HISTORIC COSTUME/TEXTILE COLLECTIONS

IN SMALL OHIO MUSEUMS:

MANAGEMENT, CARE, AND STORAGE

A Thesis
Presented in Partial Fulfillment of the Requirements
for the Degree of Master of Science

by

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ABSTRACT

The purpose of the study was to examine specific problems regarding costume/textile collections in small museums, and to develop recommendations for effective procedures and possible solutions for the identified problems. An interview schedule was developed and tested. Administrative persons at seven small Ohio museums were interviewed to identify specific problem areas on which to develop written recommendations. Identified problem areas included collections management, care and maintenance, storage and display.

Recommendations with suggested methods for implementation, a list of suppliers, and an annotated bibliography were developed for one museum. The museum directors identified the portions of the recommendations to be implemented. The museum personnel and the researcher carried out the implementation of selected portions of the recommendations, both of which were evaluated by the museum directors.

Based on the results of the study, specific needs were identified for the small museums which may be applicable to others: established and written museum policies for collections, improved management and care of articles, improved display techniques, and effective storage alternatives for small museums with limited resources. In addition, improved communication of available information to personnel in small museums is needed concerning the identified areas.
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Chapter 1

INTRODUCTION

Textiles in various forms surround us all our lives. Perhaps because of this abundance, clothing and other textile products are often taken for granted. Little thought is given to the vital role these articles play as a statement of our society and culture. The clothing and textiles used by individuals in a society provide much more than warmth and adornment. Clothing and textiles have been used as indicators of social status, roles, social norms and ideals, communication, and have served as a creative art form.

In spite of their function as valuable social indicators, costumes and textiles of past generations are often treated as an abundant and expendable resource. These articles are not replaceable and are easily destroyed by improper care. The costumes and textiles of the past must be preserved if they are to be used as an significant information source for present and future generations.

Throughout the country, small museums serve as a repository of social history. Clothing and textiles are generally included in the museum collections as an important component of social history. To effectively preserve these articles, care must be taken to provide safe and effective management and maintenance of costume/textile collections. Specialized maintenance and storage methods are required to reduce or eliminate deterioration. Since the staff in small museums often operate with limited resources, such as time, funding, facilities, and skills,
they must become aware of the specialized requirements of costume/textile collections to preserve these fragile articles.

This study was focused on the care and storage of costume/textile collections in small Ohio museums. To deal with the care and storage of costumes/textiles, it is essential to consider other related aspects as well, such as textile preservation, museum philosophy, acquisition guidelines, the adequate management of articles and related information, and effective maintenance and storage techniques. Two broad questions were posed in regard to the problems related to costume/textile collection preservation in small museums. How can information be brought together in a useful format for small museums? What guidelines can be utilized to facilitate effective care and storage of costume/textile collections in small museums? It was hoped that this study will provide insight into possible guidelines that could promote effective preservation of costume/textile collections in small museums with limited resources.

STATEMENT OF THE PROBLEM

The purpose of the study was to examine specific care and storage problems regarding costume and textile collections in small museums, and to develop recommendations for procedures and solutions for such problems. Based on interviews with museum directors and literature reviewed, the following questions were identified: What maintenance and storage problems are common to costume/textile collections in small Ohio museums? What are possible solutions for the identified maintenance and storage problems? What recommendations can be made
regarding the maintenance and storage of a costume/textile collection in a small museum? What is the assessment of these recommendations when implemented by a small museum with limited resources?

JUSTIFICATION

An increased interest and appreciation for clothing and textiles as important primary sources of information from the past has led to a wealth of information regarding the value, use, and maintenance of historic costumes and textiles. Researchers have investigated costume/textile collections, their locations, and contents (Duffield, 1979; Hennings, 1980; Lafferty, 1967; Raison, 1970). Articles, pamphlets, and theses have been written regarding costume/textile registration, maintenance, use, and presentation (Dirks, 1976; Edgeworth, 1976; Schoepkoerster, 1977; Skewes, 1976; Vachon, 1976). Bibliographies of resources have been compiled by various organizations and interest groups for research and reference (Creekmore & Cyr, 1978; Filene, 1979).

In spite of the wealth of information which is available, many small museums do not make use of it. Staff and volunteer workers of small museums may be unaware of existing information which is available or unaware of methods or sources for obtaining needed information. In a preliminary interview with co-directors of a small museum in central Ohio, the researcher found the co-directors to be unaware of information available regarding the care and maintenance of costume/textile collections. These same directors expressed a need for possible sources of information and supplies. Such informational needs are not isolated to one specific museum in Ohio; similar findings were revealed in a
survey of Ohio museums conducted by Hennings (1980).

Hennings (1980) assembled information concerning costume/textile collections in museums in Ohio and made a series of recommendations. Of Hennings' recommendations, three concepts appear to be particularly relevant to research regarding the maintenance and storage of costume/textile collections in small museums.

- The need for an identified philosophy regarding the costume/textile collections of a small museum.
- The need for information and assistance regarding storage and maintenance of a costume/textile collection.
- The need for access and/or awareness of relevant information regarding costume/textile collections.

The above concepts were considered in the examination of care and storage problems and the development of recommendations relevant to small museums.

Hennings' recommendations focused on current problem areas regarding costume collections in museums. Museums may not have a defined philosophy regarding the care, use, and purpose of costume/textile collections. An established philosophy or a clear definition of the proper scope of the collections of a museum is necessary to "promote sound growth while guarding against the very real danger of random expansion" (Lewis, 1976, p. 5). Such a philosophy or plan would create a consistent theme to a museum's holdings and would avoid the appearance of what Alexander (1979, p. 122) referred to as a "household attic filled with obsolete and often broken and useless discards."

Alexander emphasized the need for a museum to have an identified and
clearly defined purpose to provide a guideline for the collection and preservation of museum objects. Such a framework is essential for quality collections and ultimately a quality museum (Alexander, 1979).

Small museums often rely on volunteers to do a major portion of the care and maintenance of costume/textile collections. Volunteer workers may not be aware of techniques or guidelines used to effectively deal with costume/textile collections. Volunteer workers may not have an awareness of resource information or time to explore informational sources for solutions to specific problems. Readily available and practical information and recommendations would enhance current efforts to preserve and maintain costume/textile collections. Recognition of problems common to small museums and identification of possible solutions to such problems would support and encourage efforts to maintain and preserve costume/textile collections in small museums throughout the State. Volunteer efforts could be reinforced with guidelines consistent with current research and developments.

OBJECTIVES

Research regarding the maintenance and storage of costume/textile collections is needed to ensure the preservation of these collections in small museums. To provide guidelines for this research, specific objectives were identified.

- Determine specific problems identified by small Ohio museums regarding philosophy, management, care, maintenance, and storage of costume/textile collections;
- Identify possible solutions from available literature for specific problems identified in selected small museums.
- Develop written recommendations for utilizing possible solutions and
- Implement portions of these recommendations in a selected museum.
- Assess, by written evaluation, the written and implemented recommendations for effectiveness and practicality in a small museum with limited resources.

Limitations

To effectively fulfill the above objectives in the restricted time frame of the study, certain limitations were identified. The study dealt with the general management and care of costume/textile collections since these procedures relate to the effective storage and ultimate preservation of museum costume/textile collections. The study was focused on small museums in central Ohio; however, recommendations developed from research in central Ohio museums could be adapted for other museums throughout the State.

Small museums were the primary focus of the study. Small museums generally must operate with limited resources and limited informational sources to preserve collected objects. As the caretakers of valuable primary sources of local history, small museums must develop and implement effective management, care, maintenance and storage of vulnerable costume/textile collections.
The concentration of the study was on the management, care, and storage aspects of preservation. Other aspects of preservation, such as security against theft, vandalism, fire and other hazards, were not included in the study. The maintenance requirements of such articles as accessories and leather articles were not included in the study.

Definitions

The definition of important terms, as they relate to the study, was essential to the consistent use and understanding of those terms.

Small Museums. Small museums, as they relate to the study, were defined as general history museums with collections that relate to a specific and localized geographic area, and that operate with a paid staff of five or fewer persons.

Management of costume/textile collections, as used in this study, refers to the development of general guidelines for acquisition and maintenance of articles, the actual acquisition of articles, and the documentation of the articles and related information.

Care and Maintenance of costume/textile collections refers to the various aspects of preservation such as initial cleaning and preparation of articles for storage as well as the periodic inspection, care, and safe exhibition conditions that are required for costume/textile articles.

Storage, its effective planning, implementation, and requirements, are also an important part of the maintenance and preservation of costume/textile collections. Storage refers to the methods, conditions, and facilities utilized to retain and preserve costume/textile articles when those articles are not on exhibition.
Chapter 2

REVIEW OF LITERATURE

A wealth of information exists regarding the management, maintenance, and storage of costume/textile collections. Sources of information that are readily adaptable to small museums with limited resources were reviewed to provide effective, general guidelines for the preservation of costume/textile collections.

The interrelated factors that influence the preservation of costume/textile collections include the museum philosophy, museum collections management, care and maintenance procedures, and storage conditions, methods and facilities. Each topic was reviewed with respect to the many information sources that related specifically to that topic or provided general insight and information. Sources from both large and small museums were reviewed to provide general guidelines and techniques that could be effectively employed by a small museum with limited resources.

MUSEUM PHILOSOPHY

The museum philosophy, developed by the governing body of the museum, incorporates the identified values and underlying principles or guidelines which provide rationale and direction for those involved in the management and maintenance of museum collections. A philosophy must be established to provide a framework for the development of museum
policies regarding the acquisition, maintenance, and use of museum collections. Established policies, in written form and consistently followed, provide direction and guidelines for the efforts of the museum staff. A well-defined philosophy and established museum policies enable museum staff to deal with questions relating to objects to be collected and the procedures and emphasis to be followed for the preservation and maintenance of the objects.

The museum philosophy identifies the intended purpose and functions of the museum. The functions of a museum may include such activities as acquisition and preservation of objects, research, exhibition, and interpretation of artifacts; in addition, the museum may function as a cultural center and social instrument. Once the museum purpose and functions have been identified, effective guidelines and procedures must be sought to accomplish them (Alexander, 1979).

A defined museum scope is vital to the fulfillment of the museum purpose and functions. The established scope of objects collected provides a unified framework for the museum as a whole. The scope of museum collections includes the general focus area(s) of the museum and establishes the subject area, geographic origin, time period, and type of objects to be acquired for a unified museum collection. Without this important framework for direction, the museum may fall victim to random and unrelated expansion.

In the development of the museum scope, consideration must be given to the intended focus of the museum. In general, there are three broad areas of focus for a museum: history, science, and art. A museum may utilize all three focus areas or may emphasize only one or two. The
museum focus provides an important guideline for the acquisition of objects and the development of interrelated collections. The geographic boundaries of the museum collections establishes limits for the geographic origin of acquired objects. The museum collections would relate specifically to the history and development of a defined geographic area. Similarly, an established time range for the collections limits acquired objects to a specified time period, such as a specific century or a selected period in history. Collection content policies establish the type of objects to be included in the museum collections.

History extends beyond unusual circumstances or events to include every aspect of daily life. The collections of a community museum include items from everyday life as well as the special events of that specific community or area; thus, the content relates directly to the social history and past generations of that community. Lewis (1976, p. 5) emphasized that collected objects "must clearly pertain to the facets of history...or events which comprise the significant aspects of the museum's field of interest." Acceptance of acquisition of objects as part of the museum collections also carries the responsibility to adequately preserve, maintain, and effectively utilize collected objects. Guldbeck (1972, p. vii) along with others (Guthe, 1957; Hoffman, 1978; Smathers, 1977) identified this responsibility when he stated that each museum must provide "intelligent and effective care of the things in its possession."
MANAGEMENT OF MUSEUM COLLECTIONS

Historic costumes and/or textiles are often included in small museum collections. However, costume/textile objects are among the most vulnerable and often the least cared-for objects in small museum collections. The effective management of museum collections, especially the fragile costume/textile objects, is essential if these objects are to survive as a valuable component of the museum collections. Hoffman (1978) identified the vital components of collections management as including acquisition, documentation, conservation, storage, and use. Each of these components was considered separately as it related specifically to the preservation requirements of costume/textile collections.

