

Not the Sharpest Tool in the Box

by Michael Sherrill

If you're like me, then you have favorite tools that you use every day in your studio. Clay is an abrasive material. If you're using a fine clay body, general use can actually sharpen your tools as you work with it. Conversely, a clay body with heavy grog is going to dull the edge and leave you with a tool that needs occasional sharpening. I hope this tutorial helps you understand your tools better and address how to sharpen them when they have become dull from constant use.

Material Matters

There are a variety of metals used to make studio tools: high-carbon steel, stainless steel, and high-tech tungsten carbide are among the most common. Years ago most of the tools that I purchased (or made for myself) were made of high-carbon steel. I found that they performed well, held an edge, and were easy to sharpen. In my opinion it's the most user friendly material. For instance, my favorite chef knife is made of high-carbon steel and it's the sharpest knife in my drawer. One small drawback to high-carbon steel is that it's prone to rust. Wiping your tool down with ([what kind?](#)) wax or a machine oil can help make them more resistant to rusting, but this is in no way water proofing.

Given the wet nature of working with clay, manufactures sought a rust resistant alternative and as a result, toolmakers began to use stainless steel. Keep in mind that because stainless steel is a blend of metals, there are different grades of stainless and they're not all alike. For example, some stainless can be soft and not preferable for working in clay, while cutlery grade stainless is a high-carbon blend (making it more rigid), therefore it works well in clay. This is the grade that we use for our stainless steel scrapers and ribs at Mudtools.

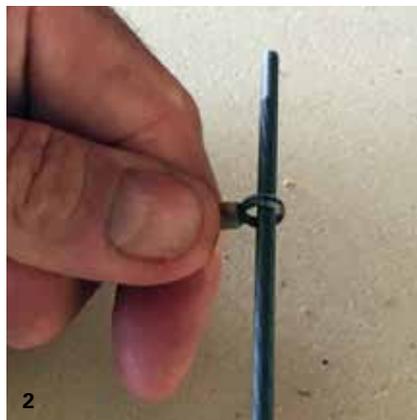
Tungsten carbide is one of the hardest materials known: it holds an edge, allows you to trim very hard materials, and doesn't dull easily. The drawback with this material is that it's very fragile and may shatter if dropped. When it comes to tungsten, it may be best to send your tool to the manufacturer to have it sharpened. As a general rule, you should always ask the original manufacturer/maker for care and sharpening recommendations. With that said, there are some simple things you can use at home to sharpen and maintain good working tools.

Sharpening

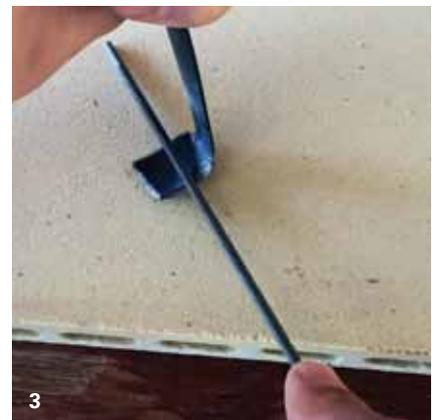
Before you start sharpening, take a good look at the tool's edge. Use your hands and eyes to observe the angle of the edge that the manu-



1 Follow the manufacturer's beveled angle when sharpening tools.



2 Exception to the rule: sharpen the inside radius of a tool that has an outside bevel.



3 Sharpening the inside radius on its established edge with a chainsaw file.



4 Follow the inside radius at the established angle.



5 Use wet/dry sandpaper on a flat, smooth surface when sharpening long, flat blades.



6 Use even pressure while simultaneously pushing the file forward and side to side.



Use a light touch with a Dremel/rotary tool with a diamond burr sharpening bit.



Use wet/dry sandpaper to remove burrs from the back of newly sharpened edges.

facturer established. You should observe a beveled angle (1). Typically you want to approach sharpening at the same angle, however, sometimes I choose to sharpen the inside radius of the tool even if the outside of the tool had the established edge (2). A couple of handy tools to use for sharpening are a $\frac{1}{8}$ -inch fine chainsaw file (3), or if you have a rotary tool, the $\frac{5}{32}$ chainsaw sharpening stone or diamond burr (4), and 320-grit wet/dry sandpaper (5). I have also used a fine rattail hand file or fine diamond hand file (round or oval.)

Whether sharpening by hand or using a rotary tool, it's best to have a light touch and to avoid grinding at one stationary spot (6). You will end up creating a gouge or divot in the blade of your tool if you work one spot too long. Having established the desired angle to be sharpened, you should keep your sharpening tool moving across the full length of the blade with a back-and-forth motion and even pressure (7). With a little bit of experience you will be able to judge the best way to approach the sharpening process and as you work with your tool, you may choose to adjust the edge. From my own experience, I have found that as I'm sharpening, a slight

burr will form on the back side of the edge (I can feel it by pulling my finger over the back of the edge). This burr is a signal to me that I have produced a sharp edge on the front. Next, I use the 320-grit wet sandpaper to remove the burr (8).

Tool Maintenance

Understanding your tools and how to care for them will help extend their life. As a general rule it's a good practice to not leave tools, especially metal or wooden, in a wet environment for an extended period of time. Rinse and wipe them clean and dry before putting them in your toolbox. To help prevent rust

and to protect wooden handles, I would recommend occasionally wiping down any of your high-carbon steel tools down with a mix of Minwax and mineral spirits—just enough to thin the wax down so it will penetrate and coat the surface. This provides a protective barrier for the metal. As artists, our tools are important to us and it is a pleasure to have a tool that is in good working order.

Michael Sherrill is an artist living and working in Batcave, North Carolina. To see his work check out, www.michaelsherrill.net. He is also the owner of Mudtools, visit www.mudtools.com.

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