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## Basic Handling of Paintings – Canadian Conservation Institute (CCI) Notes 10/13

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### List of abbreviations and symbols

#### Abbreviations

CCI	Canadian Conservation Institute
HTS	handling-travel-storage
PDF	portable document storage

#### Symbols

cm	centimetre
in.	inch

### Introduction

The proper handling of a painting is fundamental to its safety and preservation. Most damage to paintings and their frames occurs during handling. Types of damage include stains, dirt deposits, paint loss, surface abrasion, dents, large-scale tears in canvas paintings, minor to serious scratching and scrapes as well as loss of decorative elements on frames. Assessing and following through on handling requirements and guidelines are essential when moving any painting, framed or unframed. Adherence to these guidelines is part of a professional attitude that places an emphasis on the safety of the object.

The need to handle a painting may arise at any time: during acquisition, during examination and treatment, when moving in or out of storage, when mounting for display or when preparing for transportation. As a rule, a painting and its frame should be handled as infrequently as possible since the more they are moved or touched, the greater the risk of damage.

Damage during handling is most commonly caused by:

- underestimating the weight of a painting (especially if it is framed);
- not seeking assistance with lifting and moving (most paintings, even easel-sized paintings, require two handlers and a spotter; larger paintings require multiple handlers and spotters);
- not using proper equipment and materials (moving devices and gloves);

- improper use of equipment, or inadequate or lack of training in using equipment;
- not planning a safe, uncluttered route;
- not preparing in advance a safe place to deposit the painting (when preparing for hanging or packing); and
- incorrectly manipulating the painting.

Risk to paintings during handling can be reduced or eliminated by following a few basic guidelines, as outlined below.

## Considerations prior to handling

Before handling a painting, take the following steps.

### 1. Examine the painting and frame

If a painting is hanging or is otherwise accessible for examination, check carefully to ensure that there are no obvious impediments to handling and moving, such as flaking paint. If the painting is framed, ensure that the frame is stable, has no loose decorative elements and is structurally sound (corners secure and any frame liner well-attached). If either the frame or painting has a problem that does not permit safe handling, then in situ stabilization should be carried out by a conservator or museum technician before handling can be safely undertaken.

If a painting is stored flat on a shelf or in a travelling crate, ensure that there are enough handlers to move the painting in the same horizontal position to a prepared flat surface where it will be examined. When a painting, framed or unframed, is lifted horizontally out of a packing crate, each of the four corners must be supported in case the stretcher, strainer or frame is weak.

For paintings on stretchers, it is useful to note whether all keys are well secured, because loose keys will often fall behind stretcher bars when paintings are moved. This is especially important if the painting is to be moved any distance. Checking the keys is straightforward: place the painting on its edge and examine the back (if there is no backing board). If the painting has a backing board, consult the painting's condition report to confirm that the keys are secured. As a last resort, the backing can be removed with the painting supported face down to confirm the status of the keys.

If the painting is placed on its edge or face up or face down, consult CCI Note 10/2 [Making Padded Blocks](#) for advice on the use of padded blocks.

### 2. Plan the move.

Here are the points to consider when planning the move:

- Know the size of your painting and be sure that the intended route will accommodate the painting, frame and handlers.

- Know the weight of your painting to ensure that enough handlers are assigned to the move.
- Clear a path, whether the painting is being carried by hand or on a transport device. Do not attempt to squeeze between and around objects such as tables, chairs, carts, etc., because navigating around sharp corners can easily pierce a canvas.
- Plan and discuss each handling movement before it happens so that all turns are coordinated.
- Designate a spotter. One is usually enough for medium-sized paintings, but more may be required for larger works. A spotter ensures that the path remains clear, warns people to move aside and alerts handlers to any potential hazards, such as proximity to walls, ceilings, doorframes, stair railings, etc., that may have to be navigated.

