



# **Silicon Valley Woodturners**

June 7, 2006

Sharpening

# Sharpening Tools

- Necessities
  - Grinder 6" to 10" (Slow speed)
  - Grinding wheel (white, pink or blue) Stone hardness of "J" or "K"; 3/4" or 1" wide
  - Wheel Dresser
  - Eye Protection
  - Protractor
  - Grinding Jig
  - Dust mask

# Sharpening Tools

- Niceties:
  - Diamond flat hone
  - Diamond cone hone
  - Leather strap
  - Alignment jigs

# Sharpening Station

- Dry Grinder
  - Recommended height equal to lathe spindle height
  - Floor space to allow body movement
  - Steady platform
  - Good lighting
  - Storage for jigs
  - Area for cooling solution

# Sharpening Station

- Wet Grinder
  - Work surface that is water resistance/proof
  - Height is dependent of brand and model (height needs to allow for proper use of the grinder)
  - Stable station
  - Storage for jigs and supplies
  - Good lighting

# Learning the Sharpening Process

- Suggested order of tools to learn the process
  - Scrapers (all shapes, but not including profile scrapers)
  - Parting tools
  - Roughing gouges
  - Spindle gouges
  - Bowl gouges

# Scrapers

- Grind angle of 45 to 75 degrees
- Use a flat support surface
- Manufactures shape
- Negative Grind option

# Parting Tools

- Grind angle of 25 degrees is normal
- Use a flat support surface

# Skew Chisels

- Grind angle is suggested to be 1.5 times the thickness of the tool with an approximate 20 degree angle
- Use a flat support surface

# Roughing Gouge

- Grind angle suggested of 45 degrees
- Use a flat support surface
- Suggest practice of the rotation of the tool

# Spindle Gouge

- Grind angle suggested of 40 to 45 degrees
- Rake angle (finger nail grind) at about 30 to 40 degrees
- Suggest use of a jig to hold the tool

# Bowl Gouge

- Grind angle of 40 to 60 degrees
- Rake angle (Finger nail grind) of 35 to 40 degrees
- Use a jig to hold the tool
- Name of grinds
  - Traditional; rake 0 to 10 degrees, grind of 30 degrees
  - Transition; rake of 45 degrees, bevel = 60 to 45
  - Iris; rake is about 1" long, bevel of 70 – 80 with a secondary grind of 20 to 30 degrees. Also called a detail grind

# References

- Learn to sharpen Progressively Part1 and 2 by Alan Lacer, [www.woodturninglearn.net](http://www.woodturninglearn.net)
- Sharpening Your Woodturning Tools, by Joe Fleming, San Diego Woodturners
- Lathe Art, Boot Camp, Rich Johnson
- Check the club library for sharpening
- Contact the club mentors for help