

Introduction to Water Gilding: A Brief Review

Compiled by the staff of *PFM*

The first two articles in the series “Introduction to Water Gilding” by Marty Horowitz and Lou Tilmont have sparked a demand among our readers for other tips on glue, gesso, and clay.

We’ve decided, therefore, at the suggestion of Marty and Lou, to reprint some previous articles on the subjects. (We think they really just wanted a month off.) There are as many techniques as there are gilders, and we hope reading a wide variety of instructions will help new gilders create their own master formulas.

With seven years of magazine issues to choose from, picking the gilding articles to reprint wasn’t easy. It was hard to resist, for example, William Adair’s gesso article from 1990 in which he explains, “Recently, those in my workshop in Washington had the distinct pleasure of working with an Italian gilder, Mr. Giovanni Buchi, who prefers the addition of garlic cloves to the gesso to enhance the adhesive properties of the glue and provide an insecticide for the gessoed object. The entire studio smelled like a fantastic restaurant for days! We now call his method ‘Fetuccini al Buchi’.” Alas, Bill fails to give the recipe in the article.

In the end, we decided on “Time, Money, and Rabbit Skin Glue” by Stanley Robertson, in which the author gives a time-saving technique for those gilders who work with sheets of glue instead of pebbles. Next is “Gilder’s Delight” by William Adair, which gives some background on what gilder’s bole is, and where it came from.

Questions? Comments? Send them in and we’ll print them along with future articles in our “Introduction to Water Gilding” series. Next month Marty will get to the really exciting step — laying leaf!

TIME, MONEY AND RABBIT SKIN GLUE

by Stanley Robertson

We all know that time is money. Save time and ergo, you save money.

For those of us who use the infinitely dependable and traditional techniques and materials for gilding and sizing (such as preparing and making your own glue for putty, gesso and clay size) here’s an idea for not only getting the job done without wasting time prepping the sheets, but for preparing enough for several batches at the same time.

All that’s needed is a small, used

cardboard box, an old newspaper, some glue sheets, a hammer, a scale for weighing the batches, plus some zip-top sandwich bags.

In order to get a good glue mix, the glue has to be broken off the sheet into fragments for complete saturation and it must soak with the right quantity of water. Then, it must be heated, mixed again, strained, and laid out to set.

If you don’t go through these steps, the nice, active glue that’s required in gilding will come out mediocre. Of course, you could use granular glue from the start and cut out other steps, but as most professional gilders, varnishers and painters know, the strength of the glue can never be guaranteed in granular form—unless you buy the same glue, at the same place, from the same manufacturer consistently. When you use sheet glue, you start off the same way as the manufacturer. You also pay more to have it crushed into granules.

I have proven to myself time and time again that each time I use this particular simple technique, with either hide glue or rabbit skin glue for gilding, I’m glad I did.

THE TECHNIQUE

Take six to eight sheets of the glue of

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your choice. Rabbit skin glue is fine, but you can do just as well with any other glue made in sheets (or cakes or plates).

Use a cardboard box just a little bigger than your biggest glue sheet. Line the inside of the box, with the lid off, with a thick piece of cardboard.

Cut the end of the box down both vertical folds to the horizontal fold where all the sides meet. Fold that side in toward the center of your now three-sided box and lay it flat. You now have three thicknesses of cardboard at the bottom of the box and a wall around three sides, creating a tray.

Lay one whole piece of the glue in the box/tray and cover it with an old newspaper, folded in four, so that it fits into the "tray." Place the tray, glue and paper on a sturdy surface, suitable for banging. Then, with a hammer, strike the glue on the raised curves of the sheet, splitting it into tiny pieces.

One thing you will find immediately using this new method, is that all of the broken pieces stay put. All of the pieces that have been fractured and split from the original sheet can still be found inside the box, under the folded newspapers. You don't have to waste time cleaning up.

The cardboard tray provides a place for the glue to be collected and also acts as a scoop to fill the plastic bags. Keep some plastic zip-top bags around and break enough chips to

make the next three or four batches of glue later. Bag the pieces and mark each bag's individual weight (for accurate proportions) so they are ready for storage and future use.

GILDER'S DELIGHT

by William Adair

Bole, bolas, or gilder's burnishing clay, as it is commonly referred to, is the heart of the water gilding process. Translated from the Greek, "a ball of earth," it is a clay-like substance of various colors including, but not limited to red, brown, white or yellow and consists of hydrous aluminum silicate with traces of iron oxide. It differs from ordinary clay as it is not plastic and drops to pieces when placed in water, thus behaving like fuller's earth (naturally forming pigments).

For gilders, bole refers to the level of substrate that lies just beneath the surface of the gossamer thin, translucent gold leaf. Ancient Egyptians used bole as an underlayer for their gilding work. Ancient texts refer to "Armenian Bole" for burnishing gold leaf and bringing out the most brilliant luster possible of all the gilding techniques.

Encyclopedia Britannica of 1911 credits the Greek island of Lemnos for using bole for medicinal purposes. In classical times, it is said, the image of Aphrodite, Goddess of Love, was stamped into dry cakes of clay. This was known as Terra sigillata, or "sealed clay." I once purchased

some cones of bole from Spain that had the Virgin Mary stamped onto the surface, and I wonder if this was carried over from the ancient Greek custom.

Gilders sometimes purchase boles in plastic containers from manufacturers, but they are sometimes available in the more traditional cone shapes.

If you have purchased clay in these cone shapes, take the lumps of clay and soak them in water for a day or so until the clay is soft and turns into a paste. Manufacturers do this to prepare the bole for commercial usage since, for many, the most convenient way to purchase bole is in the plastic containers. As you can imagine, there are many recipes for bole production and application. Even within my shop, each craftsman has slight variations in their methodology, depending on the project and surface variations desired. But the ingredients that remain constant are: bole, water and glue. (Some formulas of bole call for the addition of olive oil.)

Any combination of color may be achieved by mixing boles together or adding watercolor to soften or intensify the hue. Once the desired result is obtained, add warm water to the bole to create the consistency of thick cream or heavy varnish. You will be surprised to see how much water the bole will absorb. Add small amounts at a time until it becomes smooth and pourable.

Next, add a binder or adhesive

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to the bole. Rabbit skin glue, gelatin, egg white or glair, parchment snippings or even neck scraps of goats taken in winter (suggested in Cennini's 13th century manual) can be used effectively. Rabbit skin glue is the usual choice.

The strength of glue and proportion of glue to bole is a matter of individual preference. Materials vary in different seasons as do the craftsman. The basic stock glue formula solution is made up of 500 grams of glue to 4 quarts of water.

Take the heated glue and stir gently into the warm bole. A stoneware crock is good for this as it is with gesso.

The amount of glue added depends on a number of factors. In general, equal parts of glue and clay (by volume) should be added. There are times when the bole would be thinner (intricately detailed ornaments) and this can be accomplished by adding a little more water.

A simple rule of thumb is that when three drops fall off the end of your 1" ox hair brush, it is ready to be applied to the surface. Three or four thin coats are usually enough to prepare the surface for gilding.

When I first started to gild, I found an old jar of bole on the shelf at the Smithsonian. My friend and teacher, Oliver Anderson, told me that even though it was old and dried up, it was still good.

"Just add some warm water, let it soak, and you will find this bole to be some of the best you've ever used."

He was right, as usual. I will never forget the brand name on the jar—"Gilder's Delight." ■