

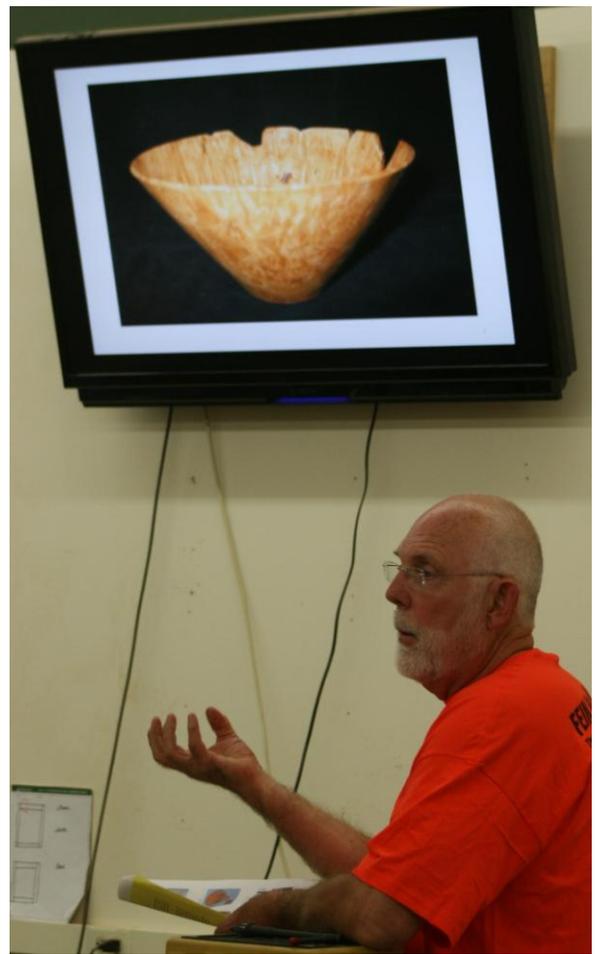


## INLAND NORTHWEST WOODTURNERS NEWSLETTER

Next Meeting is Thursday  
October 7, 2010, 7 PM at the  
WoodCraft Store classroom,  
N.E. corner of Sprague and  
Sullivan (north side of the Fred  
Meyer parking lot.

### September Meeting 2010

Thanks to Ed Krumpe and Jim Christiansen for their presentation on form and design.



If you didn't pick up their handout at the meeting, see below.

# Bowl Design

Jim Christiansen [jimchristiansen@clearwire.net](mailto:jimchristiansen@clearwire.net)

Ed Krumpe [krumpe@moscow.com](mailto:krumpe@moscow.com)



**OVERVIEW:** while the bowl form is often looked upon as one of the simpler turning projects, achieving a successful design is a challenging, complex task. The bowl turner not only needs to master tool skills but also needs to master a practical understanding of the principles of design and develop the sensitivity to perceive miniscule variations in line and proportion. Fortunately, with a little practice the turner can learn to design and produce high quality bowls that are functional and artistically pleasing.

## PRINCIPLES OF BOWL DESIGN:

1. **Craftsmanship:** The well-crafted piece will not contain unintentional flaws such as torn grain, sanding scratches, inadvertent tool marks, etc. The mastery of the tools and materials has a great impact on the perceived quality of the work.
2. **Pleasing curves:** In works where pleasing curves are part of the design, it is important to take a close look at what it is that makes some curves better than others. Basically pleasing curves should contain no flat spots. Additionally, curves that vary are considered more pleasing than curves with a constant arc. Understanding that even simple curved lines that connect two points can vary almost infinitely, selecting the best lines from among all the possibilities can be a lifetime quest.
3. **Thematic Coherence:** In most designs, the individual elements should be supportive of the design goal. The shape and size of the parts (base, rim, added decorative features) should be visually related in some way. For example, a square-edged base may not be compatible with a smooth round rim, and changing one or the other may result in a much more pleasing design.
4. **Scale/Proportion:** The size of the work is an important issue to consider. The larger pieces generally attract attention. Some turners produce very large pieces to dramatically showcase bright colors, large patterns, or dramatic textures. It is important to remember that size is a design element that should be purposely chosen to support a design goal. Proportion is another size-related concept. The relative size of the opening of the bowl or the size of the foot is a frequently debated issue. To critique proportion, it is necessary to become familiar with established conventions and to have good familiarity with the possible variations.
5. **Use and Function:** Practical considerations are always important issues. The design elements must take into consideration how an object is to be used or displayed. If it is to

be displayed on a bookshelf, it must not be too tall or wide. If it is to fit into a particular décor, it should reflect the established rules for a particular style. If the bowl is to be used on the table, it should be stable and properly sized.

