

# Far Eastern Paper Conservation and Some Aspects of Preventive Conservation in Europe

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What are the problems encountered in the preventive conservation of Far Eastern works on paper in European collections? To answer this question it may be helpful first to look at the development of the several formats which evolved in the Far East for the handling and storage of works on paper.

The written word and painted image have been held in high esteem for centuries in the Far East. The hand-brushed word has long been treasured in China, Japan and Korea, not just for the meaning it carries, but as a reflection of the personality and spirit of its calligrapher. Paintings, too, have long been venerated and in Buddhist art, for example, the image is regarded as a veritable manifestation of the deity depicted. Such works were executed on paper or textile (generally silk). These are fragile materials, easily damaged, and in order to display, handle and store them safely, a number of methods and formats were developed over the years for their protection.

Before the invention of paper, early documents were recorded on thin strips of wood. Finely woven silk was also used, but this was a costly material and, without further protection, liable to embrittle and disintegrate after some time. The development of paper was important not only because it provided a good support for both calligraphy and painting but also, as it was later discovered, a highly suitable material for the lining and protection of works on silk.

Very few examples of works on unprotected silk have survived the centuries. Works on single sheets of paper are more common, testifying to the greater strength of paper. More usual, however, are sheets which have been bound or mounted in some way, so as to prolong the life of the work and make it easier to handle and view.

The formats for works on paper can be divided into categories:

## - *Unbound, unmounted sheets.*

Documents, archival manuscripts, letters. Sometimes joined to make larger sheets, as with maps. Also printed images, generally wood block prints. Single sheets may be preserved flat; larger, joined sheets may be folded.

## - *Albums, books.*

These may be bound in a number of ways, using paste or thread. Leaves may consist of single sheets, or sheets folded double in the case of the majority of books. Albums usually have works pasted down onto heavier boards of laminated paper folded or hinged accordion-style.

## - *Hand scrolls.*

Flexible mountings. The content may comprise text only, text and pictorial image or pictorial image only. The simplest hand scrolls are made up of single sheets

joined horizontally, with a central wooden roller and outer cover and tying braid. More complicated constructions may have several linings of thin paper and incorporate borders and covers of silk or decorated paper and decorative ends on the central roller of ivory, semi-precious stone, ceramic, metal or fine wood.

## - *Hanging scrolls.*

Flexible mountings. These have their beginnings in religious hangings or banners and their prototypes can be seen in the Tankas of Tibet. Later developments of the hanging scroll incorporated the construction elements of the hand scroll, notably the cut and pasted borders and the application of backing papers to the artwork and the borders. Simple scrolls may have artwork and borders of paper; more lavish scrolls may have borders of costly brocades and decorative fittings in various materials.

## - *Screens.*

Rigid mountings, with the work pasted onto panels with a wooden lattice core and paper underlinings. Panels may be hinged, to form folding screens or run along grooves between rooms, to form sliding screens, or doors. Decorative textile borders often surround the artwork and screens may have outer trims or frames of wood, sometimes lacquered. Metal corner brackets and studs may be added to trims of folding screens and sliding screens have finger-pulls, usually of metal. The same wood and paper core is used for tablet-frame mountings in Japan.

The pigments used in works on paper may be organic or non-organic. The ink used for both writing and painting is a fine carbon soot, bound with animal glue. The colours used in painting are generally mineral pigments, again bound with animal glue. Pigments may be applied in thin, transparent washes or denser opaque layers on scroll-mounted paintings. The heavily built up layers of paint were reserved for screen paintings, for they would not have withstood rolling as a scroll. A wider range of organic colours are to be found in popular colour prints, where their ephemeral nature meant that colour permanence was less of a concern and they were not intended to undergo the wet treatment involved in lining or mounting.

Unprotected works on paper will quickly deteriorate, but scroll and screen mounting offered a practical way of safely viewing and storing artworks in the Far East. They were, moreover, seldom displayed for extended periods of time. Seasonal elements, so important in Far Eastern poetry and painting, dictated that a picture or piece of calligraphy referring to, say, the new year or the first flowers of spring should only be displayed during the period to which it referred. Buddhist paintings were often produced for specific ceremonies or festivals and only hung for the duration of the celebration. In Japan, there exists the tradition of

selecting a scroll which will correspond to the tastes or interests of a special guest and hanging it for the duration of their visit. In the case of the Tea Ceremony the period of display can be as little as a matter of hours. The traditional alcove, or tokonoma, used for the display of artworks in Japan offers further protection with its paper-covered windows, providing an indirect and filtered light-source.

