DAWSON AND HIND

SPRING 1977
VOL. 6 NO. 2

SPECIAL EDITION **DISPLAY TECHNIQUES**

a quarterly publication of the association of manitoba museums

dawson and hind

SPRING 1977
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Dawson and Hind is published quarterly for the Association of Manitoba Museums by the Museums Advisory Service, with the co-operation of the Historic Resources Branch, Dept. of Tourism, Recreation and Cultural Affairs, Province of Manitoba.

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Unsolicited articles are welcome. Address all correspondence to:

The Editor
Dawson and Hind
190 Rupert Avenue
Winnipeg, Manitoba R3B ON2

Simon James Dawson was appointed by the Canadian Government in 1857 to explore the country from Lake Superior westward to the Saskatchwan. His report was among the first to attract attention to the possibilities of the North West as a home for settlers. He was later to build the Dawson Route from Lake-of-the-Woods to Winnipeg, Manitoba.

William George Richardson Hind accompanied his brother, Henry Youle Hind, as official artist, when the latter was in command of the Assiniboine and Saskatchewan exploration expedition of 1858. W. Hind revisited the North West in 1863-64 and painted numerous paintings of the people and general scenes.

Association of Manitoba Museums

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AIMS OF THE ASSOCIATION

Object
The advancement of museum services in Manitoba by:

a) promoting the protection and preservation of objects, specimens, records and sites significant to the natural and human history of Manitoba

b) aiding in the improvement of museums in their role as educational institutions

c) acting as a clearing-house for information of special interest to museums

d) promoting the exchange of exhibition material and the arrangement of exhibitions

e) co-operating with other associations with similar aims

f) other methods as may from time to time be deemed appropriate

Invitation to Membership
You are invited to join the Association of Manitoba Museum so as to take part in its activities and provide support for its projects.

Activities and Projects
A number of activities and projects are planned to help the AMM achieve its objectives. These include:

a) the publication of a regular newsletter and/or quarterly to discuss the activities of the museums, provide information on exhibits, and to distribute technical and curatorial information

b) a regularly updated list of museums in the Province, including their main fields of interest and a list of personnel

c) conducting training seminars aimed at discussing problems of organization, financing, managing and exhibitions at an introductory level

d) organizing travelling exhibits to tour Manitoba

e) the completion of a provincial inventory to assist in preserving our cultural heritage

MEMBERSHIP CLASSIFICATIONS

Individual Membership - open to any resident of Manitoba who wishes to promote the aims of the Association, whether or not he or she is connected with a museum. Annual fee - $3.00

Associate Membership - this includes institutions and individuals outside the Province of Manitoba who wish to promote the aims of the Association, whether or not such member is connected with a museum. Annual fee - $3.00

Institutional Membership - this is restricted to museums located within the Province of Manitoba. Annual membership fee is based on the museum's annual budget as follows:

Annual Budget		Membership Fee
100	1,000	$10.
1,001	20,000	15.
20,001	40,000	20.
40,001	80,000	25.
80,001	160,000	30.
160,001	320,000	35.
320,000+		40.

Further information may be obtained by writing to the Secretary-Treasurer, Association of Manitoba Museums, 190 Rupert Avenue, Winnipeg, Manitoba R3B ON2.

Editor's Forum

DIANE SKALENDA
Museums Advisory Service
Manitoba Museum of Man and Nature

This issue of the **Dawson and Hind** is a departure from the norm in several ways. First, and probably most obvious, the physical format has been changed. This is due to the fact that we are fortunate to have an IBM Electronic Selectric Composer (typesetting machine) on a six-month trial basis. The *justified* two-column format is a result of such a machine. It also allows the quarterly to appear more compact when, in fact, this issue is larger than the usual 90-110 typewritten pages.

One of the purposes of the **Dawson and Hind** is to disseminate technical and curatorial information and this is usually reflected in several articles in each issue. However, we thought it was time to devote an entire issue to technical information. An issue which you could constantly use as a source of reference.

As a result of this decision, we created a hypothetical situation. We assumed that we were asked to do an exhibit for a community museum, with limited funds, using artifacts related to the fur trade. In this issue, we discuss everything from collecting the artifacts, cataloguing them, conserving them, building a display case and setting it up. We also have a rather extensive section on the use of photographs for museum purposes.

The result of this hypothetical situation is an actual exhibit entitled **Beavers, Blankets, and Beads.** Our resources were very limited, but we endeavoured to make the exhibit as attractive, interesting, and practical as possible. The exhibit is by no means perfect, but we hope it will demonstrate that a little ingenuity, combined with very basic techniques, will go a long way.

Don't be afraid to try new techniques with the materials you have on hand. Often, just by trying a new approach, you can totally revitalize an old, and sometimes monotonous, exhibit. Experiment a bit and have fun in the process. That little bit of extra effort may result in a more challenging exhibit for you, and a more interesting exhibit for your visitors.

B.D.S.

Developing a Storyline

WARREN CLEARWATER
Museums Advisory Service
Manitoba Museum of Man and Nature

Museum exhibits are essentially a means of communication. Planning the manner in which a story is to be told or information is to be conveyed (whether a single case or a total gallery) must not be a hit-or-miss effort or the mere lumping together of similar artifacts within a given area. An exhibit must be a unit, and the individual parts must contribute to that unit if communication from the specialist to the visitor, via the exhibit, is to be achieved.

In planning museum displays, a person should be thoroughly familiar with five factors-

1. The idea or story to be told.
2. The best artifacts or objects with which to tell it.
3. An awareness of the audience it is to reach.
4. The area or space to be devoted to the story.
5. A knowledge of available cases, panels, case furniture, building materials, design techniques, with which to present the story.

In this article we will go through all the previous points, placing the most emphasis on the development of the storyline.

Two basic methods of developing a display:

1. Composing a theme and then gathering the artifacts which best exemplify the theme.
2. Taking an inventory of what artifacts are available or can easily be obtained and developing a theme around them. This is the method used by most community museums.

The first step in developing a storyline for an exhibit is to sit down with the museum board and decide on a subject or theme. At the same time it is important to decide upon such points as what percentage of the entire exhibit will be human or natural history. It is also at this stage that the board or committee should decide upon what person or people will research a specific topic or artifact. There is little benefit in having several people doing days of research on the same topic and not knowing someone else is finding the same thing at another place while both neglect some important aspect of the display.

The next step is for the board or staff to elect a chairperson. It is this person's job to set deadlines for the researchers to have their preliminary information in as well as any cost estimates. The chairperson would also handle the budget alloted for the display.

You are now at the stage where basic research can begin. Depending on your theme, there are many institutions open to you. Some of the best sources we have found include the Provincial Archives, Provincial Library, universities, government departments, local libraries, oral history tapes, and information gathered from local residents and by visiting other community museums.

Institutions such as the Provincial Archives and Library, the university libraries, and government departments, will often have much of the inform-

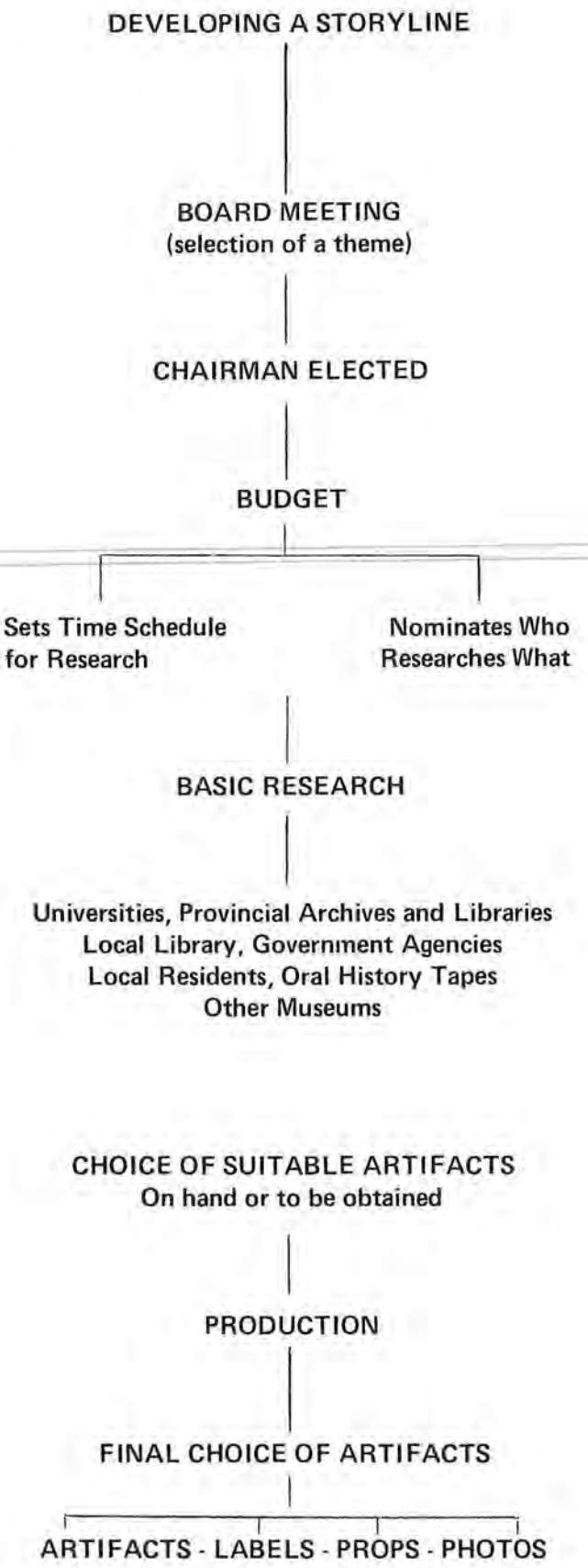
ation gathered for you if you simply let them know ahead of time what you want. This saves you countless hours of going through library and cross reference cards and searching through stacks of books. One very important thing to remember when you do call one of these institutions prior to your arrival is to be very specific as to what type of research you are doing - do not just ask the Provincial Librarian to find you everything on Indians or early settlement in Manitoba.

The information gleaned from all the previous sources is known as secondary information or material as contrasted to primary material. The primary material includes such items as your artifacts, documents, photographs, history tapes, and diaries - the items you will actually display in the exhibit. The secondary research is usually done first and the gathering of the primary materials usually done later.

When going through your supply of gathered secondary material, jot down all pertinent information on file cards in point form along with references (title, page number, etc.). There is nothing more annoying than remembering having read a perfect quote in some book and then not knowing what book you read it in, or perhaps not even knowing at what institution you found the book. Also remember not to get carried away when doing research. Do not spend three months doing research on a case that is only two feet square - judge yourself accordingly.

Once all your pertinent secondary information is gathered and placed on cards with references, the information is written into a fairly lengthy essay or report. This report should be quite detailed as it is from here that you will eventually draw your storyline and label copy.

You are now at your final step in storyline development, that of carefully reading over your essay or report with a very critical eye, then methodically picking out information and condensing it from perhaps one paragraph to one sentence. Storyline and labels must be informative, truthful, and understood by the museum audience. They should be written in a way that an average twelve year old can understand but, at the same time, in a manner that will not insult the intelligence of an adult visitor.



This final step in formulation of a storyline is done in conjunction with the design of the case and the selection of the artifacts and photographs to be displayed. A harmony between the size of the case, the number of artifacts displayed, and the amount of storyline and label copy presented must be attained in order to convey the story to the visitor in a logical sequence.

Ideally at this final stage of actual case development the researcher should work closely with the designer and conservator. In most community museums, it will most likely be the same person wearing all three hats.

Your exhibit should now be complete, a unit in itself, telling a definite sequential story to the visitor. Remember when constructing a display that the ultimate aim of any museum exhibit, whether in a large or small institution, should be to stimulate such an interest in the subject that the viewer will want to learn more about it in his or her spare time.

Collecting Artifacts

VERA HERSHFIELD
Cataloguer
Manitoba Museum of Man and Nature

Museum: originally a temple or sanctuary of the Muses, hence, later a place dedicated to the work of the Muses, a building devoted to the collection and preservation of works of nature, art, and antiquity, and to the exhibition of rare and instructive articles in the arts, sciences or history.

Standard Dictionary of the English Language
Vol. 11, Funk and Wagnall Company, 1903

The definition of an artifact is anything made or modified or used by human hand, that is anything that is artifically produced. Thus unless a museum restricts its collection to a specific type of theme there is just no end to what it might collect. It is, however, always limited by such practical considerations as storage space and the rising cost of collecting, cataloguing and maintenance. The person responsible for collecting must, therefore, use some guidelines which are usually based on a collections policy which defines the size and scope of the museum's acquisitions.

As in most cases funds are limited, the collector must depend on the generosity of civic-minded patrons. A museum whose exhibits the public can identify with and enjoy often inspires visitors to donate. This results in an extreme variety of artifacts rather than a complete collection representative of any one theme, time, or way of life, which would be more desirable. Yet with enough of this type of collecting and with proper cataloguing, in time the units do evolve. Certainly, not knowing what will turn up in the future makes it more difficult for the collector, particularly in a museum of history, to decide what to save, to do justice to our historical past. Should these items be of scientific value, or have historic association or artistic qualities? The collector must also keep in mind that once an artifact has been accepted and accessioned, the museum is responsible for its future care even if a much better example of the same object happens to be offered to the museum at a later date. The duty is obligatory.

A history of each accessioned artifact must be taken and some research done and systematically recorded. Then it is stored away in either chronological order, by material, similarities in form or function, or ethnic group.

Temporary exhibits must be held often, keeping in mind that the interest of the public is not easily satisfied by unrelated facts or collections of specimens. It is not possible to have all artifacts constantly on exhibit but the public should be free to ask to see special objects for any number of reasons, especially for study.

Ideally, damaged pieces should get the attention of technical experts with time, ability and integrity, before these are put on display and that more thorough knowledge of expanding collections should be gained through increase of research work. In the hope that this situation may someday come about, the collector accumulates acquisitions of a wide range of both quantity and quality from the varied offerings of the heritage of our past.

The donor is often an elderly person who wants to ensure a safe home for something he or she has treasured for a lifetime, often some item having an association with parents or grandparents and with memories of a happy childhood. There is a vast variety of items being saved by private collectors and since it has become stylish to decorate home interiors by mixing contemporary furniture with so-called *antiques*, even more interest in such objects has appeared and there is a market for almost anything. This may cut into donations to a large extent, but still there are many people who would rather give their precious relic prestige and usefulness in a museum than sell it for a few dollars. There are also those who thoughtfully leave specific bequests in their wills to a museum and make sure that when they no longer can enjoy their treasures, others will. In this way they also perpetuate their memory. This must be encouraged and made fashionable in today's affluent society.

Proper publicity can attract donors and the knowledge that with donations of considerable commercial value to incorporated non-profit organizations, there is the benefit of a tax saving.

The collector is often called in when an estate is to be divided. Usually family members have already chosen all the things that they would like to keep and the things offered to the museum are chipped, cracked and torn leftovers. They may, however, still be examples of old craftsmanship or hobbycraft. Sometimes things earmarked for the garbage prove to be the most interesting artifacts. Many people would be greatly surprised at what museums may be interested in saving.

One does have to be very diplomatic on many occasions, especially with the overly conscientious who believe that anything older than they must be an antiquity of considerable value. Often museums do not give the donor the credit that some of them would like to receive (such as a bronze name plaque on display with the artifact), or cannot promise exactly if and when the item would be displayed, and lose donations, as a result. However, this cannot be helped. Very often museums are approached to take artifacts on long term loans, that is, to store them for the owner and be responsible for them until the owner is ready to reclaim them, in exchange for their use. In most cases, this should be discouraged.

The purpose of the collector is to accumulate material but this has to be organized in a manner to inspire or to educate. Many years ago the museum was considered a *depository of curiosities to amuse an idle hour* but today it is a repository for both study and enjoyment and for the recollection of the story of bygone days. As for what to save, a great deal depends on what is offered as donations and on common sense, and hopefully perhaps on some inspiration from the Muses.

Cataloguing

WARREN CLEARWATER
Museums Advisory Service
Manitoba Museum of Man and Nature

If a poll were taken among museum personnel as to what aspect of museum work they disliked the most or found the least interesting, documentation or cataloguing of artifacts would rate very close to the top of the list. This is indeed unfortunate as the basic registration and cataloguing of artifacts is an integral part of any museum's priorities if it is to be successful. The historical significance of an object lies not in itself alone, but also in the information relating to it. Without this valuable recorded information, an object is no more than the name implies - a mere object.

The following system was developed by Mrs. H. Rattray of the Fort Garry Historical Society and David Ross, former Assistant Chief Curator and Museums Advisor, Manitoba Museum of Man and Nature. Many community museums throughout Manitoba have adopted the system or have modified it to suit their own specific requirements. The system consists of three basic parts-

The Accession Ledger is used to record the groups or accessions of artifacts as they are received. An accession is defined as a collection of material received from one source or donor (or lender) at the same time. They are listed under the donor (or lender's) name and an accession number is assigned at a later date when the museum personnel have time to sit down and properly catalogue the item in more detail.

The Artifact Information Sheet could also be described as the Catalogue Sheet. It is used to record a description of the artifact and all the information that can be gathered about it and its history. This is done at the time the artifact is donated or loaned.

The Biographical Information Sheet is also filled out at the time of receipt of the artifacts from the donor or lender from information given by them. It is used to record the basic details of the life of the owner. Its primary function is to assist the museum to write an informative label for the artifact and to date it.

The accession ledger sheets are kept in data order *numerical* in a loose-leaf binder. The biographical information sheet and the artifact information sheet are kept in a file folder marked with the donor's name. These folders are then filed alphabetically. The donor's file can also be used to hold any subsequent correspondence about the artifacts, the copy of the donation or loan form, all historical information relating to the owner of the succession such as photographs, newspaper clippings, and pamphlets. Thus we have our records contained in one or more loose-leaf binders and a file drawer. The artifacts can be easily traced by catalogue number or the donor's name.

Numbering the Artifact

The first step in cataloguing is to decide upon what series of numbers to use in your system. One series is a simple numerical series starting with one and continuing for as long as you have artifacts to be numbered. This system seems to be fine for the very small museum but numbers tend

EXAMPLE

ACCESSION LEDGER

Manitoba Museum of Man and Nature

Date	Donor	Address	Article	Catalogue No.
1 September 72	Mrs. L. Smith	12 Elm Street Winnipeg	Dress, Green	72.1.1
			Sad Iron	72.1.2
			Wood Bowl	72.1.3
8 September 72	Mr. A. Green	230 Morden St. Winnipeg	Carpenter's Plane	72.2.1
			Spirit Level	72.2.2
			Wood Bowl	72.2.3
			Milk Bottle	72.2.4
21 September 72	Ms. B. Young	2430 Albert St. Winnipeg	Brooch	72.3.1
1 October 72	Mrs. C. Light	88 Arden Cres. Winnipeg	Photo Album	72.4.1
			Blouse, White	72.4.2
			Skirt, Black	72.4.3
			Comb, Ivory	72.4.4
			Mirror, Ivory	72.4.5
			Candle Snuffer	72.4.6
			Pickle Fork	72.4.7
			Sugar Tongs	72.4.8
			Candleholder	72.4.9
8 October 72	Mrs. A. Morris	150 Walter Ave.	Glass Bowl	72.5.1
			Tea Set	72.5.2
			Coffee Server	72.5.3
			Egg Coddler	72.5.4
			Dessert Forks	72.5.5

EXAMPLE

Catalogue No.: Item name:
Source: Provience:
Address: Collector:
Current Valuation:
Date Gift ( ) : Loan ( ) : Cost if a purchase:

WHAT TO PUT ON A CATALOGUE CARD

Source
Name of the person or institution from which the artifact was obtained (donor or lender).

Date
The date of receipt of the artifact by the museum.

Provience
The geographical point of origin of where it was made, if known. In Canada state the province or, elsewhere, the country. It could also denote the locale or area occupied by a tribe of natives such as Cree, Assiniboine, Eskimo, etc.

Collector
The name of the staff member who collected the item if it was not brought into the museum by the donor.

EXAMPLE

ARTIFACT INFORMATION SHEET Museum Maison Turenne

Donor: Mrs. L. Smith

Address: 12 Elm Street
Winnipeg, Manitoba

Item: Woman's Dress 72.1.1

Collector: Mrs. H. Rattray

Valuation: $50.

Date: 1 September 1972

DESCRIPTION

Green dress consisting of floor length skirt and separate bodice top, green corded silk trimmed with beige lace, and dark green ribbon.

Worn by Hannah MacDonald at her wedding in Gault, Ontario in 1857. Married Josiah Edwards, paternal grandfather of the donor.

The newly married couple moved to the Red River Colony in 1857 where Josiah had been farming since 1850. He had been on a visit to Gault in connection with the will of a cousin. According to family tradition, they met and were married in a month.

EXAMPLE

BIOGRAPHICAL INFORMATION

OWNER

SPOUSE

Relationship to donor/present address/if deceased, date of death

Date and Place of Birth/Religion/Ethnic Origin

Date came to Canada, place and reason

Date came to Province, place and reason

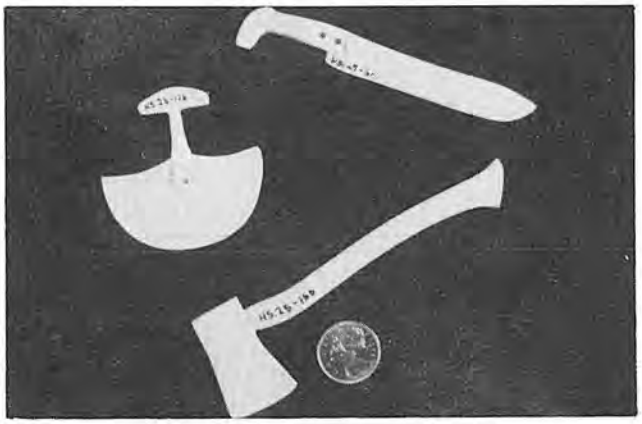
Date and place of Marriage

Occupation

Military Service

Subsequent Owners

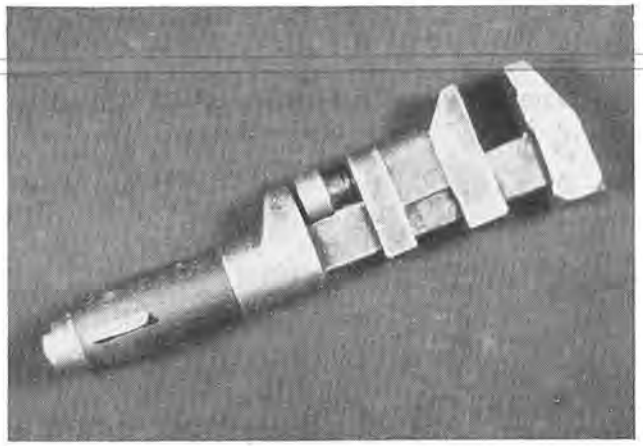
Equipment used for cataloguing the artifacts



Black India Ink on clear nail polish

to become somewhat large if there are more than a few hundred artifacts in the museum.

A second type of numbering system known as the **coded series** gives certain basic information about the artifact just by glancing at the catalogue number. The most common of the coded series is a three-part number. The first number is the year the artifact was received, the second number is that of the accession or group that year, and the third is that of the artifact within the accession or group. Thus an artifact which is numbered: **76-3-21** indicates that it is the 21st artifact of the 3rd accession received in 1976. The next artifact in this accession would be numbered 76-3-22. The next group of artifacts received from the next donor would be numbered 76-4-1 and so on.



Black India Ink on Wite-Out

Marking the Artifacts

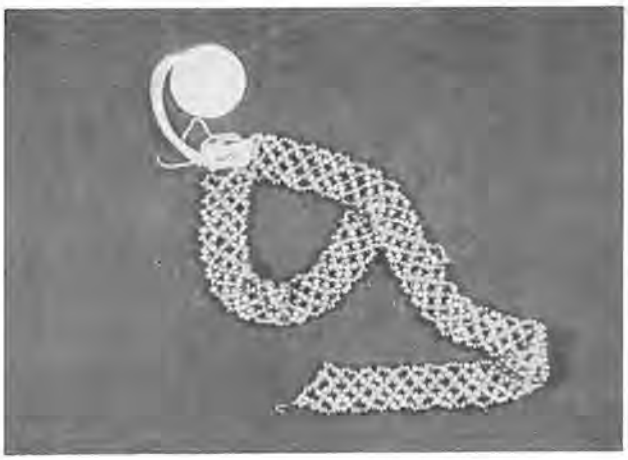
The numbers should be marked on the artifacts in an inconspicuous but not totally invisible spot. Remember that you, or someone else, will have to locate it again at a later date. On smooth surfaces such as wood, china, glass and metal, the simplest method is to paint a small smear of clear nail polish, allow it to dry, then write the number in black India ink. Once again, allow it to dry thoroughly. Paint another coat of clear nail polish over the number for protection. If the surface is dark, the same process can be applied using white India ink or a typewriter corrective fluid such as *Wite-out* in place of the first smear of nail polish.

