

## **Introduction**

A typical, traditional oil or acrylic painting is composed of a number of different materials. It may have a canvas support that is secured to a wooden stretcher frame (or strainer) or to a paperboard, or it might have a wood or fibreboard panel support. The support material normally has one or more “preparation” layers applied to its surface before the various paint layers are applied. Often, varnish is applied to the finished paint surface. The painting may be framed or the artist may intentionally have left it unframed. Each material in a painting will have its own physical reaction to handling and environmental conditions. Each material will also contribute, to a greater or lesser degree depending on the circumstances, to the overall condition of the painting.

This general overview does not attempt to discuss all materials, environmental conditions or damages to paintings, nor all actions that could prevent damage. Paintings on other support materials not covered in this article (for example, various boards, metal, ivory, etc.) may require other considerations and solutions than are offered here.

Artworks on paper supports, created using materials such as watercolours, pastels, charcoal or ink, are covered in “How to Care for Works of Art on Paper”.

## **Types of Damage**

The damage or deterioration found on paintings displayed in our homes is usually seen as cracks in the paint, weak or distorted canvas, torn canvas, cracked or split wood, loose or missing paint, or a discoloured, darkened or faded surface. These can result from a number of factors such as handling or accident, inappropriate levels, or changes in levels, of relative humidity and temperature (especially if the changes occur quickly or frequently), direct sunlight, the accumulative effect of natural or artificial light and inappropriate or inadequate framing. Sometimes damage can result from an artist’s particular use or mix of materials.

## **Preventing Damage**

There are a few things you can do to avoid or reduce some types of damage in a painting.

### *Handling and Moving*

Handling is a major cause of damage to artworks. Before handling a painting, give it a cursory examination to see if it can be moved safely, without damage. Each handling increases the chance of accident, and moving a painting to a new location can have detrimental effects due to a change in environment. Paintings are especially susceptible to cracking when they are in a dry environment (for example, in a dry attic or in a heated household in a northern winter) or when exposed to cool-to-cold air. Do not transport a painting in an unheated vehicle in cold weather. It is best to transport a painting when the temperature and relative humidity are likely to be more moderate, which, in a northern climate, is usually in spring or autumn.

When it becomes necessary to handle or move a painting, avoid touching the paint surface or the back of the canvas. Do not apply any kind of pressure (even finger pressure) to the back of a canvas -- cracks in the paint will likely develop after a time. Regardless of when or by whom a painting is transported, the painting’s wrapping or package should be:

- **moisture and water resistant;**
- **wrapped and sealed** in such a way to guard against changes in relative humidity;
- **puncture and dent resistant, both front and back;**

- **cushioned** against possible shock from bumps or drops during handling and transport; and
- **insulated** against cold or extreme heat and against quick changes in temperature.

### *Backing Board*

Once you have acquired a painting on canvas, a good first protection measure is to attach a rigid backing, such as a corrugated/fluted plastic sheet, to it. Do this by screwing the backing material onto the back of the stretcher. This may be one of the most beneficial things you can do for your painting. This backing will serve several purposes. It will help reduce the effect of rapid changes in relative humidity around the painting, while providing some physical protection from pressure or direct contact against the canvas back, and will reduce vibration caused by handling or moving. The procedure of attaching this backing can be damaging to the paint surface if not done correctly. Please contact CCI for directions and advice. CCI Notes 10/10 gives detailed information and instructions on backings.

### *Framing*

A frame is not only an aesthetic part of a painting, it also helps protect the more vulnerable parts of a painting from direct handling. It also provides some rigidity that helps reduce damage if the painting is accidentally dropped. An original frame may have value in its own right. Frames should not be discarded or altered without careful consideration.

Your painting will probably already be framed. If not, and if it is meant to be framed, obtain a suitable frame that will hold the painting securely, but not too tightly. The painting will need a bit of space to expand and contract slightly due to changes in the environment around it. Do not use nails to secure the painting to the frame. Instead, use metal mending plates that span the gap between painting and frame. Screw the plates into the frame only, not into the stretcher or strainer. If glazing (glass or acrylic) is used in a frame, it should not touch the paint surface. The frame can be fitted with a spacer to hold the glazing away from the image. The rabbet edge of the frame, the surface on which the painting edges rest, should be padded to prevent abrasion to the paint. See CCI Notes 10/8 for detailed information and instructions on framing. If a painting is not meant to be framed, the painting is more vulnerable to damage. Take extra care in handling and make sure hands are clean in order to prevent fingerprints and natural oils from being deposited on a painting's edges.

### *Display and Storage*

When considering a location to display artwork, determine if the object will be in harm's way. Is it a location where the painting might be prone to physical damage? Is it a busy hallway? Do people touch this wall or lean against it? Is the location in an area affected by splatters from beverages or foodstuffs, or by misting and watering nearby plants?

Try to display your paintings in a place where the relative humidity and temperature levels are fairly constant, not very high (above 60%) or low (below 40%), and where the levels do not change quickly. Rapid environmental changes will occur in locations near an open door or window, or in locations directly affected by the airflow from heating and cooling ducts or radiators. The space above a fireplace is normally a display place of honour, but it is not the best choice. The environment at the chimney can fluctuate. It can become hot, very dry from the heat and somewhat sooty as a result of using the fireplace. Mount paintings only against outside walls that have a good vapour-barrier and insulation. Secure paintings to walls using picture

hanging hooks of the appropriate size for the weight of the painting. Hooks are more reliable and do less damage to walls than nails. Using two hooks per painting makes it easier to hang the painting straight and keep it level.

Avoid storing paintings in a damp basement or a dry attic. A better choice is to keep each painting protectively wrapped (and securely sandwiched between two pieces of rigid sheet material, for example, cardboard or corrugated plastic, to protect them from touching nearby objects) and stored vertically in a closet in a more central area of the house.

Daylight is very high in radiation that is damaging to paintings. Totally avoid this exposure if possible. Watch that there is never any direct sunlight on paintings at any point during the day. Indirect or reflected daylight is better than direct; the further away from the painting, the better. Even “normal” natural or artificial light levels for prolonged periods will cause fading. Directing lights at the painting can cause damaging hot or warm spots on the paint surface. As a general rule, display your more valued artworks in areas that receive less direct or prolonged light. Fading or colour change can go unnoticed for a while, but over time it may become quite noticeable. Light damage cannot be reversed.

The paint surface will, over time, accumulate dust and pollutants, airborne grime from cooking oils, particles from smoking and insect “specks”. If displayed in a dining room, a painting may receive accidental splatter. In this case, it may be best to protect a painting by giving it a better location or by using a glass or acrylic sheet in the frame to shield the paint. CCI Notes 10/3 and 10/4 give detailed information on storage and display and on environmental guidelines.

## **Cleaning and repair**

Properly cleaning the surface or repairing damage and deterioration on a painting is a job best left to a professional conservator. The conservation procedures can be complex and potentially damaging, depending on the particular materials and condition of a painting. Although a cleaning may be put off indefinitely, tears in a canvas painting should be dealt with relatively quickly; otherwise the canvas may become misaligned and it may become difficult, if not impossible, to realign the broken threads.