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# An overview of overlapping interests in East Asian and Western conservation

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## Introduction

Many Western paper conservators were introduced to the conservation of East Asian works on paper and silk through the film made in 1971, *The Art of the Hyōgushi*, in which Takashi Sugiura of the Freer Gallery treats several scrolls and folding screens in the course of an hour.[1] At the time of its making there were fewer resources focusing on the subject, but there were Japanese and Chinese conservators working in the West, as well as a small group of Western conservators who had trained in Chinese and Japanese studios. They served as guides to the subject and intermediaries between colleagues in those countries.[2] Information began to be circulated about the materials, tools, procedures and sensibilities, and how they could be relevant to the conservation of Western works. The maturity of the profession is now reflected in the numerous publications, presentations and opportunities for training and professional exchanges. These reflect an improved understanding of East Asian conservation and demonstrate the overlapping interests of East Asian and Western conservation. (Elements of the treatments documented in the film are now regarded as out of date, but the actual methods of execution remain superb.)

In conservation studios that care for both East Asian and Western fine art and historic works, the overlap of specialized practices is viewed as an invaluable source of cross-pollination. While the subjects of treating East Asian works in Western studios, or what Western procedures have found favour in East Asian studios, or, indeed, what developments have occurred in the conservation of East Asian works in East Asian studios, are not the focus here, some commentary is relevant. In the macro sense, it can be ventured that the field of Western paper conservation has probably benefited more than the East from the direction of these exchanges since they began two generations ago.

**1** W.T. Chase, dir., *Art of the Hyōgushi* (Washington, DC: Freer Gallery of Art/ Smithsonian Institution, 1971).

**2** R.H. van Gulik, *Chinese Pictorial Art as Viewed by the Connoisseur* (Roma: Istituto Italiano per il Medio ed Extremo Oriente, 1959); Masako Koyano, *Japanese Scroll Painting: A Handbook of Mounting Techniques* (Washington: Foundation of the American Institute for Conservation, 1979).

## Shared foundations of practice

Before considering the particulars of treatment, it is worth highlighting that the key principles which are the foundation of good conservation are shared by both traditions of practice. They include intellectual control of a collection, well-formulated policies about access and use, a secure building envelope, stable environment and good housing, and the integration of curatorial and condition assessments to develop priorities for treatment. The very formats of East Asian art contribute to this very discernibly: the scroll with its protective margins and its painting buried deep within surrounding layers, albums providing similar protection to paintings and prints, and the screen painting with its reinforcing mount and its dimensions and exposure reduced in the folded state.

There are also shared sensibilities about the aesthetics of a work on paper. Imperfections that reflect the passage of time and exposure, inherent to the concept of *wabi-sabi*, are not entirely undesirable. The enhanced integrity of a work is based on an improved condition, which is the foundation of

an improved appearance. This improvement should aim to mirror a well-cared-for rather than pristine work (except when pristine is the very point, as for modern and contemporary multiples). This is certainly reflected in the restrained approach to cleaning and inpainting that can be found in the working practices from both hemispheres.

Paper conservators live with the risks that are inherent to complex treatment. These include not just the major risk that a treatment objective will be misguided or that a procedure will get out of control, but also the ever-present trepidation that a treatment will not unfold to reflect a conservator's best intentions and experience. The focus of this essay is how an improved understanding of the particulars of East Asian conservation can help to minimize those risks and produce more refined treatment scenarios.

**East Asian connoisseurship**

The term 'East Asian' is a generic reference, of course. It is critical to distinguish between the arts of China and those of Korea and Japan where the materials, format and subject matter were reconfigured to reflect different artistic interests and manner of use. Critical distinctions developed in their visual complexity, as well as in the tools, materials and procedures for their conservation. Fostering the connoisseurship of Chinese and Japanese art is essential to recognize the rationales behind these different traditions of practice and, therefore, their potential suitability for modification for use on Western works. However different they are in this regard, what is most easily admired is how the tools, materials and procedures of these two great traditions of practice have been so purposefully integrated to address the compromises in condition and appearance of the works in their purview. It is recognized that Japanese conservation processes were derived from Chinese precedents. However, when the influence of East Asian strategies on Western conservation was first discussed, it was probably more about what occurred in Japanese studios, at least until fairly recently. The picture is now appreciably more well rounded due to exposure to the Chinese methodologies carried out in the studios of the Freer Gallery, the Boston Museum of Fine Arts, the Metropolitan Museum of Art and the British Museum, as well as the Shanghai Museum, the Palace Museum in Beijing and Taiwan National University.[3]

While the traditions of East Asian conservation are a comparatively recent subject of study in the West, an appreciation of the distinctive qualities of East Asian art is not. The paintings and prints that found their way to the West held appeal for reasons that are familiar and still influential: the quality of draughtsmanship, the innovative compositions and the unusual three-dimensional formats, the seeming modesty of the materials on the one hand and their obvious splendour on the other, the craftsmanship of their execution and the very images of different civilizations that are captured. However genuine the admiration is in the West for the conservation procedures of China and Japan, it is not unwarranted to suspect that some of their appeal is also flavoured by a sense of romanticism that is not dissimilar to the earlier currents that led to *Chinoiserie* or *Japonisme*.

