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Article: Sustainability of Intangible Culture: How the Increasing Scarcity of Craftspeople Impacts the Traditional Remounting of a 14th-Century Japanese Buddhist Painting on Silk at the Cleveland Museum of Art

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# Sustainability of Intangible Culture: How the Increasing Scarcity of Craftspeople Impacts the Traditional Remounting of a 14th-Century Japanese Buddhist Painting on Silk at the Cleveland Museum of Art

## INTRODUCTION

The Cleveland Museum of Art (CMA) has one of the most admired collections of Asian art in the West. This is with thanks largely in part to the work of Sherman Lee, who was chief curator of Oriental art from 1952 and then director of the museum from 1958 to 1983. With his experience as a Monuments Man in Japan after the Second World War, and his specialty in Asian art, he was focused and positioned to strengthen the Asian art collection at the CMA. The museum now holds nearly 1000 paintings in both the Chinese and Japanese collections, plus a small but growing collection of Korean paintings. Recognizing the importance of this collection and the need for specialized care, the museum hired its first conservator of Asian paintings in 2004. It was not until November of 2011, when the author joined the museum, that a conservator of Asian paintings worked on-site in the Conservation Laboratory that had been built specifically for this specialty.

Japanese paintings' conservation techniques are based on traditional craft developed over thousands of years. The paintings are mounted into three basic formats: scroll, screen, and album. Each format has several different styles and substyles, such as hanging scrolls that can be mounted in *shin*, *gyou*, or *sou* styles (fig. 1). This can create a wide variety of choices when considering a remounting. Although the conservator will often choose to reuse the old mounting components, sometimes, if the paintings have been remounted in an inappropriate format or with inappropriate materials in the past, it becomes necessary to provide the paintings with a new mounting.

Traditional remounting of Japanese paintings is reliant on specialized materials, such as paper for linings and woven silk for borders, and traditional tools made by craftspeople

who are often themselves recognized as living treasures. In the past, there was much demand for these materials, but that demand has reduced as the interest in traditional mounted artwork has waned. This article discusses the changing status of traditional art and how this has affected Japanese paintings, mounters, and traditional craftspeople. Finally, this work will present a case study of the remounting of a 14th-century Japanese Buddhist painting carried out at the CMA between 2017 and 2019 to demonstrate how the changing state of traditional craftspeople has affected the acquisition of materials.

## CHANGING STATUS OF TRADITIONAL ART AND THE CORRESPONDING DECLINE IN DEMAND FOR SPECIALIZED MATERIALS

Traditionally, homes in Japan had a special space specifically for displaying art called the *tokonoma* (fig. 2). Families would collect a selection of hanging scrolls that would be hung depending on the season or occasion. In addition to the artwork displayed in the *tokonoma*, folding screens were used to divide rooms into more personal spaces, whereas decorative sliding doors divided rooms. However, this traditional architecture is disappearing as modern Japanese homes draw inspiration from Western architecture, eliminating tatami mats, raising furniture, and calling for large open spaces. Without the *tokonoma* to fill, fewer people are collecting traditional art formats for their homes. This decline in demand in turn leads to reduced work opportunities for mounters who would mount paintings by artists into scroll, screen, and album formats. To find employment, these mounters have turned to interior design, like applying wallpaper, which is work that requires similar skills and is more in demand. In 2001, the Mounting and Interior Design Association (全国表具経師内装組合連合会) had 4458 members,

