

**AN INTRODUCTION TO WOODCARVING TOOLS:
CHOOSING & MAINTAINING KNIVES, CHISELS & GOUGES
PLUS A LITTLE BIT ABOUT CARVING**

1. SAFETY: THE FIRST THING TO LEARN

2. KNIVES

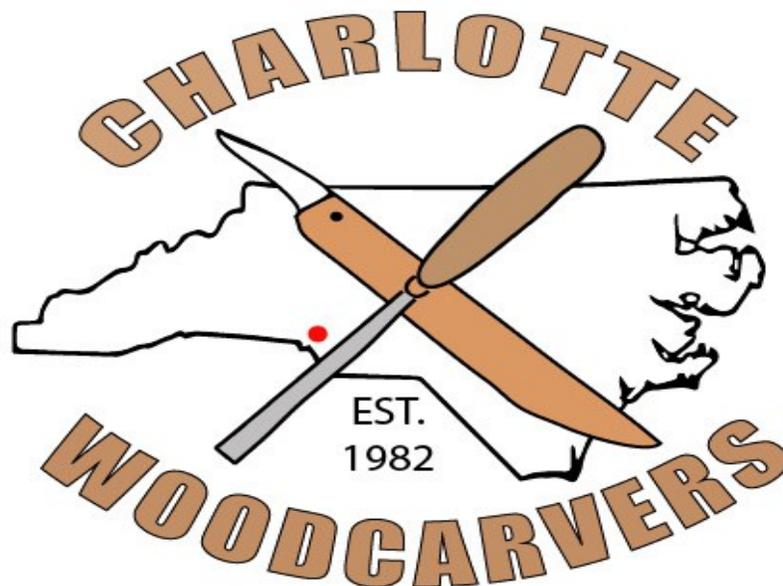
3. CHISELS & GOUGES

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ENJOY CARVING WITH CHARLOTTE WOODCARVERS CLUB

**The Club Meets to Carve at Carmel Presbyterian Church
Every Tuesday Night from 3:00PM to 7:30 PM
2048 Carmel Road Night Corner of Sharon View and Carmel Road
(In the Cathcart Center beside the playground)**

**Our "Satellite" Club Meets to Carve at Woodcraft of Matthews
Every Tuesday Morning from 9:00 AM to 1:00 PM
1725 Windsor Square Drive
Matthews, NC 28105**

www.charlottewoodcarvers.com

**P.O. Box 11894
Charlotte, NC 28220-1894**

1. SAFETY: THE FIRST THING TO LEARN!

1. SAFETY FIRST, LAST and ALWAYS! Sooner or later you will get cut, so try to make the cut as minimal as possible! You can protect your hands by wearing a “cut-proof” and “puncture-resistant” safety-glove on the hand holding the wood being carved and a thumb guard on the hand holding the carving tool. However, be aware that “safety-gloves” commonly used in woodcarving are neither totally cut-proof nor very puncture-resistant and do not provide complete protection, but they can help to prevent minor cuts and may make any injuries sustained less severe. As you carve be aware of the path a tool might take if it slips and try to keep your hand and body out of the tool slips so you won't get cut! As you gain experience carving you will learn when a glove or thumb may not be needed. **THE PRICE OF A SAFETY GLOVE IS SIGNIFICANTLY LESS THAN THE EXPENSE OF STITCHES IN AN ER! IF YOU DROP A TOOL, LET IT FALL- DON'T TRY TO CATCH IT AND RISK GETTING CUT! REPLACING A TOOL IS ALSO LESS EXPENSIVE THAN A TRIP TO ER!**

2. BUY QUALITY TOOLS: Don't buy tools of inferior or lesser quality for their lower price. Low quality tools don't hold an edge well, are harder to sharpen or resharpen, are often made of lesser quality materials, and may be poorly or improperly shaped. Also, be aware that some high-priced tools may not be worth their higher price. If you are unsure of the quality of a tool, ask one of the experienced carvers in the club for their evaluation or opinion. **BUY FOR QUALITY, NOT FOR PRICE! ONE GOOD TOOL IS BETTER THAN SEVERAL CHEAP TOOLS OF LESSER QUALITY! DON'T TRY COST JUSTIFY A HOBBY, IT JUST SPOILS THE FUN!**

3. LEARN HOW TO SHARPEN AND STROP! Sharp tools reduce effort and frustration and enhance your ability to carve. A dull tool can be **DANGEROUS** as it requires **EXTRA FORCE** to make cuts by **SUBSTITUTING STRENGTH FOR FINESSE!** So, don't allow tools to become dull. **STOP AND STROP:** A tool will stay sharp much longer if you will stop carving every 15 or 20 minutes and strop the edge! It takes far less time and effort to make a few passes across a strop than it does to resharpen a tool when the edge becomes dull or blunt! Store tools in a way that metal edges do not touch metal. **KEEP YOUR TOOLS SHARP and CARRY A SUPPLY OF BAND-AIDS --- EVENTUALLY YOU WILL NEED ONE!**

4. ASK! If you don't know how to do something, **ASK!** If you don't understand something, **ASK** for an explanation or a demo! If you want advice, **ASK!** If you want or need help **ASK!** There are many experienced carvers in the club who are willing to share their knowledge and experience if only you will **ASK! ASK** several people, and get several opinions --- it will give you perspective as there a lot of different ways to do things! Most of us will never know so much about carving that we cannot learn something from someone else or some other source!