### **3. Prepare the receiving area before moving the painting**

Ensure that there is a safe place to rest the painting before installing or crating. For example, the painting can be temporarily stored on padded blocks (described further in CCI Note 10/2 [Making Padded Blocks](#)) well beyond the flow of traffic or placed face up on a padded table surface large enough for the painting and frame and capable of taking their weight. There should not be any extraneous items on the table such as rolls of tape, polyethylene, wire, nails, etc. The surface of the table should be padded with a slightly compressible material such as thick felt or expanded polyethylene foam. This surface must be covered with a layer of Mylar or polyethylene sheeting, secured at the edges, to prevent the painting or frame from snagging on the padding material.

## **Considerations during handling**

Observe safe handling practices as described below.

### **Obtain the assistance of others or acquire equipment such as trolleys**

It is always preferable to use moving equipment such as an A-frame trolley (Figure 1), especially if the painting is heavy or oversized. Using moving equipment avoids many of the hazards associated with handling and moving.

If moving equipment is not available, a minimum of two people are required to safely carry easel-sized paintings. Each handler should place one hand along the lower edge or bottom corner and the other hand along one side towards the top corner to balance the weight of the painting (Figure 2).



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Figure 1. Moving larger paintings using an A-frame trolley.



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Figure 2. Two people are required when installing, taking down from exhibit or moving easel-sized paintings.

## Handling practices, general comments

- Any personal accessories, such as dangling jewellery, mobile devices, shoulder bags, etc., should be removed because they can snag on, hit or scratch the paint and frame surface.
- Handle only one painting at a time. More than one painting can be transported on moving equipment if the paintings are wrapped and interleaved with rigid packing materials (consult CCI Note 10/16 [Wrapping a Painting](#)).
- Most paintings are susceptible to marking and soiling, in particular modern colour field or hard-edge paintings. Painted edges, particularly in modern and contemporary art, are considered to be an integral part of the work. It is important to avoid touching these “viewed” edges. To avoid transferring natural oils, moisture and dirt from your hands onto the painting, wear clean, well-fitting, lightweight cotton or latex gloves. Loosely fitting gloves can be a hazard as they do not provide a firm grip and tend to catch on projecting surfaces. Frames with polished or gilded surfaces must also be handled with gloves because these sensitive surfaces are susceptible to damage from moisture.
- Do not hand the painting to another person. Place it where the person can lift it in a controlled manner.
- Never carry a painting by its hanging wire, by the top of its frame or by any one side alone.
- When handling an unframed canvas painting, ensure that hand pressure is not placed on the canvas, either front or back, when lifting and carrying it by its stretcher or strainer bars.
- Frames are most vulnerable at their corner joints. If a framed painting is held along one side only, the combined weight of frame and painting can often pull the joints apart.
- It is preferable to carry a framed or unframed painting with the front surface facing the carriers. In the event of a mishap, the backing board will protect the canvas (consult CCI Note 10/10 [Backing Boards for Paintings on Canvas](#) for more details on backing boards).

## Handling small paintings

In the case of a small framed painting<sup>1</sup>, if moving a short distance, carry it by grasping firmly with one hand on each side. If the painting is not framed and is small enough for one person to carry, hold it with the flat of your palms against its edges as if it were a panel freshly varnished on both sides.

If the painting is to be moved any distance and must travel, for example, between floors (where there are elevators) or through unavoidably high traffic areas, then the painting must be secured on a transport device, such as a cart with a flat tray top with edge restraints. Or, if the painting is small enough, place it in a container and carry it by hand. This container can be as simple as wrapping the painting and frame in acid-free tissue and securing them between two sheets of pre-cut card. Ensure that the securing material, if adhesive, does not touch the painting and frame.

If the painting is unframed and cannot be wrapped without risk to the paint surface, then place the painting in a shallow, open-face box whose sides are deeper than the depth of the painting. Cover the box with a rigid card lid, if available, or a sheet of polyethylene taped to the edges of the box. The box can be moved, held flat, either by hand or on a transportation device. For more information on wrapping framed or unframed paintings, refer to CCI Note 10/16 [Wrapping a Painting](#).

## Handling large paintings

Multiple handlers are required for large framed works or large-scale contemporary art. Large-scale, unframed works on canvas may be stretched over weakly constructed strainers. This makes them highly unstable and prone to twisting. These paintings should have a rigid backing applied before being moved to provide some dimensional stability to the overall structure. These paintings should only be moved on transport equipment (for example, A-frame trolleys) and should be adequately supported, when on the trolley, along several vertical strainer bars.