There are elements of East Asian practice that can seem unfathomable to Western sensibilities or exercised almost for their own sake. An unwillingness to see the dilution of such hard won, if ineffable, living traditions is understandable. The value of each oeuvre in its entirety merits conservation. In the words of Joseph Meder in *Die Handzeichnung*, 'Art is so easily lost, but re-invented with difficulty'.[4] If the East Asian conservation practices are being assessed for their applicability to Western works, an evaluation of their suitability has to be married to Western connoisseurship of Western artistic and cultural productions. This might be a more difficult, but ultimately a more rewarding endeavour.

**3** Xiangmei Gu, Yuan-li Hou and Valerie Gouet, 'The Treatment of Chinese Portraits: An Introduction to Chinese Painting Conservation Technique', *Book and Paper Group Annual* 18 (1999): 17–24; Jing Gao and Yishsia Hsiao, 'Mounting Techniques for Asian Silk Paintings and Calligraphy Using Two Colours of Lining Paper', *Studies in Conservation* 59, Supplement 1 (2014): 217; Keisuke Sugiyama, Jinxian Qiu and Hisashi Hakamata, 'Paper Lining: Techniques Based on Knowledge and Experience', *Studies in Conservation* 59, Supplement 1 (2014): 145–48; Yang Zehua, 'The Use of Seaweed Adhesive and Non-woven Paper in Chinese Painting Conservation: About the Conservation of a Set of Paintings Realized Under the Direction of G. Castigione in the Forbidden City' (paper presented at Peinture Chinoise: la Restauration et la recherché en Europe et en Chine, Musée Cernuschi, Paris, 19 March 2008); Xing Kung Liao and Fei Wen Tsai, 'Simple Losses Yet Complicated Fills — The Evaluation of Airbrush Technique Applied to Filling Losses Using Cellulose Powders' (paper presented at the ICOM-CC Interim Meeting, Institute for Conservation, Österreichische Nationalbibliothek, Vienna, 19 April 2013).

**4** Joseph Meder, *Die Handzeichnung: ihre Technik und Entwicklung* (Vienna: Kunstverlag Anton Scroll & Co., 1919).


**Fig. 1** (a) Hon'ami Kōetsu (1558–1637), *Calligraphy*, mounted as a *Yamato-hyōgu*-style hanging scroll. (b) Raffaellino del Garbo (1466–a1524), *Studies for Christ Rising from the Tomb and Hand Studies* on mount, by Giorgio Vasari (1511–74) (British Museum, PD, pp. 1–32). Images courtesy of the British Museum.

## Distinguishing features of East Asian conservation practice

What, then, distinguishes East Asian art and its conservation for the purposes of the Western conservator? The papers, silk and media are different, of course, and perhaps more consistent despite the diversity of supports, transparent and opaque inks and watercolour, low relief elements, use of metal leafs, and accessory fabrics and hardware.

The distinctive and varied formats, the hanging and hand scroll, the album and fan paintings, the panel, wall, sliding door and folding screen paintings, are all ones that have evolved with their complexity well understood by East Asian conservators. They are dynamic formats that rely on the lamination and assembly of materials. The intelligence of their evolution includes a built-in capacity for their eventual safe disassembly, albeit by someone with very specialized experience. The arrangement of their protective framing materials is fundamental to their aesthetic, even more so, perhaps, than the comparable Western tradition of how of a drawing is enhanced by a mount and frame (Fig. 1). As interesting is the willingness to adapt or change the format of a work in response to the changed circumstances of its survival: hand-scroll sections and fans become hanging scrolls, fans and sliding doors become folding screens, and so on (Fig. 2).

**Fig. 2** Sliding doors (*fusuma*) remounted as two panel folding screen (*byobu*).

The degree of retreatment that is judged to be necessary for so many reasons, including reformatting, is an accepted course of action with which the East Asian traditions have long experience.

While East Asian conservation was often equated, by Western conservators, with full remounting, presentations by East Asian colleagues have demonstrated more nuanced approaches directed at limiting exposure or risk to the media and support during treatments.[5] Western conservators tend to inch up to such demanding overall treatments only if preliminary local treatments were demonstrated to be insufficient, or clearly unsuitable, to address the extent of compromise. The merits of only partial disassembly and eventual reassembly of East Asian works to address the need for cleaning and structural reinforcement have been demonstrated in many Western studios.

What all Western conservators appreciate is the complete integration of materials, tools and procedures: how wheat-starch paste is applied on different lining papers with a variety of paste brushes, and reinforced with a smoothing brush and perhaps further with a pounding brush. Inherent to this is the complete familiarity with the parameters of any single material or tool. Adhesives are used in widely different inherent strengths and viscosities, from *funori*, to standard and aged wheat-starch paste, to protein glues. They are applied to a variety of papers tailored to the object and purpose of the procedure, from the thinnest *usumino* to a more robust *udagami*, or to a similar range of fabrics.

This is not to imply that there is a lack of interest or perceived value in new materials or techniques. The suction table and nebulizer are excellent tools, JunFunori® and synthetic resins have added to the repertoire of consolidants or adhesives, and gel media have demonstrated their usefulness as alternative cleaning agents. It is to emphasize that a sufficient understanding of the working parameters of any one material or procedure is gained only by repeated use in the different circumstances that call for subtle variations. This might be in contrast, for example, to resorting immediately to a dispersion or thermoplastic adhesive when there is a concern about the strength, or potential for staining, or unwanted expansion caused by an aqueous adhesive. This variety and familiarity is reflected in the specificity of the nomenclature given to the adhesives, papers, tools, procedures and layers or sections of a laminated and assembled work that is inherent to the precision of the treatment process (Fig. 3). In fact, Western conservators already share this basis of understanding in their own terminology. The qualities and potential suitability for use of different papers such as laid or wove, hand- or machine-made, writing or printing, hot or cold press, lens tissue, newsprint, kraft, oatmeal or tracing papers can be readily summoned.