White India Ink on clear nail polish

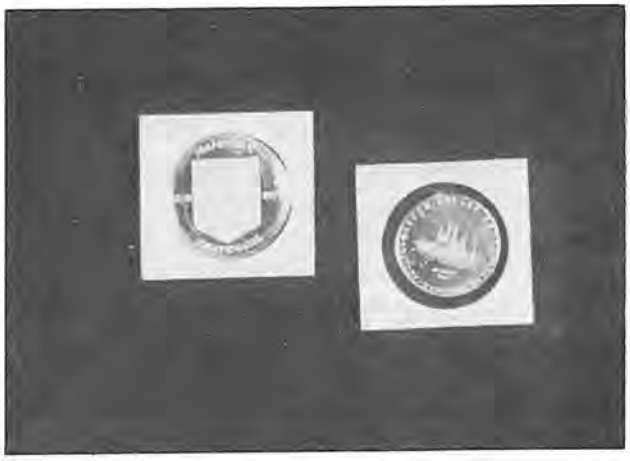
For textiles and clothing the ideal way is to write the number on a small piece of tape and sew or tack it to the fabric. Try to keep the location of the number in a consistent place on clothing such as on the inside of the collar or cuff. It is difficult to find a one-inch piece of tape on a full length gown or suit if one does not know where to look.

For small items such as jewellery or military

medals merely write the number on a small *tie-on* paper tag and attach it to the artifact. Coins may be placed in special coin holders with a built-in plastic window and the number written on one side of the holder. Catalogue numbers may be placed on the inside cover of books or magazines. A good rule of thumb is to place the number in such a location as to be out of sight when the object is on display but where it can be located easily when one examines the article.



Tie on paper tag



Cardboard coin holder

The importance of the catalogue card cannot be stressed enough. It is actually the link between your files and your collections. The card provides a capsulated source of important information on and about the artifact which is just as important as the artifact itself. It gives the artifact meaning and in many respects life, which is directly tied in with the life and history of the original owner who possessed and utilized it.

Inversely, the catalogue card serves as a guide to retrieving the article when it is in storage among countless other artifacts. With the information written on the card concerning physical description (size, shape, colour, patent marks, etc.), a person should be able to locate the artifact at a glance even when it is stored with others of its own kind.

Simplicity and common sense are the keys to useful catalogue cards. Quality rather than quantity should apply. Pertinent, short, and clear information on a card is more important than filling the entire card for the sake of creating the illusion that there is a lot of information on that artifact. If there is very little information and subsequent research reveals very little, do not be afraid to indicate this on the card. If you have an abundance of information about an object, place it on the card or artifact information sheet in the initial stages of cataloguing. The longer a person procrastinates, the more relevant the information that may be lost forever or the person possessing this valuable information may leave the museum entirely. Catalogue each item thoroughly at the outset - this will save time and work in the longrun.

Information Required on Card

The seven types of information a catalogue card requires and which shall be discussed are:

1. catalogue number
2. description
3. measurements
4. materials
5. history
6. function
7. significance

The Catalogue Number - it should practically go without saying that the number on the card should always correspond to the number on the artifact which the card represents. The numbering system may be purely a personal choice but keep in mind that it should be flexible and expandable to take in future collections without making the number too lengthy or unmanageable.

Place the number in an inconspicuous but not totally invisible location. It should be out of sight when the object is on display. In order to identify

component parts of a group or set of artifacts, use the same catalogue number for each item but differentiate by adding the suffix **a, b, c,** etc. In many cases, the entire group can be represented by one card, but where there is a considerable amount of information available on individual pieces, separate cards can be used but still numbering **a, b, c, d,** etc.

Examples of groups or sets may be:

- all garments making up a suit of clothing worn by one person
- all items of a complete military uniform belonging to one individual
- all items of a boxed set of cutlery or a set of manicure tools
- a matching set of furniture
- matching set of dishes from a single source

The object is to ensure that if the set is dispersed it can be easily reassembled.

Description of the Specimen - a short but good physical description should be written making sure you note all colours. All inscriptions should be listed including hallmarks, proofmarks, serial numbers, patent numbers and dates, the maker's or owner's name, etc. Indicate the location of all the previous inscriptions such as *marked on base*.

Make clear distinctions between assumptions and facts in your descriptions. If you are not positive about something be sure to indicate this doubt. Instead of saying *silver*, say *a white metal (silver)*. Do not say *purchased by donor's grandfather on May 12th, 1885*, say *donor believes or states that it was purchased on May 12th, 1885 by his grandfather*. If an opinion is to be recorded note the source of it: *Thought to have been made in Ruritania (G. Smith)*. References to printed sources should be accompanied by the name of the book, author, page number, etc.

Measurements - all measurements should be recorded in feet/inches and in metric measure, i.e. length 39 inches (100 cm.). The main purpose of recording measurements on the catalogue card is to give the reader a quick guide to the size of the artifact. Record only the essential and readily obvious dimensions. In certain classes of artifacts more detailed measurements are required:

Firearms - record the calibre, barrel length and length of stock, weight.
Clothing - record the length from the collar to hem, bust, sleeve length, skirt length, (chest, inside length of leg of trousers). With these measurements a rough estimate can be made of the wearer's size. If the size of the garment is marked on it, record that too but do not try to estimate sizes by using modern standards.

Materials - it is in this area that it is often difficult to ascertain exactly what material was used in the manufacture of an artifact. There is nothing wrong with indicating uncertainty:

- made of porcupine (or bird) quills
- made of wood (probably birch or ash)
- made of woven fabric (probably cotton)

Further research at a later date can usually clear up the points in question.

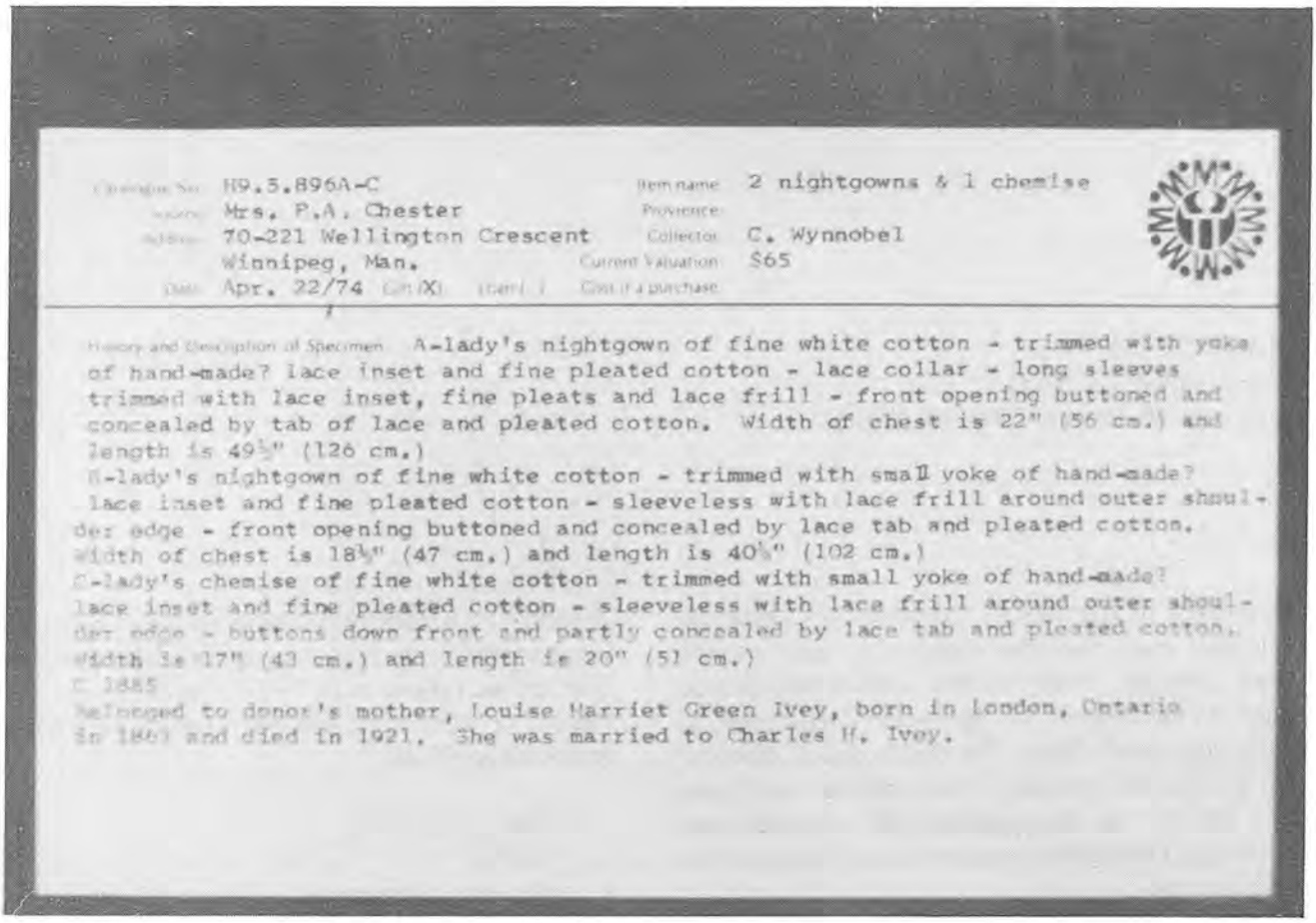
History of Historical Connection - every artifact usually had more than one owner so where possible record all their names in order to go back to one or all of them for additional information.

Historical Connection - in many cases this information will come from the donor or similar verbal source. Be sure to indicate this source even if it seems unlikely. The owner's version is part of the item's history. For example, by 1900, participation in the 1885 Rebellion had become a valuable activity to be noted in the records for the sake of social prestige. People on both sides began to invent and exaggerate. A record of this type is invaluable to the social historian in assessing changing political and social opinions.

Function - the use or function of the artifact should be briefly but clearly explained even if it seems blindingly obvious today. Bear in mind that in ten or twenty years time a common item of today may have disappeared from the market.

The cataloguer should answer as many of the following questions as possible:

1. What is it used for?
2. What size is it?
3. What is it made of?
4. Who owned it or used it and why?



H9.5.896A-C
Item name: 2 nightgowns & 1 chemise
Mrs. P.A. Chester
Provenance:
70-221 Wellington Crescent
Collector: C. Wynnobel
Winnipeg, Man.
Current Valuation: $65
Apr. 22/74
Cost if a purchase:

History and Description of Specimen: A-lady's nightgown of fine white cotton - trimmed with yoke of hand-made? lace inset and fine pleated cotton - lace collar - long sleeves trimmed with lace inset, fine pleats and lace frill - front opening buttoned and concealed by tab of lace and pleated cotton. Width of chest is 22" (56 cm.) and length is 49½" (126 cm.)
B-lady's nightgown of fine white cotton - trimmed with small yoke of hand-made? lace inset and fine pleated cotton - sleeveless with lace frill around outer shoulder edge - front opening buttoned and concealed by lace tab and pleated cotton. Width of chest is 18½" (47 cm.) and length is 40½" (102 cm.)
C-lady's chemise of fine white cotton - trimmed with small yoke of hand-made? lace inset and fine pleated cotton - sleeveless with lace frill around outer shoulder edge - buttons down front and partly concealed by lace tab and pleated cotton. Width is 17" (43 cm.) and length is 20" (51 cm.)
C 1885
Belonged to donor's mother, Louise Harriet Green Ivey, born in London, Ontario in 1861 and died in 1921. She was married to Charles H. Ivey.

Example of a well-done catalogue card

5. Does it have any connection with an historical event?
6. Does it have any special technical, social, religious or other significance?
7. Who manufactured it?
8. Are there any missing parts, damage, or repairs on it?

Significance - for example, does the artifact have any particular religious or military connotation to certain groups? Does it indicate membership or allegiance to a particular group at a significant time, such as a trade union at the time of the 1919 General Strike or a Lodge group? Is it an example of an earlier type of machine? Does it show improvements on earlier models or are there any homemade changes or modifications?

One remaining point which is very important as far as physical description is concerned is that of missing parts or damage to the artifact - especially in the case of loaned artifacts. List all damage not only on the donation or loan receipt but also on the catalogue card. This helps to avoid later altercation, especially with borrowers.

Some of the larger institutions include a photograph of each artifact on the back of the master catalogue card. This does save on rather lengthy physical descriptions to some extent but the process is expensive and is usually far above the means of the average community museum (36 photos cost approximately $8.00).

In conclusion, the final question that usually arises is how many copies of the catalogue card should be made? This number tends to vary depending on the museum but there should be a minimum of at least two copies - one master set in the museum itself and one other complete set stored in a different building entirely in case of a disaster such as fire or flood. Several institutions have these two sets plus one more working set which can be used by researchers, students and the public. The number of copies is purely optional or should be left up to the decision of the museum's Board of Directors.

Care of Artifacts

MAURICE MANN
Conservation Technician
Manitoba Museum of Man and Nature

Regardless of the reasons for which you have developed your personal hobby or professional trade product, under normal circumstances you most likely expect an appreciable audience to view your final effort. The end product, whether for pleasure or business, needs special consideration so that its life expectancy is not drastically curtailed. Damaged goods or art work do not sell at a fair price.

By the same logic, not all products are meant to last longer than the period covered by warranty. This is in contrast to an object being selected and prized for a particular feature and being preserved for posterity as a work of art.

This has occurred, however, and individuals as well as groups, such as art galleries and museums, are repositories for works of art, technological paraphernalia or thousands of "fine old things".

It is by considerable effort of some (and ignorance of others) that any sort of collections exist today. Natural catastrophe, plunder and vandalism have all taken their toll.

Negligence and indifference are perhaps the most serious attitudes and will cause the loss of unaccountable treasures for future generations. Lapses in basic preservation thinking causes thousands to millions of dollars damage annually.

From a more positive viewpoint, we can suggest some basic preservation principles regarding your own materials. The expertise within individuals is reflected in successfully completed exhibits but I hope some of my suggestions are new to you and that other points may help improve your own ideas. For discussion, we will keep three areas of materials in mind:

- Old Photographs
- Crafts
- Museum Collections

Selection of Items:

a) The *completeness* of artifacts selected will help to set the quality or mood of your exhibit. Handles and rims that are intact may be important to a pleasing exhibit. Heads, legs and arms (Venus Di Milo excepted) also signify the care with which you have selected or cared for your collection. Such things as hinges and latches may not be as conspicuous in their absence.

b) *Strength* of an object is my second choice because of the travel and environmental situations to which temporary exhibits subject artifacts. Artifacts with dry rot, weak seams, stiffness, bad balance or brittleness may not be able to travel.

c) *Design* features which show comparative construction techniques or which camouflage functional capabilities may all be good exhibit items.

d) *History* of artifacts may establish technological advancement or connect an event and a personality.

Handling

Handling of potential display items must be with an awareness of the consequences of cigarette ash or stains from unwashed hands.

a) *Packing* of your selection should be with clean tissue, uninked newsprint, kraft-type wrapping paper, soft foam chip space fillers, cardboard cartons, or such simple things as baggies and plastic dishpans.
b) *Transfer* of goods safely depends on your intelligence not to overload, to know your route problems and to use a cart. Knowing individuals of shipping firms is valuable and your concern for a special shipment can be discussed with them.
c) *Unpacking* instructions should make the recipient aware of required handling techniques, layout space, an inventory check, and condition reports, as well as your request for a return of shipping materials and containers.

Exhibit Location

Predetermination of your exhibit location is important. Tables, shelves or exhibit cases may not be what you expected. The only assurance you might have would be if you supplied your own exhibit cases.

Exhibit Installation

Exhibit installation is becoming more and more of a concern and there is a need to make individuals responsible for their actions with borrowed materials. This would not be out of line.

a) After determining your exhibit needs, it may be possible to add either an inclined support or a pedestal. Be sure that any pedestal is firm and adequately retains your artifact.
b) Wall or vertical paneling requires safe mounting techniques. The use of monofilament, plastic-coated telephone wire, various utility clips and brackets, pegboard brackets and heat-formed plexiglass indicates the broad array of possibilities.
c) Ceiling or suspension techniques suggest yet other needs. Suspended shelving can be decorative or destructive.

Installation of exhibit

Environment

a) *Lighting* - a hot lamp, daylight, or a fluorescent light subject artifacts to heat desiccation and ultra-violet radiation. The equivalent of a one hundred and fifty watt light bulb at three to four feet is adequate to read a document. Protective barriers against ultra-violet radiation are becoming cheaper and more available. Avoid daylight which is worse than fluorescent lighting.
b) *Heat* from light sources containing infra-red rays and heating systems can be hazardous if not controlled.
c) *Humidity* from steam heating systems, natural humidity of the artifact and from rainy weather or lawn watering are all significant when choosing a display sight.

d) *Dust* entering the premises or construction dust from within are equally harmful and require careful low power vacuuming through fibreglass window screening if your artifact becomes contaminated.

e) *Gases* such as sulphur dioxide and carbon monoxide and sulphur compounds in latex paint, are only a few of the harmful vapours affecting a wide range of artifacts including silver and costumes.

Security

Security must be assured by staff or additional security personnel. Overnight problems usually are resolved by locking the building but if your material is valuable, consider locking it up individually or removing it for the night.

Exhibit Termination

Be concerned about the following when dismantling an exhibit-

a) Artifact dismantling should be done by the same person who installed them. He knows just what procedures were used and how to go about removing them safely.

b) Observing the condition of the artifacts and comparing your own notes with the original condition reports.

c) Repacking and transferring to the point of origin, with a letter of thanks to the lenders.

d) Returning artifacts to storage if you are the one originally in charge of collection thus assuring that the best of care is shown the artifacts so that they will be available for the next use.

Conservation of Wood and Metal

BOB McCLURE
Fort Edmonton

The following article first appeared in the publication of the Alberta Museums Association entitled **Alberta Museums Review** *in October 1974.*

Wood

Wood, however long since it was part of a tree, is still living matter. It will still swell, expand and warp with excessive moisture, and it will shrink and crack with excessive dryness. It will still provide food for insects.

If you are unable to identify woods ask your local lumber yard for scraps to use as samples. Pine and spruce, *soft woods*, are cheaper to buy; whereas, mahogany, walnut, and oak, *hard woods*, are more expensive.

Before polishing woods be sure that the surface is clean. If the polishing cloth picks up a bit of grit the surface can be scratched. Before waxing wooden surfaces dust them carefully so that the dirt will not be ground in with the wax. Apply a cleaning formula with a soft paint brush. Allow the solution to stand two or three seconds and then remove the excess solution with a soft cloth. The following are acceptable cleaning formulas:

1. Warm water and soap.
2. 2 tbsp. raw linseed oil, 1 tbsp. turpentine, 5 tbsp. alcohol (methyl hydrate).
3. 1 qt. warm water, 3 tbsp. boiled linseed oil, 1 tbsp. turpentine.
4. ½ pt. raw linseed oil, ½ pt. turpentine, ½ pt. vinegar, 1 tbsp. alcohol.

For cigarette burns saturate the burned area with bleach and allow it to sit. The bleach will remove the burn. Use wax crayon to restore the bleached area to its original colour.

Breaks are likely to be found on chairs and most likely will be found on the legs where a curved piece of wood has a very short grain withstanding much strain. Broken joints in vulnerable places will have to be held together by dowel as well as with glue. Dowels can be bought in packs and it is important to realize that the measurements on the pins refer to their size before they have been smoothed down as dowels are slightly smaller than the measurements given. If you use a ¼ inch drill to bore a hole for a ¼ inch dowel, the hole will be too big and a tight fit is very important. Use a drill that is slightly smaller than the dowel. To find the centre point at which to drill, draw diagonal lines from opposite corners. Where they intersect is the right spot to drill. If there is another weak spot either above or below the break, take the pin through it to prevent another break later. The dowel should always go at right angles to the line of breakage regardless of the shape of the piece being mended. To remove a broken end that is stuck in a hole simply: a) bore a hole dead centre through the broken part, b) surround the area with a cloth which has been soaked in boiling water and wrung out - to melt any glue, c) twist a screw into the hole, and d) pull out the

whole piece with a pair of pliers gripped around the screw.

Polishing

Oak Furniture: Mix one part of beeswax to three parts of turpentine. You can use yellow or brown beeswax for dark oak but for lighter coloured oak or other light woods use bleached beeswax. Dissolve the wax in a container *tin* containing the turpentine. This process can be speeded up by shredding the wax before adding it. Place the tin in a bowl of boiling water - stir until all the wax has dissolved. Do not heat over an open flame. When the wax is cold it should be the consistency of soft butter.

Walnut and Mahogany: Melt the following waxes together: 3½ parts of Japan wax, 6 parts of fatty grey carnauba wax, 2 parts paraffin wax. Carefully melt these waxes in a double boiler. When the waxes have meltedadd about an equal amount of turpentine and at the same time a small amount of ammonia. Store the mixture ina well-sealed tin.

Early Oak Furniture: During the seventeenth century we know that linseed oil and poppy oil were used on oak furniture. Oak was sometimes dyed with alkanet root which gives a reddish colour. The use of oils tended to darken oak, while polish made from beeswax and turpentine used at the time produced a more golden colour.

Early Walnut Furniture: Walnut furniture made during the late part of the seventeenth century and in the eighteenth century was usually given a coat of clear varnish before being friction-polished with beeswax. The varish sealed the fine grain from the wax and so preserved the wood's lighter golden markings.

Restoring

For scratches clean the surface of the scratch. Blend a wood crayon into the scratch using a feathering stroke.

Removing dents is something that sounds complicated but is not too difficult. A dent is simply cells squashed together and if they are allowed to soak up moisture they can swell back to shape again. Remove any wax with turpentine, place a pad of wet blotting paper over the dent and keep it moist for several hours. Remove the blotting paper and put a bottle cap, rim side up, on the dent. Regulate an iron for the lowest heat and rest it on the cap. Look under the cap every five minutes or so to see if the dent is filling out. It may not come out entirely smooth but there will be an improvement.

Warping is caused by the contraction of one side of the wood through heat or the expansion of the other side through dampness. To cure it one must reverse the process. Lay the piece hump-side-up on the grass and put a heavy weight on top. Then simply let nature take its course. The wet grass will swell out one side, and the hot sun will dry out the other side and you should end up with a flat plank.

A general rule for restoration is to never put nails or screws into anything that they don't belong in. CNIB will do recaning of cane chairs if you have difficulty getting them done locally.

Refinishing

Old finishes can be removed by totally immersing the piece. This is a drastic process but it is fast. To remove old finishes by use of paint remover, paint on the remover with an old brush, let it stand fifteen minutes and then take off the finish with a scraper. 4-Star Brand paint remover is effective. If you are in doubt about how to treat a piece of furniture, ask a competent museum person for advice.

Storing

Use a clean storage area. Allow for air circulation.

Metals

Metals require low humidity for storage. Rub the metal with heavy cosmoline grease, cover with heavy wax paper and seal with freezer tape.

The redder the rust on the metal the easier it is to remove. Paint small pieces with naval jelly, let the piece stand for fifteen minutes, then wash off the jelly.Repaint the pieces with jelly if necessary. On shiny surfaces naval jelly leaves a white film. Use a good metal polish such as 3-in-1 oil to return luster to the metal. Rub on the oil and bake the piece in a 320°F oven for twenty minutes.

Basic Paper Repair and Preservation

JEAN WEBSTER

The following article first appeared in the British Columbia Museums Association quarterly publication **Museum Round-Up**, *October 1974, No. 56.*

INTRODUCTION

It is important to recognize the major factors that cause the deterioration of paper. These can be summarized as follows:

- Acidity
- Temperature
- Relative Humidity
- Light
- Pollution - dust
- Inherent dust - raw materials of the paper
- Utilization by people - poor handling, use of scotch tape

All these factors are inter-related. The effects of one depend on the severity of one or all of the others, i.e., the rate of deterioration caused by a high light level is increased if the temperature is high. An awareness of the relationship among these factors and attention to harmful levels of any of them form the basis for the preservation of paper.

DISCUSSION OF ACIDITY

Acidity is the principal cause of deterioration in paper and can be acquired during the manufacturing process, through natural ageing, in storage, or by the type of ink used on the paper. The acid causes the paper to become discoloured and embrittled due to degradation of the cellulose.

Prime causes of acidity acquired in paper during the manufacturing process:

1. Residual chlorides not properly removed from the pulp after bleaching.

2. Use of alum/rosin size which is highly acidic.

3. Failure to remove lignin, a very unstable organic acid, from the wood pulp.

4. Use of poor quality raw materials.

Other causes of acid deterioration:

1. **Pollution** - acid attack is much greater in urban and industrialized areas due to the pollutants and noxious gases in the air. Sulphur dioxide and the moisture in the air react with the iron and copper impurities in the paper to form sulfurous acid. Dust is also very damaging to paper as it is highly abrasive and attracts the moisture which is essential for the chemical action of gases. It is also highly hygroscopic and therefore encourages the damp which is necessary for mold growth.

2. **Temperature and Relative Humidity** - high temperature and relative humidity accelerate

the process of natural ageing in paper.

3. **Light** - Discolouration of paper is primarily caused by the ultraviolet rays found in daylight and fluorescent light. The most serious cases of deterioration are found in paper containing lignin, i.e. newspapers. Light also causes serious embrittlement of the paper fibres.

4. **Acid Migration** - the use of acidic inks can be damaging to paper and often results in acid migration - the movement of acid in moisture caused by fluctuations in relative humidity. Acid migration also occurs when cheap wrapping materials such as newsprint are used to wrap paper items or wood panels are used to back prints, etc.

In order to retard this process of deterioration the acidity must be neutralized (pH7) and a benign buffering agent deposited in the paper fibres to inhibit future acid deterioration. Nearly neutral or mildly alkaline paper will deteriorate much more slowly than paper with a pH of 5.5-6 or less. One unit change in pH corresponds with a tenfold change in acidity.