2. KNIVES

Start with only one or two general-purpose knives. Most knife makers and vendors are also carvers, so ask them to recommend a basic knife or two to get started. Before buying any knife, pick it up and grip the handle to learn how it fits and feels in your hand. The handle of a knife is as important as the blade itself. A knife with a handle too big or too small to be held comfortably is hard to hold and tiring to your hand making it more difficult to use. Also, before buying a knife, ask if you may try it on a piece of wood. Most vendors will have a piece of wood that you may use. Better yet, carry your own piece of wood to use as a “reference or standard” when comparing knives from different vendors or knife-makers. Test a knife by cutting across the grain of the wood; the cut should be perfectly smooth without any splintering or “tearing” of the wood.

“One (knife) is plenty, two is too many, and three is never enough.” Don Mertz

When you have only one knife, you don't have to make a choice - you have to use it for all the cuts you make.

When you have two knives, you have a dilemma - which one to use when and for what.

As you gain experience and learn how knives with different blade shapes can be used to make different cuts you will start to accumulate more knives. When you have three or more knives, each should be a different blade shape or size for making different cuts. Ask experienced carvers in the club for their opinions as to who makes the best knives and talk to different knife-makers at a carving show when they are not busy or simply listen to what they are telling another prospective buyer. In a very short time you can learn a lot about different blade shapes and their uses. Sooner or later, no matter how many knives you have there will always be one more “special knife” that you will want “or” need”.

3. CHISELS & GOUGES

CHISELS and GOUGES are designated by numbers that indicate **SWEEP** and **SIZE** of the cutting edge.

SWEEP is a number used to designate the amount of curvature of the cutting edge of a gouge. The higher the sweep number the greater the curvature. While descriptive names may be applied to gouges of different sweeps, it is more important to become familiar with the amount of curvature of a given sweep. **SIZE** is the maximum width of cut a chisel or gouge can make measured from edge to edge across the cut.

The two main systems used to designate sweep are the **Sheffield** or **English** system and the **Continental** or **European** system. In both systems the most common sweeps are numbered from 1 to 12. Gouges with no curvature on the cutting edge are commonly called **chisels**. In the **Sheffield** system a 1 sweep is a chisel with the cutting edge at a right-angle to the shaft, and a 2 sweep is a skew chisel with the cutting edge at a diagonal to the shaft. In the **Continental** system a 1 sweep is a chisel and a 1S is a skew chisel. Gouges in sweeps 3 through 12 generally have the same curvature in either system with the curvature increasing from the very slight curvature of a number 3, to a number 10 (a Half-Round), a number 11 (a U-shape called a "Veiner" in smaller widths and a "Fluter" in larger sizes or widths), to a number 12 (a V-shape or "Parting Tool"). Sweeps 3 through 9 differ only slightly in curvature between each successive number, thus a selection of gouges with sweeps of 3, 5, 7 and 9 plus the specific shapes of 1, 10, 11 and 12 will suffice for most beginning carving purposes. **Special Notations:** A gouge with a "B" appended to the sweep number has a bent shaft, and a gouge with a "BB" has a back-bent shaft. **Note:** There are gouges with sweep numbers higher than 12 or other designations. Refer to manufacturer's charts to determine their exact configuration.

THE EDGE: Almost all woodcarving chisels are sharpened on both sides of the edge in a knife-like manner, while almost all gouges are sharpened only on the outside edge of the curve and left flat without any bevel on the inside of the curve. However, some chisels are sharpened only on one side, and some gouges, called *in-cannel* gouges, are sharpened on the inside edge of the curve with no bevel on the outside.

STARTER SETS: Some manufacturers offer "starter sets" of 5 or more assorted chisels and gouges that have been selected by a professional carver. While you may not want to purchase a set, an assortment of tools similar to those in the set can be a good way to gain familiarity with different sweeps. The advantage of buying a set is that the total cost of the tools in a set is generally less than total cost of the same tools purchased individually.

4. SHARPENING

THERE IS MORE THAN ONE SYSTEM AND WAY TO SHARPEN, BUT THE EDGE IS THE SAME REGARDLESS OF THE TECHNIQUE OR SYSTEM USED. WHAT FOLLOWS IS ONE WAY, BUT USE WHAT WORKS FOR YOU.

A tool is suitably sharp for carving when it can easily make a perfectly smooth cut across the grain of wood without any tearing or splintering at the edges of the cut. A quality woodcarving knife should be sharp when you buy it. If you listen to or talk with most knife-makers, they will tell you that, if you will only stop carving every 15 minutes or so and strop the blade (see "STROPPING" below), it should stay sharp much longer before you have to resharpen it. When you resharpen a blade, you are removing more metal from the blade than when stropping and may even alter the shape of the blade. But, sooner or later, you will encounter a blade in such condition that can only be restored by resharpening, so you should learn how to sharpen as well as how to strop.

Sharpening a carving knife requires just three things:

1. Knowledge of the proper "shape" of the edge! Knives used for different purposes are sharpened differently. Knives for woodcarving should not have any secondary bevel at the very edge of the blade as do pocket knives or kitchen knives. Woodcarving knives should be sharpened all the way out to the very edge in an extremely narrow "V" shape.

