

Naturally Refined Series: Rippled

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As our world becomes more polluted, sustainable approaches in various aspects of society are gaining popularity and attention. Slow design was proposed after the slow food movement to promote slowing down production processes and increasing product quality and keepsake value (Fletcher, 2008). While counteracting the fast-pasted system of the fashion industry, the concept suggests a slower way of living and sustaining traditional arts using eco-efficient approaches (Faud-Luke, 2005). Chinese arts and crafts are facing declines and are in need of proper conservation and revitalization. Chinese Su Xiu embroidery has been known for its fine stitching and vivid appearance (Zhu, 2987). It is designed with silk floss on silk fabric and limited to producing decorative home furnishings.

The overall goal of this design research was to celebrate and sustain the spiritual and material civilization of the Chinese culture by creating a modern artistic interpretation of Chinese embroidery using an environmentally conscious approach that is applicable to apparel design. This research resulted in modern surface designs on a group of garments using traditional Chinese Su Xiu embroidery, physical resist techniques, and natural dyes. Water, the most important medium in dyeing, was used as inspiration in the forms of water drops and ripples for both garment silhouette and embroidery pattern.

Based on traditional Su Xiu stitches, the embroidery technique used in this garment took advantage of different fiber (silk, wool, cotton) reactions with dye to create color value transition. With the aid of acid and iron pretreatments, each embroidery floss fiber type created three different shades of color after dyeing. Essentially, the advantage of the multiple fibers used in this garment is to eliminate the process of dyeing individual colors for embroidery floss in the traditional method. On the other hand, eco-efficiency was maintained throughout the design process in the use of natural dyes, woad and madder dye, and non-toxic chemicals.

In this process, silk habotai fabrics were first pretreated with iron to receive a darker color when dyeing. To illustrate the image of still water drops, four Su Xiu stitches were applied: parallel,





single-variegated, raised, and random stitches. For the front bodice side panels, undyed embroidery floss was stitched onto undyed silk habotai fabric using a traditional Su Xiu frame. Then, the stitched pieces were pre-soaked in water and fully immersed in madder dye bath. The center front gathered panel was dipped in a madder bath at both ends to create an ombré effect. To create water-like wave patterns on the bottom of the skirt panels, the fabrics were vertically wrapped onto a plastic cylinder (pole-wrapping) with string, soaked in water, and then dyed in a madder bath. The dyed silk habotai fabrics were hand washed with textile detergent and air-dried. After drying, the silk habotai for the skirt panels preserved its wrinkled texture resulting from the pole-wrapped resist.

Woad over-dye was used to create the blue colors in silk organza of the garment. The shoulder yoke pieces were dyed in a madder bath for 1 hour and overdyed with woad for 1 minute to create a dark blue color. The waist sash was dyed in a madder bath for 1 hour and was dipped in a woad bath for 1 minute only at the mid section. The yellow toned color from madder transitioned into the blue color from woad in an ombré effect. In finishing, woad dyed fabrics were neutralized before hand washing and air drying.

The dropped waist seam and contrasting colors divided the negative spaces in the garment to create positive spaces for the embroidery detail. The garment can also be worn with the waist sash to enhance the shape of an hourglass. Overall, the simple and elegant style lines, embroidery, and resist patterns in the garment further supported the central theme of the serene yet rippled water.

Reference

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