Acquisition of Objects

The management of a museum collection must start with the effective acquisition of objects whereby careful and complete consideration is given to the addition of artifacts. Guthe (1957) warned against the common error of local museums which become a community attic. Local museums are often victims to old and broken discards and orphaned family heirlooms.

Guthe (1957) suggested that established limits be placed on what is or is not to be included in a museum collection. The established limitations, based on the general museum philosophy, provide for the acquisition of useful and related collections. The acquisition policy should not only include guidelines for articles to be collected but also guidelines for the acquisition procedures. Small museums
generally acquire collections from local donors. Before a donation is accepted, museum personnel must determine if the item or collection offered fulfills the guidelines established by the acquisition policy. The museum director, or other personnel responsible for accepting donations, must also consider the following: Will museum personnel have the resources and knowledge needed to effectively maintain and care for the donation? Is the donation offered as a permanent gift without conditions or restrictions? Guthe (1957, p. 3) stated that "it is better to lose an important addition to the collection than it is to mortgage the museum's future in order to avoid offending a potential donor."

Museums cannot afford to accept donations as a loan or with specific restrictions or conditions placed on the donation by the donor. The museum must have unrestricted use and disposal of the donated object.

If a donation or gift cannot be accepted, time and care should be given to explain why the conditions or the intended gift cannot be accepted by the museum. Alternative recipients or uses of the donation might be suggested. If a gift is accepted by the museum, the donation of the gift should be considered a legal transaction. Lewis (1976, p. 22) stated that "no question regarding conditions of transfer (if any) or ownership of the object should remain. Legal title to the donated object must pass from the donor to the museum." A vital part of the donation process includes a letter or statement of gift that provides a statement of the donor's offer without restriction, and acknowledges the receipt and acceptance of the gift on behalf of the museum.
Documentation of Objects

Following the acquisition of museum objects, the documentation of those objects is a vital component of collections management. Documentation procedures include registration of objects, safe identification of objects by marking, the development and maintenance of records, and cataloging available information.

A registration system of acquired objects is essential if museum objects are to be located and identified for use. Schoephoerster (1977) reviewed various registration systems and procedures to select a system for the costume and textile collection of The Ohio State University. The registration system which was developed provides a basic format that could be adapted for other costume/textile collections in small museums. Schoephoerster (1977, p. 66) suggested that "an established costume registration system at The Ohio State University could be expanded to broaden parameters leading to some standardization among the registration of costume/textile collections."

A vital part of the registration system is the accession number. The accession number is an identification number assigned to each object when the object is acquired by the museum. Each accession or registration number would be entered in the Accession Record Book along with a general description of the item. A variety of numbering systems or a variation of the system used at The Ohio State University is also recommended by Guthe (1957), Hoffman (1978b), Skewes (1976) and Smathers (1977).

An important aspect of documentation is the identification of the object by marking. The registration number must be accurately and
permanently affixed to the object. For costumes and textiles, a consistent and safe form and location of marking is essential for fast identification and to minimize handling of the article. A generally recommended procedure is to use India ink or other permanent ink to write the registration number on a piece of linen tape. The tape can then be sewn in a prescribed location for all costumes and textiles to simplify locating the identification. Marking should never be done directly on the article itself nor on temporary tags that could be easily separated from the article.

Placement of the marking label should not detract from the appearance of the article but should be readily accessible with a minimum of handling. Consistency in label location also reduces the handling of fragile costumes and textiles. Marking labels may be sewn inside the lower left sleeve, lower left hem of a skirt or pant hem for costumes, or the lower left corner of a textile. Articles can then be hung with the left side out to eliminate removal of the garment from the hanger for later identification. Garments that are covered for dust and light protection, or articles that are folded or stored flat, may be easily identified by an acid-free hang tag in addition to the permanent linen tape label.

The primary purpose of cataloging information and maintaining collection records for museum objects is to identify and locate every object in the museum collection. Cataloging is also vital to the classification, description, and background of each item collected. The content and extent of the collections will determine the records and cataloging information needed for each item.
Collection records and their maintenance are very important to effective museum management. "The service a museum can render its community are directly proportional to the availability, accuracy and quantity of information the museum possesses about its collections" (Guthe, 1957, p. 7). Generally, collection records are incorporated into a three file system consisting of a registration file of basic information, a category file with information entered by object, and a donor file (Guthe, 1957; Schoephoerster, 1977). The registration file includes information necessary to identify the object and related business transactions. This information would include the accession number, a brief description of the object, the origin of the object, the source or donor, date of receipt and the location of the object in the museum (Guthe, 1975). The category file provides information identifying the type of object. For costume/textile collections, the categories would include costumes, textiles, and accessories. Categories could be divided even further to include areas such as technique or structure, origin, time period, age and sex of the wearer, or the position worn on the body (Cyr, 1978; Musa, 1978), depending on the intended use of the collection. The donor file consists of an alphabetical listing of all donors. Each donor entry would include the name and address of the donor and the accession or registration numbers of all objects received from that source.

A supplemental accession file consisting of folders is convenient for containing legal documents, letters and other notes pertinent to each object. Schoephoerster (1977) recommended a curator's work sheet for recording additional information. The basic information
required in the registration file would be on the work sheet as well as the classification of the object (costume, textiles, and accessories), the date of the object or general time period, the raw materials used, the style, decorative detail, and the condition of the object. Other valuable information would include the historical significance of the object, the original value, references for documentation, a check list of registration procedures completed for the object, and an entry to identify the person completing the work sheet (Schoephoerster, 1977).

Regardless of the records system selected, it is essential that all records be kept legible, up to date, and consistent. Records play a vital role in the maintenance and use of museum collections. A major priority should be simplicity in implementation and use. Museum resources of staff and time will also have an influence on the extent and form of documentation and records. Museum staff must have the knowledge and time to carry out the various procedures required for effective documentation.

PRESERVATION AND MAINTENANCE OF COLLECTIONS

Glover (1973) emphasized the need for a suitable museum environment to preserve costume/textile collections and recognized the special problems and requirements inherent in the care of these collections. Serious deterioration or even loss of irreplaceable costumes and textiles have resulted from improper environment and disregard of important care considerations.

Most textiles arrive at the museum in a weakened and fragile state due to normal wear and the natural aging of the fibers. Additional
damage may result from poor storage facilities and lack of proper care. There are known techniques which can be used on these already fragile objects to prevent further damage when handled, cleaned, stored, or displayed.

Conservation and Restoration

Conservation is basically an attempt to prolong the life of an object. Conservation procedures can include careful handling, cleaning, maintenance, and storage techniques. All of these procedures are within the grasp of the concerned staff of a small museum.

Restoration, however, is the process of restoring an article to its original state. Restoration is a highly technical and specialized field that should only be attempted by experienced professionals. Small museum staff should only attempt basic conservation and preventative care of historic costumes and textiles that are within the skills, knowledge, and resources of the museum staff. "Neither traditional techniques nor modern discoveries will extend the life of an object half as much as primary conservation - that is, proper care and maintenance of the objects in one's possession" (Guldbeck, 1972, p. 2).

Keck (1973, p. 41) noted that "...it requires nitty gritty routines which are time consuming and often not immediately rewarding." Keck emphasized that matter continues to deteriorate with time, even after restoration and cleaning. Museum staff must continually inspect and care for a collection "to reduce or possibly halt the rate of deterioration" (1973, p. 41). Part of conservation is the prevention of avoidable damage. As caretakers of the costume/textile collections, museum staff must be careful to act within the limits of their skills
and knowledge in order to avoid irreparable damage or complete destruction of a valuable specimen. Museum staff responsible for the care and maintenance of costume/textile collections should seek professional advice and assistance in dealing with serious questions or special problems. Such advice and assistance may be obtained from the costume/textile curator of well developed city museums, the state historical museum, or large, nationally known museums such as The National Museum of History and Technology, Smithsonian Institution.

Lewis (1976, p. 62) identified the following four basic steps essential to the care and maintenance of museum collections:

"1) see that each specimen entering the collection is properly prepared for preservation,
2) place the object in a safe environment,
3) inspect it periodically, and
4) provide it repeated preservative treatment as necessary."

Although Lewis intended these basic steps for general museum collections, these steps are particularly applicable to the special needs of costume and textile collections. Use only reversible treatments and record any treatments used for each specimen. Document treatments of very valuable articles with before and after photographs if possible.

Historic costumes and textiles should be regarded as fragile. These articles should never be worn and should be handled as little as possible. The survival of these vulnerable articles depends on the day-to-day conditions and practices to which they are exposed.

Care must be taken to provide constant protection for costume/textile collections (Fikioris, 1976b). Work surfaces should be clean and large enough to accommodate the entire specimen. A clean mattress pad covered with a clean fitted sheet provides an excellent table cover.
to protect specimens during inspection and care. Never place textiles on, in, or next to paper, cardboard, or unsealed wood.

Cleaning

The primary purpose of cleaning costumes and textiles is to prevent any further deterioration. Soil, stains, and dust cause chemical and abrasive damage to fibers, as well as give the textile a dull appearance. Careful cleaning of the textile should be considered to prevent further damage. The condition and cleaning requirements of each textile are considered individually.

Vacuuming. Vacuuming is the first and perhaps easiest step in cleaning a costume or textile. The textile should be laid flat on a clean, smooth surface. A low-powered hand-held vacuum, or the low setting of a regular canister model, is used to remove abrasive dust and dirt particles. Vacuuming is done in the predominate direction of the weave of the fabric. A fiberglass screen, with edges bound to prevent snagging, or nylon net, is placed between the vacuum and the textile to protect the textile fibers from direct suction and abrasion. The vacuum attachment should barely touch the screen, to avoid pressure and drag on the textile. Vacuuming should also be done before and after display, and as an occasional maintenance procedure when needed (Fikioris, 1976b; Mailand, 1978).

Wet Cleaning. For important and very fragile textiles, Giffen (1976) recommended stopping the cleaning process after vacuuming. However, for textiles that can withstand cleaning, it is important to remove other damaging substances such as remains of perspiration, blood, food, acid, and corroded metals which have a rotting effect upon
textiles and can attract pests (Glover, 1973, p. 2). The normal acid condition of old fabrics accelerates deterioration, thus further cleaning can return the fabric to a neutral state and extend the life of the textile (Mailand, 1978).

Wet cleaning, described by Mailand as a process in which "the textile is cleaned in a water and detergent solution" (1978, p. 8), is generally effective in neutralizing textiles that can be cleaned by a wet process, such as linen and cotton articles. Precautions for wet cleaning include 1) testing all colored areas for color fastness (Mailand, 1978, p. 8; Shelton and Carpenter, 1978, p. 128); 2) supporting the textile during the cleaning process (McHugh-Collins, 1967); 3) using the least damaging process first, such as soaking in distilled water (McHugh-Collins, 1967, p. 5); 4) using a large flat container to accommodate the entire article (Mailand, 1978, p. 8); 5) using non-ionic detergent for further cleaning after soaking in distilled water (McHugh-Collins, 1967, p. 6; Mailand, 1978, p. 8); and 6) rinsing thoroughly to remove any trace of suds or detergent to achieve a neutral state (McHugh-Collins, 1967; Mailand, 1978). Generally, wool and silk articles are not wet cleaned.

**Drying.** When drying the textile, place on a clean, flat surface or on an elevated screen to provide support to weakened fibers and allow for ventilation. Excess water may be removed by gently pressing the textile with clean, white cotton toweling; never wring or twist the textile (Mailand, 1978).