When not in use, even large artworks mounted as scrolls and screens can be conveniently and compactly stored. Albums, scrolls and screens, first placed in wrapping cloths or bags, are provided with storage boxes, sometimes of more than one layer. The boxes can carry important information about the artist, dates and provenance of the piece and should never be discarded. Old and damaged storage boxes may be too weak to withstand the rigours of transport and for this purpose a new box should be provided). Thus boxed and protected from light, dust and sudden changes in temperature and humidity, the art-works are placed in store-rooms . Modern museum storage generally involves some sort of mechanical climate control. It may be interesting, though, to look at store-houses in Japan before the days of air conditioning. One of the oldest store-houses in the world, the Shoso-in, was constructed in Nara over 1200 years ago to preserve the personal effects of the emperor Shomu. It is a wooden building supported on pillars almost two meters above the ground. The walls are made from interlocking timbers with a triangular profile that expand and close in damp weather, and shrink and open when it is dry. This form of natural air circulation has helped to preserve many of the contents in remarkably good condition. Later storehouses in Japan were constructed with thick mud walls which absorb excesses of moisture, protect from fire and rapid temperature and humidity changes outside. Small, shuttered windows were designed to keep out light and provide ventilation when necessary. Objects kept in such store-rooms were not left and forgotten. In a climate where high temperature and humidity levels and the presence of a large and active insect population poses a constant threat to the safety of artworks on paper, periodical checking is essential. It was traditional to unpack collections at least once a year. On a fine, dry day in Autumn, and sometimes also in Spring, scrolls, screens and books would be taken out and, with their boxes, examined for traces of insects or mould and then aired in the shade to remove any traces of humidity that may have accumulated. This practice can still be seen in temples which still keep their collections in traditional store-houses.

The new store-rooms recently designed to house the archival collection of the Imperial Household Agency of the Japanese Imperial Palace are remarkable in that they to have no mechanical air conditioning. The collection is housed in rooms completely clad in wood with open wooden shelving. Shutters at either end of the rooms are only opened when outside air and humidity levels are recognised as safe. A system of filters between the shutters keeps out dust, pollution and light.

Provided that they are handled, exhibited and stored with care, artworks on paper, whether single sheets or mounted as scrolls, screens or books can survive for centuries. Negligence, however, can result in damage that is particularly critical in the case of mountings which have to function successfully as scrolls, screens or books if they are to protect the artwork they were made for. Excessive heat and dryness will cause paper to embrittle, making scrolls difficult to unroll without cupping and cracking, and weakening screens so that they may suddenly split. Prolonged exposure to dampness will cause the delamination of lining papers in both scrolls and screens, and attract both insects and mould-growth. Careless handling of mountings can result in the creasing and tearing of scrolls and books, the puncturing and abrasion of screens and the splitting of their paper hinges. Extended periods of display will increase the ageing rate of the paper and cause changes in some colours, particularly organic pigments (In museums in Japan most displays of organic material are changed every month and paintings and calligraphy registered as National Treasures are only permitted to be displayed, under approved conditions, for one month every year).

Little of the pictorial art of the Far East travelled as far as Europe until the 1800's. Most of the larger collections, both private and institutional were not amassed until the late 19th and 20th C. Despite their enthusiasm and interest, many collectors were not always aware of the special qualities of the materials and the functions of the objects in their care. Consequently much of the damage that has occurred to items in Western collections has been as a result of carelessness or ignorance. Objects which are damaged or weakened beyond a certain point may need active conservation before they can be safely handled and displayed. Not all items in European collections are so badly damaged. They do, however, require safe and careful handling and storage in order to help prevent further deterioration.

#### *Flat objects.*

Prints and drawings should be stored between sheets of acid-free paper (not buffered). It is suggested that they are placed into window-mattes only for the purposes of exhibition and for limited periods. The organic pigments used in some colour prints can be extremely sensitive to moisture and light. It is recommended that they are only exhibited for short periods and at low light levels.

#### *Albums, books.*

Large albums may be provided with wrapping cloth and protective box, smaller albums with a protective hinged wrapper of laminated paper and cloth. Care should be taken when turning the leaves of albums, particularly large and heavy volumes, and a stack of thick paper boards should be prepared to place beneath the covers to compensate for the difference in height between the left and right side of the album as it is viewed and avoid straining the folds or hinges. Most books with a sewn binding are made with the leaf folded double and the fold at the fore-edge. Pages should be turned with care, handling the centre or top of the fore-edge, as the lower corner is frequently worn

and rubbed through use. Do not pull at clusters or balls of fibres raised from the surface of the page. The long fibres of oriental papers can extend far into the sheet and careless removal of lifting fibres can result in extensive damage to the paper and loss of image. Because of their limp or soft covers, Far Eastern books should never be stood vertically on a shelf like Western books. They are traditionally stored horizontally, in small stacks placed within book-boxes or pigeon-hole shelves. An alternative is to wrap them individually in acid-free paper or provide protective boxes or cases for storage. Books with sewn bindings do not open flat. If they are to be exhibited, a simple cradle with a recess for the spine should be provided.

