007 issue of American Woodturner

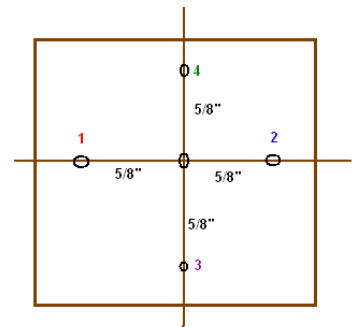
**Materials:** 2"x2"x8" piece of soft maple – for the stem  
1.75" x 3.5" x 3.5" soft maple for the base  
2"x2"x3.5" soft maple for the candle holder top

**Method:** Cut beads and coves off center in the main stem. Cuts will go past the center line of the billet.

**Steps:**

1) Lay out lines on ends of stem. Mark center line on both axes. Mark the center, and 5/8" from center on each side of center on both axes. Ensure that points are on the same side of center on opposite ends of the blank.

2) Mount the blank between centers on the center point and rough out to a cylinder. Mark a line 3/4" from each end. You will not turn this portion initially. Turn down the cylinder to 1 5/8" between these lines (a reduction of 3/8 total and 3/16 per side).



- 3) Mount the blank on points labeled "1" – off center axis 1. Turn down a further  $\frac{1}{4}$ ". From the shadow in the image below you can see the offset of the turning. Note that this is just a straight cut – no undulations at this point.



- 4) Mount the blank on axis #2 and turn down  $\frac{1}{4}$ ". Note that this is also a straight cut with no undulations at this point.

- 5) Mount the blank on axis #3. You are going to Turn Cove / Bead / Cove. Split the distance between the pommels into 6. Mark the center of the blank (center of bead) and the centers of the coves. Turn and sand the beads and coves that form half the finished turning.



6) Remount blank on axis #4. Notice how our choice of cove/bead/cove has given us more support for our final axis. Turn Bead/Cove/Bead on this axis, reducing the thickness to where the edges meet the previous cuts. **Note** Variations in thickness when viewed from the front are related to the thickness of the ribbon.



- 7) Turn a half-bead on the pommels mating to the inside curves.
- 8) Re-mount on the center and turn half-beads from the top down on each end, leaving  $\frac{1}{4}$ " tenons to mate with the base and cup of the candle holder.
- 9) Turn base and candle holder with  $\frac{1}{4}$ " mortises.
- 10) Glue stem to base and top.