**Ironing.** Ironing is not recommended for historic costumes and textiles. According to Harris (1977), "the preservation of a costume
is more important than its aesthetic appearance...period costumes should [not] be ironed under any circumstances" (p. 15). The pressure produced by ironing will flatten and break the [already] weakened fabrics and the heat [from ironing] will further accelerate any chemical deterioration already present in the fabric. For an ironed appearance, textiles in good condition may be gently smoothed while still wet, on a piece of glass, plexiglas or any other inert non-porous surface and allowed to dry (McHugh-Collins, 1967; Mailand, 1978).

**Drycleaning.** Drycleaning is recommended with reservation, due to possible chemical and abrasive damage, for the removal of oil-borne stains. Mailand (1978) emphasized that historic textiles should only be hand-cleaned by a professional drycleaner, and only with fresh solvent. Drycleaning is not recommended for white textiles.

Whatever cleaning process is used, it should be emphasized that the primary purpose of cleaning is to neutralize and stabilize the textile prior to storage and to prevent further deterioration. An improved appearance may occur but is not the primary cleaning objective.

**COSTUME AND TEXTILE STORAGE**

Guthe (1957) emphasized the need for adequate storage in a small museum. Many small museums place the entire museum collection on exhibit. Storage, other than exhibition of the object, is often non-existent. Such a storage/exhibition philosophy, or "visible storage" (Alexander, 1979), results in unattractive displays, crowded and wasted use of space, and presents a very real danger to the collections themselves.
Hennings (1980) established the need for improved storage for costume/textile collections in Ohio museums. The usefulness and ultimate care and condition of museum costume/textile collections may well depend on the storage provided for such collections.

Costumes and textiles are particularly sensitive to the environmental hazards created by visible storage. Uncontrolled climate conditions, light, dust and display hazards all contribute to the deterioration of historic costumes and textiles. Visible storage is not only harmful to costume/textile collections but severely limits the effectiveness of the museum as a whole.

Museum Philosophy

Collection philosophy ultimately determines the storage philosophy and storage conditions of a small museum. Johnson and Horgan (1979, p. 12) warned that "uncontrolled expansion of museum collections would compromise...conservation standards to a point where the entire collection will suffer, including the objects that are necessary to carry out the museum's programs." Small museums do not have the space or resources to accept and effectively care for every article that is offered. Museum guidelines for acquisition of items provide the basis for developing a unified and workable collection within the capabilities of care and storage of the small museum. Steps must be taken to discriminately limit the costume/textile collection to those articles that are particularly valuable to the museum focus as a whole.
Storage Environment

The conservation or preservation of museum collections is promoted when care is given to provide storage that will reduce environmental damage. Storage should be designed to protect costumes and textiles from environmental hazards (Kidwell, 1978b). Costume/textile collections are particularly susceptible to poor handling and an improper storage environment. Without proper care, physical damage can result from procedures such as folding repeatedly along the same lines or from unsupported hanging on a wire hanger. Sealed storage in plastic may result in moisture condensation, microorganism growth and staining (Baumgarten, 1979). Adequate and safe storage must be carefully planned and implemented to preserve fragile costumes and textiles for museum use.

Climate control. The primary purpose of climate control in a museum is "for the protection of the museum collections rather than for the convenience and comfort of personnel and visitors" (Guldbeck, 1972, p. 16). Stolow (1966) suggested a compromise between preservation requirements of the collections and the comfort of museum staff and visitors. Vital to preserving museum collections is the consistent and constant control of the museum climate, the temperature and humidity.

Climate control is essential for the preservation of historic costumes and textiles. A constant balance of temperature and relative humidity is required to prevent fibers from expanding or contracting and creating internal damage and strain. Humidity that is too low will cause textiles to become brittle; humidity that is too high promotes the growth of mildew. The level of humidity is greatly affected by the
temperature of the air. In a room with a high relative humidity, only a slight drop in temperature is required to reach the dew point and expose collections to harmful moisture condensation.

For costume/textile collections, the ideal climate conditions recommended are a temperature of 70°F Fahrenheit and a relative humidity level of 50%, plus or minus 5% (Basic Principles For The Care; Mailand, 1978). It is important that the museum climate, especially in storage areas, remain as constant as possible. Avoid basement or attic storage for textiles where humidity and temperature are difficult to control (Mailand, 1978).

Small museums may not have the facilities needed to adequately control the museum climate. Storing all costumes and textiles in a common area provides a localized area for climate control. Maintaining a micro-climate for costumes and textiles will permit the control of the storage environment for these vulnerable objects. Climate control of a small area can be maintained year round by using portable humidifiers, dehumidifiers, air conditioning units, and radiating portable heating units (Mailand, 1978).

**Light.** Light is another environmental hazard that is very destructive to textile collections. "Light, any kind, any amount, for any appreciable time, produces physical damage to many types of museum objects" (Lusk, 1970, p. 22). Costume/textile articles are particularly susceptible to fading, fiber weakening and ultimate deterioration of the entire article. Both visible and ultraviolet light must be minimized to reduce damage.
Sunlight, when used for display lighting, should be filtered to eliminate the ultraviolet rays. Special liquid sprayed directly on the windows, or UF-3 Plexiglas placed in front of the windows, can be effective in filtering out ultraviolet rays. These solutions are effective for approximately seven years before replacement is needed (Mailand, 1978). Sunlight should be completely eliminated in storage areas and all other lighting should be kept to a minimum. Fluorescent lights, another high level source of ultraviolet rays, should be covered with filtering sleeves that slide over each tube. Incandescent light should be used at a distance to prevent heat build up and damage to textiles, especially when on exhibit or in closed exhibit cases.

Light intensity should be kept at a minimum and length of exposure should be restricted by keeping the storage and work areas dark when not in use. Storage units should be kept closed or covered to eliminate as much light as possible. Costumes and textiles should only be exhibited for three or four months of the year to minimize light damage and to preserve the textiles. Costumes and textiles should never be exhibited in direct sunlight (Mailand, 1978).

Mildew. Mildew is produced by a mold that is always present in the air. Mildew only requires an available surface and a favorable environment of high humidity (above 80%) and high temperatures (above 70°F) to grow. Prolonged exposure to mildew produces staining and structural damage to cellulosics. Various methods exist for the removal of mildew and mildew stains (Glover, 1973, p. 4; Mailand, 1978, p. 10).
Pests. Pests that may damage or destroy costumes and textiles include a variety of insects and rodents. Thorough cleanliness and good maintenance of storage areas are particularly important to prevent attracting such pests. Textile storage areas should be cleaned frequently and textile collections should be periodically inspected, vacuumed, aired, and rotated to prevent infestation. Careful inspection, cleaning, and fumigation of all newly acquired articles will prevent accidental infestation of the entire collection. Regular inspection is particularly important for textiles containing wool, hair, fur, or feathers. To facilitate inspection, such high-risk textiles may be stored separately from other items in the collection (Glover, 1973).

Dust. Dust and air pollutants are dangerous abrasives and sources of acid that may destroy or damage costume/textile collections. Filtered air is necessary in museums located in high air pollution areas. Dust can be combated by covering all textiles with muslin. Polyethylene plastic coverings may build up static electricity that will attract dust and are not recommended. Floors in storage and display areas should be dust mopped daily or as often as possible to remove settled dust.

Dustproof storage is essential for stored textiles. Closely fitted cabinet doors will reduce the amount of dust entering storage units. Curtains may be placed behind cabinet doors to provide an added dust barrier. Garments may be stored in individual bags which will exclude airborne dust but allow ventilation. Acid-free tissue paper may be used for protecting items stored in boxes, drawers, and cabinets. All wrappings should be loose to allow for ventilation (Glover, 1973).
Storage Planning

When planning storage for a costume/textile collection, the first consideration should be the safety of the collection and protection from environmental hazards. In addition, ease of accessibility should also be a major consideration (Glover, 1973). Imagination and resourcefulness is often needed to provide adequate and safe museum storage with limited resources. Along with imagination, careful planning is needed to determine the type and amount of storage needed.

The unique characteristics of each collection will require various and sometimes conflicting methods of storage (Johnson and Horgan, 1979). "Positive and negative factors must be weighed with specific collection and specific storage space needs in mind. The philosophy and use of the collection should help establish storage priorities and goals" (Larsen, 1978, p. 99). Other factors influencing storage planning include the museum collection policy, exhibition practices, educational programs, and research opportunities. The type of storage, accessibility, and retrieval systems must relate to the functions of the museum.

Storage Methods

One of the most important factors influencing safe storage methods would be the type and condition of the costume/textile collection to be stored. Philosophies vary regarding the best method of storage for various textiles. Generally, like items are stored together. A common storage area provides convenient retrieval of desired items,
more efficient design and use of storage facilities, protection of more fragile items, and allows for standard environmental conditions.

**Hanging Storage for costumes.** Costumes that are hung will require less handling and storage space than other forms of storage and will be relatively easy to retrieve. However, hanging storage, a common and practical method, may damage costumes. Undue stress may damage the shoulder area of the garment. Only sturdy garments should be hung, and those hung on padded hangers. Garments should be comfortably spaced to avoid abrasion and creasing. Care should be taken to protect costumes from snagging hazards such as pins, sharp edges, sharp or beaded trims, and unclosed fastenings.

Bare wire hangers should never be used for historic costumes. Wire hangers rust easily and distort the shoulder shape of the garment. Wire hangers also "cause severe creasing, uneven stress, isolated abrasion, and eventual splitting of the fabric" (Mailand, 1978, p. 13).

Several alternative methods exist for hanging garments. White, inert plastic hangers may be wrapped with twill tape to hold garments (Mailand, 1978). Well padded and covered hangers can be easily made to provide good support for hanging garments (Directions for Construction, 1979; Glover, 1973; Mailand, 1978).

When hanging two-piece garments, a special technique must be used for hanging the skirt or trousers. The method selected should provide uniform support to the garment and should not cause pressure or strain directly on the fragile fabric of the garment. One-piece garments in which the bodice and skirt are attached may require a method
of hanging that will relieve excess strain on the bodice and shoulder area of the garment.

For hanging heavier costumes, a wooden hanger may be paddled with polyester fiberfill batting and then covered with washed, sturdy weight unbleached muslin. Custom made adjustable pole hangers can be made from broom handles and wire hangers. This specialized hanger, similar to those used at Colonial Williamsburg, can be hung or placed in a wooden stand for effective support of one-piece garments (Directions for Constructing, 1979; Keck, 1974, pp. 39-40).

**Flat storage for costumes.** Flat storage for costumes relieves the strain placed on the garments. Flat storage is particularly suited for bias-cut garments, fragile garments or those with heavy trim or beading, knit fabrics, strapless garments or garments with no substantial support for hanging. Flat storage requires a large amount of storage space and submits the costume to increased folding, crushing, and handling. Drawers or boxes used for flat storage require acid-free lining as well as dust covers. Boxes or drawers used for flat storage should be large enough to accommodate the entire garment or require a minimum of folding. All folds and fabric layers should be padded and lined with acid-free tissue paper to prevent strain and breakage of fragile fibers.

**Flat storage for textiles.** Textiles should be stored flat, if possible, and subjected to a minimum of abrasion, folding, or pressure (Dirks, 1976). Flat textiles that are actually stored flat will receive adequate structural support and a minimum of strain. Storage space limitations may require folding and/or stacking of textiles. Lack of
accessibility and increased handling may also be hazards of flat storage.

Fold flat textiles as little as possible. First folds would normally be along the seamline or seamlines of the textile. Rolls of acid-free tissue may be used to pad folds and prevent damaging creases. The location of folds should be changed from time to time to alleviate stress on fibers. Never fold coverlets or other large textiles the same way twice (Dirks, 1976).

Rolled storage for textiles. Flat textiles may be rolled onto tubes for effective storage. Rolled storage provides excellent space utilization and good accessibility but may cause undesirable strain or crushing during the rolling process. Rolled storage is particularly suited for single layer textiles and large textiles such as rugs and coverlets.

