

# Presentation, conservation and care of artworks at Geelong Gallery



## Introduction

Geelong Gallery was established in 1896 and is one of Australia's leading regional galleries. The Gallery holds a magnificent collection of 6,000 works including 19th, 20th and 21st century Australian and European painting, sculpture, printmaking, photography and decorative arts.

The Gallery has important holdings of 18th and 19th century British, Irish and Welsh porcelain, and colonial Australian silver. The historical collection has been developed with a special focus on early images of the Geelong region, the exemplar of which is Eugene von Guérard's 1856 masterpiece View of Geelong.

As you walk around the Gallery you will notice that many of the paintings on display have come into the collection as the result of a bequest or gift to the Gallery from residents of Geelong. Other works have been donated through the Australian Government's Cultural Gifts Program. Purchases have been made from donations and bequests funds or with the assistance of grants provided by state and federal governments.

The staff at the Geelong Gallery has the responsibility of preserving the collection for future generations of Gallery visitors. Works of art deteriorate with age, and there are a number of factors that accelerate this process including climatic conditions, air pollution, pests, light and handling. At the Gallery the conservation of art works includes good housekeeping, monitoring climatic conditions, fumigation to prevent pests and a visitor education program.

## Conservation

Conserve: to keep from harm, decay or loss, especially with a view to later use

Conservation: preservation

Conservator: preserver, official custodian

## Good housekeeping

The Gallery maintains, as far as possible, a dust free environment for works of art. This includes regular cleaning of galleries and storage areas. The Gallery is regularly fumigated to control insects and rodents that may eat art works.

## Storage

The Gallery has an orderly secure storage system with separate storage facilities for each media category: paintings, works on paper, sculpture, decorative arts, furniture and new media.

A special type of storage box is used for works of art on paper. These are called Solander boxes. The boxes are named after Daniel Solander (1733–1782) who accompanied Captain James Cook and the botanist Joseph Banks on their voyage of discovery in 1770. He designed the box to store the vast array of specimens collected on this voyage. Solander boxes exclude light, restrict oxygen, provide stable humidity and temperature and keep works of art in a non-acidic environment.

Geelong  
Gallery

Preparation, presentation and  
conservation at the Geelong Gallery

**Learn resource**

[geelonggallery.org.au/learn](http://geelonggallery.org.au/learn)

Howard Brown (photographer)  
*Untitled (Hitchcock Gallery with an exhibition of Paul  
Montford's sculpture)* 1924  
black & white photograph  
Geelong Gallery archives

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### Framing and mounting of works

Works of art are mounted and framed to protect them from damage whilst on display. Materials used in framing and mounting are important. Cardboard and newspaper made from wood pulp contains lignin. When lignin is exposed to oxygen it releases acids that cause the paper to discolour and become brittle. It is important that these materials do not come into contact with art works. Art works are framed and mounted in acid-free mount board then stored in Solander boxes made from non-acidic and acid-free card. Today most art works are made on paper made from cotton pulp that does not contain lignin, and museum mount board is made from cotton.

### Gloves

Nitrile gloves are most often worn when handling works of art. The gloves protect the surface of art works and their frames from damage caused by the oils and acids secreted through pores in the skin. The rubber-like inert surface of the gloves provides a strong grip and prevents slippage (which can sometimes occur when wearing soft white gloves).

Riggers gloves (nitrile/latex)—heavy objects

Finally, sometimes having very clean hands is the safest option when handling delicate textiles and works on paper because this provides a safe grip on the work. If you are handling works of art without gloves you need to frequently clean your hands.

### Monitoring climatic conditions

Climatic conditions affect works of art, in particular, humidity or the level of moisture content in the air and fluctuations in humidity and temperature.

### Humidity

The optimum level of humidity is 45–55%, creating a 10–12% buffer zone before 67% is reached (when mould begins to grow). As well as mould growth high humidity levels can cause swelling, distortion and corrosion on metal, stone or plastic. Low humidity may cause shrinking, distortion or objects to become brittle.

### Where does the mould come from?

Mould surrounds us. It is in the air. It never dies but instead goes into a dormant stage. All works of art will have mould on them. Significant deposits of dormant mould will be found on old works in particular. Mould specimens taken from 3,000–5,000 year old Egyptian tombs have been regenerated. Objects made from animal or plant materials, such as wood and fibre—these include paintings (canvas, frames, paint and stretchers), works on paper, and textiles—will expand in high humidity as they absorb moisture from the air, and shrink in low humidity as they lose moisture to the air.





### **What is the effect of fluctuations in humidity?**

An important aspect of climatic control is to ensure humidity levels do not fluctuate. In the case of paintings that are normally made up of a series of layers, including the stretcher, canvas, primer, paint, and perhaps varnish, each element will absorb moisture and lose moisture at a different rate creating tension between layers. This tension may result in the stretching, shrinking and crackling of the paint surface.