MANUSRIPTS, MAPS AND NEWSPAPERS

Cleaning

Equipment - art gum eraser, brush, knife, and dry cleaning powder.

Remove all rubber from erased areas after erasure. Remove all surface type dirt (dust) before any form of aqueous or non aqueous treatment, otherwise the dirt becomes fixed.
Grease stains can be removed by dusting on and brushing off Fullers Earth, talc, cornstarch, etc.

Testing of Inks

Put small amount of water (use an eye dropper) or solvent on a small inked area. Blot with blotting paper. If any of the ink offsets onto the blotting paper, the ink is fugitive.

Deacidification

Lay the document on a blotter or on an upright screen and spray with Wei T'o Spray across the paper with slight overlapping of the sprayed area. Then spray down the document in the same manner. If paper is reasonably thick, spray both sides.

Repairing

In the process of repair only neutral and reversible materials may be used:
neutral - the material has a pH of 7.
reversible - it must be possible to dismantle any type of repair.

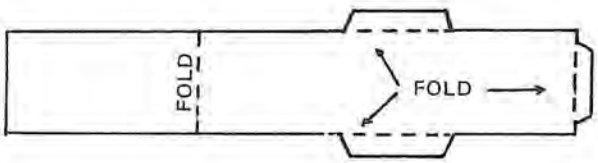
Lamination - using Ademco laminating tissue and and Ademco hot press -
1. Place document between two sheets of laminating tissue.
2. Place sandwich in hot press and leave for approximately 15-20 seconds. If a commercial photographers press is used, the sandwich must be placed between four sheets of blotting as this cuts down on the heat and also creates enough pressure to ensure good adhesion.
3. Trim, leaving a small edge.

Dry Mounting - using Ademco tissue and an Ademco hot press.

Same principles apply as above, except that the document sandwich is made up of the document, dry mounting tissue and mount. Trim the edges flush to the edges of the document.

Mylar Case

1. Mylar envelopes bought from a stationer.
2. Make up a case out of a sheet of .004 Mylar.



Attached document to acid-free paper with hinges made of acid-free paper, attached with methyl cellulose paste or Pritt Stick. Slide document into case and close edges.

Repairing of Tears

1. Film-o-plast.
2. Laminating tissue applied with iron (medium temperature) through silicone blotting paper.
3. Repairing with paste and tissue paper. (Paste applied to tear and tissue paper placed over tear and pressed down - repeat on other side of document - when paste dries excess tissue is scraped off). Repair of tears should be kept to a minimum as they can look very ugly. Mounting or lamination should be considered as an alternative.

Flattening

1. Sandwich the document between dampened blotters and press under a light weight for a period of time.
2. Iron with warm iron through blotters or silicone paper. (Heat should not be applied unless the document has been deacidified.)

Storage

Basic Tips

Remove all staples, pins, paper clips, cheap dividers, rubber bands, etc.
Remove all newspaper clippings from manuscript materials and store separately.
Unfold all documents and store flat.

Manuscript and Newspaper Clippings

1. Acid-free boxes and acid-free folders.
2. Line ordinary box with acid-free paper, acid-free cardboard or buffered tissue, or use ordinary folders lined with acid-free paper or buffered tissue.

Maps and Large Newspapers

1. Flat metal filing cabinets and acid-free dividers should be used.
2. Cover mailing tube with buffered tissue and then roll map interleaved with a piece of buffered tissue around tube and cover with a piece of mylar.

DISCUSSION OF LIGHT

Deterioration of paper is largely caused by the light - the degree of deterioration depends on the intensity of the light, duration of illumination time and the temperature and relative humidity. Deterioration also occurs from the radiant energy created by the infra-red rays found in incandescent light.

Control of Light

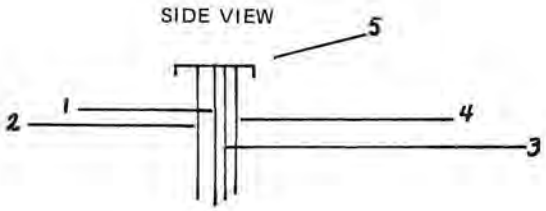
Control of light is made by reducing the quantity of light and also the spectral quality. This can be done with special plastic filters, UV filtering, varnish on the windows, tinted glass, curtains and neutral grey glazing. UV filtering tubes for fluorescent light or controlled fluorescent lights such as Fadex are highly recommended. By painting the museum walls with specially prepared titanium dioxide white paint a large proportion of the UV radiation can be absorbed. Wherever possible, it is advisable to use UFI plexiglass. This cuts down on the UV rays in light in display cases and in front of all watercolours and prints. Storerooms should be kept in darkness whenever possible. Because this condition encourages vermin it is essential to practice good housekeeping.

Basic Tips

1. Keep all paper out of direct sunlight.
2. Ensure that the illumination level is not too high.
3. Ensure that the spotlight is not too close to the document and, therefore, not creating too much heat for the paper.
4. Good ventilation in display cases is essential in order to keep the temperature down.
5. If possible, mount lights outside display cases.
6. If fluorescent tubes are used inside the display case, make sure they are covered with a UV filter tube.
7. If wood or varnish-treated wood case, do not place the document in direct contact, but put a piece of acid-free board or paper in the bottom of the case.
8. Make sure that the labels used to identify the items are not made of acid materials. If poor quality paper is used for the labels make sure they do not touch the paper items - this also goes for textiles.

Best type of mounting

1. Wood panel
2. Acid-free Board
3. Document
4. UFI Plexiglass
5. Clips



Period Room Mounting

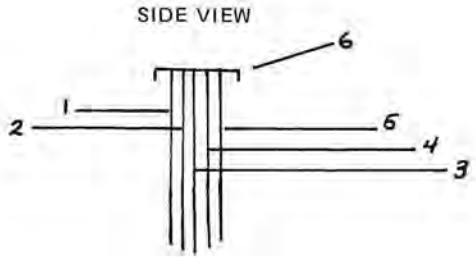
Mount document onto a piece of acid-free paper with hinges made of acid-free paper, using CMC paste of Pritt Stick.

Short lengths of heavy guage polyethylene or mylar sheet, up to 1 inch wide, can be used to secure the corners unobtrusively, by pinning to an acid-free cardboard backing with plastic-headed pins. The document can be slipped into these like a photograph into album corner counts. Books can be held flat in the same way.

Prints

Two methods of good mounting-

A
1. Wood
2. Acid-free mounting board
3. Picture
4. Acid-free matting board
5. UFI Plexiglass
6. Screws or clips



B
Remove wood panel, corrugated cardboard, strawboard, etc. from original frame. If possible replace the glass with UFI plexiglass. Cut new matt and mount from acid-free cardboard. Hinge picture onto mount board with acid-free paper and CMC paste or Pritt Stick. Secure with nails and seal well with tape.

DISCUSSION OF TEMPERATURE AND RELATIVE HUMIDITY

Heat stimulates the deterioration of paper, encourages mold growth, insects, rodents, and dries out glue. Excessive humidity weakens paper and encourages mold growth, although a little moisture is necessary for flexibility in paper and to prevent drying out. High temperatures and relative humidity also accelerate acid deterioration of paper. Ideal storage conditions:

1. Air conditioning system
2. Temperature of 70 degrees
3. Relative Humidity of 50%
4. Temperature and Relative Humidity should be kept constant.
5. There must be free circulation of air in order to avoid stagnant air pockets forming.

Fungus and Foxing

If the Relative Humidity is kept below 45% it is more difficult for fungus to exist, and decreases the danger of insects. Fungus emits acids which stain the paper and decompose the cellular structure of paper. It is abundant in damp cellars and poorly ventilated areas. Foxing is the result of chemical action between the iron impurities in the paper and organic acids released by the fungi. The amount of staining depends on the impurities in the paper. Foxing needs far less moisture than fungi to grow. It has been found that Wei T'o spray helps to eliminate the growth of foxing.

Prevention

Good housekeeping and good ventilation, as well as constant temperature and relative humidity, are essential. Wooden furniture and curtains absorb moisture when humidity is high, and exude it when humidity is low. Dehumidifiers, humidifiers, or silica gel used in rooms where doors and

windows are closed can be very effective, together with the use of heaters and fans to circulate the air and stabilize the environment restricted areas.

Treatment of Mold

If mold is discovered in books, dry the book thoroughly, brush out mold and interleave with topane or thymol impregnated paper.

Insects and Rodents

Again good housekeeping is essential. All material coming into an institution must be examined for any sign of mold or insects before being shelved.

When Infested Material Is Found

1. Vacuum any material in immediate vacinity.
2. Place open fanwise in box containing paradichlorobenzene crystals, using 1½ oz. of crystals per cubic foot of space.
3. Reshelve and watch closely for six months.

BOOKS

Securing a Loose Page

Paste the underside of the left-hand side (edge) of the page. Place pasted edge along the spine edge of the following page in the book. Press gently.

Leather Dressing and Cleaning

Gently brush leather cover to remove surface dirt. Apply 7% solution of potassium lactate.

Apply leather dressing generously.

Storage

1. Do not pack too tightly. This will allow adequate ventilation.
2. Dust regularly.
3. Cover with mylar or polyethelene as protection against dust.
4. Store in acid-free or lined boxes as protection against dust.

Display

1. Change page every day to cut down on fading of inks.
2. Use a UFI protective case over the book.

Scrapbooks

1. These should be taken apart due to the poor quality of scrapbook paper.
2. Interleave with buffered paper if the book cannot be taken apart.
3. Store in acid-free boxes or lined boxes.

Photo Albums

1. Take apart when aesthetic quality of the album is not important to retain.
2. Use acid-free tissue for interleaving. Do not use buffered tissue, as this may be damaging to the emulsion.
3. Store in boxes as protection from dust and air which will filter into the expanded part of the album.

Conservation of Silver, Brass and Pewter

THOMAS COURT
Restoration Supervisor
Provincial Museum of Alberta

This article first appeared in the Alberta Museums Association's publication **Alberta Museum Review** *in October 1974.*

Plenderleith's book on conservation is still the *Bible* for the art of basic restoration. However, as the items in general collections in museums are usually of much later manufacture and in different states of preservation than the artifact examples shown by Plenderleith, his methods should only be used as a guide to acceptable techniques and standards.

Superficial Cleaning of Objects

Most household cleaners leave a residue of white powder. A recommended cure-all for this situation is the use of *Amo-dent*, a heavy liquid soap which costs about $1.30 per quart and is available from Walter Woods and Co. To use, heat the liquid then apply and leave on the object for a short time. Rinse in cool water. This product will remove superficial rust, especially from both copper and brass.

Restoration Philosophy

What constitutes good restoration? Is it a return to a new condition? Most objects were mass produced and it would be easier to make a new one. However, it is better to restore the object to the condition of last use. Time passes on character to objects; and this character should be preserved. Some articles may be rusty but they should be clean. Most articles should be left in their present condition but preserved to prevent further deterioration. An article should have *believability*. This is, restoration should preserve the spontaneity of the original; it should restore the article the way it was originally made; and, materials used in restoration should be of the period and nature of the original, not modern counterparts.

Silver

Natural gas and/or sulfur tarnishes silver. Store silver in plastic bags as airtight as possible to prevent tarnishing. Do not replate silver if it is documented as historically significant. Before replating consideration should be given to the existing patina and to the desired effect required for display preparation.

Pewter

Normally pewter is made up of tin, lead, copper or antimony. Guild stamps controlled the quality of the pewter. Late in the 1800's a cheaper method of production, increasing the quantity of lead over tin, produced a harder material which was easier to produce. This product is often referred to as Britannia Metal and is usually stamped with *EMBM* (Electro-Plated Brit. Metal).

Good pewter has a slightly greasy feel to it. To clean pewter use household lye in a 10-15% solution. Boil the article in washing soda.

Restoration Emulsion

A four-part emulsion will brighten furniture and painted metal. To use, shake the container vigorously, apply the emulsion with a soft brush, and remove any excess emulsion immediately. Always test the emulsion in an inconspicuous place first. To make the emulsion, mix one part raw linseed oil, one part household vinegar, one part turpentine and one teaspoon (per pint) methyl hydrate.

Documentation

Museum personnel must recognize the importance of detailed documentation of artifacts undergoing restoration; records - both photographic and writen - should detail exactly what was done by whom and when. This information is important to future restoration and research.

Reference:

Conservation of Antiquities and Works of Art by H.J. Plenderleith. Oxford University Press New York and London.

Conservation of Textiles

CHRIS NANCARROW
Conservator of Textiles
British Columbia Provincial Museum

The following article first appeared in the British Columbia Museums Association quarterly publication Museum Round-Up, *January 1976, No. 61.*

PRIORITIES

One may, of necessity, postpone the cleaning and reinforcing of costumes, tapestries and any other textiles in the collection, but these things have to be put somewhere; thus **storage** is the inescapable, prime consideration.

STORAGE - Flat

Ideally, fabrics should be stored flat, in shallow drawers, preferably singly. No more than three articles should ever be laid on top of each other - if an article is too big to be placed flat without folding, there should be a roll of tissue paper inside each fold.

Shawls, blankets, carpets and other flat items can be rolled on tissue-covered rollers, with an outer layer of tissue plus polythene film, and sealed. Simple racks can be made to support the rollers. If there are very many, or if there is a serious shortage of storage space, the rolled textiles can be stored after the fashion of wine bottles, in a stack of plastic water pipes of sufficient diameter to accommodate them. It is easy to take out any piece as required, and also to turn the rolls periodically so that the weight does not rest constantly on one area. Boxes used for storage should be lined with tissue.

STORAGE - Hanging

When considering hanging costumes, look at the neck and shoulders of each garment to decide whether to subject those parts to continuous strain. The cheapest wire coat hanger provides the skeleton for padding which can be shaped individually for each garment. This is a matter of about ten minutes' work after a little practice. Some costumes may be heavy enough to require two hangers, bound together and treated as one. This is often necessary for uniforms. Upholsterers wadding, sometimes known as **greyskin** can be obtained cheaply and air-sac or bubble-pak plastic packing material is excellent for wrapping the wire, which is finally encased in washed, unbleached cotton to isolate the padding from the garment. Wire hangers can be bent before padding, for childrens' clothes, or narrow-shouldered numbers. It is important to take extra care to prevent the extremities of the hanger from distorting the upper sleeve - the ends require very careful and firm padding.

Skirts are best hung by tapes to the crossbar of a hanger which has been wrapped with a strip of cloth so that the tapes will not slide along and cause the skirt to bunch. Skirts with trains, or having a heavily-gathered section giving uneven strain on the tapes, need an additional device. For example, if the heavily-gathered panel is 16 cm. across at the waist, two 16 cm. strips of strong cotton or linen are mounted, one on the hanger crossbar the other on the waistband of the skirt to correspond with the weighty panel; *Velcro*

touch-and-close fastener is sewn to these strips, with the soft member on the skirt, and the harsh, scratchy piece on the hanger. When the skirt is required for display, the Velcro strip can be tucked inside. (Should the skirt opening come in the centre of the heavy panel, it will be necessary to remove the Velcro strip in order to place the skirt on its mannequin, and resew it afterwards for storage.) Always mark the hangers to correspond with the accession numbers of garments, or else your careful work will be wasted if garments and hangers are mis-mated.

When sytrofoam is used to support fabrics it must be covered with closely-woven cloth. Disastrous results have been known from the melting of styrofoam stands under artificial lighting in a showcase. Inexpensive wigstands, which are readily obtainable, are good to support hats, but must be covered with cotton material.

Decorative trimmings, buttons and particularly hooks, often cause damage by catching flimsy parts of the same garment, or onto the neighbouring costume. Prevent this by basting a protective layer of dress net over the threatening parts; often it is wise to encase a long line of hooks down the opening of a dress. Stitches should be long and loose for easy removal. While the net is in place, all details can easily be seen.

PLASTIC BAGS

These are only used as a temporary measure for a specific purpose, such as isolating a dirty garment. Plastic may give off harmful gasses; also the atmosphere inside the bag is conducive to fungus growth.

CLEANING

Dirt attracts moisture and pests, and may contain destructive elements, particularly acids. In general it is better to use water than so-called dry cleaning methods that leave a residue of undetermined potential, likely to cause deterioration over a period of time.

All textiles can be freed of loose dirt by brushing and vacuuming. Keep a variety of brushes, ranging from stiff new ones to very soft old bristles. (Beware of synthetic bristles and plastic handles that will dissolve if accidentally used in solvents.). Unless a vacuum cleaner with extra gentle suction is available, the nozzle is always held above the surface of the fabric without touching it. A piece of fine, closely-woven material is secured over the nozzle so that any fragments of thread, beads, etc. which may be detached will collect on the screen. The nature of soil collected is also interesting and useful to study. Both sides of the textile should be vacuumed.

WET WASHING

Test for colour-fastness. Allow a drop of water to soak right in, and then blot it with a scrap of new white blotting paper. If no trace of colour shows on the blotter, repeat the test using whatever washing agent you have selected, (neutral detergent, pure soap, etc.), again placing a drop of the solution which must soak in thoroughly, and then pressing firmly with white blotting paper. This paper should be used only once.

Equipment for washing textiles is simple, and can be improvised:

- table large enough to dry article flat
- board covered first with polythene film, then cotton, for pinning out to size (measure carefully before washing)
- rustless pins
- weights (e.g. diving belt weights) to hold the article while drying
- plastic screening mesh, big enough to support the article at all times during washing
- blotting paper or old, clean, lint-free towels, to soak up as much moisture as possible
- bath, sink or large shallow vessel, preferably with draining device
- large new paint roller for washing carpet as well as tapestries
- a fan

Washing should be carried out swiftly and the water changed after no more than five minutes, as

soils tend to re-enter the fibres. Use as many changes of water (plus washing agent) as is necessary to loosen soil, assisting the process with dabbing action of the sponge. Several rinses are necessary; it is worthwhile to take extra care to remove all possible residue.

Lift the washed textile out of the bath by means of the mesh, and once excess water has drained away, blot up as much moisture as possible with old, clean, lint-free towels or blotting paper.

Flat textiles can be laid onto glass or plexiglass and smoothed from the centre outwards, carefully getting out all air-bubbles and establishing contact with the surface. When dry, the material can be peeled off; it will not require ironing.

Laces should always be pinned carefully onto covered soft-boards. The raised side of the lace is always placed uppermost.

Large heavy blankets, cloaks, or bedspreads can be drawn gently into shape on the drying table, and weighted around the edges. *Remember that fibres are weakest when wet.*

Carpets and large tapestries are best washed outdoors. If necessary take the article to a pure water supply; wash with a steady flow of water. Such wet objects are best moved by rolling onto plastic drainpipes, which can be supported at the ends, before the textile is laid out to dry.

The importance of quick drying of textiles cannot be overstated. Damp fibres exposed to air will oxidize rapidly. With cellulose fibres, a brown substance is formed at the point of balance in evaporation between wet and dry. To overcome this tendency, a fan or fans must be used to keep air circulating and speed up the drying process.

DRY CLEANING

Drycleaning methods are still being studied. Trichloroethane does not disturb dyes - the major problem is the possibly detrimental effects on fibres of the residue left by the solution. As to method, in general the object is kept still, while the cleaning fluid is moved.

Textiles are among the most complex and expendable of our clues to human history, and are threatened by the effects of light, polluted air, dust, dampness and overcrowding. However, the marauding enemy which causes most immediate consternation is the *living* pest, be it mouse or insect, which likes to graze in the museum.

PEST CONTROL

Should anyone feel in need of a little excitement there are some gambits certain to produce sudden and violent reactions:

- in a theatre, shout *fire!*
- in MacDonalds, scream *botulism!*
- whisper *moth!* in the museum

Nevertheless excellent technical advice is available on the control of chewing pests, with the possible exception of the human varieties. The only reason that we need to go further than normal housekeeping procedures is to avoid a feeling of false security which comes after having used crystals, fumigants, and the like. It is too easy to resume daily duties feeling that the job is done, whereas it is essential to re-examine the artifacts at three-month intervals: to look under collars, into pockets and folds; to allow air and light to circulate while you look for traces of infestation, or anything that moves.

The first and most effective means of pest control is to enforce a strict rule regarding the entry of items into the museum; anything being brought in for identification, as a donation, or for any other reason, must be carefully examined without delay in an outer room. Although both moth and carpet beetle may fly in or be carried in on clothing, this is a very rare occurence compared with the incidence of pests in upholstery, furs, costumes, etc.

It is commonly supposed that linen and cotton are not subject to the unwelcome attention of moth, etc., but this is not true if such fabrics are either starched or soiled.

REINFORCING

As with all types of conservation, careful and detailed records must be kept of each and every process, if the authenticity of the artifact is to remain unclouded. All sewing or adhesive techni-

ques should be practiced in such a way that the new work can be easily detected; there is a delicate balance to be struck between aesthetic considerations and the honesty of the work, which must be easily seen for study purposes. This idea is sometimes a novel one to any craftsman new to the museum ethic, and it is one of the basic ideas to get across to any helper in the textile field. Understanding this principle is not less important than expert needlecraft.

No work done on any fabric should be stronger than that fabric. Under strain, it should be the repair which will give.

As none of us has the final answer to any one conservation problem, and as new and better methods are constantly being perfected, it is always possible that our work may need to be taken out. Reversibility is another basic principle to adhere to; tiny stitches are not necessarily the best way. Our efforts have no intrinsic value, they are important only in arresting deterioration of the artifacts in our care.

SUPPORTING FABRICS

Net, silk- or polyestre- crepline are the best answers to the problem of backing or facing weak, damaged or disintegrating textiles. *Couching* is the technique most favoured, that is: the laying of parallel long threads which are caught down at intervals with small stitches. Both the long and short stitches follow the true woven grain of the fabric.

Where large areas are to be lined, there is a necessity to connect both layers at intervals to distribute the weight. This is best done with ladder-like vertical rows of basting stitches; this technique is described on page 141 of *Textile Conservation* by J.E. Leene, the best reference available to date on the subject.

ADHESIVES

Since the early 1950's experiments have been carried out with adhesives as an alternative to needle techniques. It is claimed that P.V.A. (poly vinyl acetate) stays flexible, does not discolour, is capable of most varied application, and is reversible using controlled heat. A good deal of special equipment is required, which probably removes it from the scope of the average museum. Also there is some controversy regarding usage, so I do not propose to deal with the subject here. However, it is an interesting new field and anyone with a natural leaning towards the wonderful challenge of conservation would find it worthwhile to read what papers are available on adhesives.

CONCLUSION

This guide is a general one and its limitations are obvious in relation to the complexities of the subject. The care of fragile, old, irreplaceable textiles must have beginning, but it is a continuous and demanding task requiring something of the devoted care given to children or house plants. With apologies to Lewis Carroll, you are urged to begin at the beginning, go on to the end and then do not stop.

Basic Stove Restoration

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This article is reprinted from **The Occasional,** *which is a journal for Nova Scotian Museums, Vol. 3, No. 3, Summer 1976.*

I've got a stove for us, said one of our museum scroungers.
Great, where is it?
In back of Quinan.

After a three quarters of an hour drive, we arrived at the right camp and there, sitting out on the porch underneath a tarpaulin, in pieces, was a stove - a "New Burrell-Johnson Iron Co. Ltd." 1900 Model Grand. Since the Yarmouth County Museum didn't have a Burrell-Johnson stove and since this one was free, it was a great find. Or was it? There it sat, rusty, in pieces, and miles from the museum.

Three weeks later we were there again. Well, almost there, our truck couldn't quite make it up the last snow-covered hill. Fortunately, an iron cooking stove comes apart and so we removed the upper warming compartment, the chimney, the hole covers, the doors, the grate and the stand - all of these items were easily carried down the hill to the truck. Unluckily, the oven proper weighed much too much to be carried by two men. Luckily, the stove was covered by a tarpaulin and there was snow on the ground and the truck was downhill from the stove. Eventually after some struggling (and probably some swearing) the stove was aboard the truck.

After a perilous journey over snowy and muddy roads, we arrived back at the museum and had no problems unloading and carrying the stove to the museum basement - except for managing the stairs with the oven section. Eventually even the stairs were overcome.

The sight of a rusty stove in many pieces is disconcerting to say the least, especially for a curator with little practical experience when it comes to mending and fixing. But, as always, there is at least one person in the community who is an expert in the field in question. Yarmouth is fortunate enough to have a collector of stoves - Captain Hubert Hall. Captain Hall looked at the pieces, said "No problem. It'll turn out fine", and volunteered to be in charge of restoration with me as an apprentice.

After several weeks of toiling (for me) and enjoyment (for Captain Hall) the stove was set up in our *industry room* as a tribute to the New Burrell-Johnson Iron Co. Ltd.

