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Article: Can an Old-School Treatment Ever Catch up with the Change? A Hybrid Method for Treating and Remounting a Ming Dynasty Chinese Silk Scroll Collected in the National Palace Museum, Taipei

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Can an Old-School Treatment Ever Catch up with the Change? A Hybrid Method for Treating and Remounting a Ming Dynasty Chinese Silk Scroll Collected in the National Palace Museum, Taipei

INTRODUCTION

The National Palace Museum, Taipei, Taiwan (NPM) is one of the wealthiest museums holding the world’s richest Chinese collections. Figure 1 shows the number of objects in the Chinese collection at the NPM. This collection has over 6000 Chinese paintings and 4000 Chinese calligraphies. There are also other collections related to Chinese paintings, such as fan paintings (1882 works), rubbings (900 works), and album leaves, which bring the total to more than 13,000 Chinese artworks. These 13,000 Chinese paintings are taken care of by five Chinese paintings conservators and technicians at the NPM. Rotation of gallery exhibitions, occurring every three months, creates a tight schedule for the limited staff.

Therefore, minimal treatment is often practiced while still following the AIC Code of Ethics.

THE DESCRIPTION, MOUNTING FORMAT, AND CONDITION OF *THE GARDEN LIFE*

The Garden Life (園林清課圖) is a 16th-century hanging scroll by scholarly artist Qiu Ying (仇英) (1494–1552), also known as Shifu (實父), pseudonym Shizhou (十洲) (fig. 2). Qiu Ying was a famous painter based in Suzhou province, China. He is known for his green and blue landscape style, depicting architecture, gardening, landscaping, and daily scholarly life. He is regarded as one of the Four Masters of the *Wu* School, which

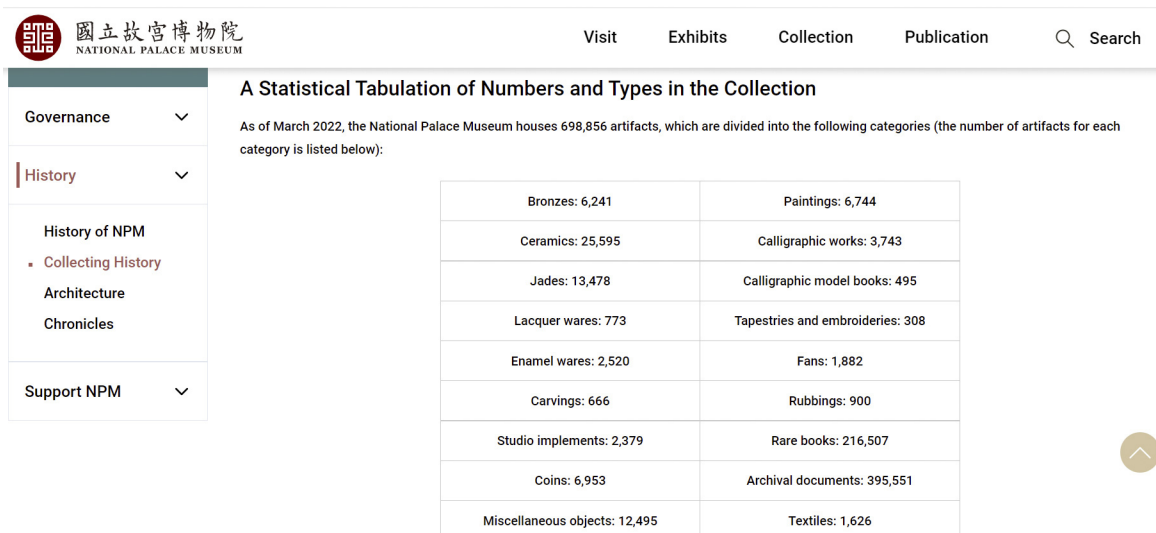


Fig. 1. Lists and number of categories in the collection at the National Palace Museum, Taiwan.