The variety of materials needed for the conservation of Japanese art can be seen in the breadth and depth of the speciality hand-craftsmen and craftswomen who supply the Japanese conservator. Sadly, their numbers are being reduced from the lack of successors and a sustaining market. (The third-generation brush-maker Kohei Tanaka reported that the number of specialist makers declined over the last century from 200 to three.)[6] This is not to say that tools and materials suitable for the purpose of East Asian conservation are not readily available, for which conservators can be grateful to suppliers such as Hiromi Katayama and Naoki Sakamoto, but that the production of truly superlative materials is threatened and needs support.

Another salient point of comparison is the prevalence of the private studio as the operational basis for practising conservation in Japan. Several of the heralded multi-generation enterprises identified with their founders (Usami, Oka, Handa, Fujioka, Endo et al.) serve as the equivalent of training academies and research facilities, in addition to service providers, with branches within

**5** Yasuhiro Oka, 'Dry Backing Removal Used for Japanese Paintings', in *Edinburgh Conference Papers 2006*, ed. Shulla Jaques (London: The Institute of Conservation, 2007), 227–30.

**6** Kohei Tanaka, 'Kobayashi Hake Production Company', in-conference workshop at *Adapt & Evolve 2015: East Asian Materials and Techniques in Western Conservation*, Icon Book & Paper Group Conference, Brunei Gallery, SOAS, London, 8–10 April 2015.

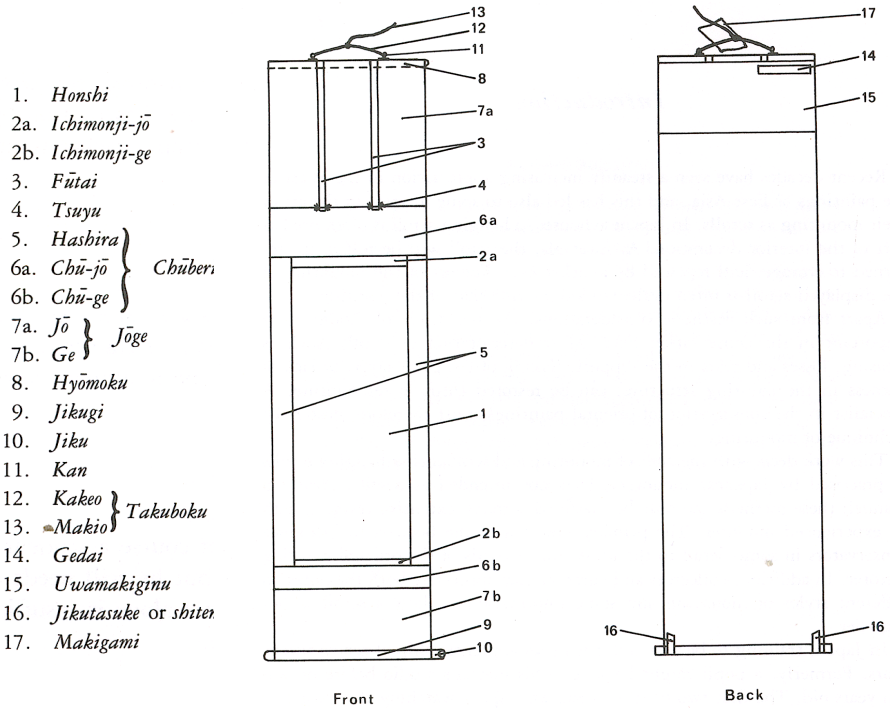


**Fig. 3** Scroll terminology from Masako Koyano, *Japanese Scroll Painting: A Handbook of Mounting Techniques* (1979). Image courtesy of the Foundation of the American Institute for Conservation.

the major museums. While it is appreciated that not all Japanese studios are long-standing or large, the model is interesting because the private practice working primarily for institutional collections is similarly embedded in the Western tradition. A recent survey by the American Institute for Conservation indicated that a third of the membership is in private practice (with more than half functioning as sole practitioners).[7] It also resonates because project execution is the principal focus of the private studio, rather than being one very important component in the understandably larger agenda of an institutional conservation department, with all of its attendant collection care and research priorities.

Whether in a private practice or an institutional department, the value of a long-standing team of conservators that can reference a shared history of project execution is inestimable. This is particularly the case when the complexity of a project calls for coalescing around a recombination or variation of procedures used before. Ideally, as individual conservators contribute to the production of a studio, it leads to a catalogue of internally circulated best practices that come to define it.

In addition to the variety of complex historic works that need the attention of East Asian conservators in East Asian studios, there are new formats and materials in the body of modern works of which they have to be mindful, as well as the Western works that are now in East Asian collections. It remains that the consistency of traditional formats, materials, methods of instruction and treatment objectives has generated conservation strategies and techniques that seem exceptionally purposeful. This explains their appeal to Western conservators when they encounter challenging works and have to triangulate between the traditions of triage, archival conservation or exhibition-driven immediacy, Schweidlerizing a work,[8] or cross-referencing with other material specialties to design a treatment that will contain risk and be appropriate and enduring.