Many oversized paintings, framed and unframed, are best handled, transported and stored in permanent handling-travel-storage (HTS) frames. HTS frames are shallow, box-like constructions with rigid backs, either partially or completely closed-in. The HTS frame is a framework of wooden supports to which are attached skins either of plywood or lighter weight rigid materials, such as Gatorfoam or Fome-Cor board. The painting is attached to the HTS framework using detachable mending plates or clips that normally remain with the painting when it is removed from the HTS frame. After the painting is installed in the HTS frame, the opening is sealed with a stretched sheet of polyethylene. This provides some basic protection while allowing for visibility during storage. HTS frames are highly recommended for oversized paintings and for contemporary paintings with sensitive or high impasto paint surfaces, especially when these paintings are not framed. Further description and illustration of HTS frames are provided in CCI Note 10/16 [Wrapping a Painting](#).

## Handling paintings in an emergency situation

In an emergency situation, it is important to remember that the health and safety of those involved in the emergency salvage must be the first consideration. Handling artworks should only occur where risks to human health have been thoroughly assessed and addressed.

Remember, as well, that artworks are most frequently damaged while moving. The damage that may result from moving artworks during a salvage operation can be as bad as, if not worse than, the damage sustained during the present disaster.

Recommendations 2 and 3 in the [Considerations prior to handling](#) section, “Plan the move” and “Prepare the receiving area before moving the painting,” are crucial in an emergency situation. It is understood that activities such as examination and proper wrapping may be out of the question in an emergency situation, but planning the quickest and safest route out of a building or storage area (for handlers and artworks) will expedite the salvage.

Always plan in advance where the artworks will be taken and how they will be taken in order to ensure safe and/or reduced handling. A lot of handling is often involved in emergency situations; for example, exiting the original location, entering and exiting trucks or other vehicles, re-entering temporary storage and relocating from the storage area to its new (or former) location. Once removed from the site of the disaster, it is important to protect the artwork by packaging it, especially if more moves are contemplated.

If many small to medium-sized artworks have to be moved quickly and they are framed or on rigid supports, they may be stacked, on edge, in temporary crating or in cardboard moving boxes and, time and supplies permitting, cardboard spacers could be placed between them. In this way, more artworks can be moved at once, reducing the risk of loss or damage to individual works.

When moving large paintings in an emergency situation, the handlers must ensure, as much as possible, that a pathway is clear. If possible, place a rigid sheet of cardboard on both the front and back of the artwork and secure the sheets together by using a non-adhesive tape (available from moving supply companies). If there is no time or space to place cardboard on the artwork before the move from the building, then cardboard should be used as loose spacers between large paintings when these are secured either in a moving vehicle or in the new storage location. Ensure, if placing cardboard between large paintings, that the corners of the cardboard are rounded, because sharp corners can significantly damage canvas paintings

## What to do in case of an accident

If a painting is damaged while being handled, the circumstances surrounding the incident should be recorded and any detached pieces carefully collected and identified. Photographic documentation is always useful. This information should be forwarded to a qualified conservator for advice on proper procedure and possible treatment.

**Please note:** Many fine art insurance policies do not cover loss or damage caused by unskilled handling.

## Conclusion

A safe handling environment for paintings can be encouraged if the museum provides periodic training for its staff. All personnel expected to handle artworks should receive instruction on the basic care and handling of museum objects and should be prepared to strictly adhere to guidelines established for handling artworks.

Moreover, the staff must exhibit personal initiative to assess, improve and implement practices that promote the safe handling of paintings.

## End note

<sup>1</sup> To be safely handled by one individual, a painting plus frame must be small enough to allow for a clear line of sight around the artwork while in transit. This translates into a dimension of about 40 cm (15.75 in.) in both horizontal and vertical axes.

## Suppliers

Cotton or vinyl gloves:  
local safety supply stores

Non-adhesive packing tape:  
moving supply companies

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