Technical Exchange

A note about the Hot Air Tool made by Steve Prins was planned for this issue when, coincidentally, a thread relating to heating tools developed on the Paintings Specialty Group online list. The following is a compilation of contributions by Steve, Chris Stavroudis, Carolyn Tomkiewicz, and Rob Proctor, which describe alternatives to standard heated spatulas.

Steve’s Hot Air Tool, pictured below, is the one I can vouch for. I’ve had one for about 10 years and have lent it to several conservators who then got their own when they found it indispensable. It’s a small unit with controls for air flow and temperature, with a range of 35°- 350°C (95°- 660°F) and a dual speed air pump with a flow valve that permits very low flow for delicate work. It comes with three nozzles 1.5mm, 2mm, and 3mm in diameter. The air hose is an adequate length, but one can opt for the longer size, which makes it more convenient to use, especially for on-site work.

When used with some of the hand tools described below, one can do very delicate manipulations of paint. (OK, so I think in terms of paint. I’m sure it also works for removal of pressure sensitive tapes, texturing thermoplastic materials, etc.) It’s not inexpensive, $1200, but the feeling of doing a better job, easier and faster, is, as they say, priceless. Contact Steve, sprins1102@aol.com for a spec sheet.

The Engelbrecht WZ II control unit regulates a hot spatula, a wax/ pigment modeling spatula as well as accommodates a separate unit for temperature control of a Minor welding needle as used in the Heiber “thread-by-thread” tear repair (“Alternatives to Lining 2003” UKIC). Other attachments such as handmade sterling silver tips for the welding needle and a batik wax dispenser are available. The WZ III of the Engelbrecht series can be additionally outfitted with a radiant heat tool attachment (flip from spatula to radiant); the temperature dial in centigrade regulates heating a small area (about 1/2 - 3/4 inch across) without air flow for cases where displacement with any air flow is an issue. The WZ IV of this series also accommodates a sanding/ drilling tool. Olaf Unsoeld, furniture conservator, is the liaison in the USA for acquiring the tool and other Engelbrecht products; his e-mail link is: unsoeld@earthlink.net. If you’d like to see an image of this tool, go to www. heffner-johann.de/ . Go to “Technische Geräte,” then to “Heizspachtel und Zubehör” (this European distributor’s web-site is in German). Carolyn Tomkiewicz has used this tool for over 15 years without problems or repairs.

Another recommended tool is the Mini Waxer (model 65999) from Almore Dental www.almore.com, for thread-by-thread tear repair and in situations where a very small hot spatula tip is needed. You can call the company and order the tips that best suit your needs. Conveniently these tips also fit the Engelbrecht welding needle attachment. The temperature regulation is very good though not indicated by degree on the dial.

And very similar: the Mini Waxer carver available from the Complete Sculptor (www.sculpt.com). It comes with three tips, (others are available) which can be adjusted to suit your needs with emory paper. The tips can be dipped in the stuff made for repairing non-stick pans or low viscosity epoxy like Epotek 301. The former sticks less but the latter will not rub off.

Several kinds of hand tools were mentioned: silicone shaping tools with a variety of shapes, sizes, and hardness (available at many art stores); Teflon tools, in the form of the folder from Hiromi Paper (www.hiromipaper.com, bookbinding section) or a Teflon policeman (www.fishersci.com, Saint-Gobain PTFE Policeman). Either can be carved to suit.

Lastly, some useful general comments:
Thermoplastic resins set as they cool. Hot air tools or radiant heat used with a Teflon tool or silicone shaper work better than tacking irons for more sensitive manipulation of paint, but it’s also important that the tool can be kept in place after the source of heat is removed. Of course these tools can be used following the application of a tacking iron but, this necessitates releasing the pressure while the tools are switched. Best of all, super sensitive paintings can often be consolidated without touching their surfaces by using the hot air tool in combination with a suction platen. One last note: BEVA will stick to Teflon, but not silicone. (The hot air tool is also good for getting caps of paint tubes or small jars unstuck.)

Carolyn Tallent