

Tang Textile Treatments

Resist Techniques Used in Tang Dynasty China

Introduction

Chinese textiles are known for their intricate embroidery, polychrome brocades, and other marvels of textile technology and embellishment - and to get approximations or reproduction of these motifs can cost a pretty penny. Thankfully, resist dye techniques (known as *xie*) were also a prevalent means with which textiles were decorated for clothing. Tang Dynasty sumptuary laws, which were often based on the complexity, cost, and availability of textiles, made a distinction between yarn and fabric dyed. Resist dyeing was a cheaper way for people in the Tang Dynasty to add motifs and decoration to fabrics.

Some of the extant textiles are from periods earlier than the Tang Dynasty, but textual record supports the continued use of the same techniques.

Prior to dyeing, textiles were prepared by bleaching and scouring/degumming, and depending on the dyestuff, mordanting. The example textiles I have to show in this class were dyed with madder, with alum as a mordant.

A wide range of colors were available during the Tang Dynasty, as seen in these textile fragments found in Dunhuang.¹

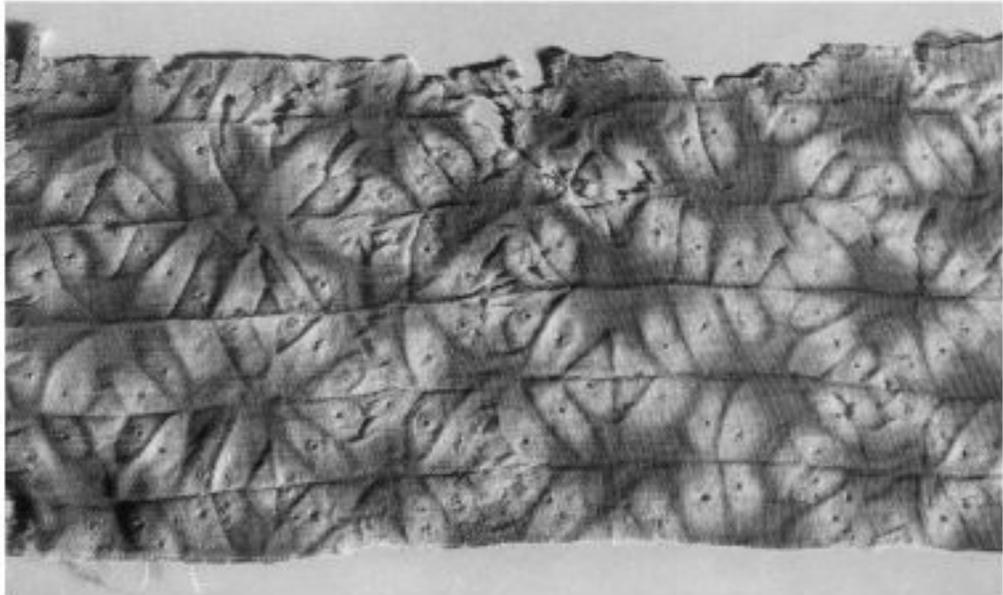


These techniques are still being used today to dye textiles - many of them are recognizable as Japanese Shibori techniques, which can trace their history back to Tang Dynasty China.

¹ This image shows various items in the Stein Collection at the Victoria and Albert Museum, and can be found with the following reference numbers: green, LOAN:STEIN.455:1; blue, LOAN:STEIN.463:1; red, LOAN:STEIN.658; yellow, LOAN:STEIN.459:1; purple, LOAN:STEIN.465:1; dark blue, LOAN:STEIN.671:1.

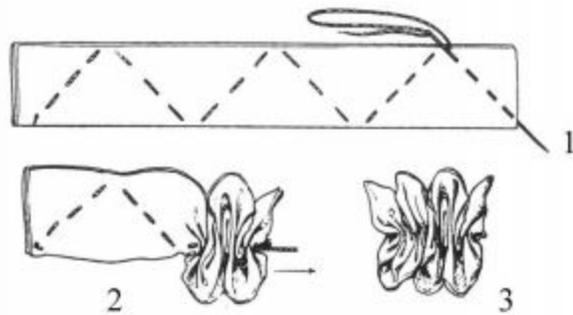
Stitched

Stitched resist is considered a traditional craft in modern China, and is better known modernly by it's Japanese name - shibori. The extant examples we have from China predate their Japanese counterparts, with the



technique shared between the two cultures during the Tang Dynasty. In stitched resist, the fabric is folded, and then a needle is used to sew long stitches in the fabric in a pattern before cinching it up tightly.

The Japanese Nui Shibori technique includes this sort of running-stitch resist.



