

## A JAPANESE PAINTING STRIP REINFORCEMENT TECHNIQUE

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Conservators everywhere have standard procedures for treating paintings. Japanese painting conservation has developed over hundreds of years and normally Japanese painting conservators follow the same principles. Although much of the work is routine, many develop their own techniques. There are many ways to treat one object, so this article does not attempt to set one standard. We simply hope this article and the accompanying photographs will provide some ideas and suggestions applicable to Western paper conservation.

### Introduction of the Problem

Reinforcement of creases and tears is very important, especially on scrolls for old paintings. This painting of a priest shows uncountable horizontal creases from rolling. Figure 1. A transmitted light photograph indicates the strips of the reinforcement that were already put on during the last treatment/mounting. Figure 2. New creases have occurred over the years, as revealed in the raking-light photographs. Figures 1 and 3.

The painting, of the priest Getsuan Shuko (1326-1389), is one of the oldest portraits from Japan existing in the United States. It was painted in 1382 and the silk support is very brittle. The former remounting seems to have been done at least 100 years ago. It was mounted with three different areas of brocades, two of which,



Fig. 1. Portrait of Getsuan Shuko (1382) before treatment, in raking light



Fig. 2. Portrait before treatment, in transmitted light showing strip reinforcements



Fig. 3. Portrait verso  
before treatment, in raking  
light



Fig. 1a. Portrait after  
treatment, normal light

close to the painting, are gold. We always consider saving good or antique brocades that accompany paintings to use for remounting if they are salvageable. We treat the mounting materials with the same respect with which we treat the painting. Therefore more complicated procedures are required to retain these materials than if we would use brand-new brocades. We believe the original brocades are part of the art work and its history. That is the current ethic of oriental painting conservation at museums both in Japan and the United States.

#### Brief Description of Overall Treatment

All the borders of brocades and rods were detached from the painting very carefully for later reuse. All the backing papers were removed with moisture. Old filling was removed, then a few layers of backing were applied to the painting and brocades. Losses were filled and inpainting was done. Rejoining or reassembling the painting and the brocade borders was done. Sides or edges of the scroll were folded and rods at the top and bottom were attached.

#### Technique for Reinforcement Strips

This procedure is done after the first backing is applied and dried overnight.

1. Fold a sheet of Japanese paper, normally usumino (kozo fibers). Figure 4.
2. Cut to make about 3mm strips. The thickness and width of the strips will vary depending on the primary support.



Fig. 4. Fold a sheet of Japanese paper



Fig. 5. Cut to make about 2-3mm wide strips



Fig. 6. Wet a wooden board with water

When the strips are unfolded, they are held together at both ends. Figure 5.

3. Wet a wooden board with water. Figure 6.
4. Unfold and lay down a set of strips. Figure 7.
5. Do not allow wrinkles. Figure 8.
6. Apply the thinnest starch paste that will adhere. Figure 9.
7. Remove the ends holding the strips together with a bamboo spatula. Figure 10.
8. Roll each strip adhesive side out. Figure 11.
9. Apply precisely over creases and tears, then rub the strip with the back of a fingernail for strong bonding. Figure 12.

This procedure is done using transmitted light to find the tears and raking light to find the creases.

#### Some Considerations

Rolling the strip around the bamboo spatula is one of the fastest ways to reinforce the creases and tears on a surface as large as this painting. It can take weeks if you do it slowly. Speed is not important for careful work, but the dry air in a museum environment encourages us to finish before the paste gets too dry. Some people might ask, "Is it necessary to put strips onto every one of the creases?" The answer is "yes": the ones we miss always show up even after years have passed since completion. The creases come back if you do not take care.



Fig. 7. Unfold and lay down a set of strips



Fig. 8. Stretch taut to avoid wrinkles



Fig. 9. Apply the minimum thickness of starch paste

When the fibers of the strips run perpendicular to the crease, there is less chance the crease will occur again, but the disadvantage of this is that when applied to a painting that is dry, a strip with perpendicular fibers will shrink more than one with parallel fibers. In other words, the area is pulled by the strip as it dries. This can be solved if the painting is also wet, so that the painting and the strips will shrink at the same rate. Most of the time, however, it is not desirable to keep the painting wet for a long time. Another disadvantage to using perpendicular fibers is that the strips break easily during application, as they are more difficult to handle. Usually, therefore, we do the work using parallel fibers.

This procedure is very essential for hanging scrolls and hand scrolls. Chinese scrolls also have strip reinforcements, but with different paper, and the width of the paper strips seems to be wider.

When scrolls have creases but can not be taken apart for complete remounting, double layers of usumino, or a combination of usumino and uda for Japanese hanging scrolls and a combination of usumino and Chinese paper for Chinese scrolls are often applied from the reverse of the scroll. The scrolls usually have three or four layers of paper already, therefore the strips must be thicker and wider. Feathering the strips is not necessary, but the inside layer which is usumino must be narrower than the outer layer to make bevelled edges.

In order to prevent further creases, a futomaki is suggested. This is a wooden support that covers the roller or rods at the bot-





Fig. 10. Remove the ends holding the strips

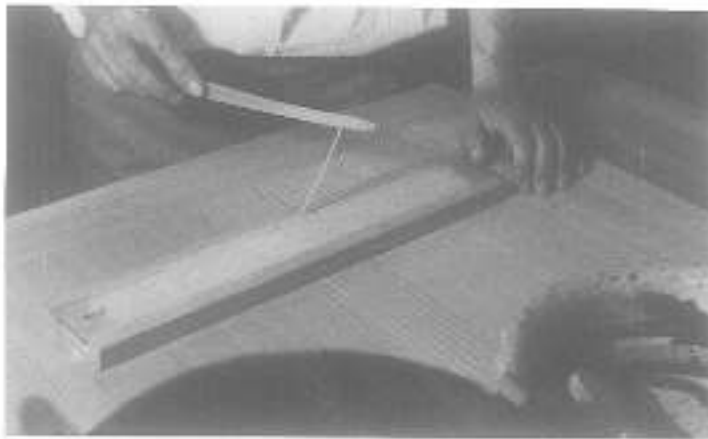


Fig. 11. Roll off a strip, adhesive side out



Fig. 12. Apply over creases and tears

tom of the scroll to give it a larger diameter for rolling. Using this creates less creases in the future after the scroll is rolled. A futomaki is usually made with paulownia wood and clamps the roller at the bottom of the scroll. To be efficient, it should be about double the size of the diameter of the roller.

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