



September, 2006

TIPS

Sharpening Tools

For many of us, keeping woodcut tools sharp can be a daunting task. The detailed instructions below will help take the mystery out of sharpening.

NOTE: These instructions were written with the use of ceramic and natural stones in mind. These stones require water, NOT OIL, as a lubricant. If you'll be using other type of stones, substitute oil for water where applicable.

Flat tools: chisels and knives

Start with the back of the tool. It cannot be emphasized enough that *any single bevel tool* (knife or flat chisel) *cannot be sharpened until the back (the flat, un-beveled side) is perfectly flat up to the cutting edge of the tool.* The entire back of a large tool like a chisel doesn't have to be flat, but from the cutting edge back about one half inch or so needs to be worked on the stones until this area is evenly smooth and shiny all the way across. To do this, lay about one half inch of the back of the tool perfectly flat on the long side of the stone, holding it with the handle perpendicular to the stone. Press the edge of the blade down with the fingers of your free hand. Rub the blade back and forth, being very careful to keep it completely flat against the stone at all times. (You may find it easier to stroke in one direction instead of moving the blade back and forth. Do what feels easiest to you.) Add water as needed to keep the stone wet so the tool moves easily. A magnifying glass is helpful to determine when the back has become flat. The metal will look the same all the way across the edge. If you finish with a 3000 or finer grit finishing stone, the back will look like a tiny mirror.

A mud or paste of grit will form as you sharpen which increases the cutting action. A nagura stone can be used to create this paste quickly. Just rub the nagura across your sharpening stone a few times. Repeat as necessary to keep a film of paste and water on the stone's surface.

If you carefully feel the edge on the bevel side, you will notice a slight burr has formed from flattening the back. This will disappear when the beveled side is sharpened. So now turn the tool over and begin working on the bevel.



First, start by sharpening the backside of the chisel. This is the *flat, un-beveled* side.

Sharpen the Bevel

Holding the bevel down on the stone, gently rock the tool until you have found the angle where the bevel is flat against the stone. Press down on the end of the tool with the fingers of your free hand to keep the bevel flat against the stone. Keep this angle as constant as you possibly can during sharpening process by holding your wrist and arm at a steady angle. The idea is to produce two smooth, flat planes (the back and the bevel) meeting at the cutting edge. *Rocking or lifting the tool while moving the tool against the stone will produce a rounded bevel resulting in a dull cutting edge.* If you are just beginning, try pushing the cutting edge away from you over the stone, keeping the angle constant, with a slow constant speed. At the end of each stroke keep your fingers on the edge, lift the tool up and bring it back to the end of the stone nearest you and repeat. Until you can keep the bevel angle constant, stick to the single direction method for best results. After you have sharpened for a number of hours, you may develop the confidence and skill to move the tool on the stone in both directions.

After 10 to 20 strokes on the beveled side, turn the tool over and take a few strokes on the back (3 to 5) to remove the burr that has formed from sharpening the bevel. Then go back to the beveled side and repeat this alternating process until the bevel is smooth and uniform clear up to the cutting edge. Check with a magnifying glass again. After both the back and bevel are smoothed to the same degree, move to the next finer grit stone and repeat, again starting with the back of the tool. Continue until you have a mirror-like surface all the way across.

V-gouges

Start with the bevel. Holding one bevel carefully against the stone, and putting slightly more pressure on the top of the V with the fingers of your free hand, slide the gouge forward with an even long stroke. Repeat several times. It is very easy to over sharpen the bottom of the V and change the angle of the tool, so be sure that the bevel is being worked evenly across its length. Turn the tool over and do the second bevel. Remove the burr that has been created on the inside of the V with a slipstone.

U-gouges

Start with the bevel. If you are using a flat stone, start with an upper edge of the U against the stone. As you slide the tool forward, keep the top edge of the tool's bevel against the stone and rotate the tool so you reach the other side of the U at the end of the forward stroke. This is not an easy technique but with practice it will become natural. Remove the burr that has been created on the inside of the U with a round slipstone.

A molded stone with grooves already in it makes sharpening u-gouges an easier job. If your molded stone doesn't have the exact U-shape needed, you can widen a groove that is slightly narrower with repeated sharpening strokes.

You can also create U-shaped grooves on one side of your water stones. Rub an object such as a nail head that is close to the proper size and shape back and forth on the stone to create a rough groove. Or place a coarser grit stone on edge on the stone, and rub back and forth to make a groove. Once the basic shape is there, as you sharpen the tool, the groove will gradually assume the correct profile.

Push the tool forward in the groove just as you would on a flat stone, maintaining the bevel angle. If the tool fits in the groove exactly, you should not need to rotate it as you push, but watch carefully to be sure that the center does not begin to dish.

Stop and check the edge of the u-gouge periodically to be sure you have an evenly sharpened edge. Make sure you are not creating a secondary bevel or rounding the bevel. If these problems arise, you are not holding the tool consistently on the stone at the original bevel. When all of the metal around the edge of the blade looks the same, you are ready to move on to the next stone.

Use a round slipstone to clean up the burr on the un-beveled side.

After you have sharpened a few tools, you will find that this whole process takes only a few minutes per tool if you have not waited too long between sharpening sessions. It is a common practice for experienced carvers to keep a fine stone or leather honing block on hand and give the tool a few strokes after every 3 to 5 minutes of use. If you develop this habit, you will never need to spend long hours sharpening every tool in your kit.

A final tip: when you have finished sharpening your tools, carefully and thoroughly dry them. Then, since the blades are a combination of steel and wrought iron, your last step should be to wipe the blade with a little oil to prevent any possibility of rust forming.

Using a Leather Honing Block

A few quick strokes on our inexpensive Leather Honing Block will keep your tools in top form without any danger of changing the bevel. Many people find they very rarely need to use a whetstone if they use the leather consistently. Honing Compound rubbed into the leather block speeds up the process considerably.

To order, go to [Leather Honing Block](#).

Japanese Tool Sharpening Service

Another option is to send us your tools in need of sharpening (McClain's tools only please) and we'll send them to Japan to be resharpened by the very craftsmen who made them! The cost is four dollars per tool, plus the cost of shipping to and from McClain's. (We cover the cost of shipping to and from Japan.) Please allow 6-8 weeks turnaround for this process of sharpening. Contact us ahead of time or send them with a note included to the address below. Thank you!

15685 SW 116th Ave PMB 202
King City, OR 97224-2695
USA