**7** *2014 AIC/FAIC Conservation Compensation Research Overview Report 2015* (Washington, DC: Foundation of the American Institute for the Conservation of Historic and Artistic Works, 2015).

**8** [After Max Schweidler, meaning to carry out repairs which are invisible and undetectable. – Ed.]


**Fig. 4** (a) Use of *usukuchi* rayon paper (18 gm$^2$) facings for cleaning and reinforcement, with additional support provided by thick rayon paper (50 gm$^2$) and Melinex, during backing removal, filling and lining. Wall map *Maine* (1872), intaglio printed and hand coloured. (b) Before and (c) after treatment.

**Treatment comparisons**

It is well understood how exposure to moisture, however limited, can form the basis of a paper conservation treatment. It can be essential for general cleaning, as the basis for stain reduction, reversing earlier procedures, improving the strength of the paper, enlivening any three-dimensional texture, and it is inherent to the most used adhesive processes. It is also appreciated how the various states of moisture absorption have profound risks associated with them in the form of solubilizing or generating loss in the media, causing staining or expansion, or rendering the paper physically vulnerable.

Along with the preliminary attention given to consolidation, the combination of facing materials and the most gradual introduction of moisture found in both the Chinese and Japanese studios is a valuable supplement to suction table, blotter or float washing. Facings also serve to protect a surface from abrasion and reinforce a sheet, or assembly, during the handling inherent to structural work (Fig. 4). This is an intersection of materials, degree of moisture and time of exposure that can be varied to meet the particular sensitivities of an object and the chosen treatment objectives, whether limited or wholesale.

1 The drawings of Frank Lloyd Wright

Much of what the authors learnt about the application of East Asian techniques came from their experience over 30 years with the conservation of the drawings of the American architect Frank Lloyd Wright.[9] He was a prolific and virtuoso draughtsman who exploited the wide variety of commercial and fine art materials that were available over his long life (1867–1959).

There is a particular resonance in the use of these procedures for the conservation of his drawings because he was a prescient connoisseur of East Asian art who fostered an early appreciation of Japanese prints and who integrated large Chinese and Japanese paintings into the design schemes of his own homes and those of his clients. These influenced his style

**9** T.K. McClintock, 'The Drawings of Frank Lloyd Wright: Observations on their Conservation', in *Edinburgh Conference Papers 2006*, ed. Shulla Jaques (London: The Institute of Conservation, 2007), 179–88.


**Fig. 5** Drawings by Frank Lloyd Wright: (a) *Thomas Hardy House* (1905), graphite pencil and opaque watercolour on laid paper; (b) *Imperial Hotel Mural Design* (1915), graphite pencil and opaque watercolour on Japanese paper mounted as a section of a hanging scroll on Japanese paper; and (c) *Bramson Dress Shop* (1937), graphite and coloured pencils and black ink on tracing paper mounted on cardstock. All after treatment. Images courtesy of the Frank Lloyd Wright Foundation.

of rendering as well as the materials and formats that he married to the progressive currents in European art, to which he was also attuned (Fig. 5).

He used an enormous variety of supports in addition to fine and commonplace laid and wove papers. These included assorted silks and prepared drafting linens, cardstock, illustration boards, photography papers, Chinese and Japanese papers and, especially, many different qualities of tracing paper. The media were equally varied and these materials were often layered in collage-like constructions that documented the changed circumstances of a work or his thoughts on a project (Fig. 6).

In so many ways Wright's works are comparable in material character to East Asian works and, like them, have formats that are integral to their identity. They were often extremely fragile and, because they saw so much use in his working lifetime, they could exhibit the marked damage that necessitated intervention to improve their condition and legibility.

It is ironic that, after lining techniques were refined specifically for use on works on tracing paper, overall reinforcement came to be avoided in the conservation of Wright's works, except when the degree of tears and losses

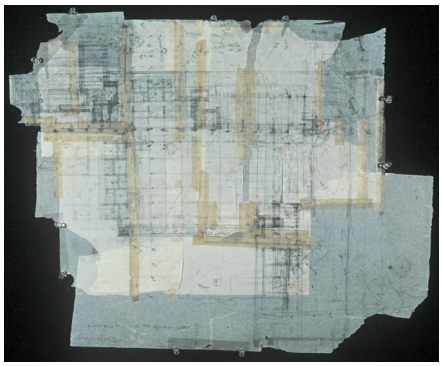

**Fig. 6** Frank Lloyd Wright, *Taliesin West* (1938), graphite and self-adhesive tape as collage on tracing paper. After treatment. Image courtesy of the Frank Lloyd Wright Foundation.

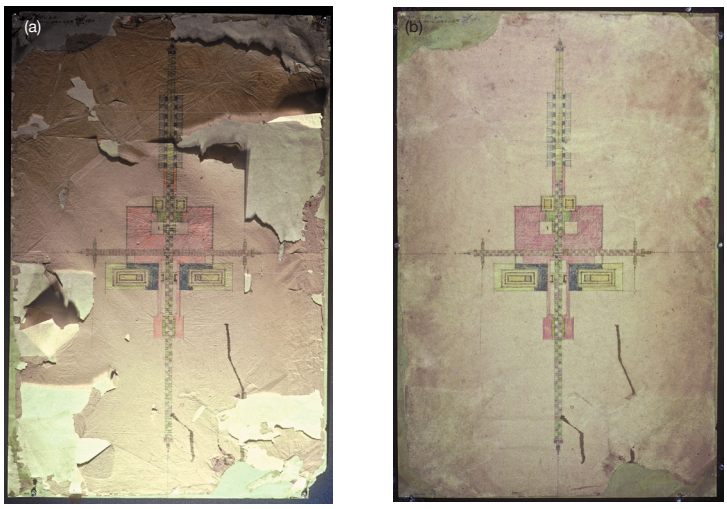


**Fig. 7** Frank Lloyd Wright, *Bogk Rug Design* (1916), graphite and coloured pencils on tracing paper on board with opaque watercolour additions. (a) Before and (b) after treatment. Images courtesy of the Frank Lloyd Wright Foundation.