2. A quality sharpening system! (See "SHARPENING SYSTEMS" below)

3. A steady hand to keep the blade properly positioned on the surface of the sharpener!

Sharpening Technique: A manual sharpening technique that is easy to learn and master is to place the blade on the surface of the sharpener with the cutting edge of the blade just touching the surface of the sharpener. Move the blade forwards, edge-first, across the sharpener in a "slicing" motion so that the entire length of the blade makes contact with the sharpener in each pass across the sharpener. Done properly this shouldn't remove metal from the very edge of the blade itself but should remove very small amounts of metal from behind the edge restoring that acute "V" shape. Repeat the process alternately on both sides of the blade until the proper "V-shape" is restored to the edge. Once you have seen it demonstrated, you will see how really easy it is.

If you have difficulty finding the correct angle between the blade and the surface of the sharpener, try using a felt-tip pen to mark the surface of the blade for a $\frac{1}{4}$ " of an inch or so from the edge up the body of the blade. Make one or two passes across the sharpener then examine the blade. Where the ink-mark has been removed shows where the blade

actually touched the surface of the sharpener thus allowing you to adjust the angle between the blade and the sharpener accordingly.

CAUTION: DO NOT use any manual or powered sharpener (the kind that you draw or pull the knife through) that is intended for sharpening kitchen knives or pocket knives on woodcarving tools as these sharpeners are designed to put a secondary bevel on an edge!

Sharpening Chisels: Once you have mastered the technique of sharpening woodcarving knives, you can apply that same skill or technique to sharpening chisels. Carving chisels have flat, straight, knife-like edges and usually are sharpened on both sides in the same symmetrical “V-shape” as a carving knife. Sharpen chisels by “pushing” them across the surface of the sharpener. If you need a guide, there are a number of adjustable devices available that are designed to hold a chisel at the proper angle on a sharpener.

Sharpening Gouges: Sharpening gouges is not quite as easy as sharpening a knife or chisel, but with practice you can master this skill as well. The blade of a gouge is curved and unless you have a special concave sharpener, you can only get a small part of the edge of the gouge on the sharpening surface at a time, thus you must rotate or “roll” the edge back and forth as you push it across the surface of a flat sharpener. Using a felt tip pen to mark the edge of a gouge is a very good technique to show where the gouge has actually touched the sharpener when it is being moved from side to side to make sure the entire edge is being sharpened. Slip Stones or “files” are available with round, triangular, conical or other shapes to aid in sharpening the inside edge of gouges. **DMT** makes the “**WAVE**”, a concave/convex monocrystalline diamond sharpener that is useful for sharpening the curve of a gouge. There are also adjustable devices such as the “**Ross Oar Sharpening Jig**” designed to hold a chisel, gouge or V-tool at the proper angle while allowing the edge to be rotated from side to side as it is moved across the surface of a flat sharpener.

SHARPENING MICRO GOUGES AND CHISELS USING MDF OR WHITE GOLD

MDF: Medium Density Fiberboard is a material composed of particles of wood fiber held together by a wax and resin binder. It has a smooth, “polished” surface on both sides. Sharpening is done by first cutting a groove in the MDF with the tool to be sharpened. Then, while holding the tool at the angle used for carving, repeatedly pull the tool backwards firmly through the groove at the cutting angle until it is sharp. MDF is especially good for sharpening small or micro gouges, veiners or V-tools. Sometimes it helps to put a small amount of honing compound in the groove. Source: “*WOODCARVING*” (UK) magazine.

Cardboard and White Gold Compound: Rub **White Gold** or other sharpening compound on a piece of firm cardboard such as that from the back of a pad of paper. (Do not use soft or corrugated cardboard!) Use the cardboard as you would a strop and repeatedly draw the edge of the tool backward over the area coated with the compound until the edge is sharp. The White Gold procedure is especially good for sharpening small or micro chisels. If a suitable piece of cardboard is not readily available, use a smooth piece of wood or MDF. Cardboard has a better tendency to “hold” the compound than does MDF. Source: “*WOODCARVING ILLUSTRATED*” magazine.

A SHARPENING DEMO CAN BE A WHOLE LOT BETTER THAN A LOT WRITTEN INSTRUCTION!

SHARPENING SYSTEMS

A basic understanding of **HARDNESS** and **GRIT** is very useful in evaluating and distinguishing between all the various sharpening systems and honing compounds.

HARDNESS and GRIT

Hardness of honing compounds used for stropping is generally measured using the **Mohs Hardness Scale for Minerals** as most honing compounding and sanding abrasives are small particles of minerals. Mohs is a non-linear scale that ranges from 1 (talc, the softest) to 10 (diamond, the hardest). A Mohs hardness of 8 to 9 is ideal for honing or stropping steel commonly used for carving knives. The Mohs Hardness Scale can be found on the Internet.

Hardness of steel is usually measured by the **Rockwell Hardness Scale** that is based on the indentation hardness of metal. Steel in carving tools has generally been tempered to a hardness in the high 50’s to low 60’s which is hard enough to “hold an edge”, yet soft enough to be sharpened. Many makers of carving knives use “O1 steel”. Also, many knife makers send their blades to a commercial processor for tempering as the tempering ovens are very expensive, and the process requires the close attention of an expert. If interested, information on the Rockwell Hardness Scale, the composition of various steels, and descriptions of the tempering/hardening processes are available on the Internet.

