

Stitchery Series Part II – Tools and Techniques

Heather Daveno

Contact: thedaveno@gmail.com

AugustPhoenixHats.com

This is my collection of historical replica embroidery tools, which includes a bone needle, and two bronze needles. The black packet is a vintage set of #5 sharps that are an inch long with round eyes. The oval object is a needle threader from my grandmother's thread cabinet. Also shown here is my collection of thimbles – an embroidered silk one and another from jade are both of Chinese origin. The other three are from Turkey, in porcelain, enameled metal, and granulated metal at the end, which has become my favorite...



Embroidery Tools in China - Needles and hand tools

Historically, embroidery needles averaged about an inch long and had round eyes. They were made of bone, ivory, copper, or bronze, depending on the technology of the time. Ivory needles continued to be used as late as the Ch'in Dynasty.

Through personal experience, I have found that needles of bone and ivory, although retaining a sharp point longer than other materials, are also coarse and brittle, and break easily. Bronze needles are the best for embroidery as they have a smooth surface and are more pliable than modern steel needles. A pliable needle helps to decrease soreness and fatigue in your fingertips.

I am fond of Chinese scissors. Made from iron, they hold their edge well, and which are available in a variety of sizes from the bonsai section of your garden store, or your black powder / Sutlers fairs if you are a reenactor. I also keep my grandfather's pliers close at hand because it is sometimes easier to pull, rather than push, a needle through dense fabric or leather. A Chinese pin cushion and a jade pin dish round out my kit.

Yarns and threads

Silkworms were raised in the home. The Chinese Book of Rites describes the annual Springtime ritual where the empress and the women of her court took part in the gathering of mulberry leaves (upon which the silkworms fed), the harvesting of silkworm cocoons, and the reeling of silk. Mature cocoons were steamed, and the silk was reeled and spun into yarn before being dyed. Yarns for embroidery were hand twisted, ideally the yarn was slightly smaller than the needle's eye, so it wouldn't make a hole in the silk when drawn through. Multiple color yarns were spun in addition to solid colors.

To produce metallic thread, gold and silver metals were pounded into thin leaf, which was then sliced into narrow ribbons and rolled around a silk yarn core. Gold paper or gold painted papers were also used and were cheaper. Gold and silver yarns were always couched onto the surface of the textile as they were too fragile to draw repeatedly through the fabric.



This is a sampling of the threads I use in my shop. The threads at upper left are a single-ply spun gold thread, next to a hank of gold foil-wrapped cotton cord. At upper right is a commercial cord made from a multi-ply metallic colored mylar woven around a polycore. Next to that is a 3-ply DMC silver cord, and a single-ply gold sewing machine thread. I do not embroider in silk,

preferring either cotton perl or a 6-strand embroidery floss as a more inexpensive and readily available option.

Embroidery frames

Embroidery frames appeared to have been used extensively in Chinese embroidery and could accommodate large pieces of silk without wrinkling or damaging them. Frames were built proportionate to the size of the project and were similar to modern day quilting frames.

Embroidery hoops may have been used on smaller pieces of cotton or linen, but this technology appears to have been imported into China after the 18th century. There are techniques described in "The Art of the Oriental Embroidery" for attaching silks muslin backing strips, which are in turn attached to embroidery frames. I have also seen patterns for court robes being traced onto silk yardage, and the yardage being attached to the frame, and fully embroidered before the individual robe pieces are cut out. This technique makes much more sense to me, as it would have involved fewer steps and no muslin backing. Embroidery can also "shrink" a textile, so cutting a piece out after you have embroidered it would allow you to adjust the size of your pattern pieces before assembling your garment. Wise clothiers factor in this shrinkage when drafting their garment pieces and embroidery patterns...

I do not work with frames and hoops, favoring instead one of the following techniques.

Embroidery designs could be transferred onto fabric in several ways. The powder and paste method was done by drawing the master design onto a piece of heavy paper, then cutting it into a stencil with a sharp blade. The stencil was then basted to a piece of silk, where it dusted with oyster-shell powder using a wide brush. The stencil was then removed, and the powdered design left on the fabric was outlined using a fine watercolor brush and an oyster-shell and water paste. After the design had dried, any loose residue was removed and the silk was stretched onto the frame, ready to be embroidered.

A second paste transfer technique was the forerunner of our modern carbon transfer system. The master design was drawn onto very thin rice paper. The paper was then flipped over, and the design was traced over on the back of the paper with oyster-shell paste. When the past was dry, the paper was placed face up on to the fabric and secured. Using a wooden spatula and moderate pressure, the paper was burnished (rubbed). When the paper was removed, the oyster-shell paste pattern remained on the fabric.

My favorite technique is the transfer stitch method. The design is traced onto rice paper, which is secured to the fabric, usually by basting. The design is then stitched through the paper and fabric with running stitches. For designs that are to be outlined, the rice paper is torn away after the running stitches are in place. For solid work, the entire design is filled in before the excess rice paper is torn away. This technique is useful on more delicate silks, as the rice paper pads the embroidery, acting as a stabilizer and also protects the surface of the silk while it is being embroidered.



I use this method on most of my embroidery pieces, using pieces of recycled tissue paper instead of rice paper. I have discovered that this technique has several advantages:

- It lets me alter the design while I am working, since it is drawn onto the paper rather than the fabric.
- I can embroider complex designs on heavy naps like velvet, coarse or loose weaves, and multi-colored fabrics like brocades and plaids.
- I can embroider without hoops, which can mar the fabric.
- I can replicate a design by tracing them from a master template.

Templates are an idea that I borrowed from medieval scribes, who carried chap-books containing their ideas, favorite designs and templates for illustrating (illuminating) the borders of manuscripts, bibles and documents. Templates allow you to maintain consistency if you are using a motif repeatedly, such as on the hem or cuffs of a garment.

Or in my case, hat panels...