Never fold textiles before rolling. The textile should be placed on a large, clean, flat surface and carefully vacuumed on both sides. Place the textile face down and carefully and slowly roll the textile onto a prepared cylinder. Avoid slack areas and interleaf the rolled layers with acid-free tissue paper if the textile weave is uneven, or the surface is fragile, brittle or abraded. Special dyes, finishes, or metallic threads may also require a protective lining of acid-free tissue. Cardboard cylinders may be used if properly treated to protect the textile from acid (Dirks, 1976; Fikioris, 1976b; Mailand, 1978).
The rolled textile should be covered with washed muslin, tied in place with string or broad tape. If plastic is used to cover the rolled textile, tie loosely with string, leaving the ends open to prevent moisture condensation. An identification tag may be attached to the end of the tube (Dirks, 1976; Glover, 1973).

Rolled textiles may be stored in a variety of ways. Horizontal shelving may be used to stack rolled textiles but care must be given to reduce weight and pressure on the bottom textiles. Rolled textiles may be placed on wooden dowels, electrical conduit or heavy gauge pipe suspended from the ceiling by a system of chains and "S" hooks, or suspended from a track system. Rolled textiles may also be placed on wooden racks placed in open floor space or built against a wall. Small rolled textiles may be placed on wooden frames in cabinets in a drawer-like suspension system, or on a dowel and brace system built into the cabinet (Harvey, 1963; Johnson & Horgan, 1979; Mailand, 1978; Myers, 1965).

**Hanging storage for textiles.** Some flat textiles with adequate backing or underlining for support, may be hung for storage. Hanging flat textiles reduces handling and folding of the textiles but may place more strain on the fabric and require considerably more space than rolled storage. Hanging storage is often used for textiles that are too large or bulky for flat storage or rolling, such as lined and interlined quilts, curtains, banners, and flags. Textiles may be draped over horizontal bars, placed on hanging frames or directly hung from ceiling tracks (Fikioris, 1973; Glover, 1973; Graham, 1962; Johnson & Horgan, 1979).
Framed and mounted storage for textiles. Framed or mounted storage may be utilized for small flat textiles. Frames textiles are usually bulky, rigid, and require space for adequate storage. Flat storage is recommended to allow the textile to return to its natural tension. Mounted textiles are more lightweight and flexible, and require adequate flat storage.

Framed and mounted storage requires acid-free mat board of 100% rag paper backing. The mat board should first be wrapped with washed, unbleached muslin for framing (Fikioris, 1976a; Giffen, 1970).

Storage Facilities

Storage facilities, that is storage units and space utilization, used for costume/textile collections may vary according to museum function, philosophy, and resources. Other influencing factors include the nature, size, and general condition of the collection articles. The general storage facilities and techniques utilized by large museums for costume/textile collections may be adapted to meet the requirements and resources of small museums.

The costume and textile storage facilities of Colonial Williamsburg, described by Lanier (1967), utilized hanging storage as much as possible to save space, handling and wear on textile items. Wooden contour shoulder hangers, with long pole handles, are used for men's coats and padded, adjustable metal hangers on long pole handles are used to support the shoulders, neckline, and hip areas of long gowns. Large textiles such as quilts and coverlets are suspended from banks of wooden rods that have been covered with several thicknesses of acid-free
paper. Curtains, which have been carefully lined for support, are allowed to hang full length.

The costume storage of The Brooklyn Museum, described by Coleman (1978), also employs hanging storage to reduce handling and to effectively utilize space. For long, heavy gowns or two-piece outfits, a tiered, costume hanger similar to the pole-handled hanger used at Colonial Williamsburg, is used to support the waist, hip, and shoulder areas of the garments. Garments are hung in open areas and covered with sheets of washed muslin. The muslin coverings are laundered every two years on a rotating basis. Particularly fragile garments, bias cut dresses, knitted garments, and beaded dresses are stored flat to eliminate stress. Flat and rolled acid-free tissue paper is used between costume layers and at the fold lines to cushion and protect fibers.

Flat textiles at The Brooklyn Museum are stored flat or in rolled storage. When folding is required, such as for larger household textiles, the textile is folded along new lines with layers and rolls of acid-free tissue paper to reduce stress on fibers. Fresh tissue paper is used each time the textile is returned to storage.

Many educational institutions have acquired costume/textile collections for research, design, and display uses. Often these collections must be stored and maintained with limited space and resources. Storage facilities and techniques utilized by educational institutions may be adapted to meet the space and resource limitations of other small museum collections.

Harvey (1963) described the storage techniques of the Costume and Textile Study Collection of the University of Washington, Seattle.
For costumes, flat storage is provided in metal map cases. The shallow drawers eliminate stacking items on top of each other. Most costume pieces are stored in two-inch drawers while more fragile items are stored in one-inch drawers. Each drawer is equipped with a dust cover. Flat textiles are stored on tubes in two specially designed cabinets. Each cabinet is composed of several units that slide open on a ceiling track for easy access. Flat textiles are rolled, covered, and then placed on a hardwood dowel. The dowel is supported horizontally by wooden pegs at the ends of each cabinet unit. More than one small, rolled textile may be placed on each dowel. Small, fragile textiles are uniformly mounted and stored separately.

Resourceful techniques in utilizing and redesigning university furnishings are described by Littrell (1979). Discarded cabinets and storage units were recycled and adapted to provide storage for the costume and textile collection at North Dakota State University. High ceilings provide space for double hanging storage, one row above the other, for costumes. Flat textiles are stored in cabinets and other storage units with a series of shallow drawers, four to six inches in depth. Large wardrobe units or cabinets were redesigned to accommodate enclosed hanging storage. All cabinets and drawers were vacuumed and lined with acid-free paper and muslin prior to textile storage. Wooden dowels for hanging storage were also covered with acid-free paper and muslin.

Open hanging storage is created on one wall by using a system of wall brackets with standards and hang rods. This system provides flexible storage in which height can be easily changed to accommodate
collection growth; however, open hanging storage requires some method to eliminate light, dust and other environmental hazards (Littrell, 1978).

**Summary**

Care and storage practices are an integral part of the conservation and preservation of costume/textile collections. The value and safety of these perishable articles depends on the type of storage and care provided by the museums responsible for the preservation of costume/textile collections.

"Efficient storage is imperative for the well-being of a collection, however small" (Waddell, 1971, p. 18). A small museum with limited resources may need to apply less sophisticated techniques and less expensive facilities but the type of care and safe practices required by costume/textile collections will never change. Perishable collections such as these require the most care and protection in storage that a small museum can provide.

Many possible methods and solutions exist to provide safe and effective storage for costume/textile collections. Small museum staff will need to select and adapt storage methods and solutions that are consistent with the established museum philosophy and the availability of museum resources. Storage techniques for costume/textile collections employed by large museums and by educational institutions may be adapted to accommodate the storage requirements of small, local museums.
Chapter 3

PROCEDURES FOR THE STUDY

The procedures for the study are divided into two separate phases. The first phase, Preliminary Investigation, involved background research to develop a questionnaire, sample selection, and an interview survey to identify care and storage problems most common to the museums in the sample. The second phase of procedures, Developing and Testing Recommendations, included the selection of one museum for further consultation, the development of recommendations for the costume/textile care and storage in the selected museum, and the implementation and the evaluation of selected portions of the recommendations.

PRELIMINARY INVESTIGATION

Development of Questionnaire

Background information was obtained from the research which was required for the literature review. Based on general problems and concerns identified by the researcher, an interview schedule was developed to obtain information from a sample of small museums. The questionnaire was reviewed by the Curator of Textiles, The Ohio Historical Society, to determine if the questions were relevant and pertinent. The revised questionnaire was field tested by an interview with the co-directors of a selected small museum to determine clarity and to identify further considerations. Suggestions made at the field test interview were incorporated into the final questionnaire (Appendix A).
**Sample Selection**

The revised questionnaire was then used in an interview survey of six small museums in central Ohio. To facilitate museum selection, a list of potential museums was obtained from listings found in The Official Museum Directory (1980), the Historical Societies and Museums of Ohio (1976), and in Hennings (1980). The target population of potential museums was selected according to location, general purpose of the museum, the nature of the museum collections, and the number of paid museum staff. To facilitate the research process, museums were to be located in central Ohio and, according to the research definitions, the museums were to have a general history emphasis with collections that were restricted to a specific and localized area. The museums were also to operate with a paid staff of five or fewer persons.

From the list of seventeen potential museums, a sample of six museums was selected for the interview survey (Appendix A). The sample of museums was selected on the basis of the type of museum (county, town, or suburban), and the availability of museum staff to participate in the interview survey. The test sample included two county museums, two town museums, and two suburban museums.

Initial contact was made with the museum by telephone. The researcher was identified and a brief explanation was given regarding the purpose for the telephone call and the nature of the study being conducted. If response to the telephone inquiry regarding participation in an interview survey was affirmative, an appointment for the interview was established and the name and address of the contact person for the interview was secured. The name and telephone number of the researcher
were also provided as a means of further contact if required. Following the telephone conversation, a follow-up letter (Appendix B) was sent to the contact person stating the date, time, and purpose of the interview. If the response to the initial telephone inquiry was negative, an alternate museum was selected from the list of potential museums.

**Interview Survey**

The interview survey was conducted by the researcher, usually at the museum site. One interview was conducted at a library, and one interview was conducted over the telephone. The interview usually included an informal discussion of the background and development of the museum. A brief description of the type of costume/textile articles in the museum was also given. The researcher conducted the survey by reading the questions as written. A verbal explanation or clarification was given when requested by the museum personnel being interviewed. Responses to the survey questions were written down by the researcher. In some situations two individuals, such as co-directors or co-chairpersons, from the same museum were interviewed together. Responses from both individuals were considered a single survey response for the museum in consideration.

The interview usually included a tour of the museum facilities with special emphasis on the costume/textile articles. A tour of the museum enabled the researcher to observe actual storage and display procedures being followed by museum personnel, and the facility limitations such as amount of space and type of storage. Following the interview, the researcher noted observations as part of the interview survey.
response. Generally, observations made by the researcher were focused on available facilities and conditions, and special concerns or positive attributes not indicated in the interview schedule.

Following each interview, a letter of appreciation was written to the contact person(s) interviewed (Appendix B). Possible sources for information were included with the letter when such sources were requested during the interview.

Following the interview, the survey questionnaires from the museums were randomly shuffled and coded by letter to facilitate tabulation of results and to retain confidentiality of survey responses. Due to the nature and purpose of the survey, that is, to provide an overview of care and storage concerns and practices in small Ohio museums, the field test survey responses were included in the tabulation of results. Revisions made in the survey questionnaire following the field test were minimal and did not significantly alter or affect subsequent survey responses.

DEVELOPING AND TESTING RECOMMENDATIONS

Following tabulation of the survey responses, primary focus areas of concern were identified. The identified focus areas included museum philosophy and management practices, collection care and maintenance practices, storage methods, and display conditions. To develop and test written recommendations for the identified focus areas, a single test museum was selected on the basis of identified need in the identified focus areas, variety and extent of the collection, location of the museum facilities, and interest and support of the museum personnel. The directors of the selected museum were notified by telephone of
the test museum selection. At this time, an appointment was made for
the researcher to meet with the museum board of trustees to explain the
research study and the intentions of the researcher.

Prior to the meeting with museum trustees, written recommendations
(Appendix C) were developed for the costume/textile collection at
the selected museum. The recommendations were based on responses to the
interview survey from the personnel of the selected museum, results of
the survey of the other small museums in the sample, and observations
made by the researcher at the selected museum. The primary focus areas
identified in the interview survey were management, care and mainte-
nance, storage, and display. These areas were specifically addressed in
the written recommendations. Each of the four focus areas was addressed
separately. At the beginning of the recommendations for each focus area,
basic principles related specifically to that focus area were listed.
Following the list of the basic principles, the written recommendations
for the selected museum were outlined and detailed explanations and
examples of suggested methods for implementing the recommendations were
given. In addition, a brief list of sources for further information was
included.

