Sharpening Carving Tools P. Michael Henderson August 8, 2005

My carving instructor used this system for sharpening and taught it to us. It's a bit of work to build but once you build it, it's very quick to use and works very well. It requires that you have a lathe.



The sharpening system consists of a disk of some type of wood, perhaps MDF, with a sandpaper glued to the front and leather glued around the rim. The disk should be made about 9 inches in diameter because that's how wide a sheet of sandpaper is, and at least 3/4 inches thick. Draw a circle with a compass on the MDF about 9 inches in diameter. Cut the disk a bit larger than that initially on a bandsaw. Using the center mark of the compass as a guide, attach a faceplate centered on the compass mark.



Mount the disk on the lathe and turn the disk down to a 9 inch diameter. The disk will now be round. Use Scotch 77 contact cement and glue a piece of sandpaper to the face of the disk. I built two and used 220 grit on one and 320 grit on the other. The 320 is more than adequate but make sure the sandpaper is not stearated.

Next, take a piece of leather and glue it the around the rim of the disk, using the same Scotch 77 contact cement. Cut the leather a bit wider than the thickness of the disk. I went to a thrift store and bought an old belt. Choose one with thick leather and mount it with the rough side out. Where the two edges of the leather meet, you need to cut the leather with a bevel so that one edge overlaps the other. The overlapping must take the direction of rotation into account so that the leather doesn't come loose as you use the disk.

Using the sharpening disk.

There are two things you can do with the disk - (1) sharpen a carving tool and (2) hone the edge. Let me cover honing first since you'll do more of that.

Mount the disk on the lathe, turn the lathe on at the lowest speed. Using the disk will generate heat and high speed doesn't provide any advantage.

Next, charge the leather with Tripoli compound. Tripoli comes in a block and is very low cost. See the second picture which shows a block of Tripoli. Just hold the block against the leather of the spinning disk and the Tripoli will be transferred to the leather. Once the leather is charged, hold the tool against the leather so that the back bevel rubs against the leather. There are two positions that you can use, depending on visibility (see the next two pictures).

One way is press the bevel to the lower quadrant of the disk. The other way is to stand to the side and hold the bevel against the top of the disk. The second way gives you better visibility. If you're honing gouges, rotate the gouge as you hold the bevel against the leather. It doesn't take a whole lot of time, maybe 5 to 10 seconds of honing to really improve the edge. You can also hone chisels and plane blades.



You can also hone the inside of many tools by positioning the tool so that the edge of the leather rubs against the inside of the gouge. Try to use the back edge of the leather so that you don't inadvertently rub the tool against the sandpaper. You can't do this with all tools – just use your judgment.

Do not sharpen straight edge tools on this disk - you'll do a better job on a waterstone. But for gouges, this works great. To sharpen a gouge, first hold the gouge directly against the sandpaper so that you flatten the edge. Don't grind too much away, you just want to be able to barely see a flat on the bottom of the gouge.



Once you have that flat on the edge, begin shaping the bevel by presenting the bevel to the sandpaper.



Use a very light touch and look at the flat often. You'll see the flat start to disappear in places so change how you address the bevel to the sandpaper so that you grind more where the flat still exists. You're finished when you can't see the flat any more. Then hone the bevel as described earlier. You may need to hone to a bit more to get rid of the grinding marks.

When carving, hone a tool when you feel it is not cutting as well as it did, or if the tool leaves "scratch" marks when you make a cut. The scratch marks are an indication that the edge is damaged and needs honing.

I find this technique gives me a much better edge than I can get any other way. It's quick and easy and low cost.