In case your museum has recently acquired an old stove which requires restoration, here is a list of tools needed, the steps involved and some *do's and don'ts:*

Tools Required:

-vacuum cleaner
-heavy scraper (an old cold chisel will be fine)
-wire brushes
-electric drill with wire buffer
-goggles or safety glasses
-basic tools such as screwdrivers, hacksaw, cold chiesel, wrenches, and hammer
-penetrating oil (to remove rusted bolts, etc. - "Mate" is recommended)
-stove polish (paste and/or liquid "Nonsuch")
-cleaning rags
-a supply of 3/16 inch and 1/4 inch flat head and round head bolts and nuts
-a wheeled dolly (not absolutely necessary)

Burrell and Johnson 1900 "Model Grand" restored

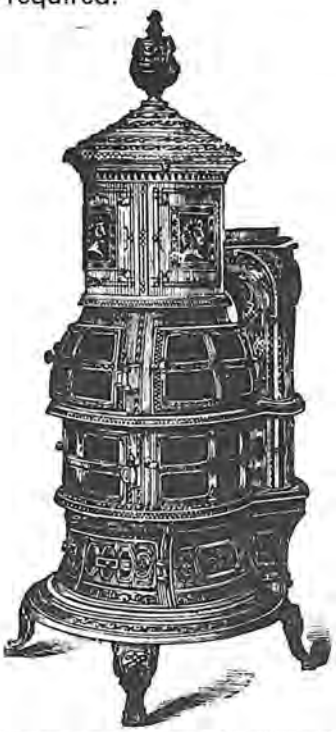
Steps Involved:

1. Take the stove apart. Remove covers, doors, hearthplate, etc. This will probably already be done since it's almost impossible to carry a stove complete with all its attachments. Do not worry about not being able to put the parts back together in the right place - there are not all that many and they are quite distinctive and easily recognizable.

2. With each part, remove all the accumulated grease, rust scale, ashes and other dirt using the scrapers, wire brushes and wire buffers. Don't be foolish here - wear the goggles or safety glasses to protect against flying rust particles. When clean, set the parts aside, preferably somewhere where they won't get covered with dust from the buffer.

3. Since rust often forms in the joints it tends to spread the joints and may crack the stove-be certain, therefore, that all of this rust is removed. This might entail removing bolts to take the stove part. Since the bolts will probably be rusted on, the penetrating oil, a hacksaw or cold chisel will be required to remove them.

4. Put the stove back together, replacing bolts where required.



Burrell and Johnson stoves (advertising illustrations courtesy of Dalhousie University Archives)

5. Polish the stove with either liquid or paste stove polish. The paste gives a better shine on smooth surfaces but the liquid will be required for the ornamental ones.

6. Set the stove on display. Possibilities here are endless. Because a stove is often quite large, it could form a display by itself or it could be used as a centrepiece for a kitchen, a collection of cooking utensils, or a display of cast ironware made at the same foundry as the stove.

Some Do's and Don'ts:

a) The Do's

Do clean the stove in a place where the dust won't cover everything around it - we're sorry we didn't do this. Outside is the ideal place for cleaning a stove, especially when buffing with the electric drill and buffer.

Do wear a mask when buffing, especially if you do it indoors.

Do wear goggles when buffing.

Do place the stove on a wheeled dolly and move the stove and not yourself.

Do keep any odd pieces of stoves such as lids, doors, legs, etc. They are hard to find if you're missing a part.

Do plan on having a shower afterwards - you will need one.

b) The Don'ts:

Don't try to carry parts which are too heavy. Get two, four or six more hands to help.

Don't try to carry a stove in your car's trunk as you will need a new pair of springs if you do. Also, a truck or trailer is much easier to load and unload.

Don't hammer at bolts, etc. Cast iron is often brittle and will break if hammered. Hammer as a last resort only.

Photographs

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Perhaps one of the most neglected or abused areas of museum display techniques is in the field of photography. Surprisingly enough, most museums of any size either display or possess a wide variety of pictorial material. This material should be treated with as much care and respect as the other artifacts in the museum for they are, in the true sense of the word, artifacts.

I am sure that in all cases, any neglect or irreparable damage to photographs in museums is unintentional - it is more a lack of knowledge of the fundamentals of proper handling procedure. In this article an attempt will be made to cover five of the main areas concerning pictorial material as it relates to the museum field. These will include such topics as:

1. Basic conservation of photographs
2. Photocopying
3. Cataloguing of photographs and negatives
4. Drymounting and wetmounting techniques
5. The use of historic photographs in displays

For simplicity I will cover black and white photography only since very little colour printing is associated with historic photographs. Where possible, I have also tried to keep costs to a minimum.

BASIC CONSERVATION OF PHOTOGRAPHS

Pictorial material in museum-like surroundings falls into one of two categories: an *original* photograph and a *copy* or *reproduced* photograph.

Like all museum artifacts it would be ideal if all original photographs could be on display. Unfortunately, this is not feasible as it would greatly shorten the life span of the photograph. This brings us to the question of what to do to impede the process of deterioration of photographs which are on display.

Common sense is one of the best techniques in photo conservation. If an original is to be displayed, do not handle the surface image area with your fingers but wear thin gauze gloves. Protect the photo by placing it in a plastic or mylar jacket or by framing it behind glass. If it is to be framed use acid-free mount board, if possible, and do not tape, tack or glue the photo in any manner. A common error is to identify photos by writing on the reverse side with ink. Use a light pencil if necessary, but not ink. Never try to clean or repair any damage to originals without first consulting a professional photographer. When the photo is on display avoid exposing it to direct sunlight or strong lighting as this tends to increase greatly the fading or yellowing process. Finally, try to avoid exposing the photograph to sudden or extreme changes in humidity and temperature. This tends to cause cracking on the surface and curling along the edges. Proper storage of photographs is covered in more detail in the part on cataloguing.

PHOTOCOPYING

Photocopying or photographic reproduction is rapidly becoming a highly useful process in the museum field. It enables museums to copy and re-

produce not only original photographs but objects such as maps, documents, or paintings that have been kept in permanent storage because they were too large, too valuable, or too fragile to display or handle.

Photographic reproduction has the following advantages over conventional mechanical copying processes such as xeroxing or thermofax:

1. The negatives may be safely stored for the future as well as the original photograph. Any number of prints of various sizes can be made at a later date
2. By using today's modern high contrast films, filter and photo paper, the copy is often of better quality than the copied original
3. Using the correct processing and treatment, the copies will last for long periods of time without fading or discolouring
4. Copy prints may be retouched or processed to look much older than they are without risk of damage or loss to the original
5. People will often allow their valuable photographs to be copied in their homes but will not donate them to a museum. This will still give you a copy that would otherwise be lost to the public
6. Extra copies of photographs can be made and sold to the public with the revenue going to the museum
7. Slides may be made to supplement audio-visual presentations or lectures.

Copying Equipment

The Camera

The 35mm single lens reflex camera is by far the most suitable for copy work in the museum. The smaller instamatic or polaroid cameras are unsuccessful in most instances due to their lack of versatility. There are many types of 35 mm camera on today's market, such as *Pentax, Nikon, Canon,* and *Minolta.* Their popularity is due mainly to their versatility and ease of operation. They are relatively small and light in weight, film is available in black and white negative, colour negative and slide, film sizes 20 and 36 exposures, they have through-the-lens viewing and light metering and there are numerous accessories available such as lenses, filters, and flashes. The price range for such a camera would be from $250 to $500, depending on the type and accessories included. Check with various dealers on prices or perhaps it would be more feasible to rent one for a couple of weeks.

The Lens

The normal lens (50 or 55mm) is standard on 35mm cameras. It has a focusing range from 1½ feet to infinity and is relatively distortion-free. Another lens commonly used in copywork is the 50 mm macro lens (also known as a close-up lens). It allows focusing from infinity to 4¼ inches but also can be used for general purpose work. A simpler and less expensive method is that of using a set of close-up rings (also known as extension tubes). These rings are inserted between the lens and the camera body and allow focusing down to a distance of approximately one inch. The cost of a set of rings would range from $6 to $10 as compared to $50 or more for a macro lens.

Filters

Filters are relatively inexpensive and a necessity in black and white photocopying. They are available in several colours, but perhaps the most utilized are the polarizing filter and yellow filter. The polarizing filter eliminates reflections on glossy finished photos or paintings while the yellow filter reduces or eliminates the yellow stains often found on old photographs as well as increasing contrast. Any light reduction caused by the addition of a filter is compensated for by the through-the-lens metering on the camera.

Copy Stands

Copy stands for use with 35mm cameras are obtainable from most camera stores. This type of stand consists of an upright column mounted on a copyboard. The camera is attached by means of a tripod bush to an arm and collar assembly that slides up and down the column. Some camera tripods can be substituted for the copy stands. With a little ingenuity and a few parts, a relatively inexpensive facsimile can be constructed.

Film

Most amateurs are readily confused by the num-

erous varieties and types of film available for 35 mm cameras. We will eliminate several of these by confining ourselves to black and white varieties only. There are three types of black and white film commonly used in copywork which can be used with any type of flood lamp. Copywork can even be done by sunlight or in a highly-lit room as long as precautions are taken to eliminate all shadows and reflections.

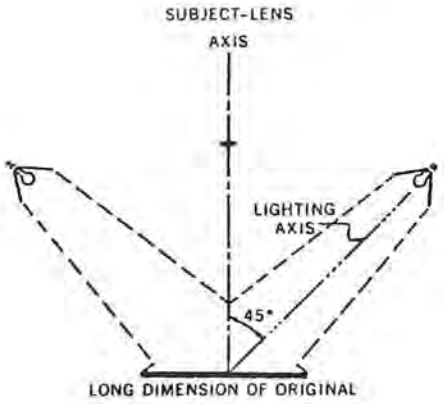
a) Kodak Panatomic X Film is available in 20 or 36 exposure rolls and is one of the best for copying historic photos (black and white or colour), maps, documents or even typed pages because the resulting print can be enlarged without losing too much of the quality. It can be developed at home or through a local photo dealer.

b) Kodak Plus X film is another good copying film but it does not have quite as high a contrast as Panatomic X. It tends to have a coarser-grained texture when enlarged. It is also available in 20 or 36 exposure rolls and may be processed at home or through a local photo dealer.

c) Kodak High Contrast Copy Film is available in 20 or 36 exposure rolls and must be processed at home or check locally with a photographer. It is not recommended for copying photos due to its high contrast but is excellent for copying line drawings, maps or old documents.

Illumination

Perhaps the most important operation in copying is to get the correct illumination over the whole area of the original. Incorrect illumination yields negatives of uneven density which are difficult to print. Small originals, 8 by 10 inches or smaller, can be illuminated with two lamps placed about 30 inches from the centre of the copyboard and at an angle of 45 degrees to the lens axis **see diagram.** The lamp distance usually must be adjusted for larger originals so that even lighting covers the entire surface. Caution must be taken to avoid *hot spots* (too much light in one area) or *light fall off* (not enough light in some areas).



Copying Procedure

Place the original on the copyboard and then tack down each corner with a small piece of masking tape. When removing the tape be careful not to lift any of the original's surface. A thin sheet of glass may also be used to hold the original flat but this method will tend to compound your problems by additional reflections from the glass surface. Adjust your lights at the proper angle and distance according to the size of your original and position your camera level (either in a vertical or horizontal position). Since many exposures in copywork are at lower shutter speeds, make sure your camera is firmly held in an adjustable mount or tripod to avoid any camera movement. The possibility of moving the camera can further be avoided by employing a cable release. If necessary place the appropriate filter on the lens and check to make certain your camera is set to the proper speed or ASA of your film. Carefully focus on the subject and take a meter reading by means of a hand-held meter or your through-the-lens meter. Cock the camera carefully to be sure its position does not move and proceed to take the picture. If copying very light or dark originals, it is often wise to *bracket* your exposure. For example, if your meter reading is F5.6 at 1/60 of a second, take one shot at this reading and one shot at each reading above and below it at F4 and 1/60 of a second and F8 at 1/60 of a second. This may tend to use a little more film but you are almost assured of having one of the three exposures being correct.

A simple but rather useful aid when copying from a printed page for example is a grey card. It is

placed over the original being copied and the meter reading is taken from it. If a meter reading were taken directly from the original, the large expanse of white area would definitely affect the meter and result in an underexposed negative. The grey card may also be used for photographs if they are yellowed or have large expanses of white in them.

CATALOGUING PHOTOGRAPHS AND NEGATIVES AND THEIR STORAGE

Photographic filing systems, to be effective, must satisfy two basic requirements:

1. They should provide for the secure storage of the material to prevent as much damage as possible from the effects of dust, light, humidity, fingerprints, scratches, etc.
2. They should be arranged systematically according to an easily understandable classification system which will facilitate the prompt location of any negative or photo.

These two requirements can be satisfied in any number of ways, some of which place more emphasis on one requirement than the other. For example, pictorial material which has been photocopied but which must be maintained for historical purposes can be filed in dustproof or fireproof cabinets with only a skeleton filing system.

When choosing a classification system one good rule of thumb is that your system must be such that the location of any negative or photograph will be definite and fairly obvious, i.e. the chain of thought which originally places the photograph in its position in the file must be simple enough to be duplicated by anyone searching the files for the photo at a later date.

In most museums the character of the photographic work will be widely diversified and will best lend itself to a chronological accession type of sequence or a file number system. In this type of system, all negatives or photos are filed in the order in which they are made or acquired, regardless of the subject matter, and they are assigned file numbers denoting their file locations. Since these numbers describe file position only and have no bearing whatsoever on the subject matter, an index or possibly cross-indeces will be required depending upon the number of photographs or negatives you possess. Your master index can be an entry log arranged by file numbers and dates in the same order as the photographs in the file. A common loose-leaf binder will suffice. Cross-indeces may now be made up by subject matter, number or any other scheme by which the photographs may be adequately described.

Typical photo file card in a file drawer

A typical subject cross-index card file can be placed in a standard office-type card file drawer. Each card has a description of the photograph and the negative it represents. Some photographs or negatives are often represented by several cards according to the various categories in which it may fall. Examples of some categories arranged alphabetically may be:

A	B	C
architecture	birds	Canada
agriculture	bison	camps
airplanes	boats	clothing
army scenes	buildings	churches
automobiles		

This system allows for the location of any negatives by at least three identifying factors:

1. If a copyprint has been made from the desired negative, the file number may be read from the back of the print and the negative located directly.
2. If the approximate date of making the nega-

tive is known, it can be found by scanning the entries in the accession log around that particular date.

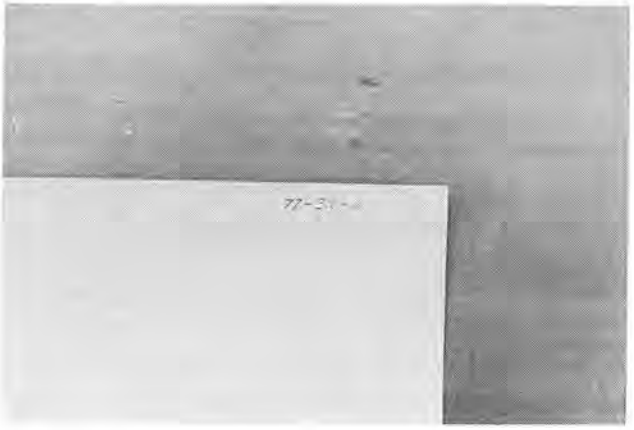
3. The subject name, number, location, etc. can be found in the appropriate cross index which will yield the file number.

The advantages of the system are obvious, mainly that it is very flexible with regard to subject matter. This flexibility is further augmented if the index is kept in the form of a card file or loose-leaf binder which allows additions at any point.

File Number

A typical example of a file number and its interpretation may be: **77-32-4**

The first part of the number indicates the year in which the negative or photograph was made or obtained. The second part is the accession group number assigned serially from the master log and will be the same for a whole group of photos copied at the same time. The last number is the individual negative serial number within group 32.



Pencil file number on reverse side of print

Numbering negatives and photographs

Regardless of the classification system used, it is a wise practise to place an identifying number on each negative, negative envelope and print.In numbering strips of 35 mm negatives the group accession number needs to be written only once on each strip but each frame should be identified with its individual sequence number. The file number should be placed in an upper corner of each file envelope - oriented or placed in regard to its filing position - and the same number should be marked with India ink in the clear marginal area on the back of the enclosed negatives. This speeds up the return of each negative to its correct envelope if it is removed for printing.

Negative envelopes - kraft paper, glassine and cellulose acetate

Prints are most simply identified by pencilling the file number with a soft pencil at one edge on the back of the print. Under no circumstances should ink be used since in many instances the ink will bleed through the paper and eventually cause disfigurement of the surface of the print.

Negative Envelopes

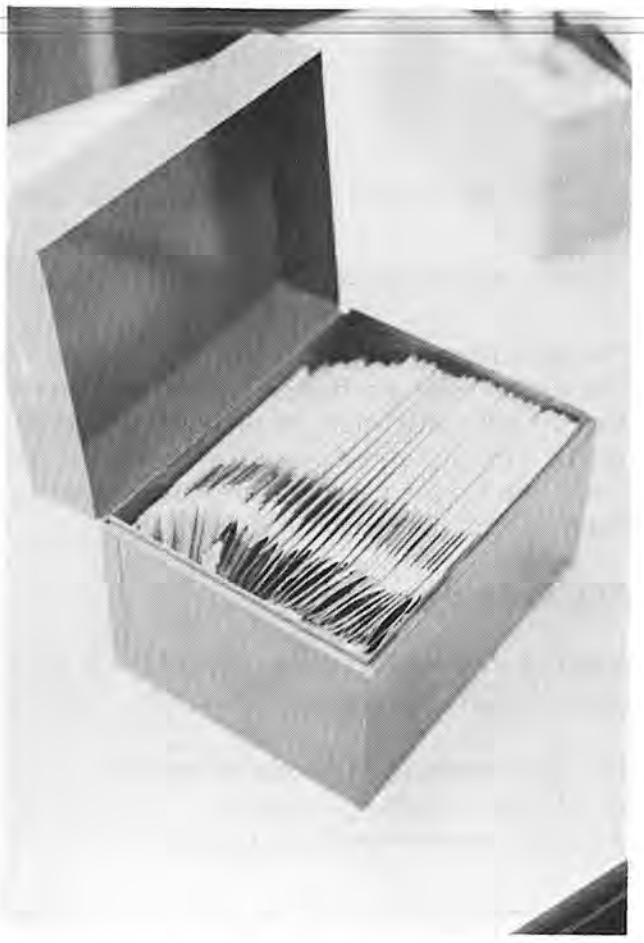
Negative envelopes are generally available in three different types of material-

1. Kraft paper which is relatively opaque
2. Glassine which is translucent
3. Cellulose acetate which is transparent

These vary in price from the kraft, which is the least expensive, to the acetate, which is the most expensive. Since the negative envelopes used are going to be in direct contact with the negatives for long periods of time, their construction materials are of great importance. The envelopes must be relatively acid-free and free of residual chemicals common to poorer grades of paper. Do not store negatives in ordinary white stationery envelopes for long periods of time.

In the case of 35 mm film, cut the negative strips into sections of four frames each, number the strips and file them in the type of envelope of your choice. Do not cut the strips into individual frames as this increases the cost of printing at a later date.

In general, the 35 mm envelopes can be stored in small metal or wooden file boxes tailored to the many envelope sizes. If the file outgrows one box, it is a simple matter to purchase another of the same type and expand the file until it becomes large enough to justify the use of a drawer-type cabinet. This also holds true for the cards in your cross-reference or index file.



Negatives stored in envelopes and filed in metal file box

In addition to your filing system another rather useful process is that of making a *contact sheet* at the time of negative development. This process merely involves arranging negative strips on a contact printer in contact with a sheet of photo paper. The exposure results in a recognizable print from each frame in spite of variations in density and contrast. You can then punch the contact sheets and file them in loose-leaf binders for ease in thumbing through. Contact sheets are convenient for several reasons: first, it avoids the delay and waste of making one print or several proofs of each negative from which perhaps only a few will be used. Secondly, it can be used by the photographic amateur to whom looking at negatives would mean very little. Third, it keeps your negatives and prints in better condition by eliminating much unnecessary handling. Furthermore, it makes it possible for initial print orders to include any special development instructions.

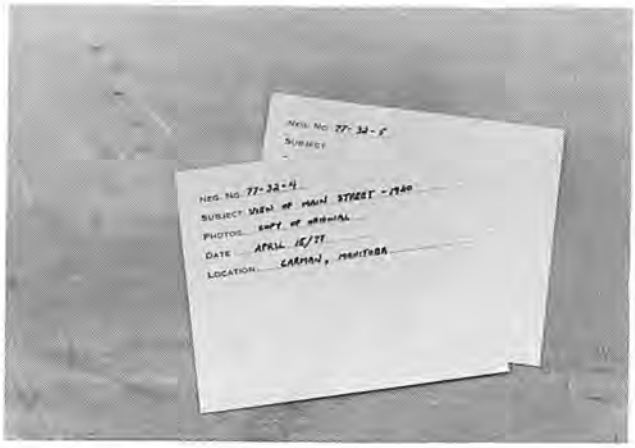
Contact sheets filed in loose-leaf binder

Storage of Original Photos and Prints

All prints should be removed from frames. If prints are secured in albums, they may generally be retained in the album unless acidity of the paper is causing rapid deterioration. Rolled prints may be straightened if practical. Prints of all sizes should be stored vertically in standard document transfer cases where possible or in separate manilla envelopes or file folders. In any case, they should be fairly tightly packed to prevent warping of the prints.

Environmental Controls

Ideally, all pictorial material should be carefully housed in a completely fireproof vault with a continuous flow of chemically, electronically and mechanically purified air to remove all pollutants.



Negative envelope with description

Negative envelopes filed in file drawers

Unfortunately, this is well beyond the means of most museums in North America. There are several simple steps that the community museum can take to prolong the life expectancy of their historic photographs, documents and negatives.

The safest level for preservation of pictorial material is a temperature of 70° F and a relative humidity level of 43%. Surprisingly enough, this is not too far off the average condition of the oridinary homes in which we dwell. The point is that your material should not be stored for long periods of time under conditions that you yourself would not feel comfortable working in. Also, the area should be completely isolated from sunlight and maintained in as close to complete darkness as possible unless someone is working in the room. Access to the room and files should also be limited to authorized personnel.

MOUNTING OF HISTORIC PHOTOGRAPHS

Dry Mounting

Dry mounting is simply defined as the attaching of a photograph, letter, or document to a secondary support such as heavy paper, crescentboard, cardboard, or composition board.

Dry mounting is a **permanent** bond - it cannot be reversed and the material released from the support. Therefore, it is advisable to use copies or duplicates of photographs or documents. Do not use originals.

Step-by-step Procedure

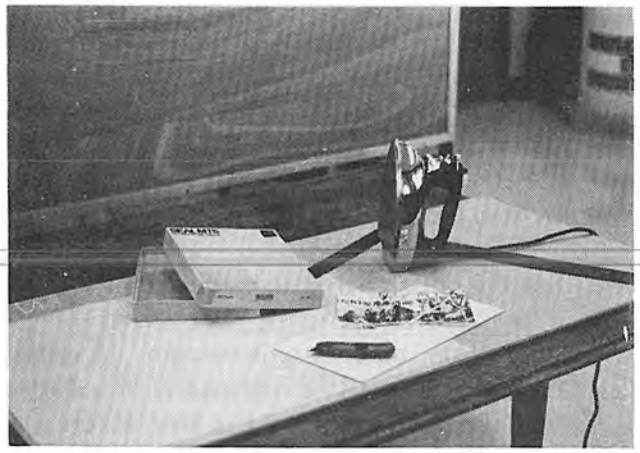
1. Set the press or iron temperature at 225 to 275 F. and allow iron to warm up. If using a steam iron, make sure it contains no water.
2. Pre-dry materials if necessary. If relative humidity is over 50%, it is best to pre-dry both the material and the mount board.
3. Tack the dry mount tissue to the picture by placing the material face down and placing a sheet of tissue on the back. Tack the ends of the tissue to the material so it will not slip. Trim the tissue to the material size.
4. Tack the work to the mount board. Position the work on the mount board and tack each end to the board.
5. Seal the picture to the mount board. Insert the work in between silicone-coated release paper or cover the photo with release paper before applying the iron to the surface. Keep applying the iron over the photo surface until the bond is uniform. If there are some areas that have not bonded, these areas will show up as bubbles.

A slightly different type of dry mount tissue is used for mounting colour photographs but it is approximately the same price as the MT5 black and white mounting tissue.

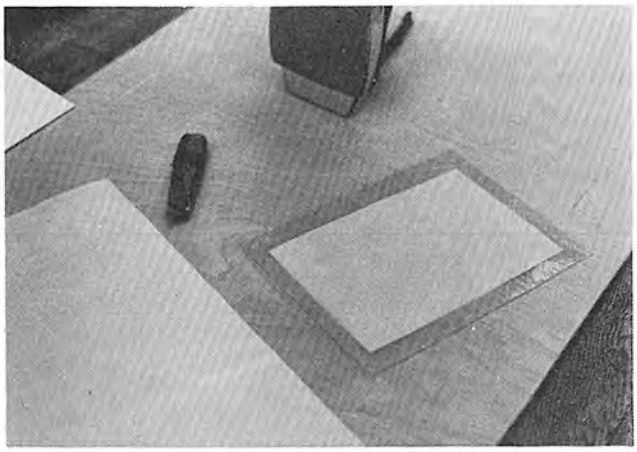
Seal MT5 tissue and silicone treated release paper are available at most photo supply stores and larger department stores with photo departments.

