

all levels
technical/review

Waxing Eloquent

Enhance your skill level by taking a workshop in

by Noël Yovovich

In metalsmithing there are always new ideas to explore. To get a concentrated dose of exploration and inspiration, there is nothing like attending a professional-level workshop. Happily, there are many wonderful schools and regional metalsmithing guilds where you can get your fix. (See "Where To Go For Workshops," page 49.) When I felt the need to interact with some new materials and techniques, I headed to Metalwerx, a school for jewelry and metal arts that's housed in an industrial building in Waltham, Massachusetts, a suburb of Boston. It may not look special on the outside, but inside, it's a vibrant place.

The facility is the brainchild of its founder and director, Karen Christians, who is

dedicated to providing classes that cover technical, artistic, and professional aspects of metalsmithing. When she's choosing the classes and instructors for each semester, Christians says she looks for "people who love to share information and have good presentation skills." Her commitment is reflected in the sense of creative energy that abounds in Metalwerx's comfortable, well-equipped classroom. The building also houses a group studio with individual benches where metalsmiths of all skill levels can rent workspace. In addition to the collaborative-yet-independent workspace and regular weekly classes, Metalwerx offers a year-round schedule of weekend workshops taught by many of the best-known metalsmiths.

◀ Workbenches can be rented by independent artisans in Metalwerk's group studio.

▶ Instructor Michael David Sturlin demonstrates the wax-build-up technique using red injection wax. See one of Sturlin's designs in Gallery, page 53.

▼ Injection wax in a metal tin is used as a reservoir in the additive wax-build-up technique. The steel "dental" tools are actually wax spatulas used with an alcohol lamp.



wax-build-up model making

It was one of these workshops that drew my attention. I ordinarily do metal fabrication, which is an additive process. Wax carving is a technique usually worked in a subtractive process. So, a workshop offered by Michael David Sturlin at Metalwerk that taught an additive technique for wax working was immediately appealing. Because wax models are used in lost-wax casting, which is a process you can use to make forms that are not easily fabricated, this class was an opportunity for me to explore.

The first thing I learned about was the different wax we'd be using. Before taking this class, I was only aware of the three kinds of wax used in lost-wax casting: carving, modeling, and sculpting. Carving wax comes in various colors that indicate its degree of flexibility. It is almost as rigid as plastic and has a relatively high melting temperature. Formulated to hold a high degree of detail while not deforming with the warmth of the carver's hands, carving wax can

be brittle and difficult to repair if it's broken. Modeling wax is usually available in sheet or wire form and is much softer than carving wax. It can be shaped by hand and melted to stick to itself in small pieces, but it will hold only a moderate amount of detail. Microcrystalline sculpting wax is very soft and pliable, like clay. It's also very easy to shape, but it will deform very easily and will not hold fine detail.

These three waxes are not well suited to the wax-build-up technique. We needed another type of wax: injection wax. Its melting point is high enough that the wax will not deform when it's being handworked, yet it's low enough that the wax can stick to itself when it's melted with a hot tool. Injection wax was originally invented by the jewelry industry for use in injection pots that melt large quantities of wax and squirt it, under pressure, into molds for mass-produced jewelry. It's formulated to be firm enough to hold detail yet flexible enough to be popped out of a mold without breaking.

▶ Yovich carves away excess wax from the inside of a setting on a wax model.



Sturlin was able to flow the wax in a smooth motion that didn't require much clean up. (My own efforts are still lumpy.) Most beginners will get very organic-looking results to start with; the warm wax is easy to remove with a craft knife or files, and it is very easy to go on almost indefinitely, adding and subtracting. Applying wax with a hot tool has the added benefit of offering immediate texture possibilities, as Sturlin illustrates with his cabochon rings (opposite below).

Because wax can be built up on a gemstone, building a setting for an irregular stone is much easier with this technique than with traditional metal fabrication. (It was this possibility that I found most exciting.)

One might think that applying wax directly to a gemstone would guarantee that the gemstone fits the cast setting. But in the casting process, there is a minimal amount of shrinkage, and a wax that is formed directly on a gemstone will not allow for the slight size reduction in the cast piece. Sturlin suggests attaching a layer of masking tape to the gemstone before applying the first layer of wax to compensate for the shrinkage. Also, removing uneven or excess wax from the inside of the setting with a craft knife before casting will help the gemstone fit better.

Sturlin's presentation was organized and clear, the class size was small (nine students) and he gave each student plenty of personal attention. Sturlin says, "I think the most important thing for any workshop is that the instructor has an organized, well-laid-out format which presents the objectives within the available classroom time and that it produces satisfying results for the participants."

This technique offers a different approach to creating wax models, which may suit some jewelry makers better than the traditional subtractive method. It is not what I would call an easy technique; if you try it, give yourself plenty of time to explore. Ideally, sign up for one of Sturlin's workshops, and learn from the master. ■

where to go for workshops

There are wonderful metalmithing guilds and schools dotted around the country; here are a few. Contact a guild or school in your area directly to get information on upcoming workshops.

Regional Guilds

Chicago Metal Arts Guild
chicagometalartsguild.org

Colorado Metalsmithing Association
coloradometalsmiths.org

Florida Society of Goldsmiths
fsg4u.com

Houston Metal Arts Guild
hmag.org

Metal Arts Guild
San Francisco
metalartsguildsf.org

Seattle Metals Guild
seattlemetalsguild.org

The Society of Midwest Metalsmiths
midwest-metalsmiths.org

Schools and Craft Centers

Appalachian Center for Craft at Tennessee Tech University
Smithville, TN
tntech.edu/craftcenter

Arrowmont School of Arts and Crafts
Gettysburg, TN
arrowmont.org

Atlanta Art Worx Jewelry/Metal Arts Studio
Marietta, GA
atlantaartworx.com

The Crucible
Oakland, CA
thecrucible.org

Haystack Mountain School of Crafts
Deer Isle, ME
haystack-mtn.org

Kootenay School of the Arts
Nelson, British Columbia
ksac.bc.ca

Mendocino Art Center
Mendocino, CA
mendocinoartcenter.org

Metals Edge Studio
Scottsdale, AZ
metalsedgestudio.com

Metalwerx
Waltham, MA
metalwerx.com

New Approach School for Jewelers
Virginia Beach, VA
newapproachschool.com

North Country Studio
Bennington, VT
northcountrystudioworkshops.org

Penland School of Crafts
Penland, NC
penland.org

Revere Academy of Jewelry Arts
San Francisco, CA
revereacademy.com

Taos School of Metalsmithing and Lapidary Design
Taos, NM
taosjewelryschool.com

Touchstone Center for Crafts
Farmington, PA
touchstonecrafts.com

Wildacres
Wildacres, TN
amfed.org/efmls/wildacres.htm

William Holland School of Lapidary Arts
Young Harris, GA
lapidaryschool.org

For more information on attending jewelry workshops, see "Strategic Retreats," page 38.