### **What is the ideal temperature for works of art?**

The ideal temperature for works of art in a Gallery display situation is around 18–21°C. More importantly, however, it is critical to maintain stable conditions.

### **How does the Geelong Gallery monitor climatic conditions?**

Temperature and humidity levels in the Geelong Gallery are monitored by thermo hydrographs and by digital data loggers. Thermohygrographs measure temperature and humidity 24 hours a day and record the readings on graph paper. Digital data loggers measure temperature and relative humidity. These can be placed discretely on walls and within display cases. They can either connect to a computer via Bluetooth technology, or a USB, to download a graph of the readings. In the Gallery and art store an air-conditioning system maintains stable humidity and temperature levels.

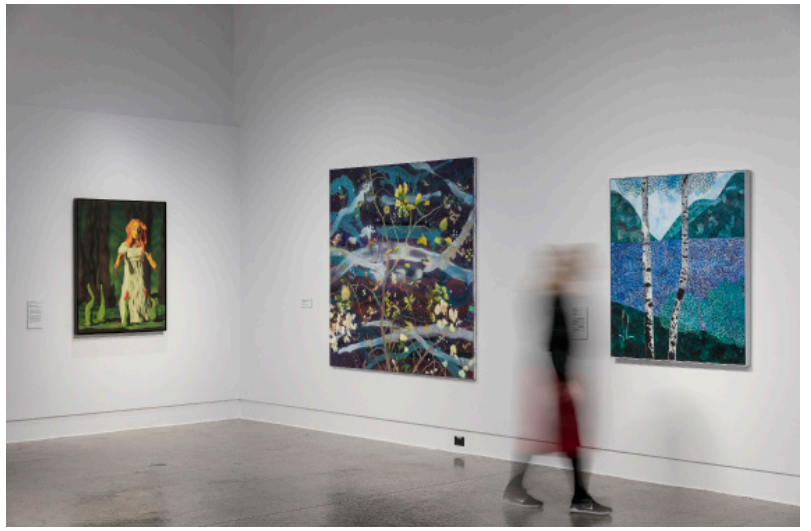
### **Controlling light exposure**

Exposure to light may cause fading or discolouration of colours (pigments), or weakening of paper and natural fibres. Not all works of art are equally sensitive to damage by light. Works on paper, textiles, photographs and some plastics are highly sensitive to light. Paintings (oil and acrylic), furniture and wood sculpture are moderately sensitive. Metal, glass, marble, stone and ceramic are insensitive.

To counteract the damage caused by exposure to light, the Geelong Gallery moderates lighting levels in the galleries and storage areas, as well as rotating off and on display those works that are highly sensitive to light.

Natural light that enters through the Gallery's skylights and windows is filtered by special glass or tints that absorb ultra-violet (UV) light that is damaging to sensitive art works. Light levels can be dimmed in gallery spaces where highly light-sensitive works of art are on display. These works are also not on permanent display. The ratio generally applied to display/storage time is 1:3, so that if a drawing is displayed for 1 month it will be stored for 3. Whilst in storage these works are kept in boxes that eliminate light, or in dark areas of the storage area. Keeping works away from light does not repair damage caused by light deterioration, but prevents further damage.





### How do we measure light levels?

Levels of light are measured by a device called a lux meter. Lux is the internationally recognised unit of light energy. Light energy consists of wavelengths beyond the 'visible spectrum' of light, which is what the human eye can see. The lux meter measures the light energy in lux.

- Highly sensitive works can be exhibited at 50 lux
- Moderately sensitive works can be exhibited at 150–200 lux
- Works insensitive to light can be exhibited to or at 800 lux with no upper limit.

The Gallery staff cannot prevent the deterioration of works of art through light, however the staff aim to manage and limit the rate of deterioration. Light is also used in the Gallery to enhance the appearance of works of art, their colours and contours.

### Conservators

Conservation of damaged art works is a labour intensive and expensive process. The Gallery sends works that require cleaning, or may have been damaged, to specialist conservators who are able to clean, repair and stabilize the condition of art works before they are returned to display.

### Guidelines for visitors

We ask that students (and other group visitors) observe the following guidelines in order to preserve our collection.

- Large bags to be left in the cloak room. School bags and other bulky items are not permitted in the Gallery and we ask that you leave these items in our cloak room.
- Food and drink are not allowed inside the Gallery.
- Please do not run.
- In consideration of the other visitors and the safety of the artworks, we ask that movement through the Gallery is orderly.
- Teachers to accompany their group throughout the Gallery visit at all times.
- Stools and clip boards are available for student use.
- Pencils are to be used in the Gallery. Ink is difficult to remove from most surfaces. For this reason, we prefer students to use pencils in the Gallery.
- Please do not touch. Even the gentlest touch can damage works of art.