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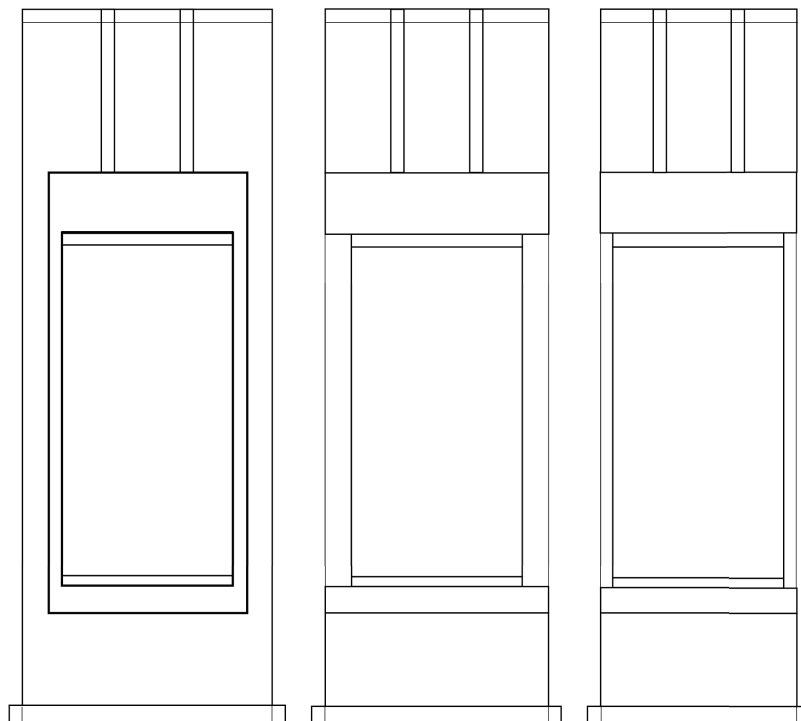


Fig. 1. Traditional hanging scroll formats, from left to right: shin style used for paintings and calligraphy related to Buddhism, gyō style used for Japanese-style paintings and calligraphy, and sō style used for tea ceremony paintings and calligraphy.



Fig. 2. Traditional Japanese tokonoma. Courtesy of Keisuke Sugiyama.

but by 2019, the membership had been reduced to 1421 members, and of those, fewer than 10%, or around 140 members, are mounters (Sugiyama 2019). In addition to the Mounting and Interior Design Association, there is a government-sponsored association of conservators that works on artwork belonging to national museums. The Association for Conservation of National Treasures (国宝修理装演師連盟) comprises 12 studios and about 130 employees. As some of these employees may also be members of the Mounting and Interior Design Association, this means that the number of independent mounters may be even fewer than 140 people.

With the reduction in numbers of mounters, driven by the reduced importance of traditional art in the Japanese home, there is a decreasing demand for traditional materials. For example, modern materials are also replacing *washi* (Japanese handmade paper) in areas of Japanese life where it was traditionally used.<sup>1</sup> Thus, papermakers are now dependent upon conservators as their main client. In addition, the *washi* industry has been hit with the announced retirement of 80% of the farmers who grow *tororo aoi*, the root used to make *neri* which helps in the paper formation process. As the farming of *tororo aoi* is both backbreaking work and unprofitable, the farmers cannot ask their children to take on the business, and as they are all older than 60 they can no longer continue on their own (Shigemasa 2019). This is a similar situation through all crafts, with craftspeople passing without apprentices or children who can afford to continue the craft.

As there are fewer craftspeople and the prices of materials go up, in addition to people being less willing to invest in traditional arts for their homes, the mounters have turned to time- and cost-reducing methods to make a living. This includes using machine-made paper made with caustic soda and wood pulp, synthetic textiles for the borders instead of silks, synthetic adhesives, and dry mounting methods using heat presses. All of these changes lead to questions of longevity and aging characteristics, making them an impractical choice for those doing conservation work for museums. Instead, conservators must find ways of acquiring traditional, high-quality materials from an ever-smaller number of craftspeople while attempting to support those remaining as best as possible.

This challenging environment spans all traditional crafts and affects the wide variety of materials used for mountings. For example, hanging scroll mountings alone include cedar dowels and staves; papers and silks for filling losses; papers for linings; silks for borders; knobs made of wood, lacquer, and metal; braided silk cords; metal fittings; and paulownia wood boxes and *futomaki*. As there are many materials that can be used to demonstrate this dire situation, this article will focus on three kinds of materials: papers for linings, painting silk for filling losses, and mounting silks.