Grit refers to of the size of the particles of an abrasive measured by the number of holes per linear inch in a screen, i.e. a 300 grit abrasive will pass through a screen with 300 holes per linear inch while larger particles will not. The

higher the grit number, the smaller the particle size. The particle size of compounds used for stropping is generally so small that it is often measured in microns rather than grit.

“**Coarse, Medium, and Fine**” are relative designations and may differ by manufacturer or type of sharpening system. Therefore, grit is a better and more accurate comparison of abrasiveness.

Natural & Artificial Stones: (Grit approximations of the following materials or systems is from various sources)

Sharpening Stone	Grit
Coarse Crystolon, Coarse India	100
Medium Crystolon	180
Medium India	240
Fine Crystolon, Fine India	280
Soft Arkansas	300
Washita	360
Hard White Arkansas	700
Hard Black Arkansas	900

DMT Monocrystalline Diamond Sharpeners: (Color code indicates the grit per a chart on the DMT WEB Site)

Extra-Coarse	220
Coarse	325
Fine	600
Extra-Fine	1200

Spyderco Ceramics: (Approximate grit per Spyderco)

Medium	≈ 600
Fine	≈2000
Ultra-Fine	≈2200

MANUAL SHARPENING SYSTEMS

Ceramics, diamond coated steel, emery paper, Japanese water stones, natural and artificial/manmade stones, sandpaper, etc. can be used to sharpen carving tools. Generally, small, hand-held devices are less expensive than larger “bench-stones” and will work just as well on carving tools and are more easily transported when traveling. All the following systems have their own particular characteristics and all work well when properly used. The systems below are listed ALPHABETICALLY and NOT in order of recommendation preference, cost or value.

Ceramics are used “dry” without any lubricant, so other than a little metallic “dust” there is no mess when sharpening. When the surface of a ceramic device has become loaded (coated with minute metal particles abraded from the tools being sharpened), it can be easily cleaned using water and a household cleanser such as Ajax or Comet. High quality ceramics wear very slowly and will last for years. Spyderco makes “Double Stuff” a pocket-sized dual-sided (600-2000 grit) sharpener coated with Alumina (artificial Aluminum Oxide (Al₂O₃) with Mohs Hardness 9.

Diamond Coated Steel sharpeners work well without lubrication and can be cleaned with water. **CAVEAT: AVOID POLYCRYSTALLINE DIAMOND PRODUCTS!** Polycrystalline diamonds are conglomerate particles made from smaller pieces of diamond that have been bonded together to form a particle of a specific size, but polycrystalline conglomerates tend to break apart when used on steel! **Monocrystalline** diamonds are single, whole pieces of diamond of a specific size and thus do not break apart or wear rapidly. A monocrystalline diamond sharpener will last much longer than a polycrystalline one justifying its somewhat higher price. **RECOMMENDATION: IF YOU BUY DIAMOND SHARPENERS, BUY ONLY MONOCRYSTALLINE DIAMOND PRODUCTS!** Be wary of a diamond sharpener if it is not specified as monocrystalline.

Emery Paper is available in a wide range of particle sizes with the grade printed on the back of the paper. Emery paper is flexible and should be placed on a perfectly flat surface when being used so that it will grind or polish evenly. For better results emery paper may be moistened with oil or water to facilitate the formation of a “slurry of particles” to aid abrasion. While emery paper has a short useful life, it is relatively inexpensive per sheet and usually only a small piece or strip will be used at a time. It can be especially useful for certain extra fine grits is used only occasionally.

Japanese Water Stones work quickly to produce a sharp edge but must be soaked in a water-bath and be thoroughly wet before they can be used. They wear easily and require frequent dressing (flattening or resurfacing). They are generally available only in larger sizes and are relatively expensive. The need for a water-bath makes them more suitable for use on the workbench than for carrying. People who have and use water stones swear by them.

Natural and artificial or manmade stones work well but must be lubricated with “honing oil” or other lightweight oil to keep the surface of the stone from becoming loaded with metal particles. They may wear with extensive use and may

lose their flat surface. Although the surface of “oily” stones may be messy, they can be stored and transported in a “zip-lock” type bag.

Sandpaper in extremely fine grits may be used for sharpening and is available either in sheets or mounted on the sides of a long rectangular block. It may be used “dry” without any lubricant. Sandpaper sheets are flexible and should be used on a flat surface when sharpening tools. Sandpaper wears quickly but is a good, inexpensive system.

Invest in a quality sharpening system! Sharpening systems are available in varying degrees of quality, but no matter what system you choose, quality is essential. Eventually you may accumulate a large number of tools but will still only need a few sharpening devices, so don't shortchange yourself by buying low quality sharpening products. Two sharpeners, one in the 300 (coarse) grit range and one in the 600 (medium) grit range is a good way to start. When used properly the 300 grit device will begin the process of restoring an edge and then the 600 grit device will refine the edge making it acceptably sharp and ready for stropping. Ask club members about their preferences for sharpening systems. However, no system works well if it is not used properly used, so ask for instruction or a demo if you have trouble sharpening.