It is available in Winnipeg at:

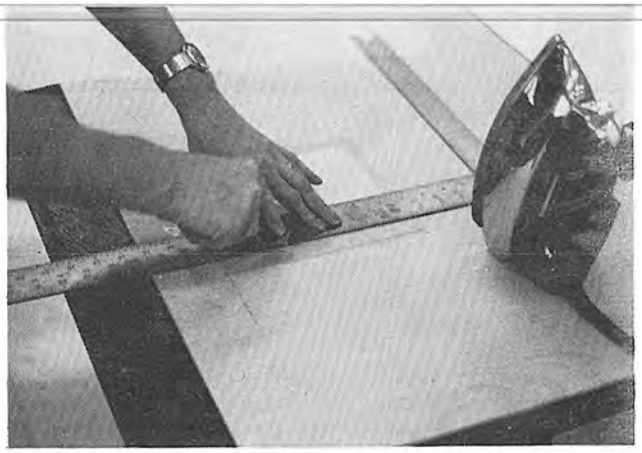
Strains Camera Stores
Canada Photo
Treck Photo
Sam the Cameraman's
Eaton's



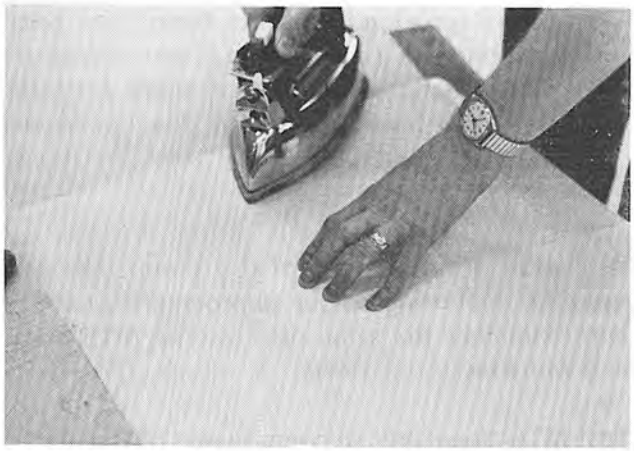
Equipment necessary for dry mounting



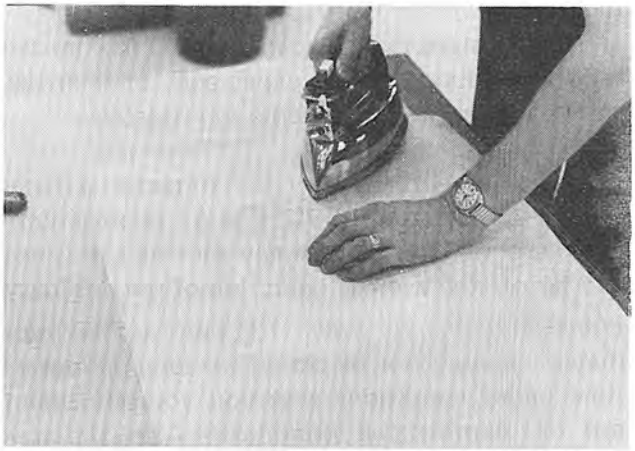
Dry mount tissue tacked to back of photo



Trimming the dry mount tissue to the size of the photo



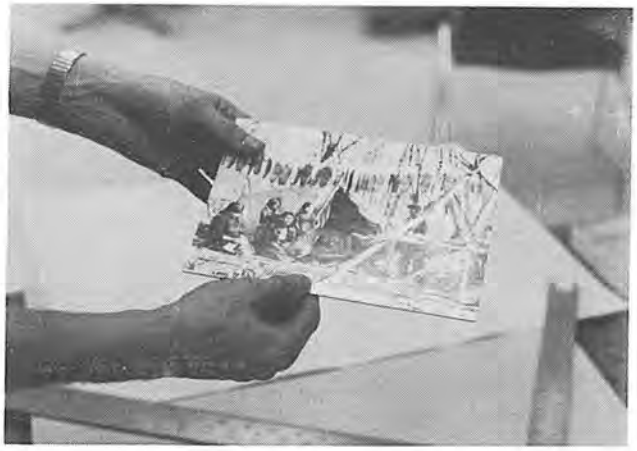
Tacking dry mount tissue to the back of the photo



Tacking the work to the mount board

Dry mounting the work to the board

Trimming off the excess border around the photo



The completed dry-mounted photo

Miscellaneous Materials for Mounting

1. *Contact Cement*. Apply cement to both surfaces with a brush (making sure each is clean and dry). Allow to dry for 20-30 minutes. Press both surfaces together and let dry with a uniform pressure on top. Let dry for at least eight hours. This is a permanent seal and cannot be removed.

2. *White Glue (Bondfast)*. Apply to both surfaces and press together immediately. Let dry with a uniform weight or pressure on top for at least eight hours. This glue is water soluable and will loosen if moistened.

3. *Wall Paper Glue*. Apply ordinary wall paper glue to both surfaces and smooth out any air pockets with a brush or squeegie. Let dry without applying pressure.

4. *Rubber Cement*. This may be used for small photographs or for placing thin cardboard and paper frames around photos. Apply to both surfaces and let dry with a uniform pressure on top. Excess glue may be rolled off by rubbing after it dries.

In all of the above cases, the support material must be very smooth. If you use wood, composition board, etc. they should be sanded as smoothly as possible.

FUNCTIONS OF HISTORIC PHOTOGRAPHS IN DISPLAY

Only a few of the most common uses of historic photographs in museums are listed here. By examining these examples, you can no doubt think of many more that would suit your museum or a particular display. You are only limited by your own imagination-

1. Photographs can be used for comparison displays, such as a town in its early years of development and in its present state.
2. Photos of early pioneers who have donated artifacts to the museum - perhaps a photo of a pioneer using an artifact in your museum such as a breaking plow or spinning wheel.

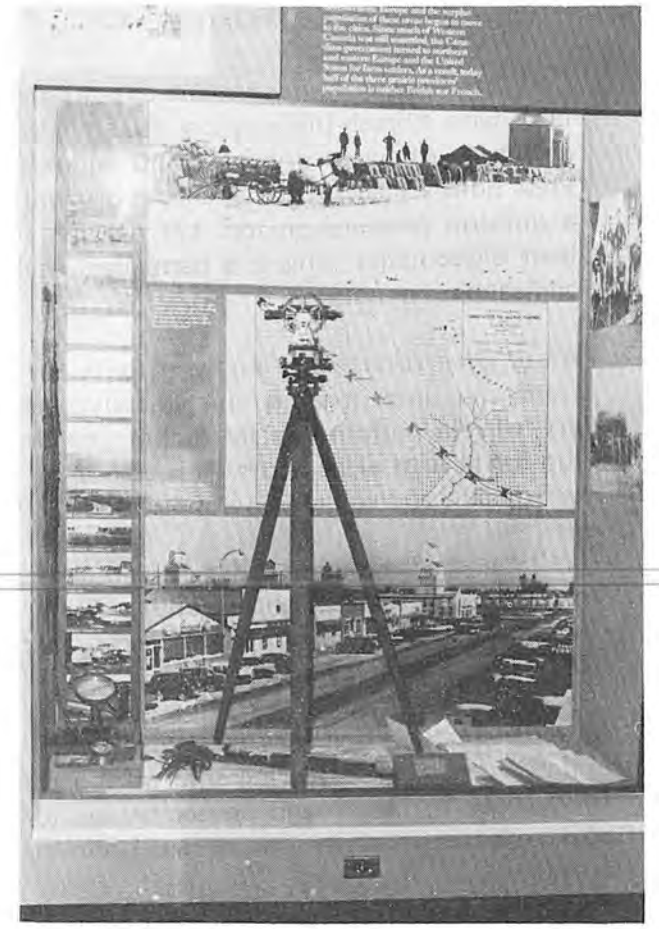
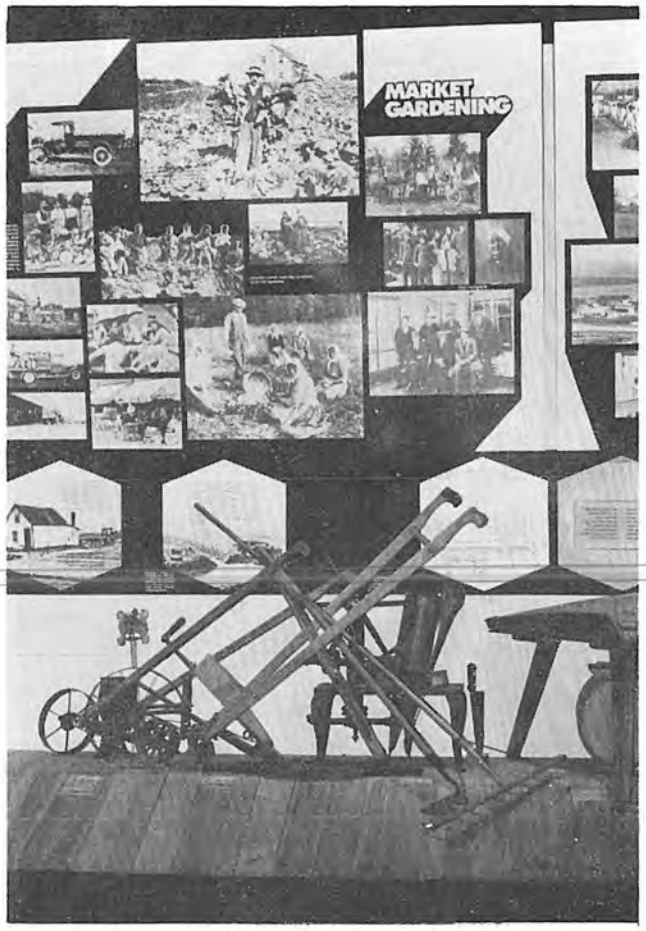


Photo used for comparison of town in early days and present time



Example of ethnic groups and their occupations

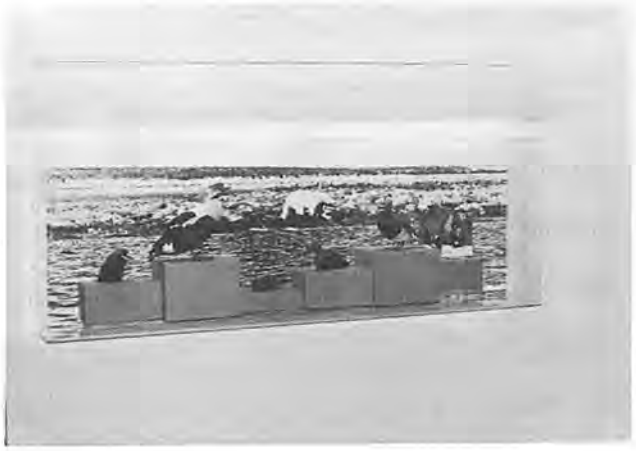
3. A photo demonstrating how an artifact was used, i.e. an early applepeeler, will cut down on a lengthy written description.
4. People of various ethnic backgrounds can be shown wearing local costumes, i.e. Polish, Ukrainian and Indian clothing.
5. Photos of drawings can show how an actual specimen may have looked before it became rare or extinct, and where now there is only a partial skeleton in a display, i.e. dinosaur, extinct bison, and fish.
6. A photograph can be used to demonstrate a certain artifact in a display even if the actual artifact is not present in the museum, i.e. to show a missing example of the modifications made throughout the years in the progression from early sad irons to the present day steam irons.

A photo showing an extinct or rare specimen

Methods of Displaying Photographs

Once you have decided on the photos you wish to use in a display and have mounted them using one of the previously mentioned techniques, you are faced with the problem of how to display them properly in your exhibit. Practically any simple method of mounting or surrounding a photograph with a frame enhances it considerably. A mount or frame emphasizes the image by isolating it from the surroundings and gives the exhibit a much more finished appearance. The museum visitor quickly contracts a bad case of visual monotony after a few minutes of looking at row upon row of black and white, 8 by 10 inch photos. There are several methods used to prevent this:

1. Employ photographs of various sizes such as 4½" by 5½", 5" by 7", 8" by 10" or even larger if possible. If they are mounted they can be cut into various sizes such as rectangular, round, square, triangular, etc. by means of a jig saw or fret saw.
2. Unless it is a photography show avoid displays entirely composed of photographs. Combine photos with artifacts in your museum, thus allowing them to contribute to the theme of the exhibit.
3. If possible, combine coloured photographs in your displays with black and white prints.
4. Large prints or murals can be used for the backdrops of entire display cases if the scene relates to the artifacts.
5. Photographs can be suspended from the ceiling or from the inside of a case using nylon fishing line.
6. Relatively new copy prints can be instantly *aged* by a process known as *sepia toning*. This brown shading, if applied properly, has been known to deceive experts into believing they were looking at old original prints.
7. Photographs can be glued or nailed to various sized blocks in order to bring them out various distances from the wall or they may be set in diagonal cuts in wooden props, etc. This tends to give them more of a three-dimensional effect.
8. Coloured cardboard backgrounds can be used as frames with photographic corners to hold the prints in place. Backgrounds of the same colour can be used to indicate a relationship between photographs.



A large print used as a backdrop

Perhaps the most advantageous thing about displaying photographs by any of the previously-mentioned methods is that ideally they should have all been copy prints. Therefore, you do not have to worry about damage which they may have sustained over the tourist season. Copy prints are so versatile that any number of them may be destroyed by experimental mounting or display techniques as compared to the cost of losing only one valuable original.

In summing up, remember that photographs are indeed artifacts and they should be treated as such. Photographs, properly displayed, constitute one of the most effective tools in the museum field because they communicate or tell a story. It is this communication that makes a museum a success or a mere collection of objects.

PRICE LIST (APPROXIMATE)

35 mm single lens reflex camera (through the lens focusing and metering)	$250.
55 mm macro lens	150.
extension tube set	15.
polarizing filter	12.
yellow filter	5.
copy stand	75.

FILM		DEVELOPMENT COST
Pantatomic X	(20 exp.) $1.25	$4.40
	(36 exp.) $1.75	8.00
Plus X	(20 exp.) $1.25	4.40
	(36 exp.) $1.75	8.00
Tri X	(20 exp.) $1.25	4.65
	(36 exp.) $1.75	6.00

Contact sheet (black & white)	3.50
Black and white 8 by 10 print	2.00
Fotofloods	1.50
Greycard	.80
Cable release	2.50
Glassine envelopes (for negatives)	.30
Acetate envelopes (for slides)	.85
File box	3.00
Document transfer case	2.00

Selecting Artifacts

WARREN CLEARWATER
Museums Advisory Service
Manitoba Museum of Man and Nature

As we have previously established, an exhibit must be a unit, with the individual parts contributing to that unit if communication is to be achieved. It is more than the mere *lumping* together of similar artifacts within a given area.

There are two basic factors which effect the selection of artifacts or primary material - these are the two methods by which the exhibit was originally developed:

- Composing a theme, doing the basic research and storyline and then gathering the artifacts from the collections which best exemplify the theme.

- Taking an inventory of what artifacts are available in your collections or which can easily be obtained and developing a theme around them. This tends to be the method used by most community museums.

No matter which of the two methods you intend to employ, you should by now be thoroughly familiar with at least four other facts. These are the idea or story to be told, an awareness of the audience it is to reach, the area or space to be devoted to the story and, finally, a knowledge of the building materials, panels, design techniques, and case furniture you will use in order to present the story.

Ideally, having completed your research and storyline, you are now at the stage where you can begin collecting the artifacts which relate to your theme. Keep in mind that it is better to collect more artifacts than will be required so you may sort through them selecting those that best exemplify your theme. It is much easier to be able to select the best of two or three similar artifacts than to not have any choice at all.

In the development of the **Beaver, Blankets and Beads** exhibit, the first step taken was the inventory of the collections as well as other possible sources of pertinent material. Following this inventory, we came to the conclusion that there was a sufficient amount of material from the fur trade era in the 18th and 19th centuries to make an exhibit. The next step was to sit down and decide what specific topic could be used in the display based upon the amount and type of artifacts available. Several ideas came to mind such as: Early Post-European Contact, European Trade Goods, European versus Native Cultures.

Some of the artifacts selected to illustrate trading in the Beaver, Blankets and Beads exhibit

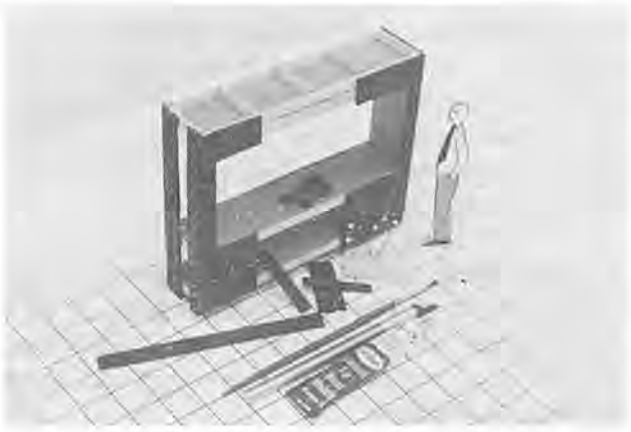
It was finally decided that since the majority of the goods were 18th century origin and were available through the Hudson's Bay Company trading posts we would settle on the trade goods to be found at a randomly chosen fort during any year in the 18th century. Further research in the Provincial Archives turned up the actual record books kept by individual Hudson Bay Co. Factors, also that all trade goods were bartered on a common standard of value known as the *made beaver*. The randomly chosen year and fort were York Factory in the year 1720 - very little imagination on our part produced the title **Beaver, Blanket and Beads.** The majority of the artifacts were selected by reading the record books from York Factory in the year 1720 and choosing those which we felt would best tell the fur trade story. Many of the artifacts such as the copper pots, the arrowheads, pipe, and flints are authentic but a few of the displayed items are replicas such as the trade rifle, Hudson Bay Co. blanket and the beads. Photographs, paintings, and documents were obtained and copied from the Provincial Archives and Library.

As previously mentioned, it is not essential that all the artifacts employed in the display be from your own collection (especially if it is only a temporary display). Photographs and documents can often be borrowed or copied from libraries, people in the community and, of course, other community museums.

Now that the stage of selecting the majority of your artifacts is complete, you are ready to arrange and mount them in your case. This step should be handled closely with the designer or conservator, but in most community museums, these will more than likely be the same person.

Building a Display Case

DAVID McINNES
Museums Advisory Service
Manitoba Museum of Man and Nature



One of the most important functions of a museum is that of education. Museums respond to this need by putting portions of their collections on public display. Artifacts may be displayed on open tables or in closed display cases.

Display cases serve three purposes:

- they house and protect delicate artifacts from damage by dust or careless handling
- they support artifacts at a height convenient for viewing
- they provide a setting or background that will enhance the artifacts' message.

Protection

All artifacts need some sort of protection while they are on display. We accept the fact that an exhibit programme will expose artifacts to more hazards than they would encounter in storage, but we should provide as much protection as possible. This means putting some sort of barrier between the visitor and objects that will not survive touching or handling.

In a period room, the barrier might be a wooden rail. In an interpretive display, where the visitor must be close to small artifacts, the barrier is usually of glass or plexiglas.

A closed case also keeps out dust, but there must be some provision for ventilation if the case is equipped with lights. If the lights are fluorescent, they should have filters to reduce ultraviolet radiation, and, if possible, the ballast (which produces all the heat in a fluorescent fixture) should be located outside the case.

Convenient Viewing Height

The second purpose of a display case is to support artifacts at a convenient viewing height.

Before this *convenient viewing height* is defined, we must know something about the average museum visitor. Our visitors will get the most out of a learning experience when they are comfortable and undistracted. Museums deal in three-dimensional objects, and the visitor must walk from exhibit to exhibit, and remain standing. A standing position is not as conducive to learning as a sitting position, but the more comfortable it is, the better the learning experience. People are most comfortable when they are standing fairly straight and looking more or less straight ahead.

They are uncomfortable when they must bend over or kneel down to look at small artifacts that are too close to the floor. They get sore necks if they are forced to tilt their heads too far forward or back.

Proper planning can eliminate much of this discomfort, and make our museums places to be remembered as an interesting experience and not as a place to get a sore back.

It is possible to set some limits on the height of the viewing area in a display case. Small artifacts and label copy should never be placed more than a foot below the viewer's waist, nor more than a foot above his head. In terms of our average visitor, this means that artifacts should be displayed in an area from 2½ feet (about table-height) from the floor or about 6½ feet high.

There are exceptions. Large objects, such as machinery, can be displayed on the floor or on a low platform. Objects and large labels can be put high up on a wall provided the room is large enough that they can be viewed from a distance. The visitor should be able to stand far enough back that he does not have to tilt his head at an uncomfortable angle.

By raising older, counter-top display cases to the proper viewing height, you not only provide for the visitor's comfort, you also make a large space underneath available for storage.

If lights are to be installed, the overall height of the case may be greater, but the viewing area should be the same.

Background

The third purpose of a display case is to provide an appropriate setting for the objects it houses. The background for a display of agricultural tools might suggest a barn or stable; that of silver or china perhaps a dining room. Our display on the fur trade needed a setting that would suggest a fort or trading post.

A museum that is treating a variety of subjects may build and finish all its cases in a matching shape and colour so as to tie its various displays in with a central theme.

Beavers, Blankets and Beads

The display case for our exhibit on the fur trade had to satisfy a number of requirements, such as:

- the exterior should suggest a fort or fur trading post
- it should be large enough to display items such as a long rifle and beaver skin
- it should be small enough to be moveable, and fit through a standard door
- it should be made of reasonably cheap material, and be fairly simple to construct
- it should be of a general design that could be used for displays on similar themes, such as exploration, or settlement

Overall dimensions for the case were: 8 feet long, 6 feet 10 inches high, and 2 feet deep. Rough boards with a dark stain were used for the exterior. Cheap materials, such as construction-grade lumber, masonite, and burlap were used for finishing the interior.

The case would include a fluorescent fixture and a plexiglas front. The back of the case would be a framed sheet of pegboard (covered in burlap) to provide both ventilation for the light and holes for hanging artifacts.

The following description of the case which was built is not meant to provide the reader with sufficient information to build an exact duplicate (a list of materials and a set of plans is available from the Museums Advisory Service office). Rather, it is intended to pass on a few ideas to the reader that may be useful in his own situation.

Construction

The following drawing **figure 1** shows that the main feature of this case is three shelves (top, middle, and bottom), each eight feet long and two feet wide. The top and middle shelves are of spruce 1 by 3's covered in masonite; the bottom shelf is of 1 by 6's, with a three-inch toe space, **figure 2**, also covered in masonite.