6. **Meaning/Feeling:** Lying somewhere beyond basic design elements are the attributes of a piece that may elicit deep feelings and meanings. Certain colors, forms, textures, embellishments and shapes can be chosen to communicate feelings. As in other art forms, it is often not possible to explain why a work conveys the meanings that it does. Suffice it to say, as we develop and grow in a particular culture, our brains are in fact programmed to respond to certain visual stimuli in a particular way. As individuals we also develop unique responses that influence objects we might encounter at a later time. For example, in the Hawaiian culture a bowl form known as the calabash has been revered for years and strict conventions as to size, shape and material have been developed. Another example is the centuries-old convention of the seemingly simple Japanese rice bowl.

7. **DEVELOPING SENSITIVITY:**

8. Because of the long history of the bowl in human culture, certain “classic” forms have emerged. As bowl turners we should know that we have unwittingly been exposed to numerous examples to the point that we have formed a conceptual understanding of what we think is a proper design. We do not think that there is one set standard of quality design. Rather, to be able to produce excellent world-class designs, it is necessary to be completely familiar with all possibilities. To do this we need to study forms and we need to learn them by producing them and comparing one piece to another. We need to educate our senses by seeing how even minor variations can have a dramatic impact on the final piece.

- 9.



- 10.



## Meeting Schedules for 2010

**Thursday, November 11** – Jimmy Clewes, if you didn't see him in Utah or at his home shop in Las Vegas, don't miss this guy. He is a talented teacher and very entertaining. Please note this is *one week later* than our regular schedule to accommodate our demonstrator. See [www.jimmyclewes.com](http://www.jimmyclewes.com)

**Thursday, December 2** – Christmas Party, turned gift exchange, top collection and spinning contest. Frank Hutchison is organizing this event and gives us the following advice and encouragement:

### How to make spinning tops

By Frank Hutchison

According to Wikipedia, the top is one of the oldest recognizable toys found on archaeological sites. Spinning tops originated independently in cultures all over the world.

The Inland Northwest Woodturners have in years past asked members to make spinning tops and bring them to the December meeting. There, we have competitions to see who could spin the longest while enjoying the good company, food and drink. Afterwards, the tops would be taken to the local children's hospital to be given to the children who have to spend the Holidays in the hospital.

We are inviting all woodturners to participate this year.

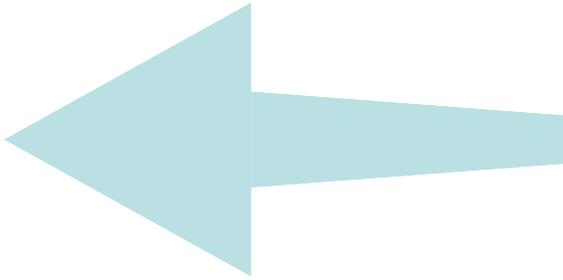
To help you get started, here are several ways to make spinning tops:

#### The Classical Woodturner's Spinning Top

1. Decide what size you want the spinning top be – or, rummage through your small-pieces-but-too-good-to-throw-out bin – and select an appropriate size chunk of wood.
2. Mount the wood on your lathe using your favorite means.
3. Turn the top to the approximate shape as shown



4. Turn the top to the approximate shape as shown



The point shouldn't be too sharp – blunt points seem to turn longer.

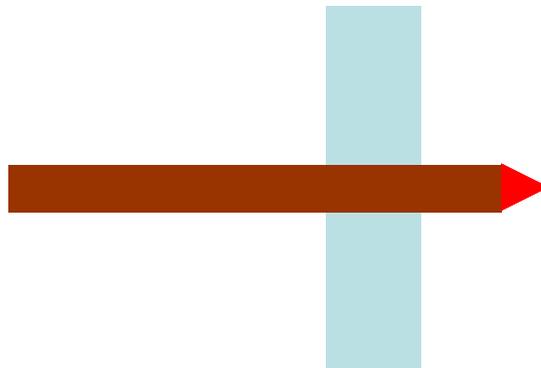
5. Sand through the grits to 400 grit.
6. Apply your favorite finish.

### The Composite Spinning Top

This is a method I learned from a woodturner that produced literally hundreds of tops using this method.



