The Painting's Life, Silk or Paper: Materials and Methods for Lining a 15th-Century Chinese Handscroll at the Cleveland Museum of Art

INTRODUCTION

Asian scroll paintings are often executed on delicate and fragile silk. Many aging paintings on silk show different degrees of deterioration, including extensive loss to the silk support. For treating these scrolls, removing and replacing the first lining is a crucial step to stabilizing the damage by compensating/filling the losses.

For silk paintings, the conservation technique of overall lining with a sheet of silk had been widely used throughout generations in China, Japan, and Korea. The method involves applying a laminate of silk and paper with paste overall to the back of the painting. This technique is still used when a silk painting is lacking in strength or suffering from a number of losses, or when a Buddhist painting has a generous commission for using more expensive materials for mounting and restoration.

However, lining a scroll painting with an overall sheet of silk is not used as commonly as in the past because of its limitations. This paper will discuss the techniques for filling silk painting losses and discuss the advantages and disadvantages of lining with silk and paper. The methods and materials for filling and lining a 15th-century handscroll at the Cleveland Museum of Art are also introduced.

CONSTRUCTION OF CHINESE HANDSCROLLS ON SILK

Traditional Chinese mounting includes handscrolls, hanging scrolls, albums, and panel formats. The earliest format is handscroll. This format is the most difficult to make because it consists of many components (fig. 1). The handscroll is designed for viewing from right to left. The components and structure of a traditional handscroll can be described as follows: on the surface, starting from the right, there is a head section followed by a separating silk; a frontispiece followed

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by another separating silk; the painting followed by a final separating silk; and the end section, sometimes with or without an inscription. On the back of the handscroll, there are primary linings for each component.

The first lining on the back of the painting is called *ming zhi*. *Ming* means life and *zhi* means paper, indicating this lining is crucial to the life of a painting. The term *zhi* explains that paper is most commonly used as a first lining. After all components are joined, the scroll becomes a long horizontal piece. Finally, two sheets of *xuan* paper are laminated and applied as the final lining on the back of this long horizontal piece.

TECHNIQUES FOR FILLING SILK PAINTING LOSSES

Many aged scroll paintings on silk exhibit deterioration due to mounting format, frequent handling, and materials used. Compared to paper as a substrate, delicate and fragile silk tends to deteriorate more readily, which may result in loss. There are three commonly used techniques of filling losses in silk paintings.

INLAY FILLING

The first technique is inlay filling, which is to fill the losses with silk fills the exact shape of the loss, followed by lining the painting with a sheet of paper (fig. 2). The shape of the loss is carefully traced onto a fill silk using transmitted light, which is then precisely trimmed and then inlaid to fill the loss (fig. 3). Aged silk is used for this filling technique.

OVERLAP FILLING

The second technique is overlap filling, which is to fill the loss from the back with square and rectangular silk shapes slightly bigger than the loss, followed by lining the painting with a sheet of paper (fig. 4). This technique might affect the appearance of the silk painting if the silk has an open weave. Typically, the overlapping edges appear as a dark outline from

Structure of a handscroll

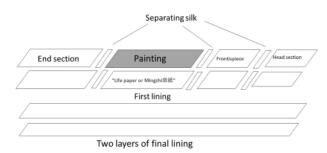


Fig. 1. Structure of a Chinese handscroll.

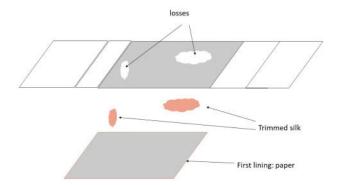


Fig. 2. Inlay filling and lining with paper.



Fig. 3. Inlay filling an open weave silk.

the front of an open weave silk painting (fig. 5). However, this technique does not affect the appearance on a closed weave silk. Some Chinese painting conservators prefer to fill the losses with square and rectangular silk shapes and pare down the edges of the overlapping fill silk afterwards. Li Shang, conservator of Chinese painting at the Palace Museum in Beijing, is very careful to hold the knife tight and balanced to

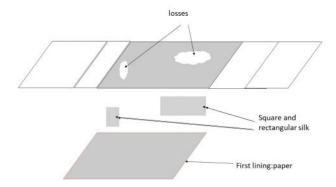


Fig. 4. Overlap filling and lining with paper.



Fig. 5. Overlap filling a loss in an open weave silk painting resulting in a dark outline visible from the front.

pare down the edges of the overlapping fill silk (fig. 6). The overlapping edges of her fills are not visible from the front because the painting is on a closed weave silk (fig. 7).

OVERALL LINING

The third technique is overall lining with silk, which is to line the painting with a sheet of silk to compensate for loss without any additional filling (figs. 8 and 9). Lining a silk



Fig. 6. Overlap filling losses on a closed weave silk painting.



Fig. 7. After overlap filling and lining with a sheet of paper.

painting with another whole sheet of silk requires thick and strong paste to adequately bind the two layers, resulting in stiffness. Chinese scrolls are intended to be soft, flat, thin, and smooth—not rigid. The resulting inflexibility from overall lining with silk can cause harsh creases when rolled and unrolled over time. This causes delamination of the painting silk from the lining silk and causes the silk to fracture, leading

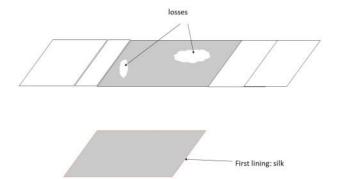


Fig. 8. Overall lining with silk.



Fig. 9. Overall lining with silk.

to loss. In contrast, when lined with paper, a silk painting is less prone to delamination because silk adheres better to paper and thinner, more dilute paste is used. Additionally, lining overall is considered a "lazy" way to disguise losses as opposed to the method of filling the losses individually with silk trimmed to the same shapes as the losses.