## TRADITIONAL HANGING SCROLL MOUNTING MATERIALS

### *Papers for Linings*

The paper used for first linings on paintings and border silks is *mino*. *Minogami* is composed of only the white inner bark of the mulberry tree, called *kozo* in Japanese, and can be made with wood ash, soda ash, or caustic soda depending on the intended quality of the paper. It can be dried in the sun on boards or heat dried on a metal cylinder—methods that also affect the price and the quality of the paper. The second linings are a paper called *misu*, which is composed of *kozo* and calcium carbonate. The final lining is *uda* paper, which is composed of *kozo* and kaolin or clay. Different levels of quality are also available for these papers, much like *mino*. *Minogami* is made in the Gifu region of Japan in the town of Mino by a small group of papermakers, whereas both *misu* and *uda* paper are made in the Nara region. These papers are in limited supply, with much of the paper they can make being bought up by large mounting studios in Japan that are supported by the government, making it more difficult for the smaller studios to acquire the papers they need. The remaining papermakers are also increasing the price of their paper, understandably due to the increased costs of production, the backbreaking work, and the need to make their business sustainable for their successors. Additionally, paper suppliers are running out of stock as the papermakers have focused their business by selling directly to the studios, making paper to order.

### *Painting Silk*

Painting silk is processed differently than silk for mountings and is created by specific weavers. When filling losses in paintings on silk, the patches need to match the original painting silk with regard to the number of threads, thread thickness, and thread count. This sometimes means sending the specifications to a weaver in Japan and having the silk reproduced. Most often, conservators in the United States would work with Hironobu Textiles Corporation in Kyoto. The president of the company, Hirose-san, would ask for a microscope image of the silk with a ruler for scale from which he would be able to reproduce the silk. The reproduced silk is then aged to match the degraded state of the original painting substrate. In the past, this would be done by irradiating the silk in Japan. This is quite costly, and therefore the CMA has been experimenting with methods of aging the silk in the laboratory using combinations of UV, temperature, and humidity.

### *Mounting Silks*

Japanese mounting silks come in a variety of different weaves, colors, and patterns. Older studios have large collections that have been added to over time, such as Usami Shokakudo Company Limited in Kyoto, where the author trained that is





Fig. 3. *Shakyamuni Triad with the Sixteen Benevolent Deities* (CMA 1941.279) mid- to late 1300s. Before treatment. Courtesy of Joan Neubecker.

now in its ninth generation. As the studio at the CMA is new, the collection has to be built up slowly as the budget allows or bought based on projects. As it is, textile suppliers in Japan are carrying more fake gold brocade and synthetic or blended textiles. They have a smaller supply of silks on hand to choose from when looking for something to suit a specific painting.

Instead, the silk has to be ordered ahead of time to be woven and dyed, hopefully to the right color for the project. As it is impossible to take the painting to Japan, and having silks redyed after they have been produced is difficult if not impossible, this makes finding the right silk for a specific project quite difficult.

#### CASE STUDY

The aforementioned examples of the increasing scarcity of specialized mounting materials is demonstrated through a case study examining the remounting of a 14th-century Japanese Buddhist painting at the CMA between 2017 and 2019. The painting came into the CMA's collection in 1941 in a panel format and appears to not have been exhibited since. It had been titled as an *Amida Triad*, but the curator of Japanese Art, Sinéad Vilbar, realized that the iconography was actually *Shakyamuni with the Sixteen Benevolent Deities* (fig. 3). The painting was lined overall with silk, which led to delamination of the silk substrate. It also had some unfortunate inpainting to compensate for the loss of the Shakyamuni's robe (fig. 4). Where the silk was delaminating, there were areas where the original silk had clearly been lost since the last remounting. It was decided to remount the painting and in the process return it to its original hanging scroll format using the shin style of mounting (fig. 5).

##### *Preparing the Painting Silk*

The first step when treating a painting on silk is to order and prepare the painting silk to be used for filling losses. For this treatment, a custom weaver located in Kyoto, Hirose-san, was contacted by the author and sent a magnified image of the silk weave (fig. 6). When he did not respond to the initial contact, the author asked a colleague in Japan (Keisuke Sugiyama, who would be helping for short periods during this treatment) to facilitate contact with the weaver. Keisuke learned that Hirose-san was quite ill, and sadly a few months later, he passed away. As it was Hirose-san who alone wove the silk to order, and there was no one with his level of skill to step in and take his place, the Hironobu Textiles Corporation provided a list of standard weaves they could produce. From this list, the closest match to the original silk weave was chosen. After receipt of the standard weave silk, it was then necessary to age the silk. The Asian Paintings Laboratory at the CMA has started aging silks using UV light in an enclosed cabinet with slightly raised temperature, but this is a prolonged process of at least six months. Due to the delay in purchasing the silk and the timeline on the project, it was necessary to use a faster method. The silks were therefore placed in an aging chamber with a temperature of 125°C for four days (fig. 7). Once aged, the silk was lightly dyed



Fig. 4. Detail of *Shakyamuni with the Sixteen Benevolent Deities*. Before treatment. Courtesy of Joan Neubecker.

using *yasha*, a dye made from the cones of an alder tree. Sometimes acid dyes are used if a darker color is needed. The silk was then temporarily lined with mino paper using a thin wheat starch paste and dried on the drying board.