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Fig. 2. *The Garden Life*, Before treatment, overall, recto, normal light.

is generally characterized by literati-style ink washes. In this painting, Qiu depicts a colored landscape with mountains and a pavilion on a sheet of silk. In the “boundary drawing” (*jie hua*) style, the houses, walls, windows, doors, stairs, and roofs in *The Garden Life* are depicted with meticulous lines. There is a heavy paint layer with blue and green pigment on the mountains and trees.

The mounting structure of *The Garden Life* has a three-tiered hanging scroll format and can be divided into three tiers of colored silk strips, including a light blue upper and lower border, light orange upper and lower secondary border, and pale green upper and lower intermediary border (fig. 3). The overall measurement of the scroll is 118 cm × 326 cm, with the painting section measuring 82 cm × 106 cm.

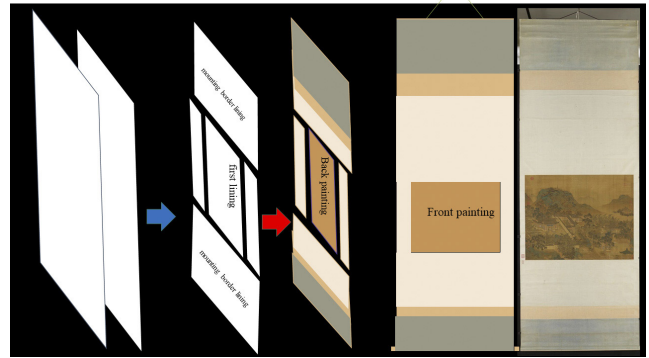


Fig. 3. Three tiers of color silk strips.

While delamination can happen in each layer, the most common delamination is usually seen in between the last two layers of the final lining as the blue arrow indicates in figure 3. Unfortunately, this mounting support was found to be delaminating in between the painting and its first lining, indicated by the red arrow in figure 3. The severe delamination between the silk painting and the first lining meant the action of rolling and unrolling the scroll would jeopardize its fragile condition.

The painting silk (the primary support) of *The Garden Life* was brittle and detached from the lining. There were many creases and splits across the center of the painting (figs. 4, 5). There were many silk losses and cracks due to the sharp creases (fig. 6). The first lining paper was too light in color, making the losses in the splits more visually pronounced (fig. 7).

The “cover silk” that protects the rolled scroll of this painting was found to be heavily damaged; however, the mounting materials appeared flat and flexible. A record of the previous remounting was not found at the NPM; however, there was a record from 2005 of an old minor remedial treatment of the silk borders. Figure 8 shows the old repairs at the upper border silk under transmitted light. Based on Sun-Hsin’s experience



Fig. 4. Creases, and splits, before treatment, detailed, recto, raking light.



Fig. 5. Creases and splits, before treatment, detailed, recto, raking light.

at NPM, these old mounting materials, including the border silk, are estimated to be from the late Ming to early Qing dynasty. Due to the poor condition of the painting, it was not recommended for display, and treatment was proposed.

CHALLENGES AND DISCUSSIONS

This project was a challenge not only because of the delicate and meticulous nature of the painting but also because the original silk borders would not be replaced but rather treated. Four major challenges were faced when completing this project.

Realigning splits

Due to the poor condition with the splitting in *The Garden Life* as stated above, it was necessary to replace the first lining paper with a stronger one. Water is usually introduced in limited amounts during lining removal to reduce the risk to water-sensitive binders and heavily painted mineral pigments,



Fig. 6. Creases and splits, before treatment, detailed, recto, raking light.



Fig. 7. Splits in the sky, before treatment, detailed, recto, raking light.

such as the green, blue, and white pigments in *The Garden Life*. However, the splits across the painting needed to be realigned. More water was required to realign and join split areas of the painting silk where the sky was depicted by using the “water-floating technique.” This needed to be done before the surface of the painting could be faced for protection in preparation for the next steps of treatment. However, the splits in the more heavily painted lower areas were not realigned to reduce the risk of distorting brushstrokes. Therefore, the painting silk in these areas was left alone as well and not realigned to avoid distorting the painting silk.