#### *Hand scrolls.*

Should be unrolled and rolled up with extreme caution on a clean, level surface. Hands should be washed immediately prior to handling or gloves should be worn. Covered weights should be placed to the left and right of the viewing surface to prevent the scroll from unrolling out of control. Additional weights should be at hand to hold down unexpected splits or breaks in the scroll. Horizontal creases in hand scrolls are caused by gripping the scroll too tightly. This is always to be avoided, and the use of a cylindrical core, placed within the outer wrapper will help support and protect the paper as it is unrolled. Vertical creases are caused by cupping of over-dry or stiff paper, especially at the overlapping joints between sheets. The fingers should not touch the pigments on the surface of the scroll. Care should be taken to prevent slackness and unevenness when re-rolling the scroll. The braid should not be pulled and tied tightly before storing the hand scroll. Traditionally, the hand scroll is provided with a silk wrap or bag and a storage box. If these are not present, then the scroll should be wrapped in acid-free tissue and stored horizontally in a box or drawer.

#### *Hanging scrolls.*

Untie and unroll the upper section of the scroll on a clean level surface. Unfold and extend the decorative hanging strips, if any, and check that the decorative ends to the lower roller are not loose. Raise the scroll by lifting the hanging braid with one hand, or a hanging stave, supporting the unrolled section with the other hand. Hang the scroll from the length of hanging braid between the hanging eyelets, not the longer length of tying braid which is intended only to secure the scroll when rolled up. If the hanging braid is too weak the scroll can be suspended from a length of nylon line tied between the hanging eyelets. Transferring the hands to the roller-ends, unroll the scroll slowly and evenly. (If a hanging scroll is being unrolled for the first time, it should be opened on a clean, horizontal surface. If there are exfoliating pigments or fragments of paper, splits or tears in the scroll, it should not be hung without receiving further attention). The scroll should be re-rolled evenly and not too tightly. It should be removed from the hanging hook and laid on a flat surface before refolding the hanging strips and inserting a protective strip of paper under the tying braid. If the scroll has no wrapping cloth and wooden box, it should be wrapped in acid-free tissue and stored horizontally. Scrolls should always be stored in single layers and not piled on top of each

other. A 20th C development which may be encountered on scrolls more recently mounted in Japan is the roller-clamp. This is a hinged cylinder of paulownia wood, which fits around the lower roller of the hanging scroll and serves to increase the diameter of the scroll before it is rolled up, preventing cupping and creasing. Always replace the roller-clamp, if the scroll has been provided with one, remembering that it has a lower lip which should be placed at the front of the scroll. Large scrolls should be handled by two people, not one.

#### *Screens.*

Should be carried and handled by two people with gloved hands as both the front and back surfaces are easily rubbed and abraded. Folding screens should be opened by tilting slightly and opening from the centre folds outwards. They should be placed on a level surface. It should be remembered that the panels of folding screens are intended to be opened to an angle of between 90° to 110° or so, and not to be opened out flat or hung from a wall, as this places too much strain on the hinges. It may be necessary to place weights or wedges at the base of older, distorted screens to prevent movement of the panels during exhibition. Before storing, it may be advisable to place acid-free tissue between the painted surfaces of folding screens, particularly if signs of rubbing or exfoliation are detected. Traditionally, screens are provided with cloth bags and wooden storage boxes, the screen lying on its back hinges or standing upright. If no box is available, screens should be stored standing upright and covered or protected from dust. They should be supported against falling or leaning against adjacent screens.

Relative humidity levels for Far Eastern works on paper tend to be slightly higher than those for Western paper. A level of 55 to 60 percent is recommended in Japan, for example. This is because at lower levels, embrittlement and dryness of the paper is noted and this can be especially problematic in the case of paper laminates: scrolls, which may cup and crack, and screens, which may split or tear at the hinges. Certainly, excessive heat and dryness seems to have been a major cause of damage to Far Eastern paper artworks in European collections. Extreme caution should always be exercised when opening a book, scroll or screen for the first time, never forcing an object if it resists movement. It may be found useful to counteract extreme dryness and impart increased flexibility by gently raising the relative humidity to the 55 to 60 per cent level before attempting to manipulate a paper object.

If a scroll, screen or book has been damaged beyond a certain point, it may need repair or even remounting before it may be safely handled and exhibited again. This can be a complicated and time-consuming affair, often made more difficult by previous attempts to repair the object by people unfamiliar with the correct materials and methods necessary to treat the piece. Much of the damage done to Far Eastern works on paper in European collections has been as a result of over-exposure, rough handling and poor storage. Consideration for the passive conservation of these

collections and the special nature of the materials and formats that dictate their care should ensure that what is undamaged remains so, and what is already damaged does not worsen.

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### Abstract.

This paper looks at the tradition of works on paper in the Far East, the various formats devised for their display and safe-keeping, and includes recommendations for their passive conservation, handling, exhibition and storage in European collections.

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### Tying braids

There exist a number of ways to tie the braid on scrolls, particularly in Japan. Illustrated are the simplest examples. Avoid pulling the tying braid too tightly, as this will pinch the scroll and cause creasing. If the tying braid is missing, a scroll can be secured with a length of soft cotton ribbon.

1. - A Chinese handscroll with jade toggle.

2. - A Japanese handscroll.

3. - A paper strip wrapped around before tying will avoid abrasion and constriction of the scroll.

4. - A Chinese hanging scroll with silk ribbon tie.

5. - A Japanese hanging scroll with flat-braided silk tie.