#### Treating the Painting

Once the painting silk had been prepared, the treatment began (fig. 8). The silk borders were first separated from the painting (fig. 9). Once removed, the pigment was

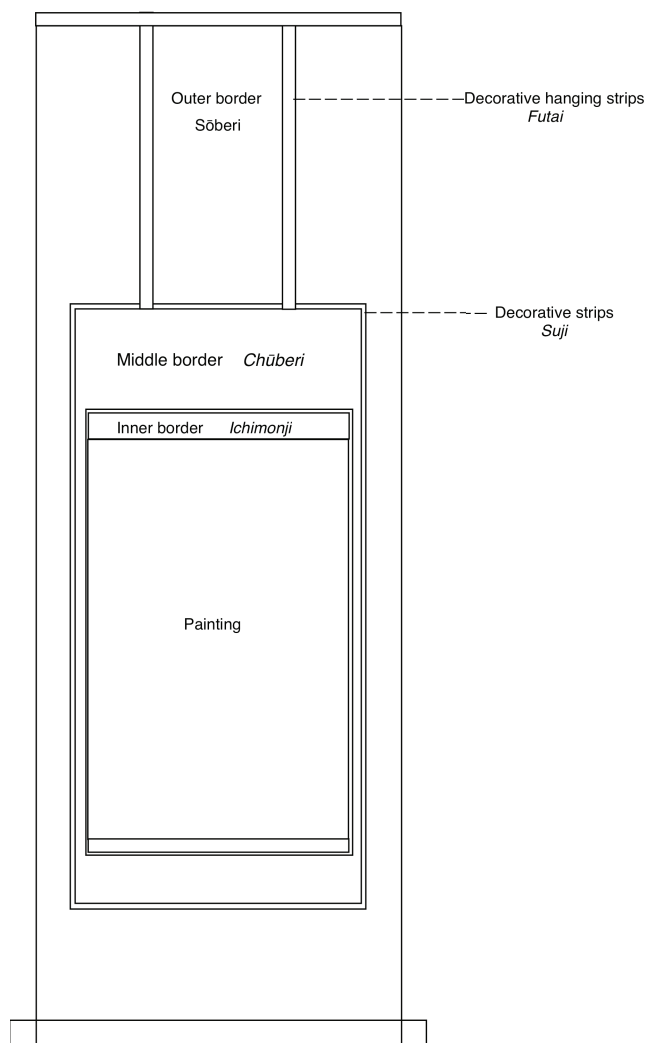


Fig. 5. Shin style of hanging scroll mounting terminology.

consolidated with gelatin solutions chosen depending on whether the pigment is flaking or powdering. The surface of the painting was cleaned to remove dust and grime before wet-cleaning. The Japanese use a form of capillary washing where water is lightly sprayed over the surface and discoloration is absorbed into the blotting papers underneath (fig. 10). The blotting papers are changed two or three times depending on the amount of staining. The painting is then allowed to air-dry or is dried between felts. Once the painting is dry, the facing can be applied. However, in the case of this painting, there were areas where the original silk had been lost but there were remnants of *urazaishiki*, painting on the verso of the silk, remaining on the lining. Thus, prior to applying the facing, it was decided to fill these areas from the recto to save the *urazaishiki* (fig. 11). The paste used to adhere the silk fill was stronger than the old