Following the development of the written recommendations, the
researcher met with the museum trustees as appointed earlier. The
meeting allowed the researcher to briefly explain the nature and status
of the research. A general indication of the primary focus area for the
recommendations was given but the content of the recommendations was not indicated at this time. The trustees were then requested to respond with respect to comments, concerns, or suggestions they might have before the recommendations were finalized. The museum trustees expressed an overwhelming interest and support for the research project and expressed interest in further improving the conditions of the museum. The trustees expressed concern for low cost alternatives for climate control for valuable articles in the museum in addition to the costume/textile articles. Although taken into consideration by the researcher, this concern was primarily indicated for articles other than the costume/textile focus of the study. No concerns requiring a revision of the recommendations was indicated.

The researcher then met with the Curator of Textiles of the Ohio Historical Society to review the written recommendations. The Curator of Textiles made several suggestions regarding specific details in content and format of the recommendations. Minor revisions were made for the final written recommendations. The final written recommendations (Appendix C) were presented to the directors of the selected museum by the researcher. At this presentation the researcher explained each recommendation as listed. The written recommendations were discussed with the museum directors to clarify the recommendations and to answer any questions. The researcher also presented a list of suppliers for various types of supplies and equipment and an annotated bibliography of informational sources (Appendix C). Following the presentation of the recommendations, the museum directors selected portions of the recommendations for actual implementation at the museum.
Implementation

Implementation of the selected portions of the written recommendations was done at the museum by the museum directors, assisted by the researcher. Those portions of the recommendations which were implemented included various cleaning techniques, inspection and mending of articles, and various storage procedures. Approximately fifteen selected articles, predominately costume articles, were inspected and vacuumed at the museum. Methods suggested in the written recommendations were followed for both procedures. Some wet cleaning, mending, and limited storage procedures were also implemented.

Inspection of the articles was conducted by the museum directors. All pins and paper labels were removed and needed repairs and missing trims were noted for each article. Following inspection, each article was vacuumed using a hand-held attachment on an upright vacuum cleaner. Articles were placed on a large table which had been covered with a clean sheet and were vacuumed on both sides. The covered table surface was vacuumed between articles as needed. The museum directors selected a single layer of nylon net to cover and protect the surface of the article during vacuuming.

Following vacuuming, articles were placed on hangers on a storage rack and covered, or placed flat on a bed in the museum and covered with clean sheets. Procedures for padding hangers were demonstrated by the researcher. At the time of implementation, an insufficient number of padded hangers were available for the storage of all costumes inspected and cleaned. Some articles were later wet cleaned and mended at home by the museum directors. In most cases, wet cleaning
was done by hand with mild dishwashing liquid. Although not recommended by the researcher, several sturdy, nonpriority articles were machine washed (gentle cycle) and ironed with successful results.

Due to limited time and available space, only minimal storage procedures could actually be implemented at this time. Alternative storage solutions and museum space utilization were discussed and future plans for storage procedures were identified by the museum directors. Other future plans indicated but not implemented at this time were the development of a simple three-digit registration system for costume/textile articles, reorganization of museum records and updating of files as well as the selection of a curator for the costume/textile articles. Also discussed were the use of effective and safe display techniques, and the utilization of other interest groups and resources outside the museum (such as youth groups and interest organizations in the community) for future care and conservation of costume/textile articles. A future workday was also scheduled for further cleaning and reorganization of the museum layout to facilitate adequate storage of museum articles.

Following implementation procedures at the museum, an evaluation of the recommendations and implementations was submitted to the museum directors (Appendix D). The evaluation was designed to indicate the clarity, practicality, and the effectiveness of the written recommendations as well as the appropriateness of the recommendations for implementation. Responses from the evaluation were used to evaluate the effectiveness of the written recommendations and to provide suggestions
for the revisions of the recommendations. The evaluation also served as a consideration for suggestions for further study.
Chapter 4

RESULTS OF THE STUDY

The results of the study are divided into two separate categories. The first category, Survey to Identify Problems, relates the results of the interview survey as conducted by the researcher. The survey results include a description of the museums as well as the survey responses regarding the management, care and maintenance, storage, and display of the museum costume/textile collections. Problems and future plans identified by the survey respondents are also included. Problems identified by the researcher, based on observations, are included as part of the results of the survey.

The second category of results, Development of Recommendations for One Museum, includes the identification of focus areas for the development of recommendations and the selection of a test museum for the development and implementation of the recommendations. The implementation of portions of the recommendations and the results of the evaluation of the recommendations are also discussed.

SURVEY TO IDENTIFY PROBLEMS

An interview survey was conducted to identify the primary problem areas current to small Ohio museums. The survey was field tested at a small museum and then conducted at six other small museums in central Ohio. The primary focus of the survey was to obtain an overview of the practices and problems most common to small Ohio museums. Since
minimal changes were made in the interview survey questionnaire following the field test, the responses for the field test interview have been included in the results which are presented in the following section.

**Description of Museums**

The interview schedule included several questions designed to identify pertinent background information about the museum, such as the title of the museum, the type of museum being surveyed, and whether a county, suburban or town museum. The type of museum was important to ensure an overview of a variety of small museums. In addition, the type of museum would influence the scope and content of the museum collections as well as indicate the relative size and use of collections. Of the seven museums surveyed, three museums were county museum, two were suburban museums and two were town museums (Table 1).

The title or position of the person responding to the survey was noted. Survey respondents included two co-chairmen of the acquisition committee, two co-directors, one executive director, one costume mistress, one secretary, and one society member that had been a past-president of the society sponsoring the museum.

The number of persons working at the museum was an important background factor since the number of museum personnel, paid and volunteer, would indicate staff resources available to the museum to potentially develop procedures and actually care for the museum collections. Although three museums had no paid employees, the other four museums had from one to four paid museum staff. The paid staff usually provided caretaking, housekeeping, and secretarial services for the museum.
Table 1

Background Information for the Seven Small Museums

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<tr>
<td><strong>Affiliation with Museum Organizations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ohio Historical Society</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>Ohio Assn. of Historical Societies &amp; Museums</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>American Assn. for State &amp; Local History</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>National Trust for Historic Preservation</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>American Assn. of Museums</td>
<td>1</td>
<td>14</td>
</tr>
</tbody>
</table>

*aMore than one response given by museum respondent; total number exceeds 7.*
and were usually employed on a part-time basis. The number of volunteers ranged from five to sixty at the museums surveyed. The larger numbers usually included tour guides and individuals providing only occasional volunteer time at the museum (Table 1).

Three of the seven museums interviewed offered or participated in workshops for museum personnel and only one museum provided literature for museum personnel. Two of the workshops were described as a chautauqua/cultural workshop and as a general conservation workshop. The third museum participated in workshops offered by a larger museum. Information sources used for the various workshops were the American Association of State and Local History, government bulletins, the Ohio Association of Historical Societies and Museums, and the Ohio Historical Society.

Of the seven museums surveyed, five or 71% did not receive museum related publications. Of the two museums that did subscribe to publications, one museum received one publication and the other museum received five publications (Table 1, part E). With respect to membership in museum related organizations, five (71%) of the museums surveyed belonged to the Ohio Historical Society and three (43%) belonged to the Ohio Association of Historical Societies and Museums. Three other organizations were also noted, as indicated in Table 1.

Management of Collection

The interview survey questions regarding the management of costume/textile articles dealt with the priority and use of costume/textile articles, the guidelines for acquisition of those articles, and
some general management procedures followed by the museum. The use of a registration system was included as a general management procedure. The procedures for care, maintenance, storage, and display were examined separately.

Museum personnel who were interviewed were asked to identify the priority given to costume/textile articles when compared to the other museum holdings. Of the seven museums surveyed, two respondents (29%) indicated that costume/textile articles were very important, two indicated these articles were important, and two respondents indicated that these articles were somewhat important. One museum respondent indicated that the costume/textile articles were unimportant when compared to other museum holdings (Table 2).

Museum respondents were also asked to indicate the purpose or use of the costume/textile articles. Responses from the survey were grouped under headings of display, wearing, teaching/study, and other. Of the seven museums surveyed, six (86%) used costume/textile articles for display, five museums (71%) used the articles for wearing, and two museums (29%) used the articles for teaching and study. One museum respondent indicated the use of articles for promotional programs and interpretation; since these uses required the articles to be worn, the response was included under the heading of wearing.

Respondents were asked to indicate the guidelines, if any, used for acquisition of costume/textile articles. The five museum respondents (71%) who indicated guidelines for acquisition were used also indicated that the guidelines were not in a written form (Table 2). The type of acquisition guidelines indicated by the museum respondents were varied.
Table 2
Management Information Regarding the Seven Small Museums

<table>
<thead>
<tr>
<th>Item</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority of costume/textile holdings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very important</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Important</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Somewhat important</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Not important</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Use of costume/textile holdings&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For display purposes</td>
<td>6</td>
<td>86</td>
</tr>
<tr>
<td>To wear for promotional or interpretation purposes</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>For teaching/study purposes</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Guidelines or policies for acquisition of costume/textile articles&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some guidelines</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>Assumed guidelines</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>No guidelines</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Written guidelines</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Type of acquisition guidelines&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restrictions on geographic origin</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Restrictions on time period</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Restrictions on condition of article</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>No restrictions, nothing refused</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Management procedures used&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Registration</td>
<td>6</td>
<td>86</td>
</tr>
<tr>
<td>Identification number assigned</td>
<td>6</td>
<td>86</td>
</tr>
<tr>
<td>Identification number labeled</td>
<td>5</td>
<td>71</td>
</tr>
</tbody>
</table>

<sup>a</sup>More than one response given by museum respondent; total number exceeds 7.
Two museum respondents indicated that no articles were refused. The other five museum respondents indicated that acquisition guidelines were based on the geographic origin of the articles, time period of the articles, and/or the condition of the articles (Table 2). In addition to the guidelines previously indicated, museum respondents also referred to the use of "good judgment," lack of space, and avoidance of duplicate articles as considerations for articles that were not accepted by the museums.

Regarding the management procedures used for a registration system, six (86%) of the seven museum respondents indicated the use of some type of registration system for costume/textile articles. Six of the survey respondents also indicated the use of an assigned identification number for individual articles. Labeling of articles with the identification (or registration) number was indicated by five, or 71%, of the museum respondents.

Care and Maintenance of Collection

Survey respondents were asked to indicate the guidelines and procedures implemented by museum personnel regarding the care and maintenance of costume/textile articles. Three (43%) of the museum respondents indicated that no guidelines existed at the museums being surveyed. Two respondents (29%) indicated the existence of guidelines for cleaning articles. One respondent indicated there were guidelines for climate control and one respondent indicated guidelines were available for preparing articles for storage (Table 3).
Table 3
Care and Maintenance Information from the Seven Small Museums

<table>
<thead>
<tr>
<th>Item</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guidelines for care of costume/textile articles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Cleaning</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Climate control</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Preparation for storage</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Care procedures used&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hand washing</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>Bleaching</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Brushing</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Drycleaning</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Wet-cleaning</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Other (starch, shaking, other cleaning solutions)</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Fumigation</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Machine washing</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Vacuuming</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>None</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Stain or spot removal</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Maintenance procedures used&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protection from dust</td>
<td>6</td>
<td>86</td>
</tr>
<tr>
<td>Protection from light</td>
<td>6</td>
<td>86</td>
</tr>
<tr>
<td>Periodic inspection</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>Refolding articles</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Rotation of objects on display</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Protection from sources of acid, fumes, and rust</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Fumigation</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Periodic cleaning</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Other (shaking)</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Control of humidity</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Control of temperature</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Periodic vacuuming</td>
<td>1</td>
<td>14</td>
</tr>
</tbody>
</table>

<sup>a</sup>More than one response given by museum respondent; total number exceeds 7.
Care procedures followed at the museums surveyed are listed in descending frequency of use as indicated by the survey respondents (Table 3). Five (71%) of the seven survey respondents indicated the use of hand washing as a care procedure utilized for costume/textile articles. Five different types of procedures, each indicated by four (57%) of the survey respondents, included bleaching, brushing, dry cleaning, wet-cleaning of articles, and other procedures. Several procedures, each indicated by one of the respondents, included fumigation, machine washing, and vacuuming. One respondent indicated no care procedures were followed. None of the respondents indicated the use of stain or spot removal techniques on articles.

