

Tips for Preparing and Finishing Waxes

by Kate Wolf

In wax carving, every detail counts—and that's especially true when preparing and finishing a model. Kate Wolf, a master model maker, offers a few tricks to make those tasks easier. She is the owner of Wolf Designs and Wolf Tools in Portland, Maine, where she hosts workshops on wax carving and other jewelry skills.

Razor Smooth:

Leveling a Wax Surface

To prepare carving wax for layout, you want as smooth a surface as possible—which is sometimes easier said than done. A former student of mine, Yvonne Foster, showed me a tool that is ideal for removing the marks from filing, milling, and sanding: a simple razor blade! First, take a single-edge razor blade and round its corners on a sharpening stone or diamond plate [1]; this prevents the corners of the blade from scraping lines on the wax. Now, using extreme care and mindfulness, scrape the wax [2] until you have a level surface. I've never seen any tool that works better!



Brush Up:

Drawing Patterns on Carving Wax

When drawing a layout on carving wax, I use black brush markers [3], which are available from arts and crafts supply stores: If I don't like the pattern, I can wipe it off and draw it again. However, a marker's ink will tend to bead up on the wax surface. To break this surface tension, I wipe the marker across a bar of soap [4] before I begin drawing. Now the ink will evenly cover the surface of the wax. If you are working on darker waxes, instead of marker, use white tempera paint with a drop of dishwashing soap in it. However, make sure you wash off all of the paint before using a wax pen: Tempera paint, mixed into molten wax, can cause porosity. When the design looks acceptable, I scribe through the pattern into the wax, then fill the scribed line with the marker or paint.

Final Touches:

Just When You Think You're Done

Before you sprue your wax pattern, or send it to your caster, take some time to closely examine the wax. A few extra moments spent finessing the wax pattern can save you an hour's work in metal. Here are some of my favorite wax finishing tips.

- **Fiberglass brushes** [5] are handy for scrubbing down the surface of the wax. I often use one on the wax in the middle stages of carving; it can easily smooth off marks from filing and scraping. But—and you need to pay attention to this—use them with care! Extend the bristles out just a bit, wear safety glasses, and don't brush broken bristles away with your skin.



- Although typewriter erasers can effectively smooth concave surfaces on wax, certain jobs require a tool with a much smaller diameter. For those instances, try coarse and medium coarse abrasive **rubber polishing pins** [6]. Found in the abrasive section of the tool catalogs, they are usually used on metal, not carving wax—but when I tried them, I was thrilled with the results! The tip can be tapered to a point by inserting the pin in a flex-shaft and spinning it against a file or a dressing stone. However, make sure you use it on the wax

at a low speed—the objective is to smooth the wax, not melt it!

- Some carvers like going over their waxes with a nylon stocking or a piece of silk. I prefer **felt sticks**. Found among a vendor's polishing supplies, they smooth the wax nicely, and work well with forms that are organic and curvilinear. [I don't felt polish pieces that are hard edged and geometric; I don't want to round out the corners.] I use larger felt sticks with wooden handles [7] as well as smaller felt sticks [8], which are shaped like french fries and can be cut to a taper with a knife. Often, after I've smoothed the surface of the wax with a felt stick, I end up going back and detailing an area a bit more.