

## A “Brief” Introduction to Period Materials

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**[MaraPalmerScribe.wix.com/home](http://MaraPalmerScribe.wix.com/home) → How-To's & Handouts**

\*There are MANY primary sources out there but my introductory go-to's tend to be *Scribes and Sources* and Cennini's *Craftsman's Handbook*.

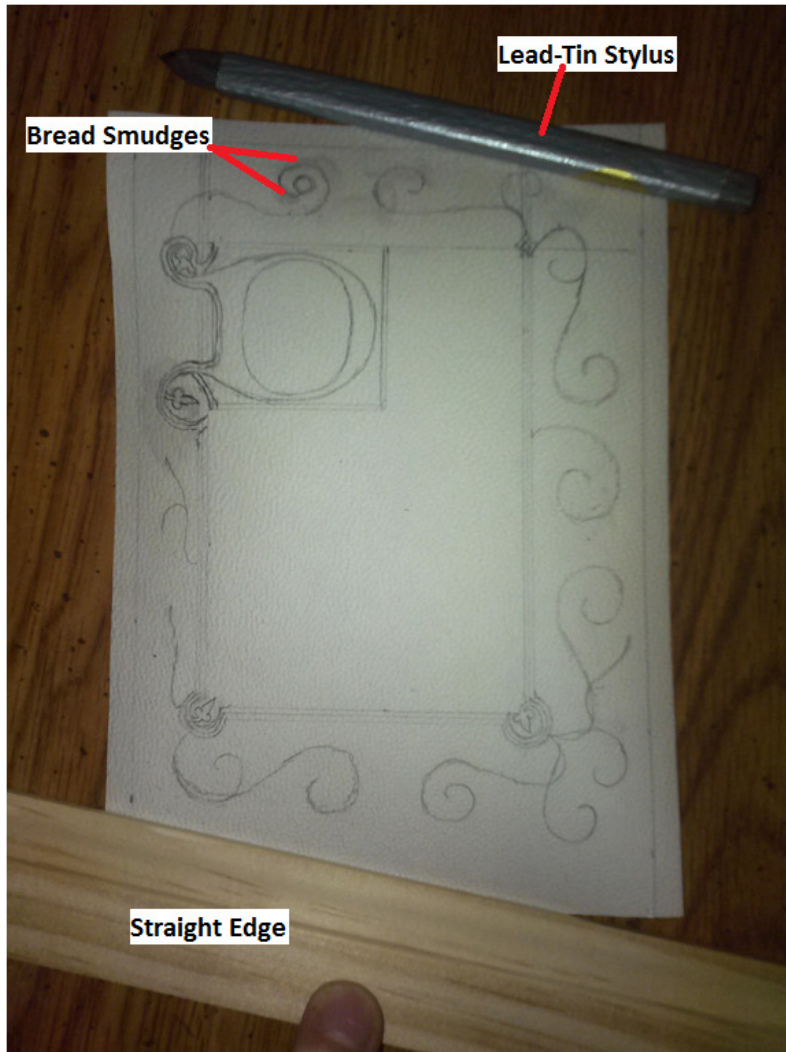
Parchment: The dominant work surface of the time was parchment, animal hide scraped and stretched until thin. The best is super smooth and was worked on with a slant sometimes as high 80°. This was only made possible by all the other materials used and is difficult to translate into paper and metal nib work.

Pounce: This was a powder that treated the parchment, absorbing oils. While there is some documentation for chalk, the primary pounce was made from bones (specifically fowl wing bones, sometimes fish) that are aged and put in the fire until white. They were then powdered (pestle and mortar) and put in a cloth wrap.



Charcoal and Lead-Tin Stylus: This was the pencil used. There is a fair amount of documentation for charcoal, but this seems limited to rough sketches or earlier pieces since it could affect the pH of the parchment and could lead to color shifts in inks and paints. It could also leave permanent smudges. The lead-tin stylus became much more common later on with a 2:1 lead to tin ratio. Unlike other metal-point styli, it did not require a course surface (though pounce helps).

Bread: Yes, bread. White a tuft of feather left on the back of the quill could be used to brush light lines and remove the pounce, it did not work as well on the lead-tin stylus. Several sources recommend using a bit of bread to smudge the lines away and re-pounce the area. I have found basic rye bread to be the most effective.