The two maintenance procedures indicated by most of the respondents (6 or 86%) were protection from exposure to light and protection from exposure to dust. Periodic inspection was identified by five (71%) of the respondents and the refolding of flat textiles and the rotation of objects on display were both indicated by four (57%) of the respondents. Protection of the articles from sources of acid, fumes, and rust was indicated by three (43%) of the respondents. Two (29%) respondents identified periodic cleaning, fumigation, and the use of shaking as maintenance procedures utilized for costume/textile articles. The use of periodic vacuuming, control of temperature, and control of humidity were each indicated by one respondent as maintenance procedures for costume/textile articles.

Storage of Collection

The survey indicated various aspects of storage utilized by each museum such as the storage area, type of storage, and the storage
procedures. Of the seven respondents, two or 29% indicated that a specific storage area had been set aside for costume/textile articles. The type of storage used for costume/textile articles is indicated in Table 4. The most common types of storage indicated were the use of cardboard boxes and the use of museum furnishings. Glass cases, identified as an option for other types of storage, were indicated by three (43%) of the respondents, as were the use of cabinets, closets, clothing racks, trunks, and wooden drawers.

Various storage procedures were indicated in the interview survey (Table 4). Six respondents, or 86% of the museums surveyed, indicated the use of plastic to cover costume/textile articles. The folding of articles for storage was used by five (71%) of the respondents. Four respondents (57%) indicated the use of muslin (or other fabric) to cover articles, the use of framing, and the use of wire hangers to store articles. Flat storage, the use of wooden hangers, and other means of storage (such as display, and the use of racks and furniture) were indicated by three (43%) of the respondents. The use of rolled storage and the use of shelves for costume/textile storage were indicated by two (29%) of the respondents. Mounted storage, the use of padded hangers, and the use of plastic hangers were each reported by one (14%) respondent as a storage method used at the museum. None of the respondents indicated the use of sealed plastic to store articles.

Display of Collection

Regarding the display of costume/textile articles in the museums surveyed, a variety of display methods were indicated (Table 5). Of the
Table 4
Storage Methods Used by the Seven Small Museums

<table>
<thead>
<tr>
<th>Item</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific storage area for costume/textile articles</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td><strong>Type of storage used</strong>³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardboard boxes</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Other: on other furnishings</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>in glass cases</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Cabinets</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Closets</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Clothing racks</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Trunks</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Wooden drawers</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Metal drawers</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Storage procedures</strong>³</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Covered with plastic</td>
<td>6</td>
<td>86</td>
</tr>
<tr>
<td>Folded</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>Covered with muslin</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Framed</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>On wire hangers</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Flat</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>On wooden hangers</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Other: display, on furniture; textile rack</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Rolled on tubes</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>On shelves</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Mounted</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>On padded hangers</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>On plastic hangers</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Sealed in plastic</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

³More than one response given by my museum respondent; total number exceeds 7.
Table 5
Display Methods Used by the Seven Small Museums

<table>
<thead>
<tr>
<th>Item</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methods of display (^a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Draped over props</td>
<td>6</td>
<td>86</td>
</tr>
<tr>
<td>Flat</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>On body forms</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>In cases</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Framed</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>On hangers</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Other: racks</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>style shows</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Mounted</td>
<td>1</td>
<td>14</td>
</tr>
</tbody>
</table>

Rotation of objects on display

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three months or less</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Three to six months</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Six to nine months</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Nine to twelve months</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Less often than twelve months</td>
<td>1</td>
<td>14</td>
</tr>
</tbody>
</table>

Display precautions \(^a\)

<table>
<thead>
<tr>
<th>Item</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection from handling</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Protection from light</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Protection from dust</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Temperature control</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Humidity control</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Other: display area locked</td>
<td>1</td>
<td>14</td>
</tr>
</tbody>
</table>

\(^a\) More than one response given by museum respondent; total number exceeds 7.

seven respondents, six (86%) indicated that articles were displayed by being draped over props such as furniture. Five respondents (71%) indicated the use of flat display and the use of body forms to display costume/textile articles. Four respondents (57%) indicated the use of display cases and three (43%) indicated framed display and the use of hangers to display articles. Other display methods, such as the use of
racks and style shows were indicated by two respondents. One respondent indicated the use of mounted display for textile articles.

The frequency of rotation of articles on display was also indicated by respondents (Table 5). Three respondents, or 43%, indicated that display articles were rotated every three to six months and two respondents (29%) indicated the rotation of articles every nine to twelve months. One museum respondent indicated that display articles were rotated every three months or less and one respondent indicated that the rotation of display articles occurred less often than every twelve months.

The display precautions followed by the museums surveyed are identified in Table 5. Four of the respondents, or 57%, indicated that articles on display were protected from handling and from exposure to light. Three respondents (43%) indicated that display articles were protected from exposure to dust. Temperature control was indicated by two respondents (29%) as a display precaution. Humidity control (one respondent) and the use of a locked room (one respondent) were also identified as display precautions.

Problems Identified by Museum Respondents

Respondents were asked to identify current problems encountered at the museum regarding costume/textile articles (Table 6). The problem identified most frequently (by six or 86% of the respondents) was the storage of costume/textile articles. The care and maintenance of these articles was indicated as a problem by five, or 71%,
Table 6
Problems Identified by the Seven Small Museums

<table>
<thead>
<tr>
<th>Item</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identified problems(^a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage</td>
<td>6</td>
<td>86</td>
</tr>
<tr>
<td>Care and maintenance</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>Preservation procedures</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Collection of articles</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Display methods</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Other: space</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>funding</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Storage problems(^a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of adequate storage methods</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>Lack of space</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>Lack of information regarding storage</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Collection too large for museum purposes</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Collection too large for museum facilities</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Inadequate use of space</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Other: inadequate acquisition policy</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>inadequate facilities for storage and display</td>
<td>1</td>
<td>14</td>
</tr>
</tbody>
</table>

\(^a\)More than one response given by museum respondent; total number exceeds 7.

of the respondents. Four respondents indicated preservation procedures as a current problem. Both display methods and the collection of articles were indicated as current problems by three respondents. Other problems, such as space and funding, were identified by two respondents.

Respondents were also asked to indicate what type of storage problems existed for costume/textile articles at their respective museums (Table 6). Of the seven respondents surveyed, five or 71%, indicated the lack of adequate storage methods and the lack of space as two
problems experienced with museum costume/textile articles. Three respondents, or 43%, indicated each of several storage problems including lack of information regarding storage, the size of the collection as too large for museum purposes, and too large for museum facilities. Other storage problems, also identified by a total of three respondents, included the acquisition policy of articles, facilities for storage and display and, in one case, the need for more selected articles. The acquisition of more articles or policies restricting the acquisition of articles were considered to be storage-related problems by two (29%) of the survey respondents. Inadequate use of space was identified by two (29%) of the respondents as a storage problem.

Future Plans for Costume/Textile Articles

Somewhat related to the current problems experienced at the museums surveyed are the future plans for the costume/textile articles. Future plans, as identified by the respondents, would indicate goals and concerns of the museum for costume/textile holdings. An open-ended question regarding such future plans allowed survey respondents to identify desired changes for the costume/textile articles. Survey responses for future plans are listed in Table 7.

The most common response of future plans was the improvement of storage for costume/textile articles, indicated by three or 43% of the respondents. Two respondents (29%) each identified plans to improve displays, plans to increase the collection, and plans to decrease the costume/textile collection. Climate control, historic research, and reorganization were each identified by one (14%) respondent as future
plans. One respondent indicated that no future plans existed for the museum costume/textile collection.

Table 7

<table>
<thead>
<tr>
<th>Item</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identified Plans(^a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve storage</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Improve displays</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Increase collection</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Decrease collection</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Climate control</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Historic research</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Reorganization</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>None</td>
<td>1</td>
<td>14</td>
</tr>
</tbody>
</table>

\(^a\)More than one response given by museum respondent; total number exceeds 7.

At the end of the survey, respondents were asked to indicate the type of assistance needed and the form of assistance desired to deal with problems encountered with the museum costume/textile articles (Table 8). Information on care and maintenance and information on display were indicated by six or 86% of the respondents as types of assistance needed. Information on storage was indicated by five, 71%, of the respondents. Other types of assistance needed, which were identified by four (57%) of the respondents, included consultation, sources of information, sources of supplies and equipment, and other types of assistance suggested by respondents such as funding, organization and acquiring articles. Information on cataloging was indicated by three (43%) of the survey respondents. None of the respondents indicated a need for information on personnel.
Table 8

Assistance Desired by Seven Small Museums

<table>
<thead>
<tr>
<th>Item</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information on care/maintenance</td>
<td>6</td>
<td>86</td>
</tr>
<tr>
<td>Information on display</td>
<td>6</td>
<td>86</td>
</tr>
<tr>
<td>Information on storage</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>Consultation</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Sources of information</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Sources of supplies/equipment</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Information on cataloging</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Other: funding</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>more articles</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>organization</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>preservation</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Information on personnel</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Form of assistance desired

<table>
<thead>
<tr>
<th>Item</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manuals</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>Pamphlets</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>Reference lists for information</td>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>List of supplies/suppliers</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Direct consultation</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Information books</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Training sessions</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>None</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Other</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

*More than one response given by museum respondent; total number exceeds 7.*

Survey responses regarding the form of assistance desired are listed in Table 8. Three different forms of assistance were each identified by five (71%) of the survey respondents: manuals, pamphlets, and reference lists for further information. Four respondents (57%) identified a desire for a list of suppliers and direct consultation. Information books and training sessions were each identified by three
(43%) of the respondents. One respondent indicated that no assistance was desired.

Problems Identified by Researcher Based on Observations

At the time of the interview survey, the researcher was able to visit five of the museums and actually observe various procedures regarding the management, care and maintenance, storage, and display of costume/textile articles. Generally, the type of museum (county, suburban, or town) appeared to affect the size of the costume/textile collection in the museums surveyed. Based on researcher observation, the larger the geographic area incorporated into the scope of the museum, the larger the collection of costume/textile articles. The collections at the county museums surveyed were observed to be considerably larger than the collections at the suburban and town museums surveyed.

Observations were also made regarding the management of costume/textile articles. Although 86% of the museums surveyed indicated the use of a registration system for articles, not all of the museums had a consistent system which was being followed. Registration systems generally appeared to be used for some articles only or not kept up to date for the entire collection. Six of the seven museum respondents indicated the use of an identification numbering system, and five museum respondents indicated that some articles were labeled. Based on observation, some labeling of articles was done but was generally limited to only a few articles in each collection. According to accepted techniques, labeling methods used were often inadequate or unsafe for the costume/textile articles, such as the use of pins, acid paper tags and gummed labels adhered to the article by glue or tape.
Regarding the care and maintenance of costume/textile articles, several observations were made. Although 86% of the respondents indicated protection from light was a maintenance procedure used at the museum, this procedure was not consistently observed at the museum sites. In all of the museums visited, articles were placed on display in front of windows with no window shades or other means of eliminating sunlight when the museum was not open for viewing. Many articles were observed to be displayed in direct sunlight. Protection from dust was yet another maintenance procedure that did not appear to be consistently followed at the museums.

Of the five museums directly visited by the researcher, only one article, not enclosed in a glass case, was observed to be protected from dust while on display. This article was a quilt that was displayed on a bed and then covered with plastic when the museum was not open for viewing. Protection from dust was also limited for articles in storage. Some garments placed in hanging storage were protected from dust, usually by plastic garment bags. No dust barriers were observed in use for boxes, drawers, or cabinets used to store articles.

Cleaning and maintenance procedures indicated by the survey responses were practiced at the museums but were used on a limited number of articles. Only a small proportion of articles had been actually cleaned.

