Shifu: The Ancient Craft of Handmade Paper Thread and Its Application in the Treatment of a Hupa Indian Basketry Hat

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INTRODUCTION

A deep understanding of materials and the handskills necessary to manipulate them are vital to successful conservation treatments. This project shows how the ancient Japanese crafts of *shifu* and *kami-ito* were applied in the conservation treatment of a Hupa Indian basketry hat.

Shifu is a traditional Japanese textile woven from, *kami-ito*, paper thread made from handmade Japanese paper. By understanding and mastering the process of making *kami-ito,* large amounts of strong and even thread can be produced while maintaining the aesthetic of a handmade product. The appearance of the *kami-ito* can be altered by using different papers and making slight changes in the production process.

This Hupa Indian basketry hat treatment required structural repairs and several small fills for aesthetic reintegration. *Kami-ito* proved to be strong enough to complete the repairs without disturbing the fragile bast fibers of the object. This treatment shows one use of *kami-ito*, but the versatility of the material suggests other potential uses in the field of art conservation.

MAKING SHIFU

Figure 1: Cutting strips (2mm width)

1. FOLDING AND CUTTING

Traditionally, handmade Japanese *kozo* fiber paper is used for *kami-ito*, although *gampi* and *mitsumata* papers can be used. Four sheets of paper are folded together before cutting, increasing efficiency. The width of the strips is determined by the desired final thread size.

Figure 2: Rolling one bundle

2. ROLLING

The cut sheets are humidified, then rolled on sanded smooth concrete blocks. The rolling begins in the center of the section, gradually moving to the ends. The rolled bundle is periodically shaken from alternate ends to discourage entanglement. The rolling continues until the strips pull apart from each other, forming a slight U shape where they are joined by the inch of paper left during cutting.

Figure 3: Detail showing U shape between threads

3. CREATING THE "SEED"

The strips are joined in one continuous thread by tearing a small tab of paper from the connecting strip above two threads. This tab is rolled in the same direction you intend to spin the thread creating the "seed". This seed is one of the most notable characteristics of paper thread, and forms a unique pattern in the final woven cloth.

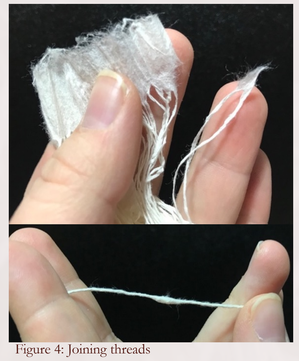

Figure 4: Joining threads

Figure 5: Spinning thread

4. SPINNING

Spinning is usually done with a Japanese spinning wheel to achieve a tight twist, but a lightweight drop spindle can be used. The resulting thread is slightly airier and weaker due to the looser twist. After spinning, the thread is wound on bamboo spindles and boiled or steamed to set the twist.

Figure 6: Spun threads ready for weaving

5. WEAVING

Historically, a floor loom was used for weaving *kami-ito*, sometimes with a cotton or silk warp. For this project a Cricket loom was used. Samples of cotton warp with paper weft, and paper warp and weft were made. A plain weave was used for all samples, varying the spacing of the warp threads to create a pattern.

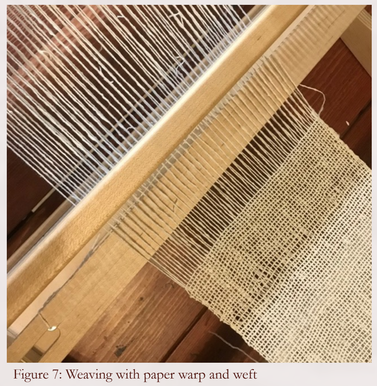

Figure 7: Weaving with paper warp and weft

Figure 8: Weaving samples

APPLICATION IN TREATMENT

THE OBJECT: A woven basketry cap from the Hupa Nation of American Indians. The hat is woven from bast and root fibers. The main structural issues are two areas of loss, and an area of tears (Figure 10).

Figure 9: Side A before treatment

Figure 10: Side B before treatment, mapped losses

TREATMENT: The tears and losses were repaired with *kami-ito* made from 50/50 *mitsumata* and *gampi* paper. This fiber combination best matched the surface characteristics of the hat fibers. The thread was spun loosely to match the striations of the bast fibers in the hat. The fill was woven in the same manner as the original. All repairs were set in place with wheat starch paste and toned with acrylics.

Figure 11: Tear repair with *kami-ito*

Figure 12: Before toning

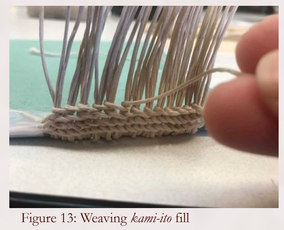

Figure 13: Weaving *kami-ito* fill

Figure 14: Fill before toning

Figure 15: Side A after treatment

Figure 16: Side B after treatment

RESOURCES

Byrd, Susan J. (2013), *A Song of Praise for Shifu*. Legacy Press.

Karuno, Hiroko. (2013). *Kigami and Kami-ito: Japanese Handmade Paper and Paper Thread.* Kyoto, Shikosha.

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