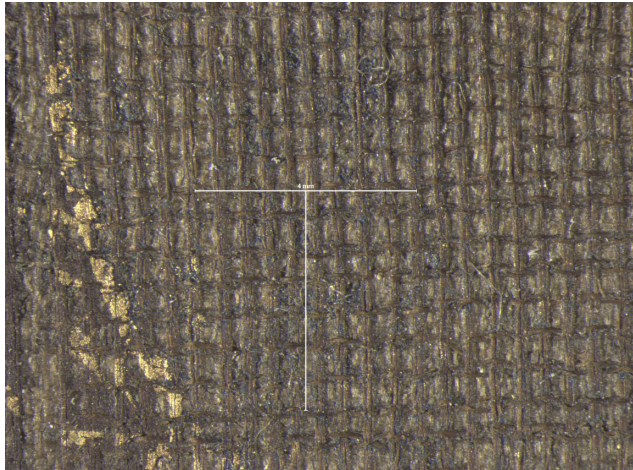


Fig. 6. Silk substrate under magnification with a 4-mm scale bar.

lining paste to ensure that the pigment would stay on the fill when the lining was removed. The painting was then faced with several layers of rayon paper and thin cotton blotting paper using *funori*, an adhesive solution made from seaweed (fig. 12). The painting was dried face-in on the drying board before being transferred to a sheet of acrylic. The linings were then removed carefully using minimal moisture. Due to the first lining being silk, and it being impossible to thin the silk like a paper lining, it was necessary to work very slowly in small sections to not disturb the *urazaishiki* (fig. 13). Once the lining had been removed, the losses were infilled from the verso using the prepared painting silk. Working with transmitted light, the losses were traced onto the painting silk, the fill was cut out, the silk was pasted into place using *funori*, and finally the temporary lining paper was peeled away (figs. 14, 15). This was done for both large fills and very small fills.

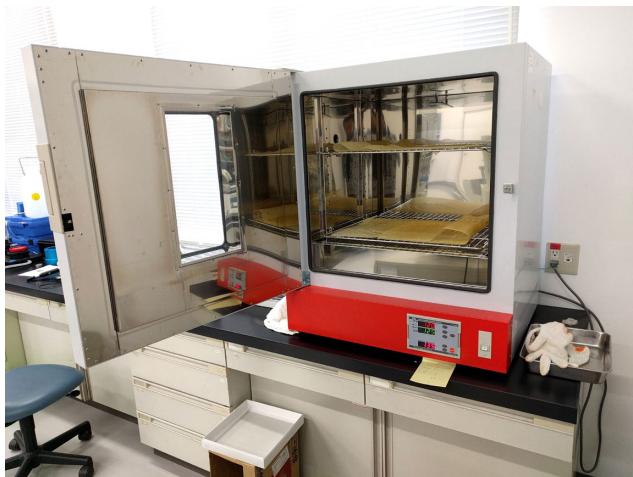


Fig. 7. Aging chamber used to deteriorate the new painting silk for fills. Courtesy of Keisuke Sugiyama.



Fig. 8. Mechanically removing the painting and border silks from the paper covered lattice core. Courtesy of Keisuke Sugiyama.

### *Lining the Painting*

With the losses patched, it was time to line the painting. In Japan, *minogami* made by Hasegawa would typically be used by the author for the first lining. However, when the CMA began ordering paper back in 2012, it was difficult to acquire, initially because studios making larger orders were given priority. This paper has become even more difficult to obtain because Hasegawa-san closed his studio in Mino and moved north to another prefecture and has been making less paper. Therefore, finding a replacement has been a necessary, albeit difficult, task. Although all of the papermakers in Mino make *hon-minoshi*, they have varying characteristics. After seeing samples from each papermaker, *Takegami* mino paper made by Suzuki-san was chosen as the closest match to the Hasegawa paper. The second lining is of *misu*, which is now only made by one papermaker in Japan. This paper is called *sekaichi* and is made by Uekubo-san. As the paper



Fig. 9. Cutting the painting out of the border silks. Courtesy of Keisuke Sugiyama.





Fig. 10. Capillary washing the painting using a dahlia spray and several layers of thin blotting paper. Courtesy of Keisuke Sugiyama.

supplier from which the CMA typically ordered misu did not have any in stock, it was necessary to source and order directly from the papermaker. In Japan, the craftspeople work on trust, and one often needs to be introduced to them via someone that they have worked with before. In this case, Keisuke Sugiyama once again helped with making the initial connection. Once the order could be placed directly with the papermaker, it was discovered that the price had more than doubled since the author's previous order from the paper supplier four years prior. Thus, the purchase had to be limited to the thicknesses that were most likely to be needed for the treatment.