Preserving the mounting format

The mounting structure for this hanging scroll can be divided into three colored tiers of border silks. The three parts of the mounting components were individually separated and treated and then joined back together to keep as much of the original mounting format as possible.

Retaining old material

An important goal of this treatment was to retain the old materials, including the original border silks on the recto and the lining layers of *xuan* paper. Figure 9 shows the four silk borders surrounding the painting, which were separated for treatment. After disassembling the four silk borders,

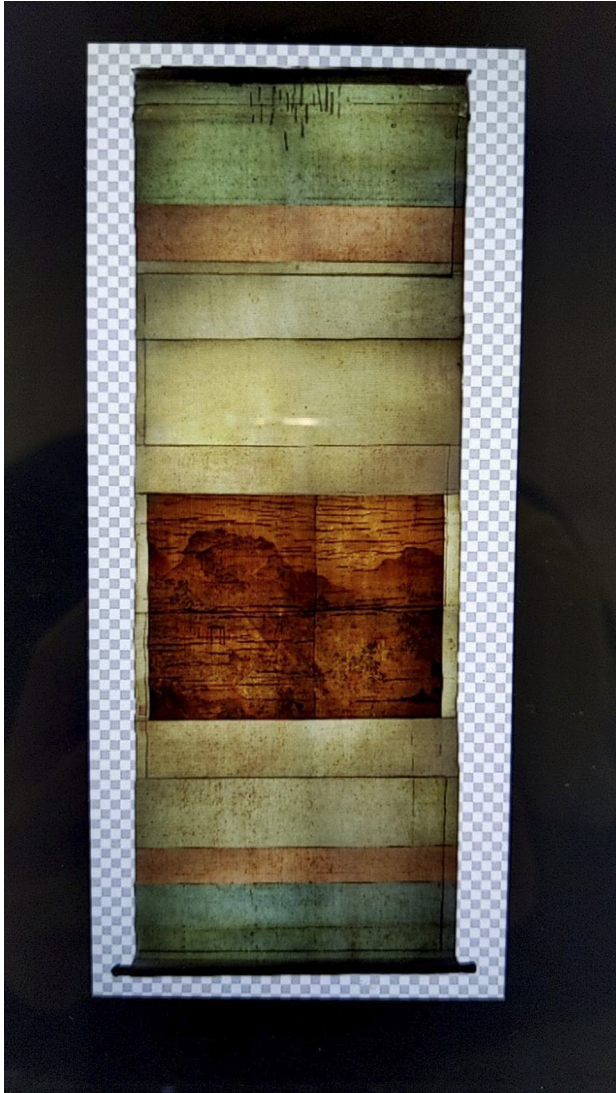


Fig. 8. Old repairs appeared under transmitted light.

there were five components: four sides of the silk border and the painting. The four silk borders, depicted in figure 9, were lined with two additional layers, depicted in white. These layers of linings were not removed from the silk borders, and only the “cover silk” depicted in yellow was replaced due to severe tears. In contrast, three layers of lining on the back of the painting, depicted in blue, were removed and retained separately. A question might be raised: why retain the old paper linings? Firstly, the first and final linings of the painting were *xuan* paper. These lining papers used for supporting the artwork had been adhered to the artwork since the last conservation/mounting campaign; in this project, the old mounting material was at least 300 years old, and therefore, it can be considered part of the artwork. Secondly, old paper-making techniques and materials are considered of better quality than modern ones due to source material limitations nowadays, according to the senior conservator of Chinese paintings in the NPM.

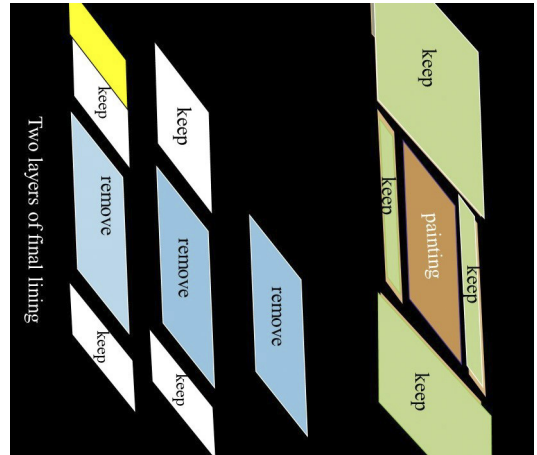


Fig. 9. Hanging scroll structure and decision to remove each mounting component.