or a mounting format necessitated it (Fig. 7). For the most straightforward repairs, losses were filled with the most minimal overlapping edges, as found on repaired scrolls. Tears were mended with wheat-starch paste and strips cut from the thinnest Japanese paper, such as *tengujo* or Paper Nao RK-2, and these were dried immediately with a tacking iron. The reasons for their use were that cut strips lie flatter against such thin hard papers than water torn strips and a tacking iron allowed for the registration of tears to be secured immediately.

The undulations generated by the use of moisture or modest heat were addressed by flattening between sheets of humidified Japanese paper and dry blotters in a press or under weight, with the Japanese paper serving both as a slip sheet and to prevent premature, uneven drying. If the planar distortions were too great, multiple pieces were being assembled or they were simply too large to be pressed evenly, unlined works were flattened by tension drying using a technique that was simply less complicated and less time-consuming than adhering false margins for flattening under tension. The work was placed face down on glass over an interleaving sheet cut to the same configuration, the edges were pulled out from the centre of each side, and adhered to the glass using multiple small pieces of an easily removed self-adhesive tape. Light moisture was introduced with a sprayer, and the work was covered to dry slowly, during which the distortions drummed out. The sheet, or the assembly of sheets, that could not be placed under pressure then acclimatized to the flattened state.

When a work on tracing paper was lined, the same cut strips were used on the back of the Japanese paper lining to mitigate tenting at tears. After flattening under tension, the back was polished with glass beads to generate a smooth texture similar to the front and to have the sheet lie with a more natural drape. While glass beads strung on a cord (*juzu*) are an essential tool in the Japanese workshop, they have other applications that are specific to the treatment of Western works, such as burnishing the surface of a globe to integrate fill material and minimize the extent of final sizing and varnishing needed. The treatment of East Asian formats involves a familiarity with three-dimensional dynamic structures made up of hard and soft materials that must be conserved simultaneously to result in a coordinated appearance. The approach taken by Western conservators to the treatment of bound and otherwise assembled works mirrors this sensibility.

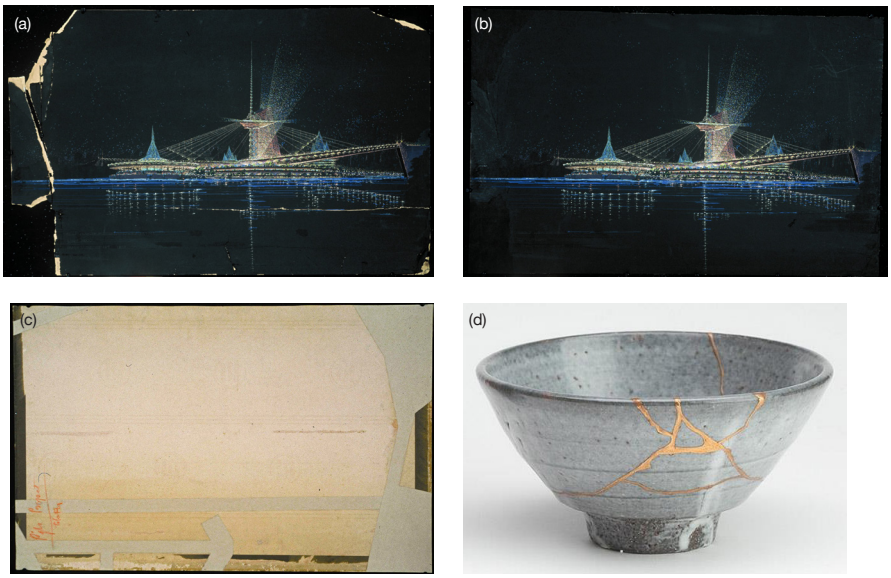


**Fig. 8** Frank Lloyd Wright, *Pittsburgh Point Park Civic Center #2* (1947), opaque watercolour on black illustration board. (a) Front before and (b) after treatment, and (c) back after treatment. Images courtesy of the Frank Lloyd Wright Foundation. (d) Ceramic repaired in the *kintsugi* method. Image source: Wikimedia (accessed 12 July 2015).

Working with a large body of work that is physically varied but aesthetically coherent allows for individual procedures to be exercised sufficiently regularly that they become both integral to the treatment design and the springboard for purposeful variations. The realization of a foreseen outcome is dependent on first identifying and prioritizing what has to be addressed, then bringing craftsmanship and consistency, even to repairs that are hidden.

## 2 The back of a work

This approach is reflected in the attention given to the back of a work. Scrolls have a polished surface against which the painting is pressed when rolled, and hand scrolls and folding screens have decorated papers that are visible on the back. (It is often recommended that these be salvaged during conservation because of the interest of their designs and the register of wear that can be harmonious with the aged appearance of the paintings, although it does mean that the overall treatment is more time-consuming in comparison to their replacement.)