With the papers acquired, it was possible to start the lining process. The first lining paper was toned with a combination of natural dyes and pigment. As the first lining had been slightly too pale, the second lining was dyed with ink to darken the overall tone of the lining. The painting was air-dried, then using transmitted light, the splits in the silk substrate were reinforced with thin strips of mino paper. Then with raking light, creases were reinforced (fig. 16). Finally, the painting was remoistened using a dahlia spray and attached to the drying board (fig. 17).

#### *Toning the Infills*

While on the drying board, the infills are usually toned. Toning and inpainting on silk is quite difficult, as the depth of color changes depending on the direction of viewing. Normally, the fill is toned overall, but this also has the effect of toning the lining paper through the interstices of the silk weave. This may have something to do with the variation of



Fig. 11. Detail of *Shakyamuni Triad with the Sixteen Benevolent Deities* with losses filled from the recto with the aged and prepared painting silk.



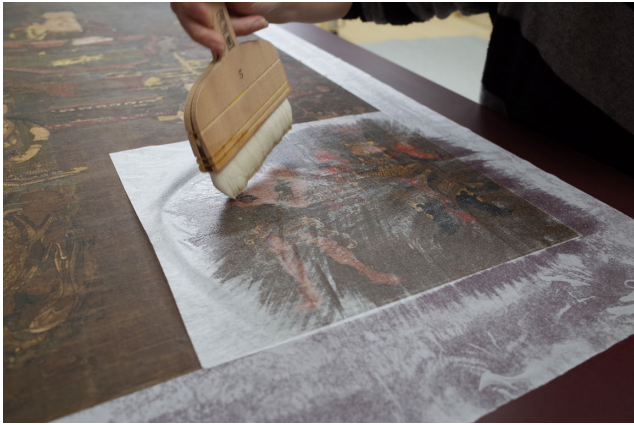


Fig. 12. Facing the painting with thin, spunbond, nonwoven rayon fabric using funori. Courtesy Keisuke of Sugiyama.

color depending on the direction of viewing. For this treatment, therefore, only the threads of the silk fill were toned, making sure that the lining paper was not touched (fig. 18). This resulted in much less variation from each angle of viewing and fills that blended with the surrounding original silk substrate. With regard to toning and inpainting, the current approach in Japan is to tone the fills to the overall color of the surrounding silk substrate without inpainting lines or color, but a great deal of the figure of Shakyamuni had been lost and the image might be hard for viewers not familiar with the iconography to read. After discussions with the curator, it was decided to slightly indicate the edges of the robe through variations in tone (fig. 19).

#### *Acquiring the Mounting Silks*

While the painting was drying, the discussion between conservator and curator began into the possible patterns and colors for the new silk borders. The old silks from the panel were much too brittle to be reused in a hanging scroll format. As the CMA's collection of silks is quite small, a replica of the newly treated painting was printed and taken to the Museum of Fine Arts (MFA), Boston, which has a collection of more than 400 different mounting silks. This enabled a decision to be made on a general color and pattern combination before traveling to Japan to acquire the silks. Once the options had been narrowed down to a choice of three colors and a few styles of pattern, the author traveled to Japan to search for similar silks. Unfortunately, none of the colors or patterns that had been discussed were available, but the silk supplier did have a loom set up with the deep blue color that was desired for the outer border silk, called the *sōberi*. They had several pattern options similar to what was deemed appropriate for the painting, so one pattern was chosen and ordered for weaving. As this was only one of three silks that were needed for the Buddhist mounting style chosen, the next



Fig. 13. Removing the silk lining.

stop was a visit to Usami Shokakudo to look through their large collection of silks. Since the author is a former student at this studio, she had the benefit of being able to purchase small amounts of silk from their collection. The perfect silk for the middle border, called the *chūberi*, was found and purchased, to be sent to the CMA by mail. This left only the inner border silk, called the *ichimonji*, to be procured. As the author could find nothing that was just right but had seen the perfect silk while looking through the MFA Boston's collection, she contacted their studio to see if it was possible to purchase the small amount needed for the *ichimonji*. Asian conservation studios in the United States have a strong collaborative relationship, combining forces to buy materials that are difficult or





Fig. 14. Tracing the loss onto the aged and lined painting silk using transmitted light.

