

Inland Woodturners May 2012 Demonstration

Multi-axis Turning

Thank you for attending my turning demonstration. Most of the techniques, concepts, and ideas I will be sharing with you, I gained by watching Barbara Dills DVD, "Multi Axis Spindle Turning with Barbara Dill".

I would recommend you go to her website and if interested in doing multi axis turning, buy her DVD.

First, let's look at Barbara's definition of Multi axis turning, "Multi axis turning is created by turning shapes on a new axis in addition to the center axis. These ideas allow one to turn asymmetrical spindles on the lathe and between centers. Spindles turned on the lathe traditionally produce symmetrical and round objects" She has a systematic approach to organizing and understanding the variables and outcomes of multi axis turning. The handout she uses to teach and has posted on her website is printed on the back for your reference.

I will be demonstrating how to layout two simple forms, a Spiral which is turned on *Twisted axis* and turned to an *Arc*, and an Offset Stacked Column which is turned on *Parallel axis* to *Circular*. (See the back for a description of these terms)

Iron Man Challenge:

The purpose of our challenges is to have you turn something new and in doing so learn new skills and techniques that you will use on your other turnings. I was very impressed by Alan Lacer at his recent demo and his desire and skill at teaching us new techniques not just showing us what he did. So, our challenge will be more about demonstrating that you know the techniques then turning a finished item. **To complete this month's challenge you must Layout a multi axis turning and then transfer that layout to another piece of wood. You need to bring in both pieces with all the markings intact. This showing that you can layout your design and then have an example of what that layout will produced. For those that want to go further, bring in the two pieces above and a finished item using that layout, such as a candle holder or goblet.**

Things to keep in mind

- Start with hardwood about 2" square, and about 8-10" long.
- Mark a line thru the center axis perpendicular to the flat side of your square stock (used to line up the other axis after the piece is round)
- Turn spindle round first
- Mark and then press in lathe to create indentations for the drive center and live center before you turn off axis
- Number the axis to be turned consistently and carefully
- Use a small sharp four prong drive center
- Use higher speeds and sharp tools
- Sand circular cuts as you finish each axis, sand arc cuts by hand with the lathe off
- Make sample pieces and careful notes

For more information, please email me at Ron@Sahli.us or check out the resources listed below.

Barbara Dill's website www.barbaradill.com

YouTube videos

[Turning a Multi Axis Goblet in 5 minutes](#)

North East Florida Woodturners demo of offset turning a female form [Part1](#) and [Part2](#)

[Mark Sfirri and his multi axis turning showing layouts and some great finished pieces](#)