The grain pattern of the wooden printing block seen on the back of *ukiyo-e* prints is such a distinctive and appreciated quality that it is often simulated on infills. While the rationale for having infills be detectable is well understood, the incongruity can lend the back of a work on paper an unresolved appearance. The attention given to a uniform appearance on the back as well as the front is a model of standard practice that can be well suited to the conservation of many Western works.

However, there are circumstances when devoting the additional resources is unwarranted, or when it is simply impossible for repairs not to be obvious. Japanese conservators of ceramics have addressed the latter aesthetic quandary by using gold to highlight repairs in a process identified as *kintsugi* (golden joinery). An example of a comparable strategy was the use on the back of an illustration board of local reinforcing strips over cracks and fill edges, which had to be sufficiently robust in thickness and therefore conspicuous to be effective (Fig. 8).

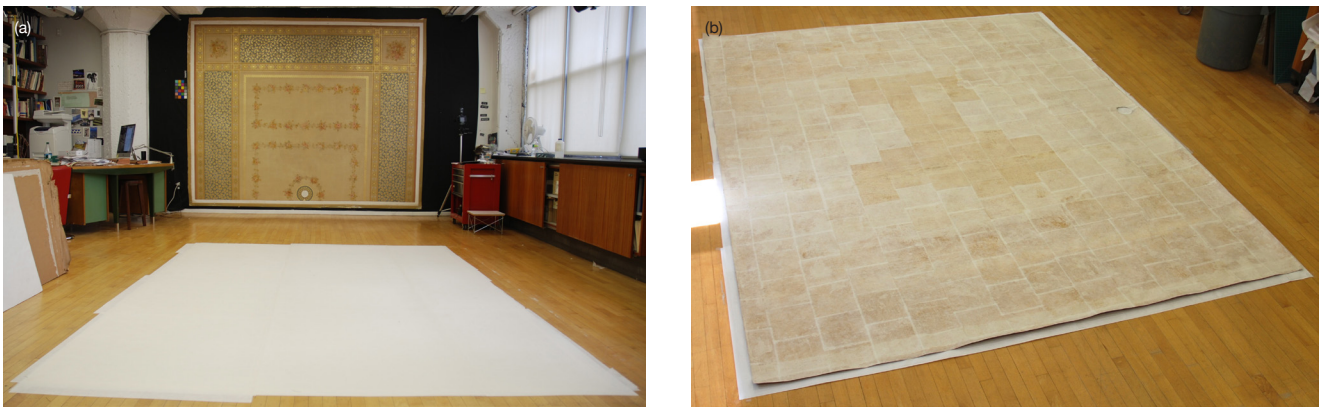


**Fig. 9** Wall and ceiling coverings (*c.* 1888), oil on lightweight fabric, first (a) lining using lightweight Japanese paper applied in a brickwork pattern to minimize moisture absorption and expansion, with (b) subsequent linings using heavier-weight Japanese paper and flattened by tension drying on wooden floor.

## 3 Linings

The use of multiple linings is a characteristic of the East Asian process that allows for more control when overall treatment and reinforcement is called for on a work that is particularly fragile, large or assembled from multiple pieces. Disassembly of complex works into the original, more manageably sized sections facilitates the variety of specific treatment procedures (cleaning, consolidation, mending and filling, and so on). It also allows for more control of the moisture penetration and expansion inherent to reinforcement by using thin lining papers before reassembly followed by overall lining with thicker papers (Fig. 9).

Toned lining papers are also used for the back to be more compatible in appearance with the front, or to serve as a foundation for inpainting when a lining is revealed behind tears or at areas of loss.

Salvaging the original fabric used for linings on Western works contributes to the preservation of the historic appearance, texture and format (Fig. 10). In the reassembly process it is essential that a layer of paper be introduced between the fabric and the object. They are lined separately before they are joined, for which the variety of Chinese and Japanese papers is particularly well suited.


**Fig. 10** Italian anatomical diagram on folding frame (eighteenth century), intaglio printing in black ink on laid paper, (a) before and (b) after treatment, (c) with original fabric lining conserved. Images courtesy of the Northeast Document Conservation Center.

The fabric is lined so that it can be stretched and flattened beforehand to confirm that the dimensions remain sufficient to accept the object. In addition to overall reinforcement, both linings provide surfaces that are conducive to adhesion and that control the penetration of moisture inherent to the remounting process.

The method of preparing fabrics for reuse is derived directly from procedures used to line the fabric borders of scrolls and screens. The main benefit is that by using less adhesive to join a paper layer to fabric, and reinforcing that adhesion with the sequence of hard smoothing and pounding brushes (*nadebake* and *uchibake*), the result is less heavy-handed. This is in comparison to several of the more conventional Western methods of joining and flattening paper and fabric in which quantities of paste are used in combination with overall adhesion of a synthetic fabric release layer to a hard surface, or even to Beva 371® as an adhesive.

**The Japanese panel**

The merits of the Japanese panel as a mounting surface and the intelligence of its assembly process are self-evident to conservators who are familiar with its use. The drying board (*karibari*) is built using the same wooden lattice core and sequence of paper layers, with the addition of a robust surface layer and sizing. It has seen widespread adoption in Western studios for both intermediate and final flattening. Many other readily available panels are adequate for this straightforward short-term purpose, including thick honeycomb paper panels, paper-covered hollow doors, or cardboard taped at the edges to a hard surface. (When suitably thick to resist bowing, plywood is too heavy.) It is well understood that the more time an object can remain stretched and exposed to moderate environmental fluctuations, the more stable it remains after removal.[10] If a wall or floor can be spared for the amount of time needed, even exceptionally large works can be serviced. However, the *karibari* is a superior drying surface in very particular circumstances—when a work is oversized, needs to be portable or is particularly fragile. It can be assembled in dimensions larger than the available standard sizes of alternative materials, it is lightweight and it provides the ability to depress a surface that rebounds during release of the margins of a lined work, all of which allow for great flexibility.