Storage for costume/textile articles appeared to be acquired whenever possible. Old trunks, small closets, and cardboard boxes stored under beds were all used for article storage. Generally, adequate storage space and storage conditions appeared to be a problem for all five
museums visited. Overcrowding and unsafe storage procedures were often observed.

Regarding articles on display, unsafe exposure to light and dust were problems most often observed by the researcher. Inadequate methods for display included the use of pins and inadequate support for articles on display. Some articles were exposed to unsafe levels of moisture due to a leak in the roof of one museum visited.

DEVELOPMENT OF RECOMMENDATIONS FOR ONE MUSEUM

The interview survey provided specific information about the needs of the museums as well as insight into the problems encountered by the personnel of small museums. An underlying premise of the study was that recommendations could be developed based on the identified focus areas and could give consideration to the concerns of the museum personnel. The development of general recommendations encompassing a variety of alternative solutions would provide an opportunity for museum personnel to select those solutions best suited to current museum needs and resources.

Identification of Focus Areas

Four focus areas or problems for further study were identified from the results of the interviews and the observations made by the researcher: 1) the focus area identified as management of the collection included the need to establish written museum policies, the acquisition of articles and the development of consistent records for the registration of articles; 2) the focus area of care and maintenance included the need for safe procedural guidelines for care and periodic
inspection and maintenance of articles; 3) focus areas for storage included the need for an overview of possible storage methods and the application of possible storage solutions; 4) the focus area of display included the need for safe display guidelines and techniques, the need for safe environmental conditions, and the protection of articles on display.

Selection of the Test Museum

Following the identification of the focus areas, a test museum was selected to develop and implement possible recommendations. Museum G was selected by the researcher for this aspect of the study. Museum G provided an excellent overview of a variety of problems and concerns identified in the survey results. As a county museum, Museum G contained a large and varied costume/textile collection. The size and variety of content of the museum collection required the use of several care and storage techniques. The space and resource limitations at Museum G required innovative and flexible procedures for the care and storage of costume/textile articles. Such techniques would be readily applicable and adapted for other small museums with similar limitations. The location of Museum G, an important selection factor, facilitated the eventual implementation of selected portions of the written recommendations. The development and implementation of the recommendations required the researcher to work closely with museum personnel. The personnel's interest and willingness to work with the researcher was also an important consideration for the selection of Museum G. Museum G will henceforth be referred to as the selected museum.
Development of the Recommendations

Based on identified focus areas, a variety of informational sources were used to identify possible methods and solutions for small museums with limited resources. Possible solutions were outlined and condensed for development of written recommendations for the selected museum (Appendix C). The general focus areas identified from the survey were used but consideration was given to the specific requirements of the selected museum. The final recommendations (Table 9) were developed as a general overview of possible solutions for the selected museum. Museum personnel would make final decisions regarding those solutions best suited to museum needs and resources.

For the focus area of management, four recommendations were identified. These recommendations included establishment of museum policies regarding acquisition, documentation, care and maintenance, and the purpose and use of the costume/textile articles. The researcher also recommended that identified policies be placed in a written form for accountability and consistency in museum procedures. The recommendations for management also included selection of a curator to serve as a resource person for the care of costume/textile articles and to make final decisions regarding care and maintenance of these articles. The development of an informational file regarding care and maintenance of the articles was also recommended. Such a file would provide a ready informational source for museum personnel and volunteers caring for the costume/textile articles. It should be noted that the management recommendations would be applicable to all museum objects in any museum, not just for costume/textile articles.
Table 9
Recommendations Developed by the Researcher for the Selected Museum

<table>
<thead>
<tr>
<th>Focus Area</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>1. Establish museum policies for acquisition, documentation, care and maintenance, and use of articles.</td>
</tr>
<tr>
<td></td>
<td>2. Place established policies in written form.</td>
</tr>
<tr>
<td></td>
<td>3. Designate one person as curator of costume/textile holdings.</td>
</tr>
<tr>
<td></td>
<td>4. Develop a care information file of information and references.</td>
</tr>
<tr>
<td>Care and Maintenance</td>
<td>1. Identify priority and nonpriority articles in the collection.</td>
</tr>
<tr>
<td></td>
<td>2. Develop care procedures for articles.</td>
</tr>
<tr>
<td></td>
<td>3. Develop maintenance procedures for articles.</td>
</tr>
<tr>
<td>Storage</td>
<td>1. Develop a safe storage environment and location for costume/textile articles.</td>
</tr>
<tr>
<td></td>
<td>2. Protect articles from environmental hazards.</td>
</tr>
<tr>
<td></td>
<td>3. Develop safe and effective storage methods.</td>
</tr>
<tr>
<td>Display</td>
<td>1. Display only those articles which can safely withstand the stress and hazards created by display.</td>
</tr>
<tr>
<td></td>
<td>2. Limit the time period of display of an article to 3-4 months at a time to minimize exposure to hazards and strain</td>
</tr>
<tr>
<td></td>
<td>3. Minimize environmental hazards as much as possible.</td>
</tr>
</tbody>
</table>
For the focus area of care and maintenance of costume/textile articles, the researcher recommended that priority and nonpriority articles be identified in the museum collection. This division of the collection would allow personnel to concentrate efforts and resources on the most valuable or high priority articles and utilize nonpriority articles for experimentation, high risk uses (such as wearing) and for disposal or gifts to other museums. The development of both care procedures and maintenance procedures was recommended. Such procedures would be implemented by museum personnel.

Recommendations for the storage of costume/textile articles included that a safe storage environment and location be designated for the articles. It was also suggested that these articles be protected from as many environmental hazards as possible. Recommendations were also made regarding safe and effective storage methods for costume/textile articles.

Recommendations for the display of costume/textile articles dealt primarily with display policies, display conditions, and treatment of the article following display. The recommendations for display suggested that only articles that could withstand the necessary stress and hazards be displayed, that the duration of the display of costume/textile articles be limited, and that environmental hazards be minimized. Other recommendations emphasized safe display techniques and adequate preparation for storage following the display of a costume/textile article.

The museum directors selected portions of the recommendations to be implemented by museum personnel with the assistance of the researcher.
Following the implementation of the selected portions of the recommendations, the museum directors were asked to complete an evaluation for the recommendations.

**Evaluation of the Recommendations**

Following the implementation of the recommendations, the museum directors were asked to evaluate the written recommendations for content, format and degree of helpfulness (Appendix D). The museum directors considered the amount of written information provided to be very sufficient for current museum needs. The information was considered to be very clear and understandable and the format of the written information was considered to be very useful and practical for museum personnel. The information or content was considered to be very practical and suitable for the museum resources and personnel.

At the presentation of the written recommendations, a verbal explanation of the recommendations was given by the researcher. The directors considered this explanation to be very sufficient prior to implementation of the recommendations. The assistance provided by the researcher for implementation of portions of the recommendations was also considered to be very sufficient by the museum directors.

The museum directors considered the recommendations for care and maintenance of articles to be the most helpful aspect of the recommendations. The directors indicated that very little had been done with the care and maintenance of the museum costume/textile collection prior to this study. The recommendations for the maintenance of articles was considered to be within the capabilities of museum personnel.
The recommendations for storage were considered to be the least helpful aspect of the recommendations. The museum directors specifically indicated that space limitations did not accommodate hanging storage for articles and that limited museum resources prevented adequate climate control for maintaining articles.

Additional comments made by the directors indicated that the additional sections on suggested methods were helpful. The written recommendations were considered to be well organized and extremely helpful to inexperienced museum personnel. A desire for hands on experience regarding the displaying of articles was also indicated by the directors.
Chapter 5

SUMMARY

Historic costumes and textiles are valuable primary sources of information about our past. They provide a unique statement of the society of past generations. It is important that these fragile artifacts from the past be maintained and preserved for present and future generations to study, analyze, and enjoy. As valuable documents of the past, historic costume/textile articles are often included in museum collections. As museums attempt to preserve and interpret artifacts of the past, it is essential that costume/textile articles be given special attention and care. These particularly vulnerable articles must be given proper care if they are to be preserved for the future.

The purpose of the study was to determine specific problems encountered by small museums in the areas of management, care, and storage of costume/textile articles and to identify possible solutions for these problems. The study was also intended to develop written recommendations for dealing with the problems and then implement and assess portions of these recommendations at a selected museum.

Costume/textile articles are an important part of the local history preserved in small museums. The personnel of a small museum must provide careful management and maintenance to effectively preserve these vulnerable articles. Museum personnel are often unaware of the high vulnerability of these articles or lack access to information regarding
their care and preservation. Museum personnel must operate with limited resources such as time, knowledge, skill, facilities, and funding. In spite of these limitations, museum personnel must be aware of the concerns and precautions that exist for the effective preservation of costume/textile articles. Exposure to a variety of environmental hazards, improper use, lack of care, and unsafe storage cause these articles to deteriorate more rapidly than necessary. The personnel of small museums must develop an awareness of such problems and must be able to implement possible solutions to these problems that are within the limited resources of a small museum.

To determine specific problems encountered in small museums regarding the management, care, and storage of costume/textile articles, an interview survey was conducted by the researcher. The survey was reviewed by a curator in a large museum, was field tested at a selected museum, and then conducted at six other central Ohio museums. Several types of museums were selected for the survey to provide an overview of small museums. Museums surveyed were identified as county, suburban and town museums. All the museums included in the survey had a general history focus for a particular geographic area, contained costume/textile articles, and employed fewer than five persons. The responses to the interview and the field test responses were tabulated to determine the most common problems identified by the respondents. At the time of the interview, the researcher was also able to make observations regarding the management, care, storage and display of costume/textile articles. From the survey results of the seven museums and the researcher's observations, primary focus areas were identified. These focus areas were
various aspects of the care and preservation of costume/textile arti-
cles in which the small museums surveyed were having problems. The
identified problem or focus areas became the basis for the development
of written recommendations for a selected museum. These focus areas
included museum philosophy and management practices, collection care
and maintenance practices, storage methods, and display conditions.

One of the museums surveyed was selected as a test museum for
the development of written recommendations to present to the museum
administrators; based on their acceptance, selected portions of the
recommendations were to be implemented. The test museum was selected on
the basis of the need for assistance in the identified focus areas, the
variety of costume/textile articles, extent of the costume/textile col-
lection, location of the museum facilities, and the interest and support
of the museum personnel. Written recommendations were developed for the
test museum and reviewed by the Curator of Textiles at the Ohio Histor-
ical Society. The researcher also met with the museum board of trustees
to acquaint them with the study and to consider their suggestions for
the written recommendations. The written recommendations were then pre-
presented to the museum directors along with an annotated bibliography and
a list of supplies and suppliers.

Portions of the recommendations were selected by the museum
directors for implementation. The selected recommendations were then
implemented by the museum directors with the assistance of the researcher.
Following implementation, the recommendations were evaluated by the
museum directors to determine effectiveness and practicality for use in
a small museum. The recommendations were found to be very helpful and
suitable for the selected test museum. Recommendations for the care and
maintenance of costume/textile articles were found to be most helpful
while the recommendations for storage were considered to be the least
helpful by the museum directors. The museum directors indicated an
interest in more information and/or assistance regarding the display
of costume/textile articles.

SUMMARY OF FINDINGS

Objective #1: To determine specific problems identified by
small Ohio museums regarding philosophy, man-
age, care/maintenance and storage of
 costume/textile collections.

An interview survey was conducted to determine the problems
identified by seven small museums in central Ohio. The survey dealt with
the museum philosophy and management procedures for costume/textile
articles. The survey also included questions regarding the care, mainte-
nance and storage of articles, and display conditions. Observations
made at the time of the interview were also noted by the researcher.

For the seven museums, some policies existed for the collection,
use and care of costume/textile articles; however, such policies were
only assumed and were not documented in written form at any of the
museums surveyed. It was also found that care and maintenance procedures
were used on some articles in each of the museums surveyed. The use of
such procedures was limited to very few articles in each collection, and
not consistently used for the entire collection. Storage methods were
found to be inadequate and inconsistently followed for the costume/
textile articles in the museums surveyed. Since display is often a means
storage in small museums, display methods were also surveyed. Costume/textile articles were found to be exposed to various environmental hazards while on display, particularly sunlight and dust.