Controlling contraction rate

When each lining layer in the Chinese scroll was separated, at least three layers of linings were seen (see fig. 3). Traditionally, each component of the scroll, the painting, and the four pieces of the silk borders are first lined individually. Each lined border is then joined to the perimeter of the lined painting, forming one large piece. Two or three layers of paper are then laminated together with paste to form the “final lining,” a sheet equivalent in size to the joined painting and silk borders. Two layers of “final lining” were used to line the joined painting and silk borders of *The Garden Life*. Each layer requires a different thickness of the paste. As Chinese scrolls have multiple components and layers, controlling the expanding and contraction rate of the lining is essential when the scroll is wet treated, paste mounted, and placed on the drying board.

TREATMENT STEPS

Pigment solubility test and consolidation

After the painting was carefully examined and documented, it was found that the red seals on the silk borders were sensitive to water (fig. 10). Fish gelatin in water (1%–2%) was applied to consolidate the seals. The rest of the paint layers were found to be mostly stable. However, the green, brown, and white areas were consolidated with 1% fish gelatin in water to further stabilize them for the next washing step. The consolidation process was repeated until the ink, paint, and seals were tested to be stable.

Disassembling the painting

The upper and lower rods of this scroll were first removed (fig. 11). The scroll was then divided into five parts: the upper, lower, and two sides of the silk borders and the painting sections. The joins between the painting and the borders have adhered with a paste, so the old material from the orders was easily peeled away from the painting by introducing a limited amount of water (figs. 12, 13).



Fig. 10. Testing the stability of the red seal at the painting and border.

Preparing new paper for the first lining

Because the old *xuan* paper used for the first lining (depicted in blue in figure 9) no longer supported the painting, new replacement paper needed to be prepared before the washing and lining removal process. Toning the lining paper to give the painting more saturation from the back is standard when lining old silk paintings. The toned lining paper applied to the painting can also reduce the light transmitted through the support, which is an open-weave silk. The



Fig. 11. Bottom roller revealing.



Fig. 12. Separating the silk borders.

toned paper is also applied to reduce the distraction of tiny splits and losses.

It is critical to tone the paper that will be used for the first lining before washing the painting and removing its old linings, as the color of the painting cannot be seen clearly when it is wet and facing down mid-treatment. However, it can also be hard to achieve the correct tone for the new lining before washing the painting, as the tone of the painting may lighten after the washing process. Besides color, the type of paper used for the first lining and its weight are also critical because it directly contacts the back of the painting. To better adhere to the painting and maintain flexibility, one must consider the type, weight, thickness, and color of the lining paper. Chinese paintings are usually lined with short-fibered *xuan* paper. However, this is not always the case with NPM collections. According to the museum's documentary records, use of long-fibered *kozo* paper for the first lining is sometimes found in NPM's Chinese collections. Long-fibered *kozo* paper, *mino* in Japanese, was selected for the lining of this painting as it is thin, strong, and light weighted, and thus better supports splits in the painting. In preparation for lining, it was toned beige using a brush (figs. 14, 15).



Fig. 13. Separating the silk borders.



Fig. 14. Coloring Japanese mino paper.

Dry and wet cleaning the painting surface

Accretion on the painting, confirmed to be dirt, was removed prior to wet cleaning. The NPM is fortunate to have an oversized, custom suction table for washing, as regular-sized suction tables are often not big enough for most Chinese paintings. Warm water was introduced to the back of the painting, and the old reinforcing strips were removed (fig. 16). The recto of the painting was covered with a Rayon sheet and sprayed with water. The washing process was repeated twice, and the collected water from the suction table turned clear by the end of the process (fig. 17). No chemical solution was used.