POWER-SHARPENING SYSTEMS

While sharpening with a power system may seem to be easier or faster than sharpening by hand, sharpening by hand is a very good way to learn how to achieve the desired edge. This being said, there are many excellent power-sharpening systems designed specifically for woodcarving tools. However, be aware that a power system, especially one with a rapidly turning grinding wheel, can quickly ruin a tool by removing too much metal with too much pressure on the sharpening surface or slip of the hand or by overheating the steel causing it to lose temper.

Recommendation: There are many good power-sharpening systems available in many different price ranges and offering many different features and/or advantages. So wait until you have a large assortment of knives, chisels and gouges before investing in a power sharpening system so that you may select a system with features that best meet your requirements. When you are interested in purchasing a power sharpening system, ask club members who have different power sharpening systems for recommendations. Generally, the best powered option for carving tools is one with a slowly rotating grinder for sharpening and a rapidly rotating buffing wheel for polishing.

5. STROPPING

STROPS: Strops are used to add sharpness to the edge and to polish minute scratches from surface of the blade to produce a very sharp mirror like finish. Hand-held strops for use with carving tools are usually made from relatively smooth (not soft or rough) leather strips that frequently are mounted on a wooden bar to keep the leather flat. Since leather is softer than steel, the leather is not effective unless it is used with a stropping compound. The primary function of the leather is to provide a base to hold the stropping compound. Thus, when the leather is coated with an appropriate compound, the leather and the compound combine to form a highly effective fine abrasive surface.

COMPOUNDS: Compounds used for stropping steel must be harder than steel to be effective. A compound with a Mohs hardness of 8½ or 9 is sufficient for use with most carving tools. Stropping compounds are available in either powder or block form.

Aluminum Oxide/Corundum (Al₂O₃) with a **Mohs hardness of 9** is an excellent, readily available compound as a powder...Although the composition, particle size and hardness of the following compounds are “trade secrets” and not specified, all are very good compounds for use with carving tools: **White Gold** (block), **Flexcut** (block), Herb Dunkle's **Yellow Stone** (block) and John Dunkle's **Blue Velvet** (powder).

Compounds in powdered form are easily applied to flat, leather strops. Some sources recommend spraying a very light coat of WD-40 or other light-weight oil on the strop before applying the compound to help the compound adhere to the leather.

Compounds in block form are more easily applied to powered buffing wheels. However, an easy way to apply compounds in block form to a flat leather strop is to use a steel bolt approximately 5" long and ¼" diameter that is threaded only at the end. Use the threaded end to scrape small particles from the block onto the surface of the strop and then use the smooth shaft of the bolt to spread the particles across the strop and work them into the leather.

Stropping the Blade: When properly done, stropping will enhance the sharpness of the edge putting a polish the surface of a blade after it has been sharpened on a “stone”. Frequently pausing to strop a blade while carving will help maintain its sharpness. However, it is almost impossible to resharpen a dull blade using only a strop. If a blade become dull or the edge has been damaged in some manner, you will need to use a sharpener to restore the edge and

then repeat the stropping process. Also, if you have not used a blade for a long time, lightly strop the blade to remove any oxidation that might have formed on the edge that might break off causing the edge to be dull.

To strop a blade place it perfectly flat on the surface of a strop that has been prepared with honing compound and draw or pull the blade backwards across the strop (away from the cutting-edge - opposite direction from sharpening) holding it flat and pressing it down firmly on the strop and repeating this alternately on both sides of the blade. Don't push the blade edge first or forward as this can dull the edge or even cut into the strop. Unless the blade is held perfectly flat on the strop, stropping is not very effective and may actually dull the edge. A good technique is to hold the blade flat with the index finger of the hand holding the tool, but be careful not to press the edge of the blade into the strop as that can cause the leather to "roll-up" around the edge and dull the blade.

When the surface of a strop become black or develops a "metallic sheen", it has become "loaded" with minute particles of metal that reduce its effectiveness. You can either "restore" the strop by scraping the surface clean with a metal straight-edge and reapplying the honing compound, or, as some knife-makers recommend, "replenishing" the strop by simply adding more compound. Whether you choose to "restore" or "replenish" the strop may depend on the type of strop, the type of compound, or personal preference. Probably the best way to maintain a strop is to add compound until the surface becomes uneven or "bumpy" and then scrape the strop clean and start over adding compound. If you are not sure of the stropping process, ask for a demo.

6. SOURCES & RESOURCES

TOOLS and SUPPLIES

WHAT TOOLS ARE BEST? THERE IS NO METRIC OR MEASURE TO DETERMINE WHAT MANUFACTURER OR WHICH INDIVIDUAL TOOL OR KNIFE MAKER PRODUCES THE "BEST" TOOLS. A CARVER'S PREFERENCE IS GENERALLY BASED ON EXPERIENCE AND THE APPLICATION OR STYLE OF CARVING AND PREFERENCE MAY WELL DIFFER FROM ONE CARVER TO ANOTHER. WHEN SELECTING A VENDOR OR TOOL MAKER, YOU SHOULD RELY ON YOUR PERSONAL EXPERIENCE, YOUR PREFERENCE OR CARVING STYLE AND NEEDS, OR RECOMMENDATIONS FROM EXPERIENCED CARVERS WHO ARE FAMILIAR WITH A NUMBER OF DIFFERENT BRANDS OR MAKERS.

