Canadian Conservation Institute
Institut canadien de conservation

CCI Notes 8/3

Care of Mounted Specimens and Pelts

Introduction

Many museum collections include mounted birds and mammals as well as furs and pelts. These greatly benefit by routine maintenance as described below.

Caution: The skins of some mounted specimens may have been treated with arsenical soap or DDT, both of which inhibit insect attack. These substances are potentially dangerous, and can cause severe skin irritation or other toxic symptoms. For this reason it is a good idea to wear disposable gloves while handling specimens, as well as a dust smock and a particle filter mask during cleaning.

Relative Humidity and Temperature

At a relative humidity (RH) of over 65%, there is a danger of mould growth on mounted specimens and pelts. To prevent this condition, the recommended range of RH is between 45 and 55%. Extreme dryness should be avoided, as desiccation can cause cracking and embrittlement. It is also preferable to avoid temperatures above 25°C, although this is less critical as long as the RH is maintained in the proper range.

Illumination

All types of fur and feathers are subject to discoloration by light. Dark colours fade and light colours become yellow. Such photochemical changes are irreversible: they can only be prevented by careful control of exposure to illumination.

Ideally, furs and feathers should not be subjected to light levels higher than 50 lux with a maximum ultraviolet light content of 75 µW/lm. Information on the measurement of light levels can be found in CCI Notes 2/4, *CCI Environmental Monitoring Kit* and CCI Notes 2/5, *Using a Camera to Measure Light Levels*.

Storage

Never store objects in areas where environmental conditions are poor: for example near leaky pipes (high RH) or radiators (high temperatures), or on concrete floors. Objects should never be located close to lights, which can cause damage both by localized heating and excessive illumination. To prevent fading in specimens, they should all be stored in the dark.

To inhibit mould growth and insect attack, ventilate storage areas well and keep them free of dust and dirt. Use fans to maintain air movement; protect objects from dust by covering them loosely with clean, tightly woven cotton drop sheets. Polyethylene sheeting may also be used if it is "tented" over the specimens so as not to come in direct contact with them.

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Storage areas and displays should be checked at least twice a year for signs of insect attack (CCI Notes 3/1, *Examining for Insect Infestation*). If such an infestation is detected, please contact the Environment and Deterioration Research Laboratory at the Canadian Conservation Institute for advice.

Handling

Improper handling is a major cause of damage, particularly to mounted specimens, which by their nature are very rigid. It is quite easy to break a wing, leg or tail or to damage feathers if the objects are handled roughly. Whenever possible, these objects should be lifted by the base.

Although pelts are generally more pliable than mounted specimens, care should be exercised in their handling to ensure that they are not stretched or folded excessively. Adequate support, especially for large, heavy pelts, is essential; use of a rigid board, covered with Mylar or construction polyethylene sheeting will help prevent damage when they are moved.

The loss of hair from pelts and specimens is a continuing process. Little can be done to re-adhere hair or prevent its loss. The only recourse is to minimize the handling of these objects.

Cleaning

Specimens which are stored or displayed in the open (i.e., not in cases) should be dusted at least twice a year. This can be done with a soft brush. Brushing should always be in the direction of growth of hair or feathers. Brush towards a vacuum cleaner nozzle covered with a piece of gauze or plastic screening; this prevents accidental loss of loose parts of the specimen. Never apply the vacuum cleaner nozzle directly to a specimen.

Special caution should be exercised with furs of the deer family. The hair on older specimens can be very brittle and may either pull out or break off when brushed and vacuumed.

For advice on the cleaning of extremely soiled objects or on repairs, please contact the Ethnology Laboratory at the Canadian Conservation Institute.

Suppliers

Particle and organic vapour filter masks: Safety Supply Ltd. which has branches in most major centres across Canada

Mylar or polyethylene sheeting: suppliers of plastic products or construction materials

Bibliography

Canadian Conservation Institute. *CCI Environmental Monitoring Kit.* CCI Notes 2/4. Ottawa: Canadian Conservation Institute, January 1984.

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Canadian Conservation Institute. *Removing Mould from Leather.* CCI Notes 8/1. Ottawa: Canadian Conservation Institute, January 1984.

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Copies are also available in French

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