Individual treatment of the mounting components

The four sides of the silk border that had been detached from the painting were individually cleaned (fig. 18). A label with the title was carefully removed from the “cover silk” and replaced with the new lining. The “cover silk” on the back of the upper border was replaced with a new one. The upper and lower final lining paper was partially removed at the top and bottom. As the “pocket paper” at the top and bottom of the scroll were no longer functional, it was replaced with new paper (fig. 19). This pocket paper is used for the installation



Fig. 15. Coloring Chinese xuan paper.



Fig. 16. Washing the silk painting.

of the wood dowels. All mounting components were put on the drying wall with the verso facing the wall. Figure 20 shows the lower mounting on the left and the upper mounting in the middle, with the title label and paper records that were pasted on; the painting is shown on the right.

Facing

The facing process protects the surface of the painting during the lining removal process. Methylcellulose (MC) was used to apply the facing tissues; a thicker solution (2.5%) was prepared for facing the sky area and a thinner solution (2%) for heavily pigmented areas. The MC was applied to pre-cut pieces of acid-free, machine-made tissue; these were applied to the surface of the painting, with each sheet overlapping roughly three to five centimeters. A single facing layer was applied directly to the painting, followed by a sheet of kozo paper and a sheet of xuan paper (fig. 21).

Removal of linings

Once the faced painting dried in the air, it was slightly dampened and placed face-down. The perimeter of the faced

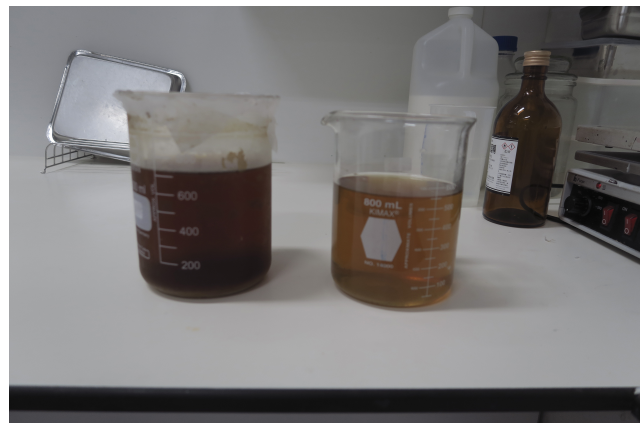


Fig. 17. Collected washed water: first wash on the left and second wash on the right.

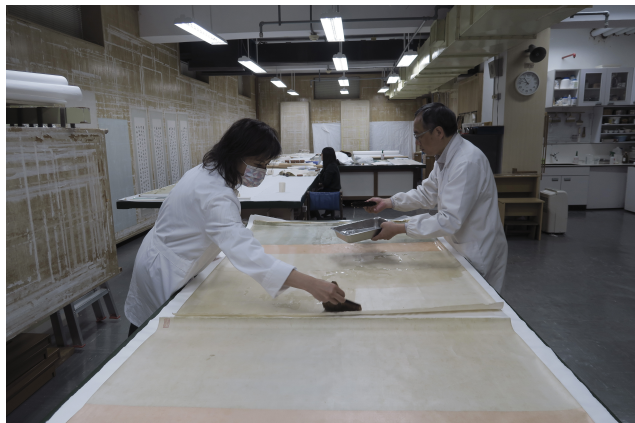


Fig. 18. Washing the silk borders.



Fig. 19. Attaching cover silk.



Fig. 20. All components on the drying wall.



Fig. 21. Pasting facing paper onto the surface of the silk painting.

painting was pasted and fixed onto the table's surface, which is equipped with transmitted light. The layers of linings were gently and carefully removed with tweezers and fingers. Minimal water was applied each time on the paper that was being removed. Raking and transmitted light were used to determine the layers while removing the linings. There are usually three layers of *xuan* paper applied on the back. Each layer was removed individually (figs. 22–25).