The list below is only some of the many sources of carving tools and supplies with which our club members are familiar. The sources are listed alphabetically by the first name of the company, manufacturer, vendor, tool maker, or source. This list is not intended to promote one source over another nor to be exclusive of other sources. It is a good place to start a search, but don't let this list limit your search. Check other sources listed in carving magazines and search the Internet using manufacturers' names or tool names and descriptions. An Internet search will often find the same item available from different sources and sometimes at different prices. Don't forget to add the vendors' shipping and handling charges plus tax (if applicable) when comparing prices.

Vendors designated by a green "#" symbol support the club and currently participate in or have participated in the Charlotte Woodcarvers Showcase of Carvings in the past.

Alan Goodman Knives: 865-679-8865: search for: [Alan Goodman Carver](#)

Ashley Isles (English chisels and gouges): www.toolsforworkingwood.com

Bud Murray: Interesting knives with unique "pistol-grip" handle: 573-346-7321 budmurray10@gmail.com
See illustration at woodbeecarver.com/dl/murray_knives.pdf

Cape Forge (small kits and individual tools): www.capeforge.com

Dave Lyons Knives: www.littleshavers.com/Lyons.html (There are other vendors or resellers as well -- search for Dave Lyons Knives)

Deep Woods Ventures Carving Knives: www.deepwoodsventures.com

Denny Tools: Denny Neubauer sold his tool making business to OCCTools. They are now manufactured by and marked with the OCCTools logo. OCCTools does not sell directly. See occtools.com for a vendor list.

DMT (Monocrystalline Diamond Sharpeners): www.dmtsharp.com

Dockyard Micro Carving Gouges and Chisels: [The manufacturer does not have a website - to find vendors search the Internet for "dockyard tools"](#)

Drake (knives, gouges, V tools, skewers): www.drakeknives.com

Dunkle, John (knives, chisels and gouges + strops & honing compound): 415-494-5948 Search the Internet for [John Dunkle Carving Knives](#) to find vendors

Flexcut (knives, chisels, and gouges): www.flexcut.com for the manufacturer's site or search Internet for vendors

Helvie Knives: www.helvieknives.com

Henry Taylor (English chisels and gouges): www.traditionalwoodworker.com

Lee Valley and *veritas*: A very large selection of woodworking tools plus some carving tools including Henry Taylor (English) chisels gouges and palm tools: www.leevalley.com/us/

OCCTools (OCC = Ozark County Characters) now manufactures the Denny Neubauer knives, chisels, and gouges marked with an "<OCCT>" logo. OCCTools does not market directly to the consumer but provides a vendor list at: occtools.com

Pfeil (Swiss Made) (Woodcraft is sole US vendor of Pfeil chisels, gouges and knives): www.woodcraft.com

Pinewood Forge (Dell Stubbs): www.pinewoodforge.com

Power Carvers: Check out **Automach**, a chisel/gouge carver and **Foredom** and **Dremel**, both rotary grinders. Also, do a general search for "power carvers" to see others as there are many other excellent but lesser known brands.

Power Sharpeners: Ask club members and other carvers for recommendations.

Prosperity Tool (diamond rifflers, etc.): ptctoolonline.com

Ralph Long (REL Knives): 910-595-4563 Catalog at woodbeecarver.com or search the Internet for "Ralph Long Knives". (Due to health issues Ralph Long may no longer be making knives.)

Ramelson (US): The handles of tools may bear the name HARMEN (the original manufacturer), the name RAMELSON (the current manufacturer), the name of a vendor/reseller stamped on the handle, or may even be unlabeled. www.ramelson.com or search the Internet for other vendors

Simpson, Charles: "Custom Made Woodcarving Knives": (NO WEB site or EMAIL address) phone number only 256-582-3725 He makes a good knife, but his source of steel restricts the blade shapes that he can produce.

Smokey Mountain (tools and carving supplies): 865-448-6350 www.woodcarvers.com

Spyderco (ceramic sharpeners): www.spyderco.com (see www.thespydercostore.com for a price comparison)

Stubai (Austrian chisels and gouges): www.stubaidirect.com

#Stadtlander Woodcarvings (tools and carving supplies): 330-931-7847 bobstadtlander@roadrunner.com
www.stadtlandercarvings.com

The Old Texas Woodcarvers Shop: 800-752-9781 www.texaswoodcarvers.com

The Woodcraft Shop (NOT the same as "Woodcraft" below): Extensive offerings from a wide range of manufacturers of both manual and power carving tools, accessories and materials: www.thewoodcraftshop.com

#Tony Erickson: www.woodakoodashooda.com

Treeline: Cane and walking stick accessories: 800-598-2743 www.treelineusa.com

Warren Cutlery (carving sets, handles, blades, gouges, chisels, etc. – similar in concept to Xacto, but "heavy duty" and suitable for woodcarving): warrencutlery.com

Wood Carvers Supply: www.woodcarverssupply.com

Woodcraft: US Source of Pfeil Swiss made chisels and gouges: www.woodcraft.com Local store is located in Windsor Square off Independence Blvd.