However, this third technique might be preferred in terms of the scroll's condition or historical context. Lining with an overall sheet of silk might be used to fully support a very worn and damaged silk painting with extensive losses. Some Chinese painting conservators prefer using a very thin silk to line an extremely damaged silk painting. This kind of thin silk is called *wang wang jua*, meaning thin and open weave silk. The losses can be fully supported if the painting is very worn and weak with a number of tiny losses. A silk painting lined to a very thin silk has a stronger bond than if lined to regular painting silk. Therefore, the condition of the painting may determine whether to use a sheet of silk or paper for the first lining.

If a silk painting with extensive loss can be mounted in a flat panel format, lining with an overall sheet of silk is applicable as it will not be rolled and unrolled.

Furthermore, some silk paintings are strongly associated with lay Buddhist practitioners. The purpose of making paintings was to gain merit through commissioning paintings. Therefore, there might be some Buddhist silk paintings lined with a sheet of silk simply because silk is expensive and considered more luxurious and the best material to show proper reverence to the painting.

COMPARISON OF INLAY AND OVERLAP FILLING

Inlay filling is time-consuming, while overlap filling is time-saving. When inlay filling, tiny fills might "fly away" and the filling silk might shrink or expand differently from the painting silk during the subsequent lining process, resulting in gaps. Overlap filling is more secure, but overlapping edges need to be pared down, otherwise the overlapping may create hard and thicker edges, which can damage the original when rolling and unrolling the painting. Inlay filling can be applied either from the front or back depending on different tones of fills, while overlap filling has to be applied from the back.

Inlay filling could be applied on both open and closed weave silk, while overlap filling can only be applied on a closed weave silk because the overlapping filling would show on an open weave silk.

CASE STUDY

A 15th-century Chinese handscroll in the collection of the Cleveland Museum of Art, *Waiting for the Moon in the Mid Autumn Festival* by Shi Rui (fig. 10) needed to be remounted due to severe damages. It had been lined with an overall sheet of silk to compensate for extensive losses. The painting was delaminating between the primary support and lining silks due to rolling and unrolling over time, and this delamination had caused sharp creases, resulting in some fracturing and loss of the original silk (fig. 11).







Fig. 10. Detail of (a) front section, (b) middle section, and (c) end section of Shi Rui, *Waiting for the Moon in the Mid Autumn Festival*, 15th century Chinese handscroll painting on silk, Cleveland Museum of Art, 1973.72.



Fig. 11. Detail, recto: weblike creases and splitting with the overall silk lining.

DECISION-MAKING AND TREATMENT PROPOSAL

Here lies the crux of this discussion: If the painting with losses was lined to compensate the losses using an overall silk lining, it might cause the same problem of delamination over time. If the back of the painting was lined with a sheet of paper, the losses then had to be filled with trimmed silk. With extensive losses (fig. 12), this would be extremely time-consuming. Most of the losses are the size of pencil dots. Therefore, filling with the same size of trimmed silk would be impractical because there was not enough surface area for paste application and the fills could easily be lost due to poor adhesion during subsequent mounting processes. Furthermore, the silk painting might shrink or expand differently than the fills while drying, resulting in gaps or overlapping around losses. As the painting has a closed weave silk, it was decided to replace the silk lining using the second technique: overlap filling.

TREATMENT STEPS

Major treatment steps included paint consolidation, facing, lining removal (including the overall sheet of lining silk), filling losses, lining with a sheet of xuan paper, reinforcing creases, inpainting, and mounting.

When the overall lining paper was removed, extensive tiny losses and splits were visible (fig. 13). After the surface of the painting was faced, the lining silk and paper were removed. Many creases marked with pencil on the lining paper were revealed (fig. 14). After lining removal, the filling silk was trimmed slightly larger than losses and applied to the back of the painting (fig. 15). Smaller losses were filled with square and rectangular pieces of silk. Tiny splits were reinforced with narrow strips of silk to prevent future expanding and shrinkage. The overlapping portions were then pared down with a



Fig. 12. Damage map; the red marks indicate losses.



Fig. 13. Detail, verso: tiny losses visible after removing the overall lining silk.



Fig. 14. Detail, verso: creases marked with pencil on the lining.



Fig. 15. Detail, verso: overlap filling by Li-Ling Ho.





Fig. 16. Detail, verso: (a) before filling losses and (b) after filling losses.



Fig. 17. Lining the painting with a sheet of toned *xuan* paper by Li Shang and the author.

knife (fig. 16). After filling, the painting was lined with a sheet of toned *xuan* paper (fig. 17). The facing paper was removed after lining (fig. 18). Creases were reinforced with paper strips applied to the back of the lining paper (fig. 19). Finally, fills were inpainted to compensate their tone (figs. 20 and 21).



Fig. 18. Removing the facing paper after lining.



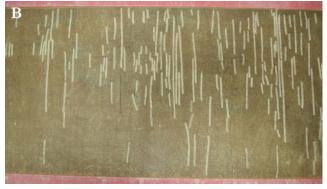


Fig. 19. Detail, verso: (a) creases were reinforced with paper strips by Li Shang; (b) after lining and reinforcing creases.





Fig. 20. Detail, recto: (a) before inpainting and (b) after inpainting.





Fig. 21. Overall, recto: (a) before inpainting and (b) after inpainting.

CONCLUSION

In summary, inlay filling losses with exact shapes of silk is a good application if the painting is on an open weave silk. Overlap filling losses with a square or rectangular silk that is slightly bigger than the losses is a good technique if the painting is on a closed weave silk. Lining with paper makes the scroll flexible, while lining with an overall sheet of silk is acceptable if the painting is going to be a panel or if the scroll has numerous losses and significant loss of structural integrity.

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