

# Care and conservation of art on paper

Works of art on paper such as prints, drawings and watercolours appear in almost every private or public collection and vary hugely in material, subject matter and value.

Paper is fundamentally made of cellulose in the form of finely broken down plant fibres. In its purest form, cellulose is extremely durable, but preparation methods, additives and impure sources (for example, unpurified woodpulp) can cause the paper to become weak over time. Artists' materials may also be unstable. Pigments can fade, inks can corrode the paper, pastels and charcoal can smudge, and thick paint layers formed from paints such as oils and gouache can flake.

## What can go wrong?

Works of art on paper can be damaged by light, extreme or fluctuating temperature and humidity, pollution, pests, poor handling and storage and mounting.

- Light can trigger chemical changes in an object causing damage to the paper structure and media. Depending on the quality of a paper, light may cause it to yellow and become brittle. All paint media is prone to fading, with watercolours being particularly vulnerable. Ink drawings can fade and lose detail.
- Temperature and fluctuations in humidity, like light, can affect the speed of chemical reactions, increasing the rate of deterioration of paper, resulting in brittleness and discolouration. Uncontrolled environmental changes may also affect the media, for example, causing paint layers to crack or flake.
- Atmospheric pollutants, for example sulphur, can contribute to the breakdown of paper; they can also change artists' colours.
- Insect damage and mould are types of damage that can indicate an unsuitable environment in which humidity and temperature are high.
- Paper can develop brown spots, known as 'foxing', which may result from the manufacturing process but can be a result of, or exacerbated by, a poor environment.
- Poor quality mounting and frames damage more works of art on paper than any other agent. Contact with poor quality boards may turn paper brown and brittle. 'Mount burn' describes the brown marks around the edge of an image where an acidic window mount has 'burnt' the paper. Brown 'air-burn' marks can also form through gaps in old wooden backboards.
- A certain amount of cockling or undulation is usual in handmade paper, but if the work of art is badly distorted, wrinkled or even torn at the corners it may be poorly adhered to a backing. Paper moves naturally in response to changes in humidity and it is best not to restrain it.
- Yellow or brown stains on paper, especially in regular patches, can be caused by the glue or adhesive tapes used to fix a picture into a mount. Self-adhesive tapes are particularly damaging because the adhesive creeps into the paper, causing unsightly stains and is extremely difficult to remove.
- Avoid the temptation to restore works of art on paper yourself. Dubious traditional remedies such as using bread crumbs to clean off dirt, or the use of commercially produced tapes to repair tears will do more harm than good. Well-meaning attempts have the potential to cause significant damage which can add to the cost of professional treatment or affect the value of your work of art.

**A professionally qualified paper conservator will be able to advise on the causes of damage as well as suggest appropriate treatments and provide recommendations for ongoing care.**

## What you can do

### Environment

Protect framed prints, drawings and watercolours from daylight. Avoid south facing light and use ultraviolet (UV) filtering glass for framing. Try not to hang pictures directly against the interior of the outside wall of a building: the comparatively low temperature can cause condensation and mould growth inside a frame. Conversely, a radiator or spotlight dries the air out, and



Front image: Detail of mould damaged drawing in graphite and chalk by Augustus John

## Find a conservator by using the conservation register

The Register is free to use; it provides detailed information on conservation-restoration practices based in the UK and Ireland including contact details, referenced examples of previous work and the qualifications of members of staff. It is searchable by specialist skill and geographical location and each business has been required to meet rigorous criteria which include professional accreditation of the lead conservator of the business; the information is regularly updated..

[www.conservationregister.com](http://www.conservationregister.com)



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concentrates dirt by convection currents. It is best to keep works of art on paper in a cool, stable environment, with an ideal temperature of 16°C–19°C and relative humidity of 45%–60%. This may not be possible within a domestic setting, but a low and stable relative humidity (less than 60%) will help to slow the deterioration of the paper and reduce the potential for damage from pests and mould.

### Handling

When handling works of art, you should touch the paper as little as possible and keep your fingers away from the image. Pastel and charcoal drawings need extra care because the image may smudge easily: you could consider keeping them permanently framed within a mount that has been rebated to prevent any static or friction. Modern and contemporary prints should not be handled directly either, because their immaculate paper is easily marked with oil and moisture from skin and ink surfaces easily damaged by creases in the paper. Keep them in a mount or acid-free paper folder.

### Storage

If your prints, drawings and watercolours are not on display, the best way to keep them is in a plan chest or a specially designed case. The works of art are protected from light and dirt and can be placed in further protective folders inside the box or plan chest for ease of handling. Boxes, folders and portfolios are available in conservation quality materials and should be stored horizontally. Translucent acid-free tissue paper is good for interleaving or wrapping small items. Ordinary plastic sleeves are not suitable for storing works of art on paper. When choosing a suitable storage area, bear in mind the need for a stable environment and avoid damp cellars and uninsulated attics. Items in storage should be checked regularly for signs of damage.

**A conservator will be able to advise on suitable storage materials, provide estimates for the packing of collections, or carry out a re-housing programme.**

### Mounting and framing

Good quality mounting and framing is one of the most effective methods of preserving and caring for works of art on paper. Guidance is available in the leaflet 'Guidelines for conservation mounting and framing of works of art on paper', (see [www.conservationregister.com](http://www.conservationregister.com)).

As a minimum guide you should think about the following points relating to light and methods of framing. Light damage is cumulative and irreversible. UV filtering glass or acrylic is highly recommended to protect against the most damaging light. Acrylics such as Perspex™ are useful because they are light and unlikely to break on impact.

However, these materials do scratch more easily and because of static, should never be used to glaze pastels, chalks, charcoal or any other friable material.

Your framer should be aware of 'Museum' and 'Conservation' levels of framing and should be able to answer 'yes' to the following questions:

- Will the frame have enough depth in the rebate to accommodate the glazing, window mount, under-mount, isolating layer and the backboard, and the strength to take hanging fittings (secured to the frame not the backboard)?
- Will both the window mount and the under-mount be made of Cotton Museum Board (100% cotton fibre) or Conservation Board (chemically purified woodpulp core or cotton fibre core)?
- If there is no window mount, will the glazing material be spaced away from the picture surface?
- Will the work of art be attached to the under-mount only using paper hinges?
- Will there be an isolating layer of inert polyester between the under-mount and backboard, or will a pH neutral conservation backboard be used?
- Will the frame be sealed with gummed paper tape?

**A paper conservator can help you find a qualified framer.**

## Consulting a conservator

There is much that individual owners or custodians can do to protect works of art on paper, but when damage has already been done it is advisable to consult a paper conservator.

Conservators are trained to understand the physical and chemical composition of paper and associated media, and their methods of deterioration. With professional treatment, the condition of both paper and image can normally be stabilised so that their deterioration is slowed. Although faded colours cannot be restored to their original brightness and severe paper staining may only be reduced, most damage can be addressed by a skilled conservator. The history of the item and the way that it is used will be taken into account when deciding on the appropriate method of treatment.

Some of the ways in which a conservator can help you are:

- Providing advice on suitable environmental conditions and lighting both for storage and display.
- Carrying out condition surveys of individual works of art or entire collections.
- Providing recommendations for treatment including cleaning, stain reduction, removal of self-adhesive tapes, repair of tears, and deacidification.
- Devising 'good housekeeping programmes' for storage areas, including cleaning routines and pest management.

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