expensive to acquire, and so they very kindly sent a small section of the red silk with cloud pattern that could not be found in Japan. This silk was actually one of the earliest silks to enter the MFA Boston's collection, possibly in the 1920s. It is a copy of a celebrated fabric known as Tomita Kinran and was woven by Tatsumura Heizo, who founded Tatsumura Art Textiles in Kyoto and was devoted to researching and replicating traditional textiles (fig. 20). Thus, the CMA is fortunate to have such a distinguished silk as part of the mounting of their painting. Once the roll of silk that had been ordered woven in Japan arrived, it was checked with the actual painting and then measured and cut to size.



Fig. 15. Traced outline of loss on lined painting silk.

#### *Mounting the Painting*

Much like the painting, the silks were first lined with the same thickness of mino paper (fig. 21). Then the thickness and strength of each section was hand tested, and a second layer of misu paper of various thicknesses was applied to balance each section (fig. 22). The silks were first air-dried and then remoistened and attached to the drying board to dry. After each section had dried on the drying board for a week, the painting was removed and trimmed square. The edges of the painting had been extended with painting silk to ensure that the original is never cut. The border silks are then removed and cut to size and the sections are joined using fresh wheat starch paste (fig. 23). The order of joining is ichimonji, inner decorative



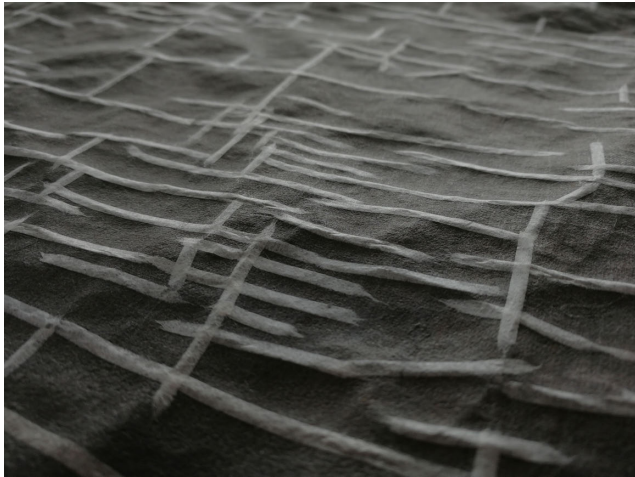


Fig. 16. Reinforcing strips on the verso of the lined painting.  
Courtesy of Keisuke Sugiyama.



Fig. 17. Painting drying on the drying board after infilling, lining, and crease reinforcing.



Fig. 18. Toning of infill silk.

strip (*suji*), *chūberi*, outer *suji*, and finally the *sōberi* (fig. 24). Because this mounting style is so detailed and difficult, it is not applied to just any painting but is reserved mostly for important Buddhist paintings. Once the sections are joined, wooden straight edges are placed to determine the final outer dimensions before folding the left and right edges over and trimming them. The placements of the pockets for the rod and stave, and that of the outer reinforcing silk for the final lining, are marked lightly with pencil on the lining papers. At this point, in many mountings, the final lining would be applied. After testing the thickness of the mount, however, it was determined that it needed to be slightly thicker. Rather than applying one thick layer, it was decided to apply a thin middle lining of *misu* paper before the final lining of *uda*. This lining is applied from





Fig. 19. Detail of Shakyamuni figure after toning of losses.

just inside the mark for the roller rod pocket to just inside the mark for the upper stave pocket, and is applied in the opposite direction from the final lining so that the final lining can be easily removed and replaced in the future without removing the middle lining in the process. The scroll is air-dried and then the final lining is applied. This is a process that involves



Fig. 20. Tomita Kinran woven by Tatsumura Heizo. Courtesy of Keisuke Sugiyama.