Infilling to losses

Silk for infilling that matches the painting is not always easy to acquire because there can be many types of silk used for Chinese paintings. The NPM has tried to acquire as many types of painting silk as possible, but none of them were a perfect match for *The Garden Life*. The most similar silk, with threads as close to the original as possible, was sent to the Institute of Nuclear Energy (INER), Taiwan, to deteriorate it artificially.¹ For infilling, the artificially-aged silk was trimmed slightly bigger than the loss, with the overlapping areas securing the losses (fig. 26).



Fig. 22. Old paper strips removal.



Fig. 23. Lining removal.



Fig. 24. First lining removal.



Fig. 25. First lining removal.

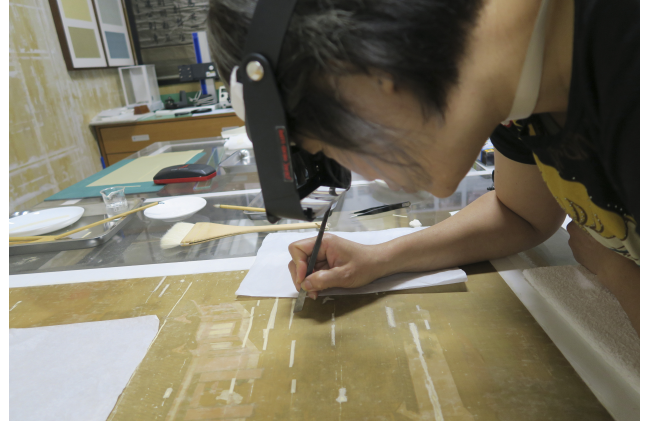


Fig. 26. Infilling the losses with the aged silk.

First and second lining

Traditional Chinese pigment was mixed with a gelatin solution to tone the *mino* (fig. 27) and *xuan* (fig. 28) papers with a brush. Fresh starch paste was applied on the *mino* paper, which was then adhered to the back of the painting. After the first lining, the facing paper was then removed (fig. 29).

Reinforcing creases

Strips of *mino* paper were pre-trimmed and pasted onto the areas showing creases and weaker areas. The areas that needed reinforcing strips were marked with a pencil. Raking and transmitted light were used during this process.

Inpainting

The goal of inpainting was only to reduce the distraction of the missing areas but not to repaint the missing images (figs. 30, 31).

Assembling

The major challenge of this treatment was that the dimensions of the painting components before and after treatment



Fig. 27. Lining with mino paper.



Fig. 28. Second lining with xuan paper.

could differ due to expansion and contraction during the washing and drying process. This concern was discussed ahead of the treatment.

The silk painting was dried on the drying board, and the dimensions were measured. The upper and lower border silks were dampened, smoothed out, and allowed to dry in the air. As the painting would shrink slightly once it dried over time, the border silks were shifted to the drying board while slightly larger than the painting; they were then allowed to keep shrinking on the drying board. The expansion rate was carefully controlled to match the dimension of each component. All dry components were adhered together with a fresh, thick paste (fig. 32).

Final lining and flattening on the drying board

Traditionally the final lining requires two layers of *xuan* paper that are pre-laminated and allowed to air dry. The paper linings of upper and lower border silk were kept; only the painting was relined with a sheet of toned *xuan* paper and Pineapple *xuan* paper² is textured, thin, and smooth as traditional *xuan* paper with strong fibers comparable to *kozo*. The original lining paper of the upper



Fig. 29. Removing the facing paper after the first lining.



Fig. 30. Before inpainting, detailed.



Fig. 31. After inpainting, detailed.