WOOD

Boxes N Such: “Boxes, Wood and More for the discerning artisan and craftsman.” Tel: **1-866-311-5886** or **466-311-7122**, Email: customerservice@boxesnsuch.com

Good Wood Etc! Jim & Ruth Hart, Turtle Creek, WI: Basswood, Butternut, Cottonwood bark, Tupelo, Manzanita roots, and other woods in many sizes and shapes - also Sassafras, Diamond Willow, and “twisted” sticks. They have not sold at the Showcase, but they let the club know when they will be passing through or nearby Charlotte on a selling trip, and you may place an order by phone or email to have wood cut to your specifications to be delivered when they come to Charlotte. They will ship when not traveling, but advise that shipping costs are *very high*: Tel: **715-268-8713**; Email: good.wood.etc@gmail.com

Krantz Wood Sales, John Krantz, Forest Lake, MN: www.TrueNorthWoods.com. **651-464-5632**. Email: jkrantz@usfamily.net. This is Helen Gibson’s source of very high quality Basswood, but shipping costs are high.

Wilcox Carving Wood, Rod & Muriel Wilcox, Minong, WI: Basswood and Butternut: Tel: **714-466-4859**, Email: fcsawmill@centurytel.net, Internet: wilcocxcarvingwood.com

MAGAZINES

CARVING MAGAZINE: 4 issues per year published by All American Crafts. **DISCONTINUED!**

CHIP CHATS: 6 issues per year published by the National Wood Carvers Association. Chip Chats is only available through membership in the NWCA, but anyone can join (chipchats.org/membership.htm). Besides a few feature articles on carving, it is full of pictures of carvings taken at club shows across the country. It shows carvings by people with all levels of skill – from novice to master, amateur to professional. It is a great way to get ideas and to see what other carvers and clubs are doing. Chip Chats also publishes a short listing of workshops, classes and events in all issues, and in the March/April issue it publishes an extensive list of sources of supplies, wood, tools, equipment, books, etc.)

WOODCARVING ILLUSTRATED: 4 issues per year published by Fox Chapel Press. Copies are generally available locally at Barns & Noble or by subscription. Fox Chapel also publishes many excellent books on all aspects of carving.

WOODCARVING (UK): 6 issues per year published Guild of Master Craftsmen. Copies are available by subscription from Lightning Publications and may be available locally at Barns & Nobles. As well as many interesting articles on carving and “how-to”, this magazine also has good reviews of tools and supplies of interest to carvers.

The Carvers’ Companion): A free Internet site that is home to Woodcarver Online Magazine, WoodCarver List, Worldwide Woodcarver Exchange, and Woodcarver Resource Files. carverscompanion.com

There are also magazines for pyrography, for carving wildfowl and songbirds and for other aspects of creative or decorative woodworking.

BOOKS

“Technique” Books: “These books focus on the finer details of carving specifics such as How to Carve Faces, or Ears, or Mouths, or Noses, the Human Figure, How to Carve Letters, etc. They illustrate the technique and detail to create either caricature or realistic carvings.

“Project” Books: These books written by professional carvers illustrate how to carve certain specific objects for example, how to carve Christmas ornaments, caricatures, or an animal, etc. They show carving the subject with a series of step-by-step illustrations and explanatory text. The books generally specify the tools (knives, chisels, gouges, etc.) used for the carving and illustrate the technique used with the various tools. Often there will information on cutting out a blank for the carving and instructions on painting or finishing.

“Tools, Equipment and Materials” Books: The focus of these books is to educate the reader about the wide range and quality of tools, equipment, and materials available and offer instruction on proper way to use tools. It may seem that this type of book would be of interest only to advanced carvers, but it can be of great interest to beginning carvers who want to learn more about what tools are available and how to judge quality as they assemble their tool collection.

Club Library: The Club has an extensive collection of books and magazines on carving that club members may check-out or just review to see if you want to order a copy for your own library.

CLASSES

Throughout the year the Charlotte Woodcarvers Club sponsors classes for new members. These classes are taught by club members and are conducted at the Club location on the regular carving night. There is no charge or fee for these classes, but there is generally a small charge for materials (wood, paint, etc).

Classes taught by the professional carvers are scheduled according to the availability of the instructor. These classes are oriented toward the specialty of the instructor, i.e. animals, caricatures, realistic figures, etc., and are usually held at a site other than the club meeting place and are usually conducted on a weekend starting on Friday evening, continuing all day Saturday, and ending sometime on Sunday. The number of students per class and fee charged is set by the instructor. These classes are a great opportunity to learn new styles and improve technique and as you create a carving under a professional carver's tutelage. Instructors usually indicate if a certain level of carving experience is helpful or required and if the student needs to bring any special tools.

CARVING SHOWS

The **Charlotte Woodcarvers Club** sponsors the **SHOWCASE OF WOODCARVINGS** in February each year. This is an excellent opportunity to see carvings by carvers from several states in Youth, Novice, Intermediate, and Open classes, plus exhibits of carvings and demonstrations by professional carvers. Also, there are several knife makers and vendors of a wide range of carving supplies offering an excellent opportunity to see many different items, get a hands-on feel, see demonstrations, and compare different options available, in tools and equipment of all sorts, plus materials, and books. There are also other vendors with an extensive range of tools, books, wood and various other carving supplies.

Other Club Carving Shows: Check *Chip Chats* and *Woodcarving Illustrated* magazines for listings of dates and locations of other shows both in our area and across the US.