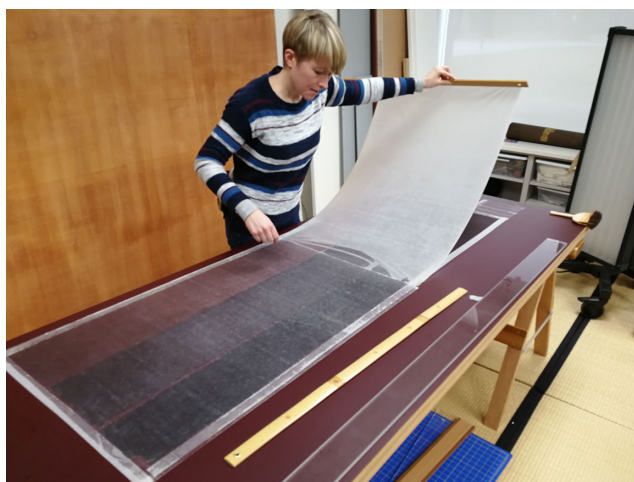


Fig. 21. Sara Ribbons applying the first lining to mounting silk. Courtesy of Keisuke Sugiyama.

attaching pockets of paper top and bottom, then a section of thin plain silk lined with mino paper for the top, followed by uda paper, and finishing with thin strips of the plain silk at the left and right edges of the bottom. The scroll is air-dried and



Fig. 22. Sara Ribbons applying the second lining to mounting silk. Courtesy of Keisuke Sugiyama.





Fig. 23. Sara Ribbans joining sections of border silk to the painting. Courtesy of Keisuke Sugiyama.

then remoistened and attached to the drying board, ensuring that the edges are straight and the width is the same at the top and bottom. It is left on the drying board for a total of six months, coming off after two months to have the back burnished before being reapplied to the drying board for the remaining four months. After the six months is complete, it is removed, the rod and stave are attached, the *futai* are sewn onto the top, hanging hardware is attached, and the cords are tied. This creates the finished product, seen in figure 25. The before and after photographs of the painting are seen in figure 26.

## CONCLUSIONS

Although there were many challenges, the painting has been stabilized and returned to a hanging scroll format. This



Fig. 24. Detail of the mounting showing order of joining starting with the painting followed by ichimonji, suji, chūberi, suji, and sōberi. Courtesy of Keisuke Sugiyama.



Fig. 25. After treatment of *Shakyamuni Triad with the Sixteen Benevolent Deities*. Courtesy of Joan Neubecker.



Fig. 26. Left: Before treatment. Right: After treatment. Courtesy of Joan Neubecker.

project involved a great deal of collaboration, generosity, and assistance from colleagues in both the United States and Japan. Unfortunately, there are no clear answers as to how to maintain a sustainable number of traditional craftspeople in Japan, as it will likely require government support to create an atmosphere that will encourage young people to pursue such careers. For now, Japanese painting conservators must buy as much materials as possible, recognizing that the increased costs are well worth it for the painstaking work and quality of materials produced, be as flexible as possible in adjusting to new sources and practices, and be as collaborative as possible with others within the field in recognition that everyone in the field is facing this challenge together.

#### ACKNOWLEDGMENTS

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#### NOTE

1. Washi was traditionally used not only for art but also for clothing, umbrellas, balloons, *shoji* (screen doors), wall construction, and more. These uses have been replaced by materials ranging from nylon to drywall.

#### REFERENCES

- Shigemasa, N. 2019. 'Washi' industry hits crossroads as key suppliers call it a day. *The Asahi Shimbun*. <http://www.asahi.com/ajw/articles/AJ201907020008.html>.
- Sugiyama, Keisuke. 2019. How to Replace the Endangered Apprenticeship? Training and Education in Japanese Conservation and Mounting. Paper presented at East Asian Paintings Conservation in the 21st Century, New York, New York.

#### FURTHER READINGS

- Institute of Paper Conservation, International Institute for Conservation of Historic and Artistic Works, and Institute of Conservation. 1985. *The Paper Conservator: Journal of the Institute of Paper Conservation* 9 (1). London: Institute of Paper Conservation.
- Institute of Paper Conservation, International Institute for Conservation of Historic and Artistic Works, and Institute of Conservation. 2010. *The Paper Conservator: Journal of the Institute of Paper Conservation* 30. London: Institute of Paper Conservation.
- Masako, K. 1979. *Japanese Scroll Paintings: A Handbook of Mounting Techniques*. Washington, DC: Foundation of the American Institute for Conservation.
- Uyeda, Tanya T. 2011. "How Far Do We Go? Compensation and Mounting Choices in the Treatment of Japanese Paintings." *Book and Paper Group Annual* 30: 101–11.

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