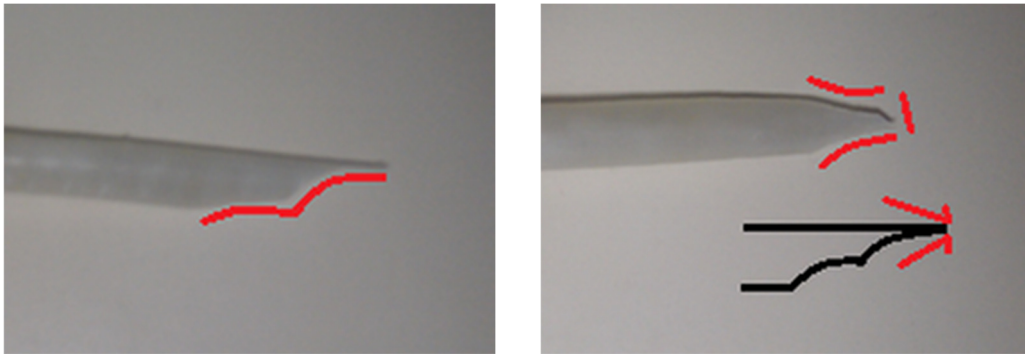


Scoring Tool: While some lines were drawn, some were scored—a practice which necessitated floating between the lines to prevent ink flow into the crease. It was sometimes done with the back side of the pen knife as well.

Pen Knife: This was a knife beveled on one side and flat on the other used primarily for cutting the quill, but also for small trim work on the edges of the page, sometimes scoring, cutting gold for gilding, or sometimes simply holding down the page next to where work is being done.

Scraper: This was sometimes a task performed by the pen knife, but you didn't want to dull your nice knife so was sometimes a different tool. It is used to scrape mistakes from the parchment. If it was a mistake in illumination, it was frequently just scraped, burnished, and painted over. However, if it was a mistake where ink or thinner paints needed to go, the mistake was allowed to dry, the correct line/letter put over top of it (and allowed to dry), then scraped around to remove the unwanted lines.

Quills: While reed pens were used in early calligraphy and their use was continued for practicing all the way through practice, there is no competing with the feather quill. The most common feather used for calligraphy was the goose feather, though others could definitely be used. For point-work (like lining), a ‘crowquill’ was used, which as the name suggests, was cut from a crow’s feather. These were smaller on average but still rigid, though small goose feathers were certainly used as well. If you buy crow feathers though, I suggest buying them from Europe. These feathers were typically cured by heat or simply time, though there is debate on the order of cutting and treating—even the period primary sources disagree. (My preference is to soak the feathers, cut off the tip, gut them, let them soak a little more, cure them, then cut them—I have noticed that curing post-cutting can sometimes lead to curling.) A bit of the feather was sometimes left on the shaft to brush away pounce, bread crumbs, etc. to avoid touching the parchment and reintroducing oils, but sometimes a rabbit’s foot was used instead (or the cloth on the back of the pounce pouch if you’ve misplaced your rabbit’s foot...).



Ink: A very common black ink was oak gall, such as Palatino’s recipe which uses tannic acid extracted from oak galls, copperas (iron (II) sulfate), gum arabic, and even pomegranate peel for that purple sheen. Another common black ink was lamp black. This usually used egg yolk as a binder but there were MANY recipes used in period. Of the lamp black inks, simply lamp black + gum arabic (less than paint) + water is still my favorite, though oak gall ink is my go-to black ink. Other ink colors varied widely. A famous red ink is brasilwood ink, but other popular red inks were lead red or vermilion inks (made like paint but with a lower ratio of gum arabic and not as thick). The same logic applies to blue ink (lapis lazuli) and the rare examples of other colors (such as green – likely sap green [which is already thinner] or even terra verte with ink ratios for gum arabic).

Glair: (Often misspelled “glare”) This is made from whipped eggs, which is allowed to settle (this separates the sticky part from the protein matrix); the settled glair is then drained/poured off (keep in the fridge if you don’t use it quickly). This can be used as a binder in paints (usually earlier period), for flat gilding, and really any time you need something sticky.

Garlic Juice: This is used mostly for flat gilding and is made by squeezing finely minced (pureed even) garlic through cheese cloth.

Boiled Stout: This is used mostly for flat gilding and is made by boiling stout down to a thick goo and water added just before use (though sometimes you get that perfect consistency with the stout).

Fish Glue: This is used mostly for flat gilding but can be used instead of hide glue when making gesso. It is made like hide glue but uses fish skin and other unsavory bits instead of animal hide.

Hide Glue: This is used often in making gesso and comes from boiling down animal hide. It is often dried and rehydrated as needed.