The different configurations of paper that make up the Japanese panel yield a mounting surface that is exceptionally purposeful because of the cushioning effect, the less rigidly flat overall appearance, and the mitigation of changes in relative humidity inherent to the quantities of paper and air spaces in the layered structure. Of particular interest is the *ukekake* layer, which also promotes the safe removal of a painting. Learning how to assemble a screen in the form of a *karibari* is enormously helpful to gain an understanding of the purposes of the different layers and their configurations, why different papers and adhesive viscosities are used and how the panel changes with the addition of each layer.[11]

While the use of a lattice core is traditional and does allow for unusual dimensions and configurations, the covering system is also suitable for use on other panel structures that will serve as long-term mounts. An aluminium honeycomb panel is particularly valuable when a thinner depth of panel thickness is called for, in an architectural context for example (Fig. 11). It is twice the weight of a wooden lattice core panel but less time-consuming to assemble because only one side has to be covered, and with fewer layers (the first two layers on a lattice core are applied primarily to promote its rigidity).

The methodology of the Japanese panel has demonstrated value and longevity. The disassembly of numerous historic examples reveals that patterns of lattice construction and paper covering have evolved and

**10** Masato Kato and Takayuki Kimishima, '*Karibari*: The Japanese Drying Technique', Abstract, *Adapt & Evolve 2015: East Asian Materials and Techniques in Western Conservation* (abstracts of papers presented at the Icon Book & Paper Group Conference, Brunei Gallery, SOAS, London, 8–10 April 2015), 21.

**11** Pauline Webber and Meryl Huxtable, 'Karibari: The Japanese Drying-Board', *Paper Conservator* 9 (1985): 54–60.


**Fig. 11** (a) Aluminium honeycomb panel being prepared with the *ukekake* layer of a Japanese panel for mounting historic wallpaper section. (b) Dufour *Les Sauvages de la Mer Pacifique* (1804), tempera colour on laid paper, after treatment.

improved. Mirroring that same goal of purposeful refinement, the use of high-quality machine-made *kōzo* papers and alternative patterns of adhesive application on the *ukekake* release layer in particular can both improve the performance of the panel surface and reduce the not inconsiderable amount of time necessary for its assembly.

## Inpainting

A final subject for consideration is inpainting, both the decisions about it and the strategies and materials used for it, whether at losses in the support that are filled or at losses in the media. It is part of an integrated treatment process that is exceedingly important to plan for and execute. It inserts the hand of the conservator into what is distinctive about the execution of a design, and it can be such a substantial part of a large or complex project. The decision-making process surrounding it tends to involve numerous stakeholders, each of whom may have relatively more or less familiarity with comparable examples that set the context, and several outcomes can often be judged as appropriate. Furthermore, the actual fluency of media application is highly dependent on the attention given to the structural improvements that precede inpainting, as well as on the experience and skill of the conservator. (It is understandable how inpainting became a distinct area of specialized practice in some Western painting conservation studios.)

With the hierarchal classification in Japan of works that include 'national treasures', followed by lesser tiers of distinction,[12] limitations on design reconstruction beyond matching the background were adopted.[13] These conservative guidelines are understandably followed for the treatment of paintings in general. There are well-known, iconic examples of a more archaeological approach, but alternative strategies are also clearly visible on other works, to a greater or lesser degree. These include alluding to design elements where their lack of completion is more distracting, completing design elements in small areas where they are obvious, as well as different interpretations of what constitutes integrity and accountability on treatments undertaken outside of Japan.

In the West, these decisions are decidedly more case by case, instead depending on the individual institution or curator and the category of object: fine art, cartographic records, archival works, a manuscript versus a multiple and so on. It is enormously instructive to observe conserved works in East Asian collections, which illustrate the success of inpainting to

**12** As set out in the *Bunkazai hogohō* [Law for the Protection of Cultural Properties], Law No. 214, 1950.

**13** Kenzo Toishi and Hiromitsu Washizuka, *Characteristics of Japanese Art that Condition its Care* (Tokyo: The Japanese Association of Museums, 1987).

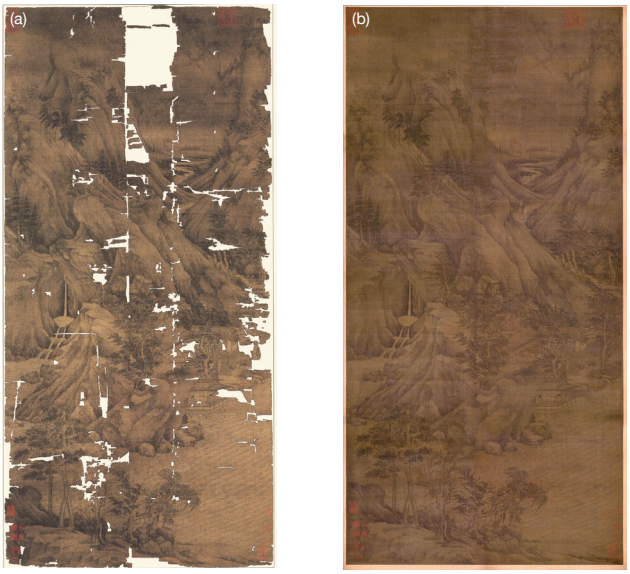


**Fig. 12** Schematic diagram of Dong Yuan (active 930–60), *Riverbank*, ink and colour on silk, showing (a) principal areas of repair, and (b) as conserved (from the C.C. Wang Family Collection, Promised Gift of Oscar L. Tang Family, in memory of Douglas Dillon). Images copyright the Metropolitan Museum of Art.