Top: Tie dye silk with net pattern found in Astana Cemetery, dated to 683 CE, Xinjiang Uyghur Autonomous Region Museum.²

Bottom: Stitching method.³

² Xinjiang Uyghur Autonomous Region Museum *et al.* (1973), pl. 50, as cited in Wang, L. & Zhao, F. (2017). p. 443.

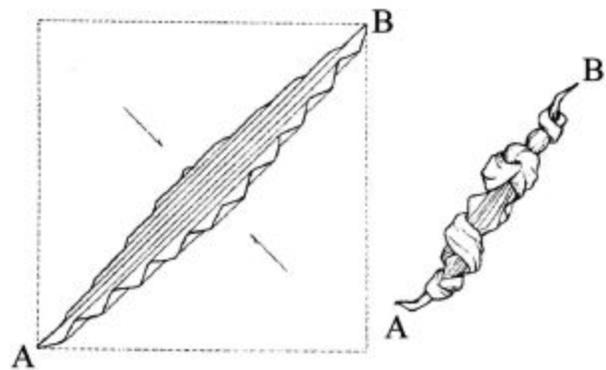
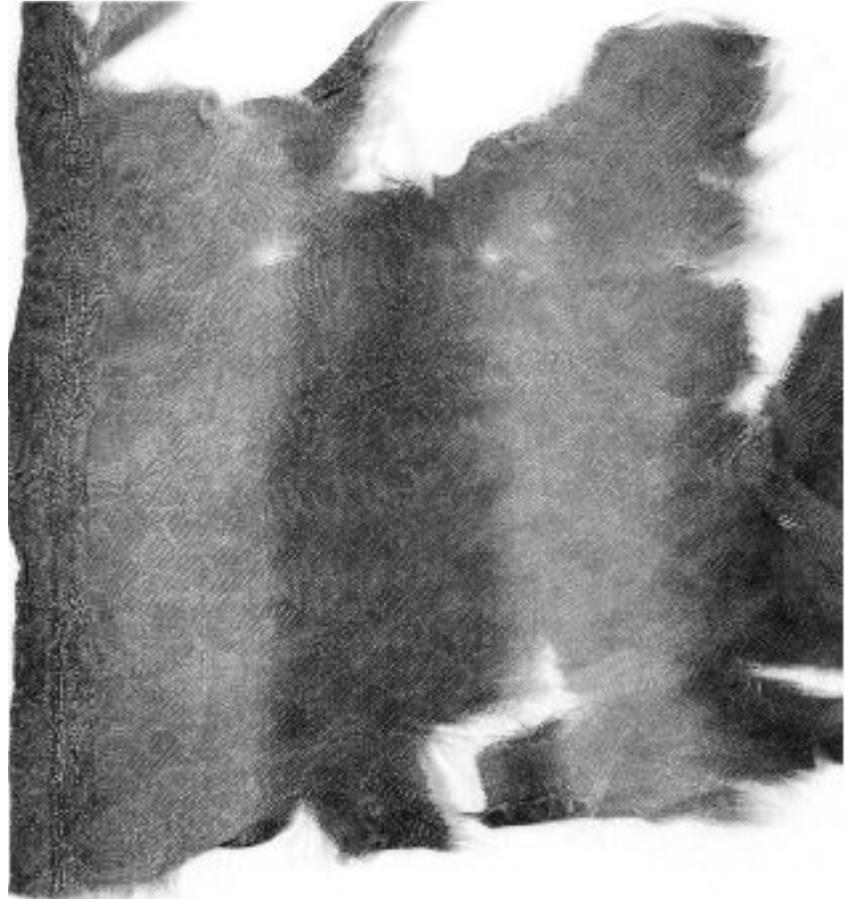
³ Wang, X. (2001). p. 83, as cited in Wang, L. & Zhao, F. (2017). p. 443.

Knotted

Just as with modern tie-dye, folding the textile with an accordion fold and then tying it in knots creates a series of stripes. The direction of the stripes in relation to the selvage of the fabric depends on how the fabric was folded.

Top: Damask with grape motif dyed in stripes, found in Dulan Qinghai province, Qinghai Institute of Archaeology.⁴

Bottom: Knotting method.⁵



⁴ Zhao, F. (Ed.) (2002). pl. 41, as cited in Wang, L. & Zhao, F. (2017). p. 445

⁵ Wang, X. (2001). p. 92, as cited in Wang, L. & Zhao, F. (2017). p. 444.

