

Valley Woodturners 1.0



**Beginners Course
Saturday Outline**

Course Pre-requisites:

A valid Valley Woodturners club membership, and it is preferred but not necessary that you own a lathe and have some tools so that you can practice at home what you are learning on the course. You will be learning on several different brands and sizes of lathes and you will also be able to use a large variety of club tools, preparing you to make an educated decision on what type of lathe and tools you want or need, if you do not currently have any or want or need more. The contents of the outline will be covered but not necessarily in the exact time frame indicated. Refer to handout #1.

Important ***The only dumb question is the one you don't ask all questions have merit.***

Accessories Bring paper and a writing implement, for notes and for keeping information. A sketchbook is the key to long-term improvement and success.

Optional Internet access and an E/mail address, for information and to view reference material and web sites. You may bring your own safety equipment so you are more comfortable in class.

A minimum equipment list that is required to be a wood turner

You do not need all the material on this list immediately but in your future turning career you will probably have a need for most of it and usually more.

A lathe it does not matter the brand or size or age, as long as it is in good working condition.

A selection of quality wood turning gouges.

A selection of wood holding attachments for the lathe, drive spurs/cups, faceplates and chucks etc.

A sharpening station with the appropriate type of grinding wheel, or belt.

You should also have a selection, of honing stones or diamond honing plates or files.

You will also want an assortment of sanding material, and probably portable power sanding equipment, usually an electric drill with Velcro or screw or clip on sanding discs is the most common method of rough sanding and finish sanding. You will also want an assortment of finishes, sealers, oils, waxes, etc.

You will definitely need a selection of safety equipment; safety glasses and preferably an *impact resistant* face shield, dust masks or a power filter helmet and, possibly a turning smock and safety boots.

Extras

Possibly polishing equipment, power buffing and polishing station for your lathe, or a stand-alone unit, with the appropriate compounds.

A vacuum chip extraction system for your lathe is very useful, and a separate dust extraction system.

A good selection of reference material and books etc will be helpful to you in your turning career.

Bring in all of your turning tools to the first class for assessment and sharpening.

Session # 1 Saturday Getting Started (6 hours +).

There will be brief discussion on shop safety covering safety glasses verses full-face safety shields; particle masks verse respirators, general clean air in your shop. Refer to handout #2

There will be a brief discussion Q&A on different types of lathes and their power requirements that are available to the wood turner, including lathe speeds, and cut size, and the turning tools used for spindle work touching on bowl gouges, along with tool rests. Refer to handout #3.

There will be a classroom demonstration and instruction on finding the center and mounting a piece of wood on the lathe between centers, and the different types of drive spurs and cups and tail stock centers. Refer to handout's #4, 5 and 6.

There will be a classroom demonstration and instruction in the proper application of the roughing out gouge, to the spinning wood, for the best results, then hands on practice in producing the largest possible parallel cylinder from the piece of wood supplied. Refer to handout's #7, 8.

The next portion of the class will be practicing the techniques previously taught, turning more material to improve your tool control technique, **practice, practice, practice!**

There will be classroom instruction and demonstration on various techniques for turning tapers, using various spindle and detail gouges, and then hands on cutting beads from your cylinder, always cutting from the larger diameter to the smaller diameter. There will be lots of wood available so make chips **turn, turn, turn.**

Sharpening verses Grinding, Refining the edge.

Grinder speeds, wheel grits & abrasive types, diamond wheels.

Wet versus dry sharpening.

Sharpening wheels and sharpening belts produce different types of edges.

Honing/stropping.

Hand honing with a slip stone or a diamond file or card.

Power honing/stropping wet verses dry honing is not necessary on wood turning chisels/gouges.

Mechanics of a good cutting edge-angles / shapes-positioning.

Cutting tool steels, carbon steel, high-speed steels and its variations, carbides/tungsten carbide. Too thin and the cutting edge breaks (skews for example), too blunt and it is a poor scraper. Scrapers require a wire edge/raised burr from the grinder a burr produced with a burnisher is usually very aggressive. Refer to handout's # 14, 15

Use sharpening Jigs the hobby is woodturning NOT sharpening.

All tool grinds are somewhat modified by each individual turner to suit their own style of turning, most of the traditional grinds were worked out over many hundreds of years to get the best results on a continuing basis. Modern tool grinds have been worked out mostly in the last twenty years, because we now have the jigs to produce the complex shapes used on modern tools, and to improve performance. Work with a repeatable modern standard grind until you perfect your own style.

Hands on sharpening and test cutting with the new edge you have produced.

Lunch

After lunch

Improving Your Turning Technique.

If possible you should switch to a different lathe from the one you used in the morning class so you can experience the differences, unless you happen to own the model you were using in the first class, even so it is an advantage to use an assortment of equipment to get a feeling of what other turners are talking about when they comment about certain features or detriments of various brands and models.

There will be classroom instruction and demonstration on various techniques for turning beads, using various spindle and detail gouges; the next portion of the class will be dedicated to hands on cutting beads from a cylinder. Refer to handout's #9, 10.

There will be a discussion on the importance of a drawing or story pole/stick when doing spindle turning, you are frequently reproducing an existing piece, or producing multiple identical pieces, table legs etc, Norm Abrams on New Yankee Workshop always has them.