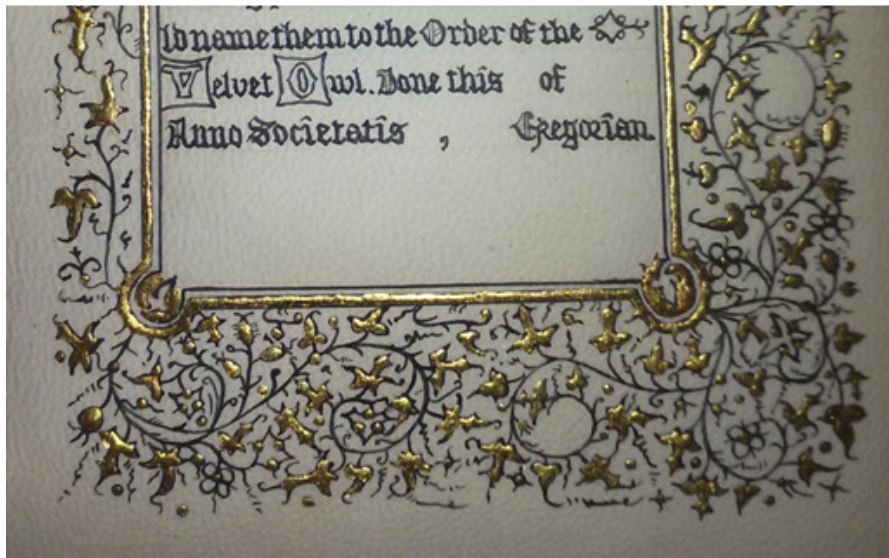
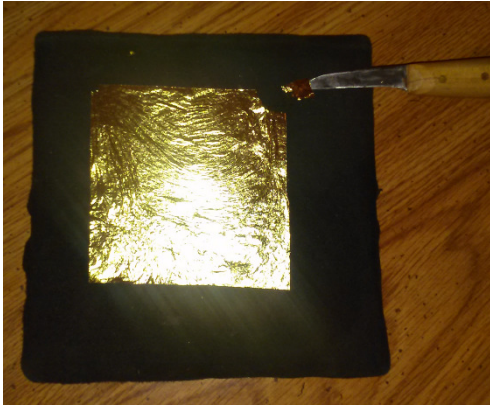
Gesso: This is used for raised gilding. There is a common gesso recipe used in the SCA made of slaked plaster (gesso sottile), armenian bole, honey, and water. The armenian bole is added in a rather large quantity, giving a gesso with a significantly darker tone than in most manuscripts but it's needed because it replaces the lead as well. According to Cennini, gesso can be made of gesso sottile, white lead at less than a third of the gesso sottile, a little sugar candy, and water; later he adds that armenian bole can be added for color. For the purposes of a set recipe, I'm experimenting with 10 parts slaked plaster (gesso sottile), 3 parts white lead, and 1 part crushed sugar candy brought to consistency with water. This was allowed to dry in small shells and then rehydrated with glair; supposedly the glair and elastic properties of lead give the tack and bend required of gesso but there is a large inconsistency between period sources. Other sources still use this same generic recipe but add some sort of glue.

Gold: Period gold leaf was MUCH heavier than our modern leaf; even double weight leaf isn't thick enough, though it's much closer. You can buy Cennini weight gold but it can be kind of pricey. You would put your leaf on a card and either carry the whole thing over to the flat-/gesso-sized area or put it on a gilder's pad first and cut off the piece needed and carry it over with your pen knife. A fan brush can also be used to carry the gold. The size is breathed on to hydrate it a little, the gold laid on VERY carefully in multiple layers (modernly the process is often aided with the use of glassine paper), the excess brushed away with a soft brush (usually into a jar to be later ground into powder for shell gold), then burnished once it's set long enough to stick but not so long that it's not malleable. Since gold sticks to paint, this needs to be done before any paints are laid (I even do it before using colored inks, depending on if gold has a history of sticking to that ink).

**\*A broader, but still cursory, exploration of gilding can be found here:  
<http://marapalmerscribe.wix.com/home#!basic-gilding/uhauq>**

*Mistresses Adela and Sunneva are great resources for this topic as well.*

Burnishers: This is what shined the gold or smoothed a scraped surface, therefore it had to be smooth itself. The two most frequently cited examples are a polished stone and a dog's tooth. Dog's teeth are difficult to come across in modern times but coyote teeth are easy to find and seem to work well. They were also often mounted on some sort of handle.



Pigments: This is a very broad topic and is really its own course. For a crash course (general pigments as well as specifics on vermilion, lapis lazuli, lead white, and terra verte can be found here: <http://marapalmerscribe.wix.com/home#!period-pigments/sughe>). But pigments boil down to 1) pigment, 2) binder, and 3) water. Your binder can vary, but the most common are glair and gum arabic. Both were used in period. Glair *tends* to be an earlier binder and gum arabic a later period binder (because it allowed for reconstitution and the rise of romanesque and later shading techniques), though that is not a hard and fast rule. You simply add your three materials together and mull (gum arabic *tends* to work in a 1:1 ratio with the pigment). This can be done with a non-porous, smooth tile (glass works well) and a muller (period sources indicate ceramic or glass, but any smooth and flat surface works). This further grinds the pigment and serves to mix it with the binder.



Brushes: Period brushes aren't *too* different from modern natural brushes actually. They had a wood handle (other handles in period were made with a variety of woods, like ash, oak, etc. so really any dowels can be used for this) and the fiber folded over, bound (I use sinew) in the middle, folded over, and held in place with a ferrule made from a feather shaft. The most frequently specific fiber mentioned is miniver (ermine), but I've used goat, horse, sable, and other natural fibers as well. For the ferrule, I use the last bit of hollow shaft left over when a quill has been sharpened over and over again and is reaching the end of its life. I soak it, shove in the fibers and handle, then let it dry and constrict. Sometimes I use sinew around the ferrule as well if it's needed.