1. This method requires either  $\frac{1}{4}$ " or  $\frac{3}{8}$ " dowels and  $\frac{3}{4}$ " board stock.
2. Cut disks out of the  $\frac{3}{4}$ " board stock slightly larger than the final diameter of the spinning tops and drill either a  $\frac{1}{4}$ " or  $\frac{3}{8}$ " hole in the center depending on the dowel size you are using. One way to create these disks quickly is to use a hole saw with a drill press.
3. Glue a 3-4" length of dowel through the disk with at least  $\frac{1}{4}$ " extending below the disk and let the glue cure completely. You can sharpen the point of the dowel in a pencil sharpener before you insert it to get a head start on the shape if you wish.



4. Secure the handle of the top in a chuck. The chuck can be a 4-jaw pin chuck or a collet chuck.

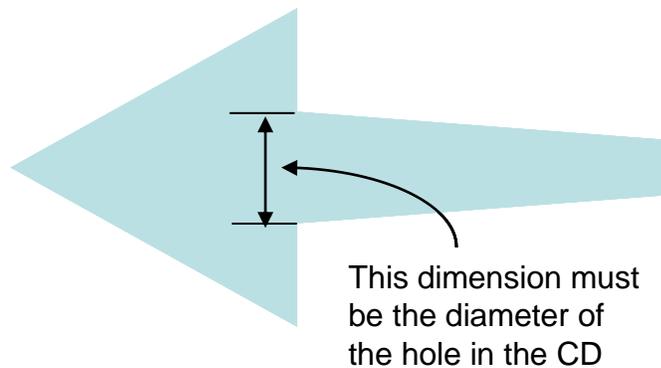
5. Shape the disk to the desired shape and put a point on the dowel extending below the disk.
6. Sand through the grits to 400 grit.
7. Apply your favorite finish.

### The Multi-Material Spinning Top

These tops are ideal for long spinning but, the CDs do break and a sharp edge can result. On the other hand, you can use a CD labeling program to create custom spinning tops – the label acts to keep the parts of the CD together in case of it being broken.



1. You can use either a single piece of wood or a composite as in the earlier methods but the diameter needs to be smaller – 1-1 ½” at most. The length of the top will be the same as in the earlier models.
2. Shape the wood to the shape shown with the critical dimension being the diameter of the hole in the CD. The CD should slide over the handle of the top and rest flat on the base.



3. Sand through the grits to 400 grit.
4. Apply your favorite finish.
5. Glue the CD to the wood – I recommend 5-minute epoxy.

### Decorating Options

Bonnie Klein offers hands-on classes at the annual AAW Symposium to kids and one of the most popular is the spinning top class. Bonnie has the kids decorate their tops using markers while the top is still on the lathe. She also uses a chatter tool on her tops. The options are many to make each top a distinctive work of art.

Perhaps Bonnie's signature top is the spin top box with a threaded lid:



You can find directions here:

<http://www.bonnieklein.com/Library/SpinTopBoxWithThreadedLidColor.pdf>

### Hints for a Successful Spinning Top

1. The point shouldn't be too sharp – blunt points seem to turn longer.
2. The top will be more stable with a wide disk shape rather than a cone shape. The term used in physics is moment of inertia and is sum of the mass at each point times the square of its distance from the center. The ideal top would have all of its mass on the outer ring – let me know if you achieve this.

Again, quoting Wikipedia, "The action of a top relies on the gyroscopic effect for its operation. Typically the top will at first wobble until the shape of the tip and its interaction with the surface force it upright. After spinning upright for an extended period, the angular momentum, and therefore the gyroscopic effect will gradually lessen, leading to ever increasing precession, finally causing the top to topple in a frequently violent last thrash."

3. The point where the fingers hold the top should not be too thick – generally a ¼"-3/8" diameter is best. It allows the user to impart more rotational motion to the top which improves the ability to spin upright. The term used is angular momentum and it increases as the square of the speed – double the speed and the angular momentum increase 4-fold.

The surface the top is spun on should be smooth but not slick.

**Members Gallery:**



**Next Meeting:**



**Ron Gooley & Roy Behm: Segmented Turning, Part II**

### **Wood Raffle:**

Don't forget to bring some wood for the raffle table, raise some money for the club, go home with a potential piece of art. Thanks to Dan Chadwick for some big chunks of maple. Also, ask Bob Schmidt about the bandsaw jig he made. Works like a charm!



See you in October  
Have a wood day!  
Chad Gladhart, Club Secretary