7. SOME HINTS & TIPS

A BIT ABOUT "FIRST" KNIVES: Give careful consideration to the length of the blade when buying your first carving knives. A blade less than $\frac{3}{4}$ of an inch in length is primarily suited for carving the final details. A knife with a blade over 2 inches long is generally better suited for removing a lot of wood in as few cuts as quickly as possible but is not useful in carving details. So when you start buy the first few knives for your carving knife collection, buy the "basics" and stay within a blade length range of $\frac{3}{4}$ to 2 inches. Then, when you gain experience, you can expand to shorter or longer knives and knives with special shapes such as curved, hooked, bent, flexible.

GRAIN: Develop a "feel" for wood by learning how to "read the grain" of the wood you are carving. The characteristics and the strength of wood varies with the direction of the grain. Wood is "weakest or softest" in the direction of the grain (between the growth lines) and "strongest or hardest" across the grain. Those differences in strength cause the wood to respond very differently when carving in the direction of the grain, across the grain or at an angle to the grain. These strength characteristics should be taken into account when orienting a carving pattern on a piece of wood. Practice on a scrap to get the "feel" of the knife in the wood when cutting at different angles or directions relative to the grain. When carving with or in the direction of the grain be especially careful to not let the grain take control the knife.

CENTER LINES AND OTHER MARKINGS – A Sharp Pencil Is An Essential and Indispensable Woodcarving Tool! Before you start to carve, mark center line(s) on the wood. You might be surprised how easily you can "eyeball" the center of a block of wood. Using a center line as a reference you can divide halves into quarters, quarters into eighths, etc. Pencil lines will serve as an aid in orienting or laying out the pattern for the carving and will help maintain symmetry. Also mark the outline of the design on the wood to show where you want to make stop-cuts, remove excess wood, or indicate intricate details that you want to carve. Pencil marks are temporary; knife cuts are permanent! You can make and erase pencil marks until you have laid out the figure or design you desire before making any permanent cuts.

STOP-CUTS: If you don't know what a stop-cut is ask someone to show you. It is a simple cut that is easier to demonstrate than to explain!

"SLICE": Carving knives will generally remove wood more smoothly and with less effort when used in a "slicing" movement i.e. when the blade is moved at an angle across the cut, rather than being pushed or forced straight through the wood. Think about the slicing motion used with a knife when cutting a sandwich or a carving a turkey breast. Some knives with a curved cutting edge will facilitate a natural slicing motion.

DETAILING: Carving of final details should be the last stage of carving before you begin sanding. It can be very tempting to start carving details before completely roughing it out to get a “preview” of what the carving is eventually going to look like. But, if you start detailing too soon, carvings seem to have a way of ending up off center, unsymmetrical, lopsided or otherwise distorted.

SANDING: The purpose of sanding is to remove cut-marks and smooth surfaces, but be careful not to remove any sharp details that you have so intricately carved. Especially avoid the temptation to start sanding a carving until you have completely finished carving, as many types of sandpaper from hardware stores that are intended for home use can leave abrasive particles on or embedded in the surface of the wood being sanded, and those particles can dull tools quickly. Some industrial-grade sandpapers do not shed their grit easily, but it still a good practice not to start sanding until you have finished carving.

USING DRIFTWOOD AND WOOD FOUND IN THE FOREST: Interesting or curiously shaped pieces driftwood from the ocean or pieces of wood found on the forest floor can be turned into very striking carvings. But driftwood may hold particles of sand or shells that will quickly dull your tool and wood found in forests, streams, or lakes may be infested with bugs, vermin, mold or fungus that you would not want to bring into your house or shop or may be covered with dirt or silt. You can clean “found wood” wood by brushing with a stiff brush or washing it, and it can be “sanitized” by enclosing it in a black vinyl trash bag and leaving it out in the direct summer Sun for several days. The Sun will create sufficient heat in the bag to kill any life forms without altering the characteristics of the wood itself.

SUPER GLUE: “Super glue” is great for mending an errant cut or gluing back a piece that “accidentally” broke off. Be sure to wipe any excess glue off the applicator tip before putting the cap back on as excess glue left on the tip when the cap is replaced can glue the cap on *permanently!* Once opened, “super glue” does not have a long “shelf-life”, so avoid the “Giant” or “Economy Size” applicators, as the glue may solidify before it is all used. Purchasing several small applicators is better than buying one large one as you can open them as needed and throw them away when they dry up. *Some “experienced” carvers will use super glue to close a small cut on a, but do this at your own risk! Band Aids are better, and if a Band Aid won’t do the trick, you may actually require professional medical assistance!*

**TOOLS DO NOT MAKE CUTS BY THEMSELVES, BUT YOU MAKE THE CUTS USING THE TOOLS!
IT IS A PARTNERSHIP, AND YOU MUST BE THE CONTROLLING PARTNER!**

AND

**DO NOT GET DISCOURAGED IF A CARVING DOESN’T COME OUT RIGHT THE FIRST TIME. YOU MAY HAVE
TO CARVE SOMETHING MORE THAN ONCE TO GET IT LIKE YOU WANT IT!**

**“WE CARVE AWAY WOOD,
BUT WHAT REALLY MATTERS IS THE WOOD WE LEAVE BEHIND”
Chris Pye, Professional Carver and Instructor**