These are arranged so that the middle shelf is 30 inches from the floor, and the sides, of rough lumber in various widths, are nailed on **figure 3.**

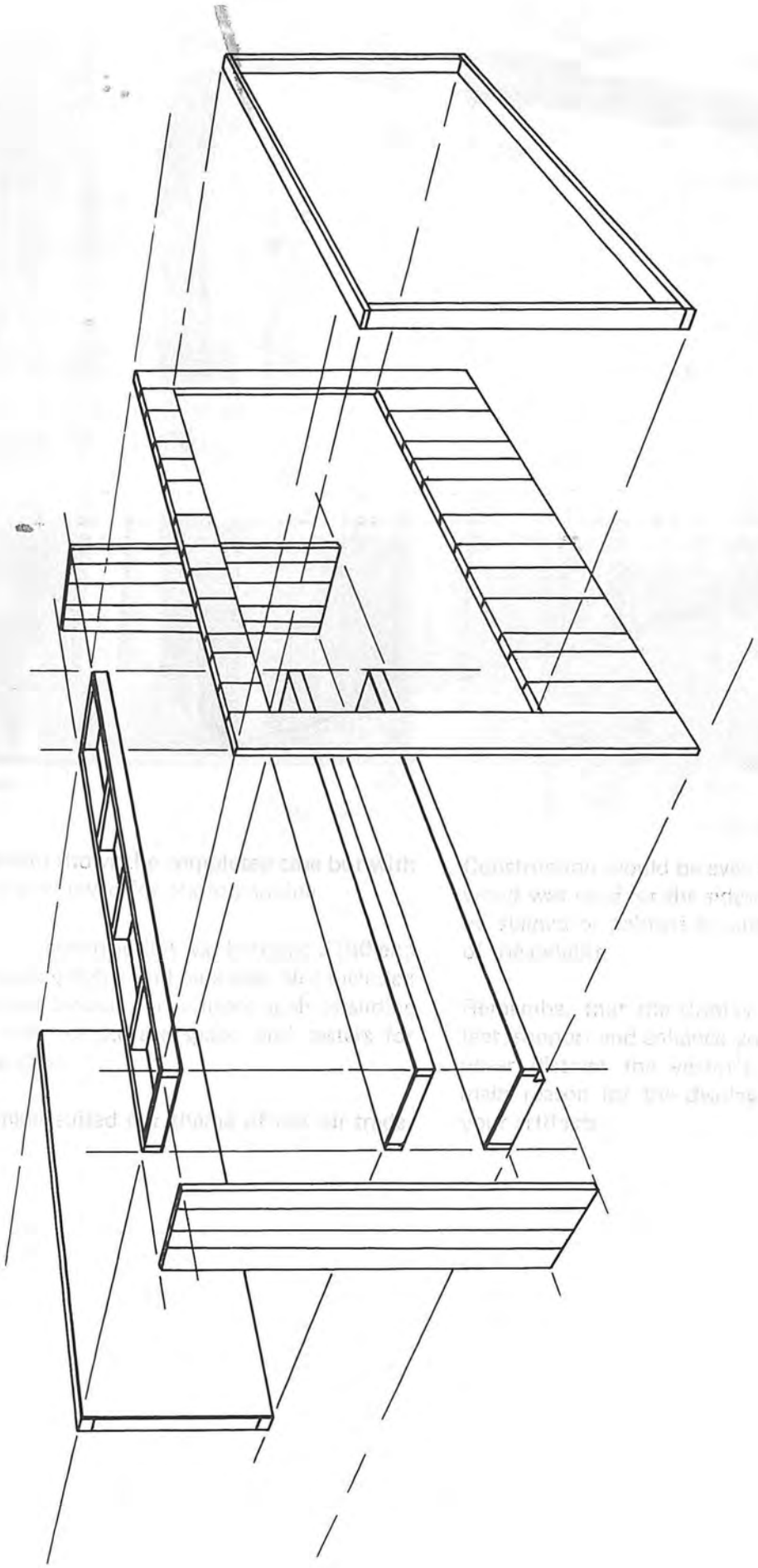


Figure 1 - Exploded view of case showing construction

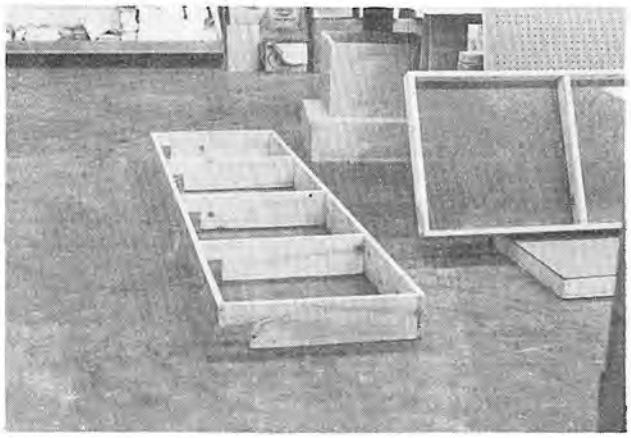


Figure 2 - Bottom shelf made of 1 by 6's. Note the three-inch toe space

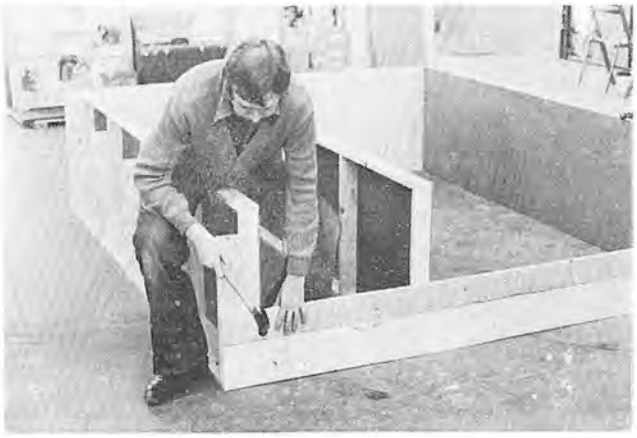


Figure 3 - Sides of rough lumber are nailed onto the shelves

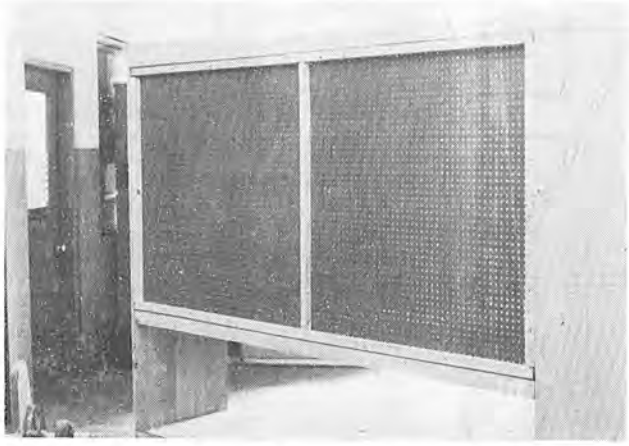


Figure 4 - Rear view showing pegboard framed with 2 by 2's

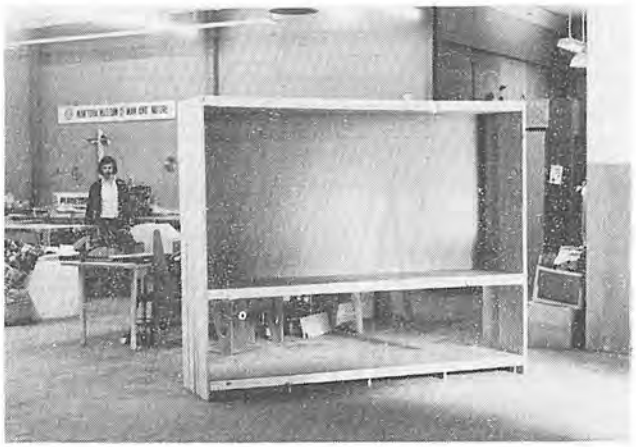


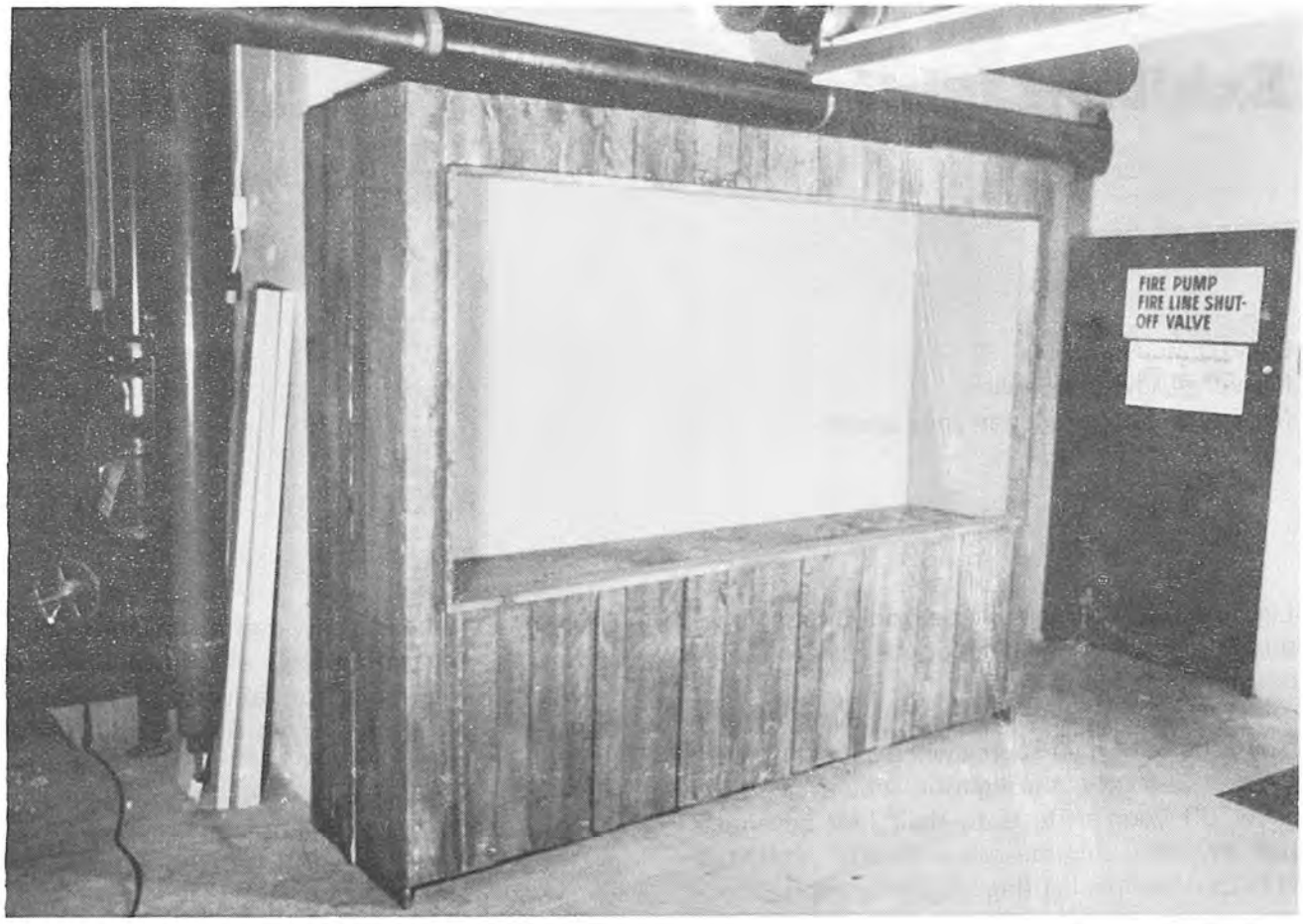
Figure 5 - Front view of partially assembled case showing pegboard back, and storage space underneath

Figure 4 is a rear view, showing the 4 ft. by 8 ft. sheet of pegboard (framed with 2 by 2's) in place. **Figure 5** is a front view of the same thing. The frame was held in with wood screws so that it could be removed for changing the burlap.

The case was laid on its back, and short pieces of rough lumber were nailed on to hide the storage space underneath **figure 6**. Access to the storage space is from the back.

A board was run across the top to provide a support for the light fixture and the short pieces of rough wood completed the front. The boards were stained with a dark wood stain and a frame installed in front to hold the plexiglas. The frame was made of quarter-round which was drilled for wood screws so it could be removed to change displays.

Figure 6 - Nailing on the front exterior



The end result

The last photo shows the completed case but with the plexiglas removed for photographing.

Total cost of construction was between $180 and $220, including lights and plexiglas. Not included is the cost of labour, and options such as sliding doors in the rear storage space, and casters for moving the case.

Rough lumber suited our theme of the fur trade. Construction would be even simpler if ¾ inch plywood was used for the sides and front. This could be stained or painted to suit the mood or theme of the exhibit.

Remember that the display case is there to protect, support and enhance your artifacts. It should never distract the visitor's attention from the main reason for the display - the story told by your artifacts.

Exhibit Lighting

DAVID McINNES
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Manitoba Museum of Man and Nature

Lighting for an exhibit can be from three sources: sunlight, fluorescent lights, or the standard incandescent lights found in most homes.

Your choice of light source will depend on several factors. Primarily, the lighting should be able to show off your artifacts to their best advantage, but any museum, regardless of size, should be able to develop a lighting system best suited to its own needs.

Sunlight provides the best light for normal viewing, but it has too many limitations for most display purposes. It cannot be controlled, and a display area relying on the sun may find that its light levels vary from dazzling bright on a sunny day to a dull, flat grayness on a cloudy day.

Sunlight is destructive as well. The colours of some artifacts fad quickly if they are exposed to sunlight, and anyone who has left a newspaper or photograph in the sun knows that both will turn yellow in a relatively short period of time.

Utilizing sunlight as a main light source can also be expensive in the long run. Windows must be cleaned regularly, and broken glass replaced. If you plan to have display cases along a wall, you may have to consider installing a skylight if you want to have a sunlit interior.

One of the cardinal rules of exhibit lighting is that the interior of a display case should be more brightly lit than the room it is in. This is easier on the overall lighting bill, and focuses the visitor's attention on the display itself. Obviously, sunlight streaming in through a row of windows would cause a myriad of reflections from glass cases, and detract from the over-all appearance of the exhibit.

Ideally, exhibit areas should be windowless to permit complete control of light levels by means of artificial lighting. Existing windows can be boarded over or the glass painted a flat black. Some types of exhibits, such as period rooms, depend on natural light for a realistic effect. However, an interpretative exhibit utilizing display cases should use only artificial light.

Incandescent lighting has a somewhat "warmer" tone to it than fluorescent; however, incandescent lights produce a great deal of heat, and they should never be used inside a display case unless there has been some provision for ventilation and air circulation. It is useful in the exhibit gallery itself in the form of spotlights for highlighting larger items such as machinery or sculpture in open display. For relatively indestructible items such as gems, jewellery, or crystal, incandescent lighting is good because it gives them more sparkle and colour than fluorescent lights.

Provided certain precautions are taken, fluorescent lighting is probably the ideal choice for museums. Fluorescent lights, while initially expensive to install, are more economical than incandescents in the long run as they provide three times as much light for the same amount of power. They give a *soft*, diffused light which lessens shadows, and

burns with less heat than incandescent lights.

Fluorescent lights have one major problem. Like sunlight, they give off a type of radiation known as *ultraviolet* (incandescent lights emit very little UV). Ultraviolet light will cause fading in colours, and yellowing of papers and photographs. It will also promote the general deterioration of many artifacts, especially those of organic origin such as paper, textiles, and skin.

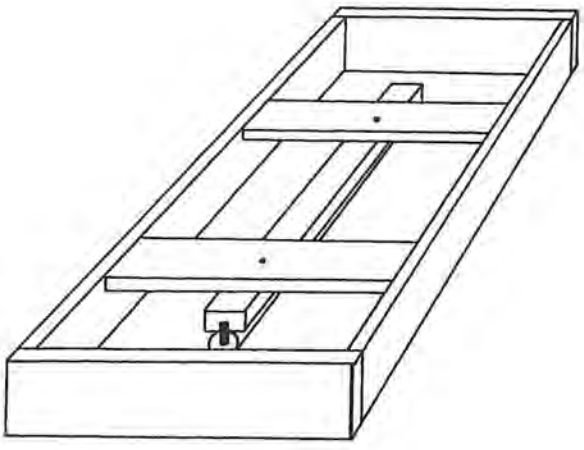
There are several ways of getting around this radiation problem. The best way is to use special filters around your fluorescent tubes. A list of suppliers recommended by the Canadian Conservation Institute is reproduced at the end of this article. These inexpensive filters are placed over the fluorescent tubes and changed as needed.

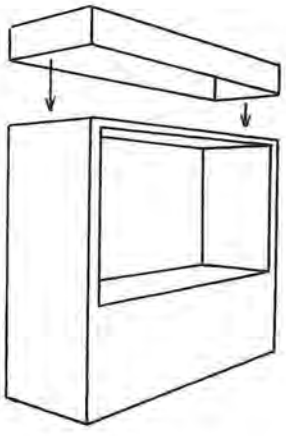
Fluorescent lights should be kept at least twelve inches away from any fabric, paintings or colour-printed pages if filters are not available. It is also a good idea to assemble the fixture so that the light itself is inside the case, but the ballast outside the case. The ballast produces all the heat in this type of fixture. Another possibility is to separate the light from the case by means of a light box (see diagram). However it is done, the lights should be reasonably accessible so that the tubes can be changed easily. If the light with ballast must be included in the case, there should be a light baffle (see drawing) installed to let heat out. The light fixture should be installed so that there is some air space between it and the case wall, or at least an asbestos pad.

Light levels should be kept as low as possible to reduce the chances of damage to irreplaceable artifacts. Practicality should be your guide however; obviously, a large piece of machinery would not need as much light as a manuscript in small print.

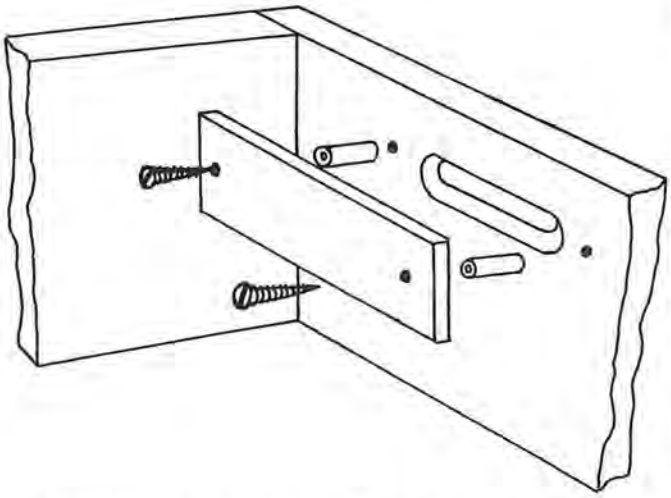
Bear in mind that the destructiveness of light is cumulative. Particularly sensitive objects should not be in cases which are lit constantly. A small curtain operated by the visitor might be used to protect a manuscript from too much light during display hours. Another possibility is to have a timed light which is operated by the visitor, and which shuts off automatically after a short viewing period.

The Canadian Conservation Institute publishes a technical bulletin on museum lighting which gives the recommended light levels for various artifacts





Open-topped light box with fluorescent fixture. The top of the display case should be covered with frosted glass or white plexiglass to keep out dust



A light box with the top closed in should have a baffle installed to stop light from getting out, but allow for ventilation

and special effects. Included is a list of suppliers who can provide the equipment to measure these levels. In general your exhibit area lighting should be with fluorescents at a relatively low level. Use incandescent spotlights to emphasize important objects or for special effects. Lighting inside the case should be with fluorescents which are at a slightly higher intensity than the rest of the gallery. Tilting the glass of a display case will often help to reduce unwanted reflections. To avoid an unpleasant surprise, paint your gallery walls and display cases in the same light they will be viewed under. Different combinations of lights can produce unexpected changes in colour intensity.

In summary, let practicality and common sense be your guide in choosing and using lighting. A few things you may want to take into consideration are listed below:

1. Avoid sunlight in the exhibit area. If you must have it, use drapes to keep it out when the exhibit is not open.
2. Incandescent lights should be used outside the case to reduce heat damage to artifacts. Use spotlights to highlight special objects.
3. Use fluorescent for gallery lighting and inside cases. Where possible, put the ballast outside the case or provide ventilation inside.
4. Use ultraviolet filters on fluorescent tubes. Keep fluorescent tubes at least 12 inches away from the artifacts on display.
5. Light levels in the gallery should be lower than those in display cases.
6. Protect sensitive artifacts with curtains or with timed lights.

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MacLeod, K.J., *Museum Lighting*, Technical Bulletin, No. 2, Canadian Conservation Institute, Ottawa, 1975, 13 pp.

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CANADIAN CONSERVATION INSTITUTE

List of Suppliers
Ultra-Violet Filtering Screens

TYPE	SUPPLIER	UV FILTERING EFFICIENCY
Solar Screen Sleeves	Solar Screen Co. 53-11 105th Street Corona, New York	90% excellent
Arm-A-Lite Filter Ray Shields	Thermoplastic Process, Inc. Valley Road Stirling, New Jersey 07980 The Certified Electric Co. is the Canadian representative (major Canadian cities)	Varies from 78% (fair) to 99% (excellent average = 80-85% (good)
Filter Light	Filter Light Corporation 1012 Oakmont Avenue P.O. Box 6292 Greensboro, N.C. 27405	99% excellent
Comco Rayshield 403	Commercial Plastics and Supply Ottawa, Ontario K1B 4N4 (613) 745-7093	95% excellent
Plexiglass UF 1 and 3	Rohm and Haas Canada Ltd. 2 Manse, Westhill, Ontario (Many local plastic suppliers will sell this product)	80% good to excellent
Duroguard Safety Shields	Duro-Test Electric Co. (major Canadian cities)	90% excellent

For further information contact:

Environment and Deterioration Research Services
Canadian Conservation Institute
OTTAWA, Ontario K1A OM8

Exhibit Labels

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Museums Advisory Service
Manitoba Museum of Man and Nature

PART 1 - CASE LABELS

The difference between a museum and a collection of curiosities in an antique shop is that the museum has a story to tell. A museum's reputation depends, to a certain extent, on how well this story is told.

The purpose of exhibit labels is to relate the story using three-dimensional objects, the artifacts, as illustrations. Labels must also attract and keep the visitor's attention, provide clear and concise information about the objects on exhibit, and create in the visitor a desire to learn more about the subject.

A good label does all these things; a poor label will discourage the visitor's interest and lessen the value of the exhibit.

In any exhibit, there are three types of label copy that could be used in a case. The *main* or *case label*, in large letters (like a newspaper headline), indicates the subject of the exhibit; the *secondary label*, in slightly smaller print, is longer and gives a better idea of the subject, with more information than is available in the main label. This label should arouse the visitor's interest and give him a brief outline of the information contained in the exhibit. The last type, the *explanatory* or *object label* relates the story's details or identifies objects in the exhibit.

The purpose of this article is not to discuss how exhibit labels should be written, but rather to suggest inexpensive methods of producing neat and uniform label copy of professional quality that will enhance the value of your exhibits all out of proportion to the cost.

One point to bear in mind is once you have decided on a particular style and size of lettering for each type of label, it is usually best to stick to that choice throughout the museum. A bewildering variety of styles and sizes of lettering, no matter how well done, is very distracting. Uniform lettering helps tie your exhibits together and focuses attention on what they are trying to say. Also, avoid unusual lettering styles; they are hard to read, and a label that cannot be read defeats its own purpose.

Main Label

This label should be short and to the point such as *Antique Silver, Marsh Birds, Early Settlement* and should be in large print. The purpose of this label is to attract attention and focus interest on the contents of the exhibit.

Depending on the size of your exhibit, the case label may be anywhere from one to six inches in height. Once you have chosen a style and size, you should continue to use it for most of your exhibits. An exception to the size rule might occur if a large exhibit is placed farther back from the viewer than the others. Larger print would be needed here, but the style of lettering should be the same.

Hand-lettered labels are the cheapest (in materials but not time). However, this type of lettering requires someone with a bit of skill and a lot of practice. It is a slow method and should be done by only one person to keep it uniform. There is little to recommend hand-lettering for main labels.

A very inexpensive solution that will produce neat and uniformly-sized letters is a cardboard or plastic stencil. These are available from Willson's or Fraser Art Supplies in Winnipeg, and often local drugstores or department stores will stock them as school supplies. The cost of plastic stencils is very reasonable (about $2. for the 2½ inch size). Cardboard stencils are even cheaper but they wear out faster.

To use, simply draw a pencil line about ¼ inch below where you want the bottom edge of the word to be **figure 1**. The guide holes below each letter are placed on the line and the letter is traced. The guide holes also indicate the correct spacing for each letter **figure 2**. Once the word is completed, the letters may be coloured with felt markers or paint **figure 3**.

Another useful product for this type of work is made by Letraset (available from Fraser Art Supplies). *Letrasign* is a self-adhesive, thin vinyl lettering that may be used indoors or out. To use, part of the backing strip is peeled off and the letter is stuck temporarily in place **figure 4**. Spacing is automatic **figure 5** and once the letters are arranged to your satisfaction, the rest of the backing is removed **figure 6**. Letrasign is available in black and white (occasionally red) and in five sizes from one inch to six inches in height.

Its one great disadvantage is its cost; letters are sold in packages of five identical letters at anywhere from one to three dollars a package depending on size.

This expense would be acceptable for a temporary or travelling exhibit, or for highway signs, but it would run into a lot of money if the entire museum was done this way.

An extra touch might be added to your exhibit titles by making them three-dimensional. There are raised plastic letters on the market, but their cost is almost prohibitive for a museum on a limited budget. There are publications available from the CMA or AASLH that describes how to make raised letters in plaster, but the process is relatively complicated and slow.

One possibility we ran across recently for easily-made, reasonably cheap raised letters utilizes foam-core board (a sheet of polyurethane foam covered with paper) available from Belle Sign Co. Ltd. (Winnipeg) at $25. for a four-foot by eight-foot sheet. One sheet will make over 450 letters 2½ inches high, which works out to approximately six cents per letter.

For equipment, you need a stencil (in this case 2½ inch letters), a *very* sharp knife, pencil, fine sandpaper, and foam-core **figure 7**.

Trace the letter on the foam-core, and outline it with the knife, just barely cutting through the top layer of paper **figure 8**. Peel off the extra paper around the letter and the entire layer of paper on the other side **figure 9**. With the layers of paper removed, the foam is easily cut **figure 10**. Letters that are rounded may be rough-cut and finished smooth with sandpaper **figure 11**. The finished letters may be sprayed with flat black or flat white paint **figure 12**. The finished product may be either held in place with glue or double-sided tape.

PART II - SECONDARY LABELS

In part I of this article we looked at some methods of producing neat and cheap label copy for exhibit case titles. The subject for this section is the *secondary label*, the smaller label which expands on the main title to give the visitor a better idea of what the exhibit is about, as well as heighten his interest in the subject.

There are several methods available, several of which are similar to those discussed for titles in part I.