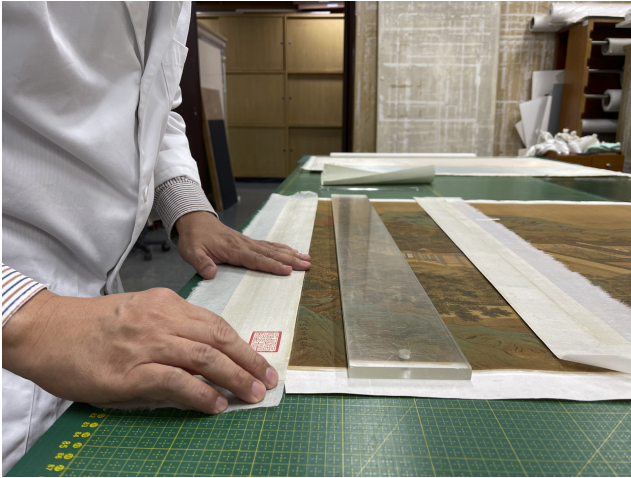


Fig. 32. Rejoined the border silk.

and lower borders, two sheets laminated, was first trimmed staggered, facing down, for the later lining paper to join. The pre-laminated sheets were applied onto the back of the painting section and smoothed to secure them (fig. 33). The whole laminated painting was air dried. The painting section was then water sprayed, fixed to the drying border, and faced up. The mounted painting was transferred to the studio's drying wall to save space. The remounted painting was burnished on the back with wax and stone after being on the wall for at least six months (fig. 34). The extended strips were trimmed off, and the upper roll, lower dowel, knobs, rings, hanging, and tying cords were installed to complete the project.

CONCLUSION

Traditionally, remounting a scroll with Chinese methods seemed to be the only path to treat a Chinese painting because a local treatment seemed unfeasible and impractical due to the numerous laminated layers and water-soluble paste on the



Fig. 33. Final lining.



Fig. 34. After final lining on the drying wall.

back of Chinese paintings. Therefore, conserving a Chinese scroll almost always meant remounting it. Older mounting elements tended to be discarded during remounting because of their role as “backstage contributors.” The lining layers were considered less important because they were not displayed but rather hidden against the wall. Moreover, the silk borders were usually replaced with new ones because they were considered secondary to the painting. In the past, the mounting styles were even changed by the tastes of the curators or collectors because these mounting materials were not considered part of the artwork. Now, rather than discarding older elements, accessories for mounting a Chinese scroll are viewed as precious as the artwork itself because they can be studied to document the historical techniques and methods of the period; therefore, new treatments attempt to save as many original mounting materials as possible. In the last decade, minor remedial treatments of Chinese scrolls in both the US and China have gained much attention and been promoted as having as good an outcome as complete remounting. When the principle of minimal intervention is applied to Asian scrolls, the old mounting elements need to be kept as much as possible.

Asian painting conservators nowadays are trying to reveal each artwork's “authentic” mounting style. Judgments on the low importance of retaining these materials and the simple fact that it is easier to replace an older mount with a newer one contributed justifications for complete remounting. In other words, it is more complicated to locally treat Chinese paintings due to the complexity of aged and fragile multilayers of mounting; it is challenging to give the treated parts of the scroll the same flexibility and thickness as the untreated parts, which is a task that requires a high level of skill. Nevertheless, a remounting process is also not without challenge, as it can be considered an aggressive approach given the amount of water introduced into the object.



Fig. 35. After treatment, overall, recto, raking light.

The more minimally interventive treatment approach for *The Garden Life* did not reduce treatment time in comparison to traditional remounting despite the combination of the conservators' proficient mounting skills and innovative methods. However, this approach reduced the potential risk of harming the artwork and allowed much of the old silk borders to be saved, reused, and safely put back on the scroll to maintain its authenticity (fig. 35).

This project was made possible through the cooperation of conservators from the National Palace Museum in Taipei and the Cleveland Museum of Art. This paper demonstrates the innovative techniques and thought process behind this treatment that resulted in the older elements being saved and

safely reused. Keeping these mounting materials facilitates the study of the mounting materials, including their manufacturing and the period's aesthetics.

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NOTES

1. Located in Longtan District, Taoyuan City. The gamma ray was used with 70 K Gray for about 335 hours to deteriorate the silk fill. The absorbed dose is the amount of energy deposited per unit of mass. Most often this is measured in grays (Gy).

2. Pineapple fiber mixed with bamboo fiber; handmade in FENKO company, Taiwan.

REFERENCE

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