“Fish Roe” (Bound)

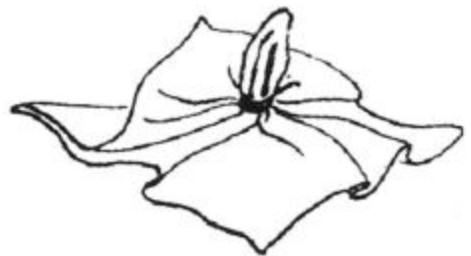
Like the stitched method the bound or “fish roe” technique uses thread. In addition, small grains such as millet were used to create the dotted or circle shapes, depending on the side. Once the textile has been dyed, the stitching is removed.

While there are Japanese Shibori techniques that use similar binding methods, the circles tend to either be closer together, larger, or more “spider-web” like.

Top: Red tabby with “fish roe” pattern found in Yingpan.
Xinjiang Institute of Archaeology



Bottom: Binding method. Wang Xu & Textile Archaeology in China, p. 93.



Clamped

In clamp-resist dyeing (jia xie), two carved, symmetrical blocks were placed on either side of the (folded) textile and held tightly shut with clamps. The areas where the blocks touched through the fabric blocked the dye, while the open areas of the block let the dye through. Some of the extant textile fragments that have been dyed using the clamp-resist method are very simple, while others are more complex and required a sequence of blocks to achieve the final design. Additional colors could be achieved by painting the dyed areas to create secondary colors.

Clamp-resist dyeing was invented sometime between 713 and 724 CE, and was popular through the Tang and Song Dynasties.

This method is similar to the Japanese Kyokechi or Itajime Shibori, where a piece of shaped or carved wood is clamped to folded fabric as a resist.

Top: Plain-woven silk fragment dyed with the clamp-resist technique, 9-10th century, Victoria and Albert Museum.⁶



Bottom: Plain-woven silk banner panel dyed with the clamp-resist technique in red, blue, and green, featuring florals and a roundel with confronted geese, 8-9th Century, British Museum.⁷

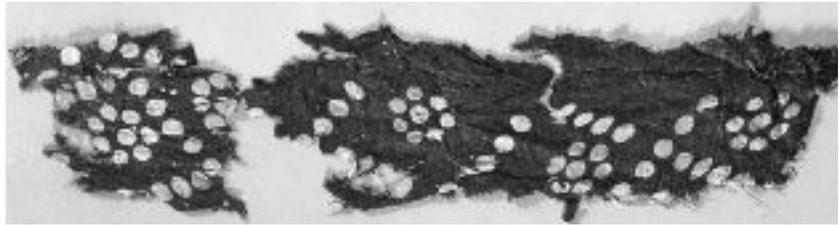
⁶ LOAN:STEIN.682

⁷ MAS.877MAS.877

Alkali/Wax - Stamped, Stenciled, and Drawn

Due to materials and time constraints, this isn't a technique we will be playing with in this class.

Wax resist dyeing, commonly referred to as Batik, did not originate from China. The earliest example of this textile treatment in China is cotton dating to the Han Dynasty and features Hellenistic



images. This technique came to China from India between the 3rd and 5th century via the Silk Road. Designs consisted of dots, which were arranged to create more complicated patterns. Wax resist designs were popular in the Tang Dynasty. Batik is a technique still in use today, and suppliers and tutorials are plentiful online.

Alkali resists replaced wax, as plant ash and lime were more plentiful than wax, in the Tang Dynasty. The alkali resist could be applied in conjunction with carved wooden blocks with holes for the resist. This technique was especially used in repeated designs, where the fabric was folded before it was clamped. Once the resist was applied, the blocks were removed and the fabric was put into the dye bath.



A modern analog to alkali resist during the Tang Dynasty is Japanese Nori Paste, which is made of rice flour, rice bran, salt, water, and slaked lime. Nori paste can be applied with either stencils, stamps, or drawn with perhaps a brush or from a piping-bag like tube. If you decide to play with Nori paste, be very aware of the concentration of your lime solution and practice the appropriate safety measures.⁸

Top: Wax resist dyed tabby, dating to 400-421 AD, found in Turfan. Xinjiang Uyghur Autonomous Region Museum.⁹

Bottom: Alkali resist dyed red silk tabby with a hunting scene pattern, late 7th - early 8th century CE, from Astana Cemetery Tomb 191, Xinjiang Uyghur Autonomous Region Museum. Dyed using the fold-and-clamp method, with the alkali solution used as the resist.¹⁰

⁸ Eye and skin protection are a must, as lime solutions can cause serious harm.

⁹ Xinjiang Uyghur Autonomous Region Museum et al. 1973, pl. 49, as cited in Wang, L. & Zhao, F. (2017). p. 448.

¹⁰ Watt, J. C. Y. (2004). p. 342.

References

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