About ½ inch to 1½ inches is the right size for this type of label. As mentioned before, hand-lettered labels are not recommended unless your museum is blessed with someone who is very good at it. Plastic stencils are again useful. The method of using these and sources for them were discussed in part 1

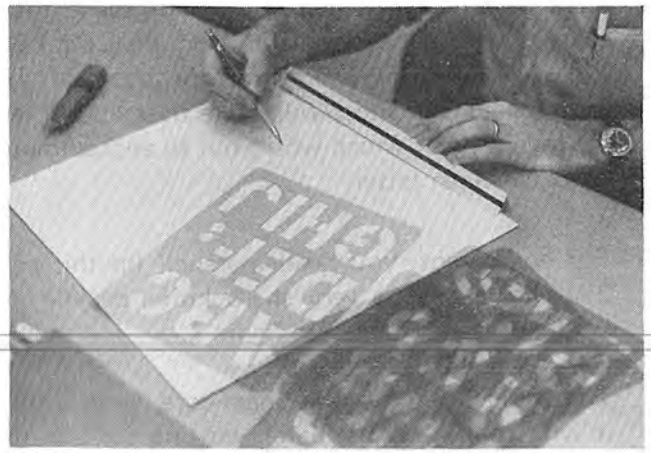


Figure 1 - guideline for stencil

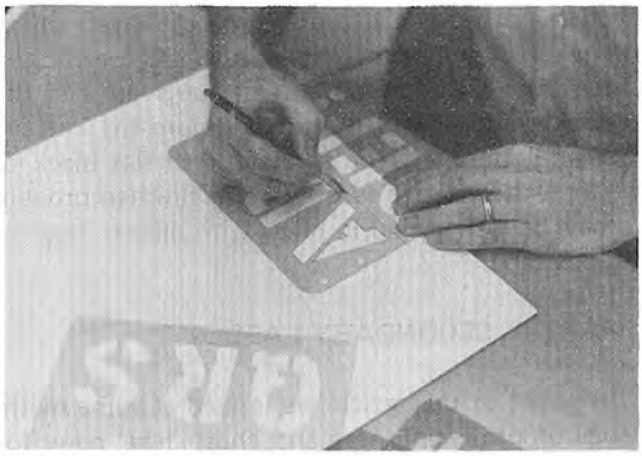


Figure 2 - using spacemarks

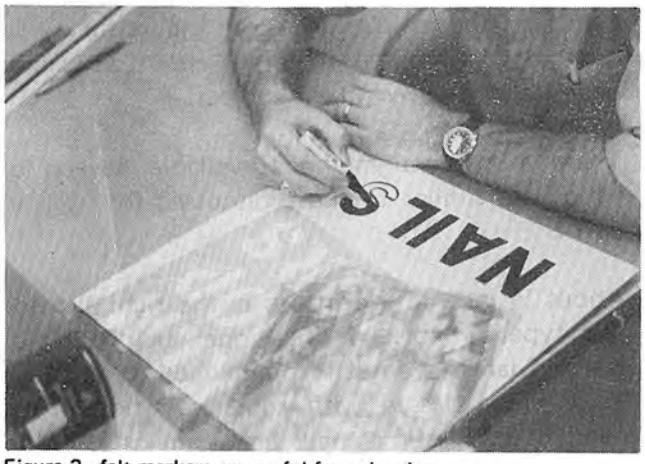


Figure 3 - felt markers are useful for colouring

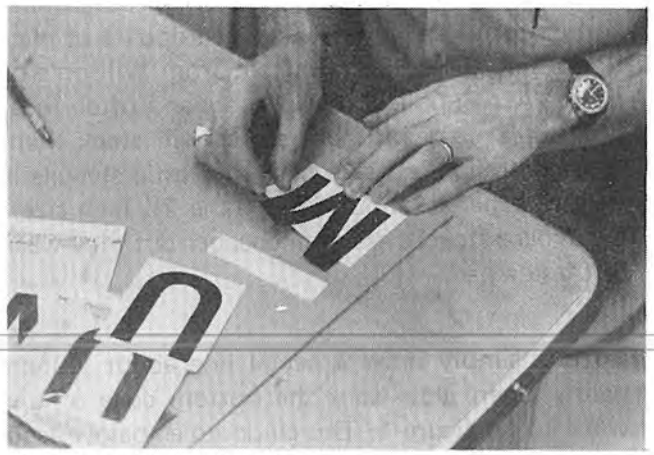


Figure 4 - positioning the letters

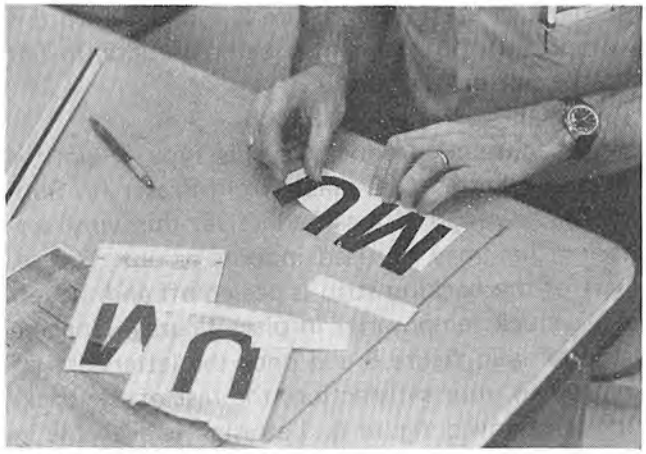


Figure 5 - spacing is automatic

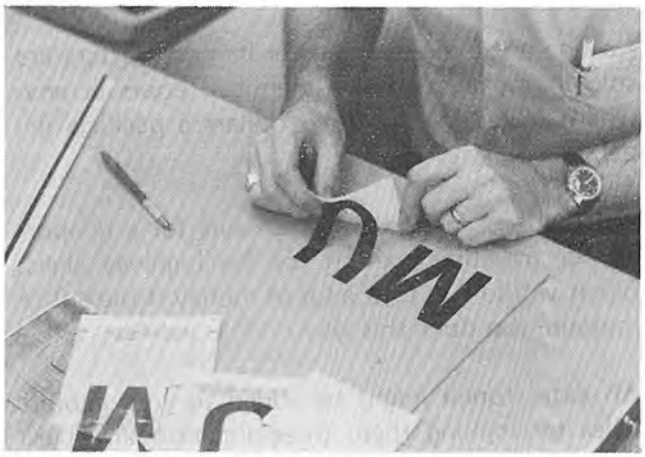


Figure 6 - remainder of the backing is removed

foam core letters

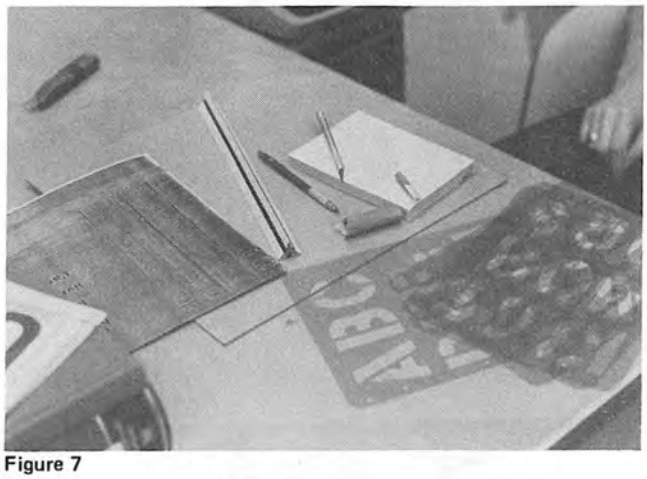


Figure 7

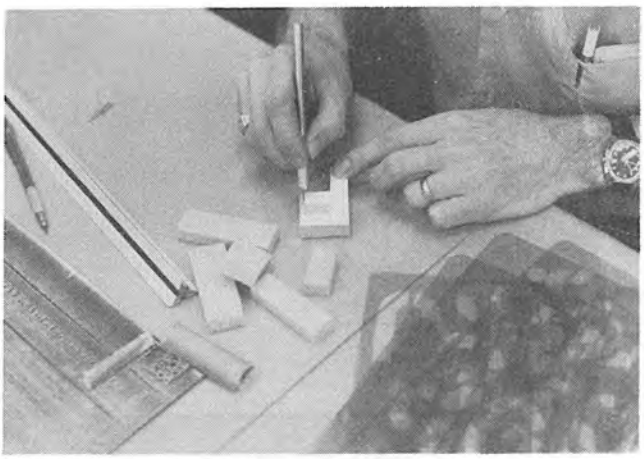


Figure 10

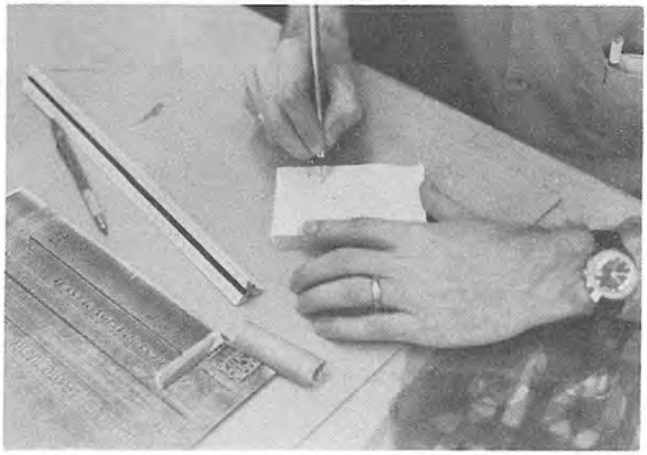


Figure 8

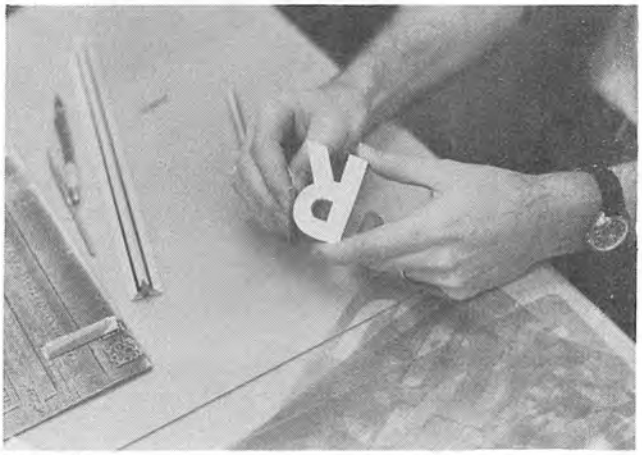


Figure 11

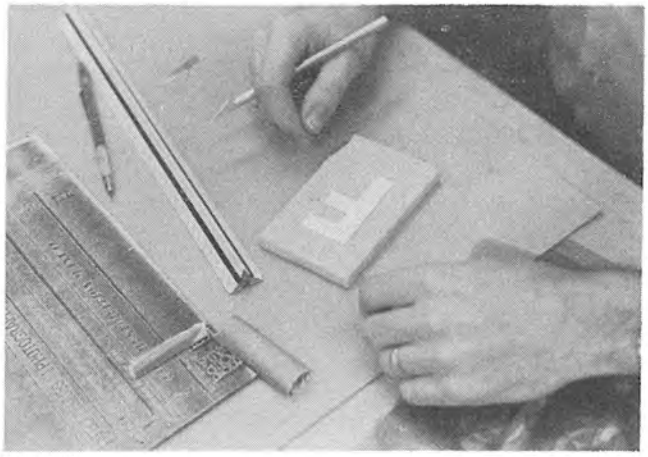


Figure 9

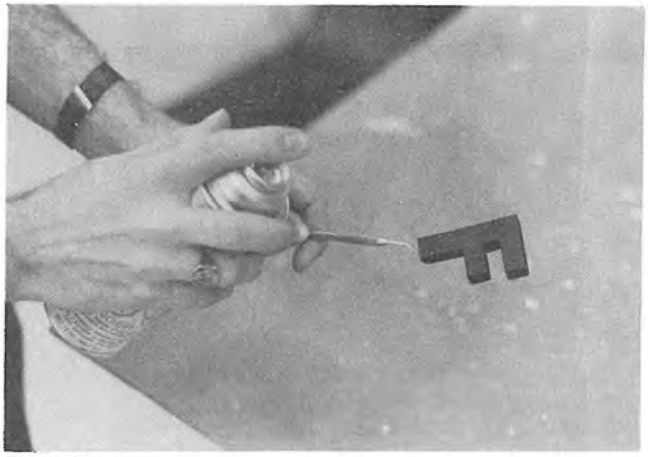


Figure 12

lettering guide kit

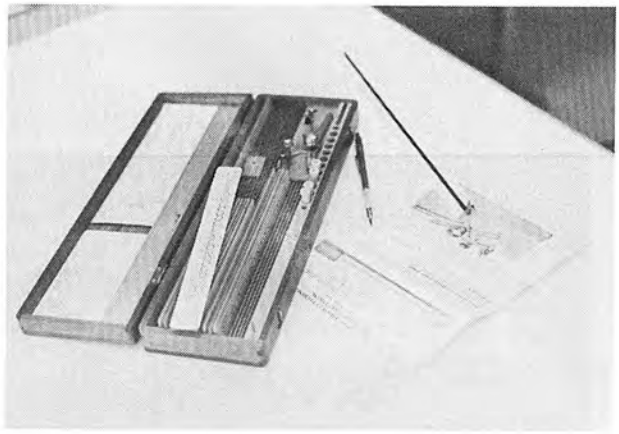


Figure 14

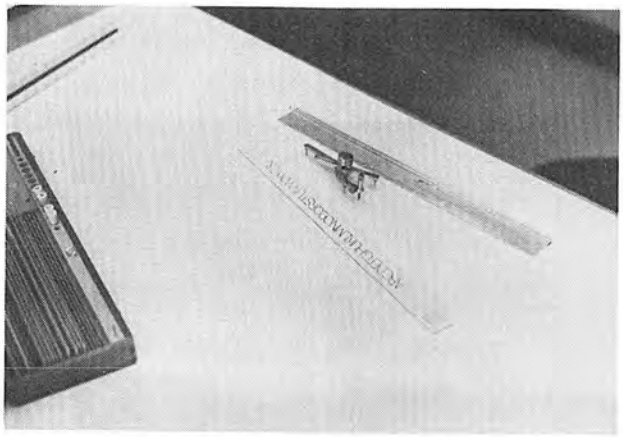


Figure 15 - guide holder, lettering guide, scriber

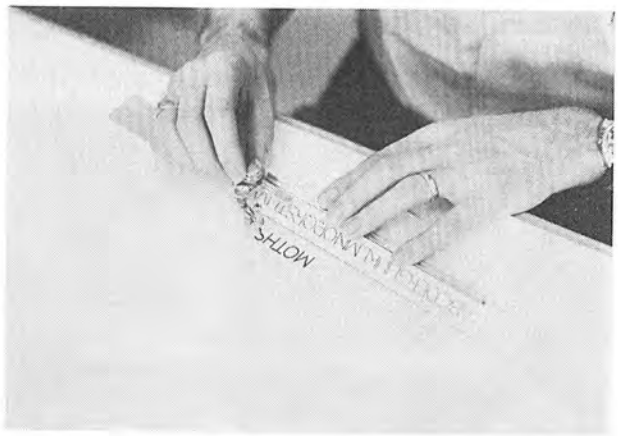


Figure 16 - Using lettering guide kit

lettering template

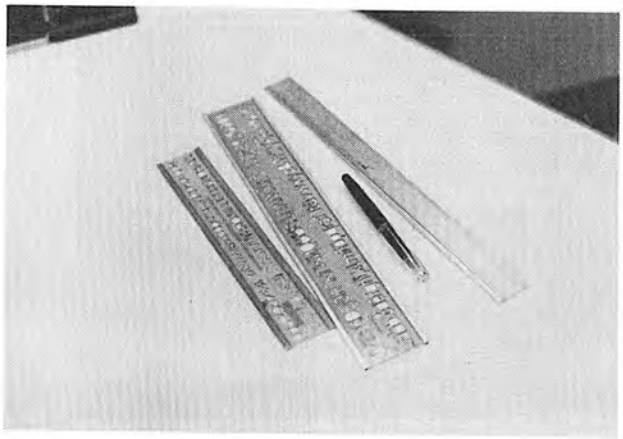


Figure 17 - template, pen, straight edge

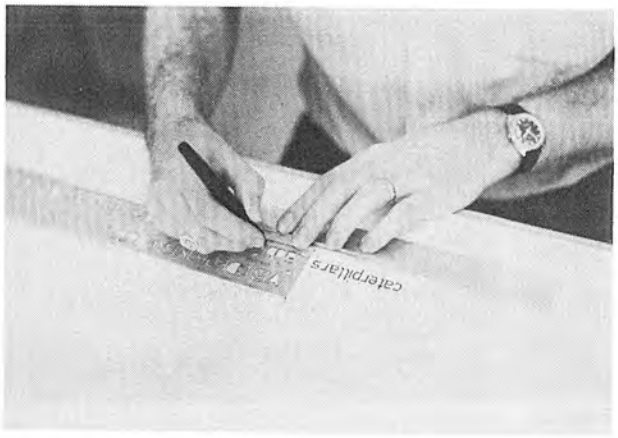


Figure 18 - using template

Figure 19 - use of compatible styles of Letraset

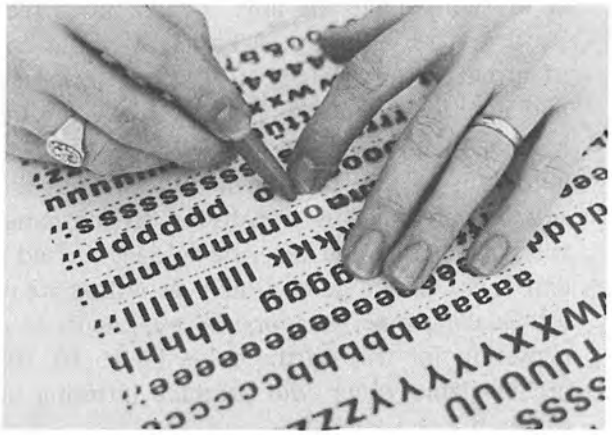


Figure 20 - Letraset spacemarks

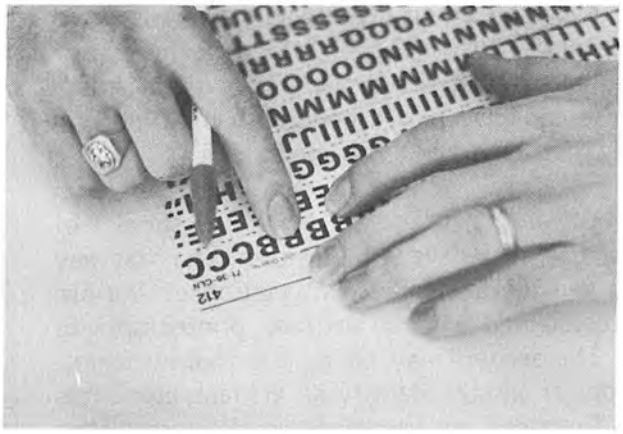


Figure 21 - transferring letter

Figure 22 - butting spacemarks

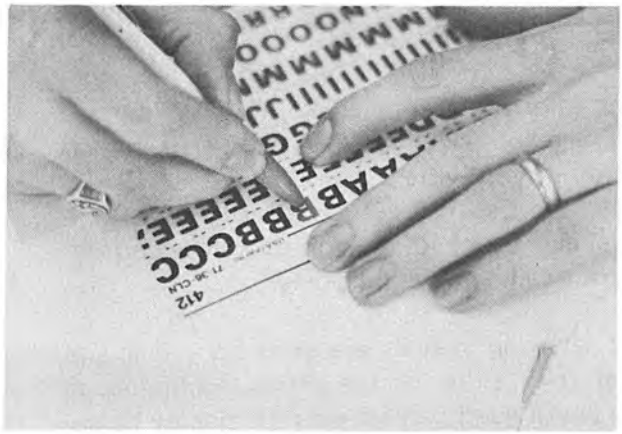


Figure 23 - removing spacemarks with tape

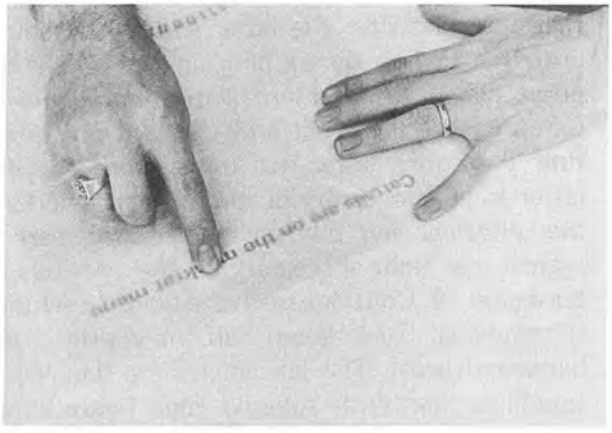


Figure 24 - rubbing with back sheet

One useful gadget that will repay its investment in next to no time is a lettering guide kit. These were once widely used by engineers, architects, and topographers, but they have gone out of style since letraset came on the market **figure 14.** A museum might be able to pick up a second-hand kit very cheaply. A basic set would consist of a metal guide holder, a plastic lettering guide, and a scriber **figure 15.** To use, the guide holder is placed below the line you wish to letter on. A guide pin on the lettering guide traces out the desired letter which is transferred to the paper by the scriber arm. The lettering guide is shifted back and forth on the guide holder as letters are needed. Spacing must be done by eye, as there is no provision for this on the guide **figure 16.** Guides are available which will produce lettering up to one-half inch in height.

Another lettering guide system which is even easier to use consists of a heavy plastic stencil, a lettering pen with the appropriate nib and a straight-edge guide **figure 17.** The principle of using it is much the same as that for the set mentioned earlier, except that the letters are made directly through the stencil instead of through a scriber arm **figure 18.**

Letraset, though fairly expensive, is very easy to use, and it gives professional results every time with a wide variety of lettering styles. Use a simple style and one that is compatible with the style used in the exhibit title **figure 19.**

To use Letraset, remove the blue backing sheet and draw a pencil guideline about 1/8 inch below where you want the word to go. Position the spacemarks (below the letter) on the line as in **figure 20.** Transfer the letter and its spacemarks onto the surface by rubbing lightly with a ball-point pen or other blunt instrument **figure 21.** Carefully lift the sheet and check to make sure that the entire letter was transferred. The next letter is positioned by putting its spacemarks on the guideline and butting its left spacemark up against the right spacemark of the previous letter **figure 22.** Continue until the word or sentence is completed (leave about half the width of an **N** between words). The spacemarks are removed by touching them with adhesive tape **figure 23** and the guideline is erased. The blue backing paper is placed over the word and rubbed with a finger to ensure good adhesion **figure 24.** After a bit of practice with Letraset, you will find that you can space the letters by eye and not have to worry about transferring or removing the spacemarks.

For more information on Letraset, write Fraser Art Supplies in Winnipeg for the latest Letraset catalogue. The other products mentioned are available from either Willson's Stationery or Fraser Art Supplies.

PART III - OBJECT LABELS

This is the last section on how to produce professional-looking label copy for your museum exhibits at a reasonable cost.

The first part discussed methods of making the large title labels which told the visitor what the exhibit was all about. The second part discussed the secondary label which was done in smaller print, and which serves to arouse the visitor's interest and give him a newspaper-headline precis of what the exhibit was about.

The *explanatory* or *object label,* the subject of this article, may have two purposes. The first may be to provide a detailed explanation of the history associated with an artifact, photograph, or map. The second may be to give more information on, or simply identify an artifact, etc. Often both functions are combined in the same label. It is important that it be well-written and concise.

As with the other types of labels, hand-lettering is possible if you are so fortunate as to have someone who has a good consistent style. Otherwise, avoid hand-lettered labels; they are usually tedious to make and hard to read.

Instant transfer lettering is useful, but expensive if you plan to make a lot of labels. There are two types of instant lettering on the market now - *Letraset* and *Geotype. Geotype* is slightly less expensive, and seems to perform as well as *Letraset* for most small museum purposes.

Plastic lettering stencils are probably easier and cheaper than either of the above techniques. A stencil and a good pen set would probably be the best choice for this type of label copy if you do not have access to a typewriter.

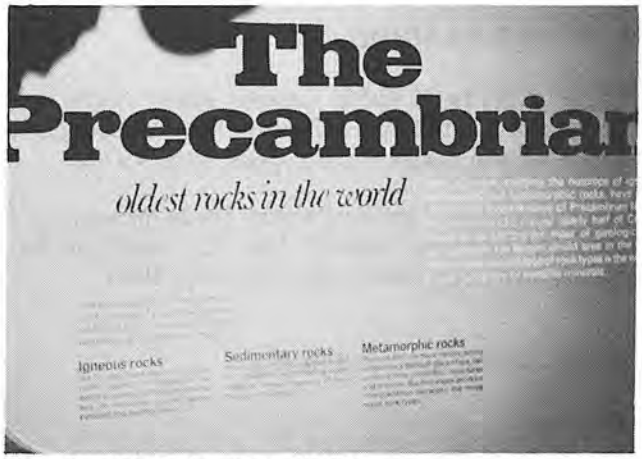
A good typewriter with large type is the best for producing clear, uniform label copy at a rapid rate. Check with your local primary school. They may have a special machine for printing large, easy to read type for the younger grades. A local business may have one of the IBM typewriters with interchangeable elements. If you can arrange to use it, it would be worthwhile for the museum to invest in an element which does large type, such as the *Orator*.

If neither of these gadgets is available, you can use a regular typewriter, but the print is smaller, and not as easily read.

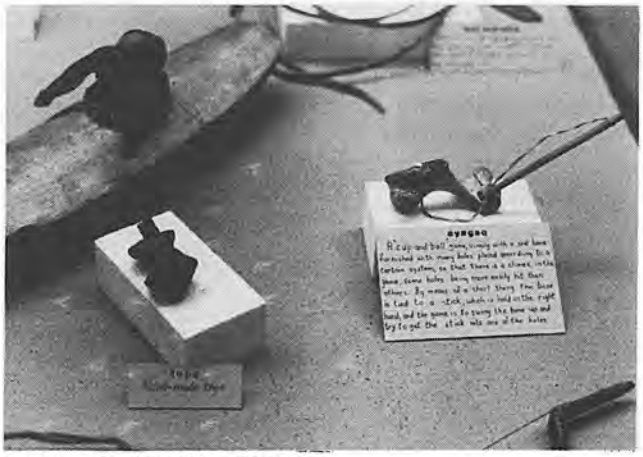
When you are using typewriters to produce label copy it is extremely important that your machine be clean, and that you have a new, sharp ribbon. Nothing looks worse than typewritten label copy that is too faint or smudged. There is really no excuse for it when cleaning supplies are readily available and ribbons are so cheap.

One possibility that might be worth exploring is a local newspaper. I do not know what sort of expense would be involved in having your label copy typeset, but you might be able to make an arrangement with the paper to do a little at a time for a reasonable cost.