There will be classroom instruction and demonstration on various techniques for turning coves, using various spindle and detail gouges; the next portion of the class will be dedicated to hands on cutting coves from a cylinder. Refer to handout #11.

There will be instruction and practice on cutting various shapes on a spindle using various tools, the remaining time will be used for general questions and time to turn wood and catch up and practice.

Once you have used up all of your existing blank a further blank will be used to practice on making sequential linked eggs.

Put the equipment away and clean up the shop.

Session # 2 Saturday Improving your technique (6 hours +).

There will be a discussion on different types of wood for tool handles and why the type of wood finish and shape varies from turner to turner.

There will be a discussion on where and how to get or make ferrules, and the differences between types and the reasons why a certain type may be preferable.

There will be a discussion and demonstration on the accurate use of calipers, rulers and other measuring devices.

There will be a discussion and demonstration of the skew, the different types and shapes of the tool and how it may be sharpened and used to make a variety of different cuts.

The next portion of the class will be used for turning a tool handle as per the drawing, or copying an existing handle accurately, using a quality wood supplied by the club, this is to test of your ability to reproduce something, from a drawing or copy an existing piece, and a discussion of the proper fitting of the ferrule, and the hands on installation of a supplied ferrule on the handle. Eventually you should be able to finish a handle or other straight or curved spindle with a skew so no sanding would be necessary. Refer to handout's # 12, 13 and 19.

There will be a discussion or demonstration of a variety of ways to drill the hole for the gouge, and time to drill your handle if you have a gouge to insert in it. Drilling by rotating the handle in the lathe supported by a steadyrest, and advancing the drill with the tailstock. Drilling by rotating the drill bit and advancing the tool handle with the tailstock. Drilling in a drill press or freehand with a portable drill holding the handle in a vice or clamped to a bench. The more accurately the hole is drilled the easier it will be to touch up the cutting edge, and manipulate the tool when in use.

Lunch

After lunch
Honing your skills

Platter turning leading up to bowls.

New project instruction on making a thin platter. Various methods of mounting and turning thin dry wood.

Hands on turning a platter. Refer to handout's #16, 17

Put away the equipment and clean up the shop.

Session # 3 Saturday Bowls (6 hours +).

There will be a discussion on bowls in general, size form and shape, a drawing is still an important part of the process, to allow you to achieve a satisfactory result without wasting a lot of time and wood.

There will be a discussion and demonstration on mounting blanks for bowls security is of paramount importance. Refer to handout #16.

There will be a minor discussion on the use of chucks for roughing out a green wood bowl blank, usually not advisable.

There will be a refresher on speeds when turning larger objects, always start slow in case the blank is out of balance, or has an internal fault or bark inclusion you cannot see.

There will be a discussion on bowl gouges and the benefits and detractions of different grinds.

There will be a discussion on the variety of types of measuring tools and their use, Calipers, Depth gauge, etc.

There will be a demonstration of mounting a dry wood bowl blank on a wood worm screw and instruction on roughing out the outside of the bowl blank by the instructor, and finishing the surface.

Hands on turning of the outside of the bowl blank.

There will be instruction on how to install a chuck and how to remount the blank on a chuck and turning or coring out the inside. Doing the final cuts and sanding to produce a finished bowl ready for sealing, waxing, buffing.

Hands on turning the inside of the bowl.

A discussion about the difference between wet and dry turning of bowl blanks.

Lunch

After lunch **Bowl Turning continued.**

This afternoon there will be a discussion on preparing a blank from green wood to make a roughed out bowl. Discussion on how the blank is cut from the tree and when is the best time of year to do it, and how the mounting and turning will affect the shape and pattern of the bowl produced. The correct time of year and proper felling of the tree will reduce cracking/checking a great deal, cut it in late January, or early February fell it to as a soft a landing as possible. Ref hand out # 20.

The proper treatment after felling also reduces cracking/checking, cut the log in half lengthwise down the heart or pith, it's going to crack/check longitudinally any way, use end sealing emulsions on end grain, *log end seal*. Store it in a cool outdoor ventilated and rain protected area, and no direct sun. Wood requires 1 year per inch plus 1 year to properly dry, anything over 100mm (4 inches) will probably never dry completely, in a reasonable length of time.

There will be instruction and a demonstration of attaching a faceplate to the supplied blank security is important this is green wood so therefore not as strong as dried wood.

There will be instruction on how to turn the outside of the blank and preparing the spigot for the chuck and, hands on turning the outside of the blank preparing a spigot to reattach it to a chuck for the cutting or coring out of the inside.

There will be instruction on remounting the blank on a chuck and turning the inside and hands on turning the inside of the blank.

There will be a discussion on how to reduce checking and allow for warping as the blank dries by leaving enough wall thickness.

There will be instruction and a demonstration of sealing end grain to reduce cracking/checking.

The roughed out blank may now be laid aside to dry probably for about 6 to 12 months (the rule of thumb is 1 year of drying to each inch of wall thickness) and then it may be remounted and finish turned and the finish applied.

Put the equipment away and clean up the shop.

Handouts prepared by Glenn Hetherington and Bart Polter.

Handouts now provided online to all or any club members by contacting Glenn Hetherington at his web address available on the club website.

Congratulations you are now ready to spend lots of money on the best and finest equipment and materials.