match the background alone. The consistency and facility of execution and the modulation of cool and warm to circumvent a lifeless appearance are particularly exemplary (Fig. 12). Confining inpainting on singular works to matching the background alone is a strategy that serves equally well as a general approach (Fig. 13).

When inpainting on the original support is called for, because of abrasions, for example, the use of paper extract is a valuable alternative to watercolour (identified colloquially as *su-su*). The appropriateness of its tone can often obviate the need to introduce colour and it is less irreversible relative to pigmented media, which are absorbed by the fibre matrix.[14] (The National Gallery of Art lent its imprimatur to the stability of the medium when it was used to compensate for a tidemark removed from a painting on unprimed linen.)[15]

**14** Piers Townshend, 'Toning with "paper extract"', *Paper Conservator* 26 (2002): 21–26; Erin Gordon, 'Comparing Paper Extract to Traditional Toning Materials' (paper presented at the annual meeting of the Association of North American Graduate Programs in the Conservation of Cultural Property, New York University, Conservation Center of the Institute of Fine Arts, 2008).

**15** Jay Kreuger, 'Considerations in the Treatment of Jackson Pollock's *Number 7*, 1951', Abstract, *The American Institute for Conservation of Historic and Artistic Works, Twenty-fifth Annual Meeting, San Diego, California* (June 1997), 79.


**Fig. 13** World map by Willem Blaeu in 18 sheets (1605), intaglio printing in black ink with hand colouring on laid paper, (a) section before treatment, (b) overall after treatment. Image courtesy of the Hispanic Society of America.

## Conclusion

The practice of conservation is learnt over a lifetime. Opportunities for that purpose are found at conferences such as Adapt & Evolve 2015, in the plethora of publications that are now available and, most of all, by undertaking challenging projects that elevate the shared standards of practice. Western conservators have benefited immeasurably from greater, and better understood, exposure to the East Asian materials, tools and traditions of practice. Their more accurate dissemination and discriminating adaptation have brought more control and refinement to the treatment of all works on paper in the West.

**Acknowledgements**
Because of their prescient understanding of the intersection of East Asian and Western conservation traditions and their ever-generous collegiality, Paul Wills, Keiko Keyes and Katsuhiko Masuda deserve particular credit for promoting the relevance of these traditions of East Asian practice that are now essential to the treatment of Western works and to the training of Western conservators.

**Abstract**
East Asian and Western cultures have been attuned to each other's distinctive artistic contributions for centuries, but a mutual awareness of and interest in the other's conservation traditions have occurred only within the last few generations. For Western paper conservators, this interest has been characterized by admiration for the materials, tools, procedures and sensibilities that appear so purposeful and well focused for the conservation of works in the formats they address: scrolls, screens, murals, fans and albums. However well understood by Western conservators in the context of their use in East Asian conservation, this repertoire has been instrumental in expanding the treatment options for use on Western fine art and historic, decorative and archival works. In what circumstances have these developments been most valuable, and what has contributed to an improved understanding and assessment of their applicability? This overview discusses the general themes and specific circumstances where the particulars of East Asian conservation have made invaluable contributions to more responsive, refined and long-lived treatments, as well as the potential drawbacks to adapting these without an informed understanding of their origin and purpose. Topics include how collections conservation relates to individual object conservation, the integrity of format, the influence of East Asian works in Western collections, the relevance of scale, the aesthetic of the 'object', a comparison of remounting as overall conservation versus more limited intervention, the different traditions of laminated structures, the treatment of fabrics in combination with paper, and the tools, materials and procedures that have proved most valuable for specific applications.

**Biographies**
T.K. McClintock is Director of Studio TKM, a private practice devoted to the conservation of works on paper including fine art, historic works, Asian paintings and prints, and the decorative arts for institutional and private clients in North America, Europe and Asia. He is an Accredited Conservator Restorer - Icon, a Fellow of the International Institute for Conservation (IIC), a Fellow of the American Institute for Conservation (AIC), a Fellow of the American Academy in Rome, and a member of the International Coronelli Society for the Study of Globes. He was trained at the Cooperstown Graduate Program in Conservation where he received a Master of Art and Certificate of Advanced Study in the Conservation of Artistic and Historic Works.
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**Materials and suppliers**
Beva 371® adhesive; Methyl cellulose adhesive:
Talas
330 Morgan Ave
Brooklyn
NY 11211
USA

Japanese mounting brushes (hake):
Kobayashi Hake Co.
5-7-5 Fujisaki
Narashino-shi
Chiba
275-0017
Japan

Japanese paper tengujo; Rayon paper for facings:
Hiromi Paper Inc.
2525 Michigan Ave, G9
Santa Monica
CA 90404
USA

Japanese paper RK-2:
Paper Nao
4-37-28 Hakusan Bunkyo-ku
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