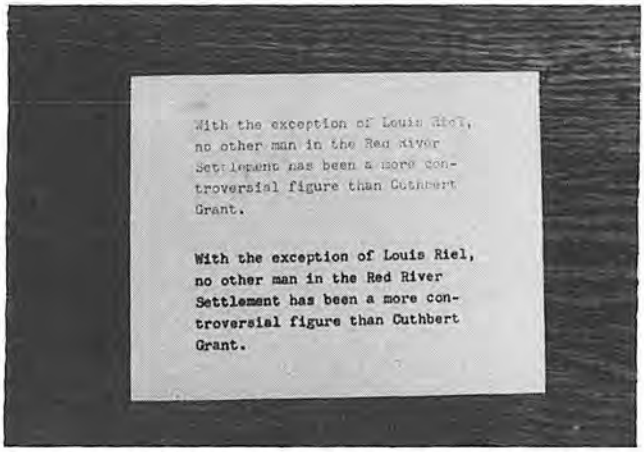
Hopefully, this article on label copy has demonstrated that any museum, no matter how small, can produce neat and legible label copy at a minimal cost. Obviously, there are more methods than are mentioned here, and we would be interested in hearing from any museum that has experimented with new ideas for producing label copy.



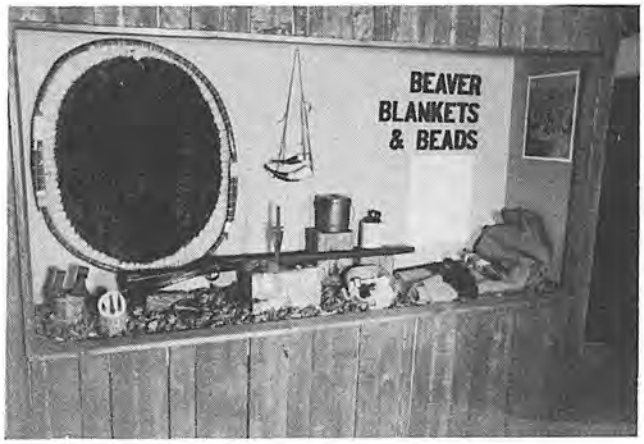
Examples of the various types of labels



An example of good hand-lettering



Faint and smudged typewritten copy in comparison to sharp copy



The title and label used in our display on the fur trade

FURTHER READING

Neal, Arminta, *Legible Labels: Hand Lettering*. Technical Leaflet No. 22, American Association for State and Local History, Nashville, 1971.

Neal, Arminta, *Legible Labels: Three-dimensional Letters*, Technical Leaflet No. 23, American Association of State and Local History, 1971.

MATERIALS AND SUPPLIES

Stencils

Willson Office Specialty Ltd.
240 Portage Avenue and Polo Park
Winnipeg, Manitoba

Fraser Art Supplies Ltd.
348 Donald Street
Winnipeg, Manitoba

Letrasign

Fraser Art Supplies Ltd.

Foam-Core

Belle Sign Co. Ltd.
420 McDermot Avenue
Winnipeg, Manitoba

Instant Lettering

(Geotype)
B/W Type Services Ltd.
61 Gertie Street
Winnipeg, Manitoba R3A 1B5

(Letraset)
Fraser Art Supplies Ltd.

IBM Equipment

IBM Office Products
310 Broadway Avenue
Winnipeg, Manitoba

Typewriter Supplies

Willson's Stationers
384 Portage Avenue or Polo Park
Winnipeg, Manitoba
(or any drugstore or school supplier)

Colour and Props

DIANE SKALENDA
Museums Advisory Service
Manitoba Museum of Man and Nature

In any discussion regarding the utilization of colour and props in exhibit design, it is essential to remember that their prime function is to *enhance* the artifacts. Neither the colour nor design of an exhibition should fight to detract from the artifacts themselves.

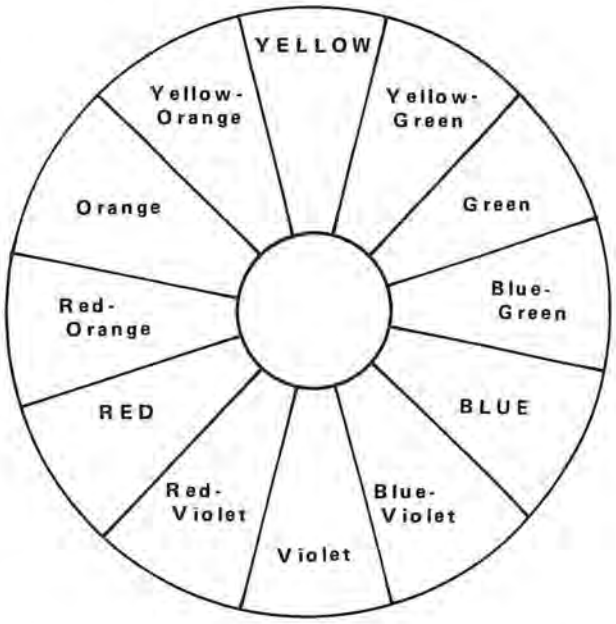
COLOUR

Colour plays a very important role in our lives. It not only affects us visually - but emotionally as well. We all know that certain colours project certain moods. Colours can make us laugh, cry, feel happy, or depressed. For instance, orange and yellow are warm colours and remind us of sunshine. Red, also a warm colour, often is indicative of fire and passion. Cool colours such as blue and green are reminiscent of serenity and peacefulness. It is necessary to remember that warm colours tend to advance and dominate, while cool colours recede and blend into the background.

Colour Harmony

One way to achieve our goal to enhance the artifacts is through the use of *colour harmony*. Harmony means agreement or concord, therefore, a combination of colours which is disturbing to the eye is not harmonious.

There is really no problem understanding how to use colour once you understand the relationship of certain key colours to each other. The easiest and most sensible way to arrive at any colour decision is through the use of a *colour wheel*. This



arrangement will bring the complementary colours in line with each other.

Red, yellow and blue are *primary colours* and are theoretically the basis for the mixture of all colours. When any of the primary colours are mixed, *secondary* colours emerge (orange, green, violet).

Monochromatic Colours

A *monochromatic* scheme is the most satisfactory colour combination for display as the colours blend together in perfect harmony and do not detract from the artifacts. *Mono* means one; therefore, a monochromatic colour scheme is the re-

sult of using one colour and mixing it with neutrals (black and white) to achieve tints, tones and shades of that one colour. A good example is a combination of chocolate brown, tan and beige.

Analogous Colours

Another combination to bear in mind is *analogous* colour harmony. This is also a very compatible combination as such colours are thought of as the "kissing cousins" on the colour wheel. They are the colours located next to each other such as red, orange, yellow-orange and yellow; or blue, blue-green, green, and yellow-green.

Complementary Colours

Complementary colours produce another form of harmony which is most effective when painting a picture or decorating a room. However, because complementary colours are contrasting and opposite each other on the colour wheel, their effect is much too dramatic to be used when displaying artifacts. In most cases, this colour combination would "steal the show" from the artifacts on display.

When choosing a colour scheme for an exhibit, it is wise to consider either a solitary colour or, if using a number of colours, a monochromatic combination. An analagous colour scheme is also acceptable, however, stay away from complementary colour combinations. It takes a very experienced person to be able to execute complementary colours successfully in relation to artifacts.

The choice of a colour scheme is made easier if you consider the exhibit as a whole. For example:

-the theme of your exhibit should have some influence on your choice for a background colour. For instance, an exhibit of Irish linen would look most attractive with a green background.

-if you have a number of cases on the same theme on display, use varying shades of the same basic colour for your backgrounds to ensure there is continuity in the total exhibit.

-if possible, it is most effective if you can tie in a colour from the artifacts with the background colour. Try to visualize a showcase featuring a male mallard duck and various neutral-coloured birds. If you took the green from the colouring in the mallard's head and used the same green for the background in various subtle monochromatic shades, it would enhance not only the beautiful colouring in the mallard but also the neutral colouring of the other wild fowl.

You really have to use your own discretion when choosing colours. Common sense will tell you that a rich royal blue will do more to enhance silverware than a bright yellow. Do not be afraid of colour but definitely treat it with respect. If you utilize the colour wheel and always remember that it is the artifacts, not the background, you want to highlight, you should have no difficulty in using colour to its best advantage.

PROPS AND CASE ACCESSORIES

Props are used to *support* artifacts and, in some instances, promote the theme of an exhibit. Take care when choosing props as their only purpose is to enhance the artifacts. If they fail to do that, either by detracting from the artifacts or by being inappropriate, they are not props but just case clutter. It is not the props themselves that are important but how they are used in relation to the overall design of an exhibit.

Designers spend years learning their craft, therefore, their reactions to *blank space, colour, line, shape, texture,* and *light* often are instinctive. There are, however, a number of basic guidelines we should follow to incorporate some of their techniques into our exhibits.

Visual Monotony

One of the main hazards to avoid in setting up a display is *visual monotony*. We have all experienced it at one time or another. There is nothing more boring than row upon row of artifacts set out unimaginatively. If the viewer does spend any length of time looking at such displays, he will quite likely end up with *museum fatigue*. Needless to say, he will probably leave such an exhibit tired, unimpressed, and uniformed.

There are a number of factors which will encour-

age both visual and body fatigue such as monotony in colour, texture and light, inadequate lighting, and poorly displayed artifacts that have no regard for visual flow.

Directing Eye Movement

A good design should appear uncluttered and the viewer's eye should glide from one shape to another travelling from large shapes to small ones and so on. Each display case should have an artifact or group of artifacts which act as the focal point of an exhibit.

One common error in setting up a display case is the placement of artifacts in such a way that they lead the eye right out of the case. Many of us have a natural tendency to place everything on an angle. This leads to visual confusion. It is advisable to place most artifacts straight forward, with perhaps just one item at an angle. If an artifact is at an angle, make sure that it is placed in such a way as to lead the eye to another artifact and not out of the case.

Emphasis

A *focal point* in an exhibit can be established by highlighting the artifacts you wish to emphasize. This can be accomplished in a number of ways:

- isolating the artifact which you wish to emphasize from the others in the case
- grouping the artifacts according to their colour
- placing a particular artifact on case furniture that differs in size and placement from the others in the case
- placing the artifact on a background of contrasting texture. A textured surface, such as that produced by corduroy cloth or dried coffee grounds, under one object in a group, will provide the needed contrast to emphasize that particular object
- using a spotlight for emphasis, bearing in mind, however, that ultraviolet rays can be damaging. For further information, refer to the article on exhibit lighting

Blank Space

The shape of blank space is also part of the overall design, therefore, it should be treated as such. If you have an empty space in the case which is distorted or too large, it will be just as disturbing to the viewer as a poorly displayed artifact.

Balance

Do not forget that balance is important when putting artifacts in a case. If you have a large artifact in the case, try to balance it with another large item or a number of small ones. If it is the lone artifact, make sure it is properly balanced in relation to the background and the rest of the case.

Props or "Case Furniture"

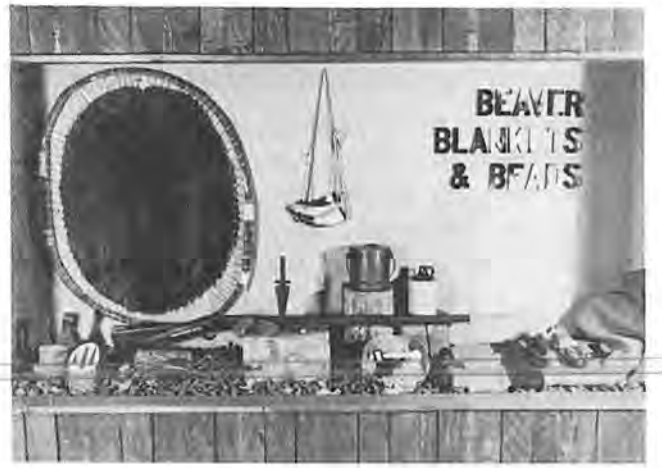
As mentioned throughout this article, the shapes and sizes of the case furniture should be chosen to enhance the artifacts and to add variety in their placement. The shapes of the case furniture also should add to the line and continuity of the exhibit as a whole. Props or "case furniture" must also complement the artifact in physical makeup. For instance, a crystal sugar bowl would look ridiculous on a log stump, but a pioneer tool would look most appropriate.

Accessories

Accessories on the case bottom, such as coffee grounds or cedar chips, often add the finishing touch to a display. They must, however, be used sparingly and with a great deal of discretion.

Utilization of both props and accessories for display purposes

Taking a handful of artifacts and displaying them to their full advantage can be both enjoyable and challenging. Your exhibits can take on a new dimension just by using colour and props effectively. Don't be afraid to make the most of them.



Conclusion

Simplicity is a key word at all times. A common mistake is to overcrowd a case and not leave any blank space. It is much better to have a few well-appointed artifacts rather than a case full of odds and sods.

Try to see the exhibit as others will see it. While you are setting up a display, step aside after placing each item, take a long and critical look at it, and ask yourself a few questions -

-does the artifact you just placed obstruct the view of the others?
-does it disturb the line of the case?
-does it direct the viewer's eye out of the case?
-does it complement the other artifacts near it?
-are the props and accessories you chose appropriate and functional?
-is there one artifact too many?

Bibliography

Neal, Arminta, *Help! for the Small Museum*, Pruett, Colorado, 1969.

Neal, Arminta, *Exhibits for the Small Museum*, Pruett, Colorado, 1975.

Faulkner, Ray, Faulkner, Sarah, *Inside Today's Home*, Holt, Rinehart and Winston, 1960, New York.

Grumbacher Library, *The Art of Color Mixing*, M. Grumbacher, Inc., 1966, New York, *(available at art supply dealers)*

Training Resources Programme

CANADIAN MUSEUMS ASSOCIATION
331 Cooper Street, Suite 400
Ottawa, Ontario K2P OG5

Increased public utilization of museum facilities in Canada during recent years has placed greater responsibilities on museums to provide high quality programmes and activities. The ability of museums to respond to these public needs depends in large part upon the capabilities of trained personnel.

A number of educational institutions and museum organizations have undertaken museum training to promote career-oriented professional entry and professional development training to ensure competent, specialized museum personnel. In support of their efforts, the Canadian Museums Association has created the Training Resources Programme to provide high quality study materials and reference services to the museum community and to institutions which perform the important function of supplying the community with future employees.

A wide-range of materials including information papers, books, pamphlets, audio-visual training aids and seminar kits are available to individuals, institutions and organizations from the CMA. The following resources and services are currently available from the C.M.A.:

The Correspondence Course The present version of this course has been in circulation since June of 1975. It serves as an introduction to museum operations and philosophy through selected readings. Basic in approach, the course is recommended for museum employees, students or volunteers who desire a general view of museology, and wish to acquaint themselves with museological literature. Upon successful completion of an open-book examination consisting of objective questions and short essays, participants are awarded a certificate by the Association. Further details on the course and application forms are available by contacting the C.M.A.

The Resource Library As the basis for the Training Resources Programme, the Association has developed the largest library dedicated to museological and related literature in Canada. This Resource Centre contains over six-hundred volumes and receives over seventy-five periodical titles from around the world. Although the library, which is located at the CMA offices in Ottawa, is not a lending library, individuals are invited to use this facility on a reference basis. It is open for use between the hours of 9:00 a.m. and 4:00 p.m. daily (Monday through Friday).

Resources Services The following items have been prepared in response to numerous requests which the CMA receives for information on training opportunities and programmes, and to assist individuals, institutions, and organizations with training and professional development activities. Unless otherwise indicated, services and publications are available free of charge by writing the CMA Training Resources Division. Please include 10% of total order cost for postage and handling.

(Minimum 25 cents, maximum $4.00).

General Information The Training Resources Di-

vision offers two information publications. They are *Museum Careers* which provides general descriptions of the duties and responsibilities of various museum positions for the benefit of those individuals who are not familiar with the wide range of jobs in institutions; and *Museology and Related Courses Available in Canada* outlines museum studies courses which are available to individuals who wish to enter the museum field. Addresses of various training institutions are provided along with general course details.

Resource Publications

The Seminar Procedures Manual contains guidelines and check lists to aid seminar organizers in planning successful training events. Space considerations, sample timetable and mailing schedules are explained in detail Price: $1.00

The CMA Film List is a compilation of currently available films which could be useful as seminar training aids. Films are listed in subject areas relating to the seminar topics for which they would be most applicable. Detailed information on the sources of the films is provided along with rental rates and ordering procedures. Price: $1.00

The CMA Bibliography is an extensive listing of published material on the subjects of museology, museography and museum and art gallery administration. This reference work contains over 3500 entries of articles and publications which are contained in the CMA Booklist. The Bibliography is sold in sets or as a complete work as listed:

Set I Contains: I Administration; XI Cultural Policy; XII Ethics; XVII Law; XX Personnel; and also XXII Public Relations.
$4.00* $5.00

Set 2 Contains: II Archaeology; IV Archives; XV History.
$2.50* $3.00

Set 3 Contains: III Architecture; IX Conservation; X Conservation - Emergency; XXVI Restoration.
$4.00* $5.00

Set 4 Contains: V Arts Technology; VIII Communications; XII Education; XIV Exhibits; XVII Interpretation; XXVII Technology.
$6.50* $8.00

Set 5 Contains: VI Bibliographies; VII Collection Management; XVI Information, Storage and Retrieval; XXIV Reference.
$3.00* $3.75

Set 6 Contains: XIX Museums; XXI Philosophy; XXII Psychology; XXV Research Methods-Museology; XXVII Sociology.
$3.50* $4.25

Complete Work, including all sections in the six sets listed above:
$20.00* $25.00

*** CMA member price**

The CMA Booklist, now in its third edition, contains a listing of over 200 publications which are available through the CMA publication order service. Members receive substantial discounts on publications as a membership benefit. The booklist is available free of charge on request.

The Instructor's Registry has been developed to aid seminar planners in securing instructors and lecturers for training events. A number of museum professionals have expressed an interest in making their expertise available to seminars in all areas of the country. Enquiries should be directed to the CMA Training Secretary who will provide a listing of potential instructors for the topic requested. The sponsoring organization is responsible for making all arrangements with instructors.

Resource/Research Assistance is the most recent addition to the range of services offered by the CMA. Special enquiries on materials and publications on the subject of museology and related areas which are not included in the Booklist and/or the Bibliography should be directed to the Resource Library. This service is available Monday through Friday between 9 a.m. and 4 p.m.

Seminar Kits are offered to organizations free of charge if orders are received by the Training Secretary no less than **four weeks** before the scheduled date of the seminar. These vinyl kits measure 12 by 17 inches and are ideal for keeping seminar material in order. Please indicate the number of seminar participants and provide a mailing address to which the kits should be sent. Sample CMA publications will be included on request; further details are available from the Training Secretary.

Audio-Visual Training Aids are available on a rental basis to individuals and organizations. The rental cost is ten dollars per kit; the borrower is

responsible for return postage and insurance costs. Prepayment of the rental costs is not required. Kits are loaned for a period of one week. To ensure that kits are available, please book at least six weeks in advance. Kits produced by the CMA are as follows:

1) Handling and Care: Two Dimensional Art by Mike Robinson, Phyllis Harris.
2) Interpreting an Historic House: The Human Approach by Dorothy Duncan.
3) Setting Up a Display Case by John Arnold.

Kits produced by the Smithsonian Institution:

1) The Wet Cleaning of Antique Cotton, Linen, and Wool.
2) The Protective Lining of a Wooden Storage Drawer for Textiles and Costumes.
3) Mounting of Flat Textiles for Exhibition.
4) The Cleaning of Prints, Drawings and Manuscripts on Paper: Dry Methods.
5) The Curatorial Examination of Paper Objects.
6) Proper Hingingand Mountingof Paper Objects.
7) The Cleaning, Mending and Reconstruction of Pottery.

Kits produced by the American Association of State and Local History:

1) Working with Plexiglas by William K. Jones, Dennis Medina.
2) Wet and Dry Mounting of Photographs by William K. Jones and Dennis Medina.
3) Attention to Detail (Historic House Interpretation) by Colorado State Museum.
4) Registration of Museum Objects, M. Thieme.
5) Costuming: Replication of Nineteenth Century Women's Dress by Joan Severa.
6) Handling Museum Objects by Perry Huston.
7) Unframing and Framing Paintings - P. Huston.
8) Paper: Matting and Framing by P. Huston and Joyce Zucker.
9) Travelling Suitcase Exhibits by Museum of New Mexico.
10) Learning History Through Direct Experience by Robert McQuarie.
11) Architectural Description: Domestic by John J.G. Blumenson.

The CMA Training Resources Programme has been developed with the financial support of the Training Assistance Programme, National Museum Policy administered by the National Museums of Canada. The financial contribution of the Samuel and Saidye Bronfman Family Foundation towards the development of the audio-visual training aids project is also acknowledged.

Ex Librus

GEORGE LAMMERS
Chief Curator
Manitoba Museum of Man and Nature

Ed. Note: *The following is reprinted from the Canadian Museums Association's quarterly, the* **gazette**, *Vol. 10, No. 3, Summer 1977, with the permission of both the author and the editor.*

EXHIBITS FOR THE SMALL MUSEUM, by Arminta Neal, Published by the American Association for State and Local History, Nashville 1976, 169 pages, $8.00.

Well, Arminta "Skip" Neal has brought us another winner. How can such a publication as her well-known **Help! For the Small Museum** be added to and improved? Ms. Neal has managed to do it. The latter well-known handbook, indispensable to any community museum operation and primarily oriented to the museum function of exhibition, has been brought up-to-date and improved. H.J. Swinney, Director of The Strong Museum, explains this in an introductory essay. Her second book is not to replace the first, but to be additive to it.

First, let's briefly discuss the format of the publication. Like her first book, it is faithful to being well illustrated with blue prints that are clear enough for the layman to follow. The author has collected many photographs from museums across North America to illustrate the cases to be built, or other points to be made. However, many of these would have been more useful if they had been reduced less and some seemed to have suffered in processing to produce a washed-out appearance. I do find some of her textual directions difficult to follow.

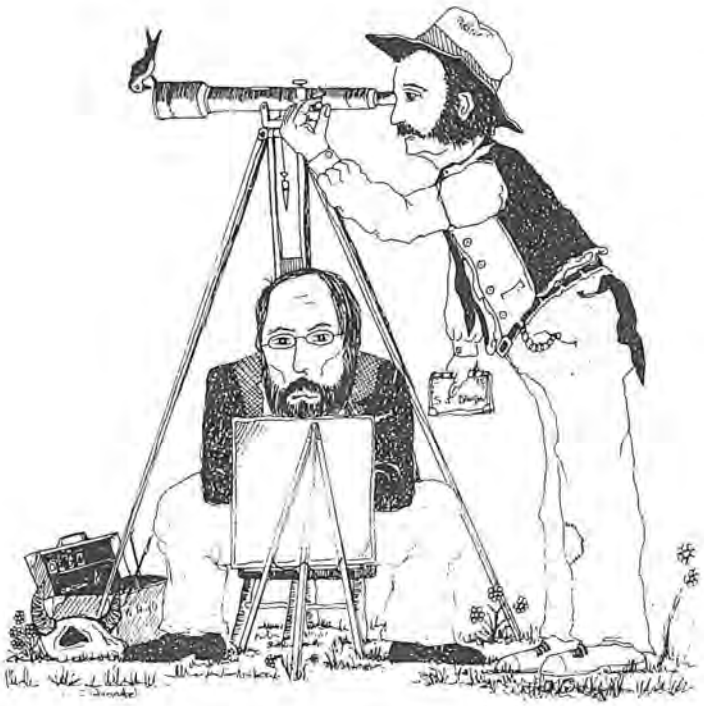
In general the book seems to have been written to give the beginner hope and a systematic procedure to accomplish the aim desired. Some of the topics discussed include taking the exhibit from the planning stage through to completion, lighting, traffic flow, the making of labels, and various ways to fabricate mannequins. A consideration in all of the above as it relates to exhibits is a discussion of museum fatigue and human anatomy. Where necessary, she has made reference to the American Association for State and Local History's Technical Leaflet series where additional help may be useful.

Throughout, the instructions and helpful hints are numerous truisms of good museum philosophy and practice. While I didn't agree with them all, she briefly reviews for us how museums have become what they are and what we should be doing with them today.

A must, for anyone who hasn't read them, are the "Ten Commandments for Museum Exhibits", first printed in 1949, included in the appendix. "Some Criteria for Evaluating Displays in Museums of Science", remarks first printed in 1958, are also included and are as relevant today as when first printed. While containing some solid advice in many areas of museum operation, the book would not compete as a museology text. However, it would make a good reader or supplement. Intrigued? It's one of the best book buys available for approximately $8.00 through the Canadian Museums Association.

Considering everything, it is a very helpful and needed reference and would even bear reading for those of us in the big museums.

Notes to Contributors



S.J. Dawson and W.G.R. Hind

We invite you to submit articles for publication in the **Dawson and Hind**. We would appreciate if you would bear in mind the following guidelines:

1. We would prefer all articles to be **typewritten** and **double-spaced**. We realize this is not always possible; and under such circumstances we will accept handwritten articles only if they are legible and double-spaced.

2. As a rule of thumb, articles should be a **minimum** of four double-spaced pages; or a **maximum** of 20 double-spaced pages.

3. If possible and appropriate, we welcome photographs to complement articles. Black and white photographs are the most suitable for reproducing although colour photos can be used.

4. Please **do not cut or crop** photographs.

5. All photographs must be identified.

6. Photographs will not be returned unless requested, in writing, by the contributor.

7. Should an article include a bibliography, please list author, title, publisher, location and date of publication (as well as name of journal, if applicable).

Please address all articles and correspondence to:

The Editor
Dawson and Hind
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Winnipeg, Manitoba R3B ON2