Objective #2: To identify possible solutions, from available literature, for specific problems identified in small museums.

A variety of literature sources were reviewed to determine various solutions to the management, care and storage of costume/textile articles. Many solutions were found but the researcher concentrated on those solutions particularly applicable to the problems and resources of a small museum.

Many of the museum survey respondents indicated a lack of information or the lack of access to information regarding the care and preservation of costume/textile articles. Various sources reviewed by the researcher were combined into an annotated bibliography to be used by museum personnel. The annotated bibliography was developed to provide a list of informational sources and a general statement regarding the content of each reference listed.

Objective #3: To develop written recommendations for utilizing possible solutions.

The possible solutions identified from the available literature were condensed into an abbreviated format and developed into written recommendations for a selected museum. The researcher met with the board of trustees of the selected museum to determine their concerns and suggestions for the recommendations. The final written recommendations contained a list of general principles and specific recommendations regarding the management, care and maintenance, storage, and display of the costume/textile articles at the selected museum. The recommendations
also included suggested sources for further information as well as suggested methods for carrying out the recommendations. The written recommendations were reviewed by the Curator of Textiles at the Ohio Historical Society and were then presented to the directors of the selected museum. The directors were given an annotated bibliography of informational sources and a list of suppliers for various supplies and equipment.

Objective #4: To implement portions of the recommendations in a selected museum.

At the presentation of the written recommendations by the researcher, the museum directors selected portions of the recommendations to be implemented at the museum. The selected portions were then implemented at the museum by the museum directors, assisted by the researcher. The implemented recommendations were primarily care and maintenance procedures with limited implementation of storage techniques and methods. The directors chose to work with costume articles in the museum collection for implementation. Portions of other recommendations were discussed for possible future implementation at the selected museum.

Objective #5: To assess, by written evaluation, the written and implemented recommendations for effectiveness and practicality in a small museum with limited resources.

Following implementation of the selected portions of the recommendations, the museum directors completed a written evaluation of the recommendations. The recommendations were well received by the museum directors and were considered to be particularly helpful regarding the care and maintenance of costume/textile articles. The written recommendations were found to be very sufficient for current needs at the
selected museum and were considered to be very clear and understandable and in a useful format. The museum directors considered the written information to be practical and suitable for the museum resources and staff. The recommendations for care and maintenance were found to be the most helpful aspect of the recommendations. One reason for this may be the fact that very little had previously been done in this area at the selected test museum. The recommendations for storage were found to be the least helpful due to space limitations and the extent of the museum collections. The space restriction and excessive size of the collections may be due to the lack of an established collection policy regulating the articles collected and the lack of a deacquisition policy to reduce the present collection to a more manageable size. Regarding suggestions for the recommendations, the museum directors expressed an interest in more information and "hands on" experience regarding the displaying of costumes.

CONCLUSIONS

Based on the results and findings of this study, it can be concluded that a variety of problems do exist regarding the care and storage of costume/textile articles in the small museums surveyed. It can also be concluded that possible solutions can be developed and implemented to counteract the problems identified by the museums surveyed. The study utilized a limited sample to identify problems but the consistency of problems identified in this limited sample may well indicate a larger and broader problem in other small museums throughout the state. Other small museums may lack the necessary information or access to such
information to effectively care for and preserve historic costume/textile articles. Further research is needed to establish the need for such information in other small museums and to make such information more readily available to the personnel of small museums.

**IMPLICATIONS FOR FURTHER STUDY**

The information found in the present study could be used by researchers as well as the personnel of small museums. The study could be extended to other small museums throughout Ohio or in other states to determine common problems and to identify possible solutions regarding the care and storage of costume/textile articles.

The written recommendations, along with the annotated bibliography and list of suppliers, could be adapted and utilized by other small museums throughout Ohio. The format and methods of written recommendations could be adapted to relate to the specific needs of an individual museum or applied generally to other museums.

Researchers could build upon the results of the interview survey to develop informational material, workshops for museum personnel, or to develop a format for consultation for costume/textile articles in small museums.

The study provides a format for surveying various procedures used at small museums for costume/textile articles. The study also provides recommendations for possible solutions for problems encountered at small museums. The interview survey could be replicated for small museums in other areas of Ohio or in other states to determine specific problems most common to small museums.
The written recommendations developed for this study could be expanded or adapted to meet the specific requirements of other small museums. Portions of the recommendations could be implemented at different types of museums to determine the suitability of the recommendations for various museums.

The recommendations and suggested methods for storage could be revised and adapted to better meet the space and resource limitations of small museums. More research is needed regarding the acquisition and deacquisition of articles to establish museum collections at a useful and suitable size for museum facilities and storage. The storage of all museum objects, not just costume/textile articles, should also be considered in further development of storage alternatives.

Further study is also needed to incorporate the development of effective display techniques and display recommendations for small museums. Available space and other limited resources of small museums must be taken into consideration when developing alternatives for the display of costume/textile articles.

Material from this study could also be used to develop workshops for the personnel of small museums. Such workshops would also provide an opportunity for further study and application of effective methods for the care and storage of costume/textile articles.

Further study is needed to assist museum personnel in defining a museum philosophy. Assistance is also needed to develop museum policies for the management of collections.
APPENDIX A

Interview Schedule for the Survey

and

The List of Selected Museums
NOTE: Space was allowed for each question for researcher to record comments of interviewees.

1. What is the complete title or name of the museum?

2. What is your title or position at the museum?

3. How many persons work at the museum?

   Paid?              Volunteer?

4. Are training sessions offered for staff? Yes No

   If yes, what type of training or subject matter is offered?

5. What source(s) of information is used?

6. Does the museum have costumes or textiles as part of its holdings or collections? Yes No

   If yes:

7. What is the purpose or use of the costume/textile holdings?

8. What is the priority or role of costume/textile holdings when compared to other museum holdings? Check one.

   Very important     Somewhat important
   Important          Not important

9. What guidelines or emphasis exist regarding what articles are collected:

   For all holdings?

   For costume/textile holdings?

10. Are guidelines written and/or assumed?

11. What guidelines exist for what is not collected?

12. What guidelines or emphasis exist regarding the care, use and storage of costume/textile collections?

13. Are garments worn?
14. What management and care procedures are used for costume/textile collections? (Check all that apply.)

Registration
Identification number assigned
Labeled with identification number
Fumigation

Cleaning
Storage
Display
Other

15. What type of cleaning methods are used for costume/textile holdings? (Check all that apply.)

Vacuuming
Brushing
Wet cleaning
Dry cleaning
Stain or spot removal

Hand washing
Machine washing
Bleaching
Other
None

16. What type of maintenance methods are currently used for costume/textile holdings? (Check all that apply.)

Periodic inspection
Periodic vacuuming
Periodic cleaning
Refolding flat textiles
Fumigation
Protection from light
Protection from dust

Protection from sources of acid, fumes, and rust (wood, cardboard, some plastics, metal)
Control of temperature
Control of humidity
Rotation of objects on display
Other

17. Is a specific storage area set aside for costume/textile holdings?

18. What type of storage is currently used for costume and textile holdings? (Check all that apply.)

Cardboard boxes
Trunks
Wooden drawers
Metal drawers

Closets
Cabinets
Clothing racks
Other

19. How are costume/textiles stored? (Check all that apply.)

On wire hangers
On plastic hangers
On wooden hangers
On padded hangers
Flat
Rolled on tubes
Framed

Folded
Covered with plastic
Sealed with plastic
Covered with muslin or fabric
Mounted
On shelves
Other
20. What storage problems exist for costume/textile holdings?  
(Check all that apply.)

Lack of space  
Inadequate use of space  
Lack of adequate storage methods  
Lack of information regarding storage  
Collection too large for museum purposes  
Collection too large for museum facilities  
Other (specify)

21. How are costume/textile articles displayed?  
(Check all that apply.)

On hangers  
Flat  
On body forms  
Mounted  
Framed  
Draped over props, i.e., furniture  
In cases  
Other

22. How often are costume/textile displays changed or rotated?

Every three months or less  
Every six months or less  
Every nine months or less  
Once a year  
Less often than once a year

23. What display precautions are taken for costume/textile articles?  
(Check all that apply.)

Protection from handling  
Protection from dust  
Protection from light  
Temperature control  
Humidity control  
Other (specify)

24. What current problems exist regarding costume/textile holdings?

Collection of articles  
Care and maintenance  
Storage  
Preservation procedures  
Display methods  
Other (specify)

25. What future plans exist for museum costume/textile holdings?

26. Does the museum or staff receive any publications which include information regarding the care, preservation and maintenance of costume/textiles? Which ones received?

Curator  
History News  
Museum  
Museums Journal  
Smithsonian pamphlets  
USDA bulletins  
Other (specify)

27. What publications are the most helpful and why?

28. What type of museum oriented organizations do museum staff or the museum belong to? (Identify organizations.)
29. What type of assistance is most needed for problems regarding costume/textile holdings? (Check all that apply.)

- Sources of information
- Sources of supplies and equipment
- Consultation
- Information on cataloging
- Information on personnel
- Information on care/maintenance
- Information on storage
- Information on display
- Other (specify)

30. What form of assistance is desired? (Check all that apply.)

- Information books
- Manuals
- Pamphlets
- Reference lists for information
- List of suppliers
- Direct consultation
- Training sessions
- Other (specify)

31. To what extent would you be interested in free consultation and informational assistance if offered, and why?

- A great deal
- Somewhat
- Not at all

32. What procedures would need to be followed for such consultation?

- Type of contact
- Contact person (Name and/or title)
- Address and phone number for contact
- Amount of advance notice needed between contact and consultation visit
- Other (specify)

33. Comments or suggestions:

Thank you.

Observations:
Museums Included in the Interview

Bexley Historical Society
2242 East Main Street
Bexley, Ohio 43209

Clarke-May House
Pickaway County Historical Society
 Circleville, Ohio 43113

Groveport Log House
Groveport Heritage and Preservation Society
Groveport, Ohio 43125

Worthington Historical Society
50 West New England Avenue
Worthington, Ohio 43085

Richland County Museum (Field test for questionnaire)
Richland County Genealogical Society
Lexington, Ohio 44904

Sherwood-Davidson House
Licking County Historical Society
Newark, Ohio 43055

Truro Historical Society, Inc.
Reynoldsburg, Ohio 43068
APPENDIX B

Letters to Museum Personnel
January 27, 1981
Box 240 Morrison Tower
196 W. 11th Avenue
Columbus, Ohio 43210
(614) 421-1875

Richland County Museum
51 Church Street
Lexington, Ohio 44904

Dear ______________

This letter is to confirm our appointment on ______________ at 2:30 PM. I appreciate your interest and willingness to participate in an interview survey for my research.

As I mentioned in our telephone conversation on Monday, January 26, I am a graduate student in the master's program of Textiles and Clothing at The Ohio State University. I am conducting an interview survey regarding the management, maintenance, and storage of costume/textile collections in small Ohio museums as part of the research for my master's thesis. Your assistance in this important part of my research will be greatly appreciated.

Thank you.

Sincerely,

Arlene Lanker
March 2, 1981
Box 240 Morrison Tower
196 W. 11th Avenue
Columbus, Ohio 43210

Mrs./Mr. __________________
__________
Historical Society
_______ Ohio

Dear _______________

You were so generous in taking the time and effort to assist me by responding to the interview for my thesis research. I appreciated your interest and help and enjoyed my visit with you. A great deal of information was gained for my research.

Enclosed is some of the information in which you expressed interest. I hope you find the informational sources helpful.

Thanks again!

Sincerely,

Arlene Lanker
APPENDIX C

Information Provided to the Selected Museum

Recommendations for Costume/Textile Preservation and Storage
At a Selected Museum

List of Supplies and Suppliers

An Annotated Bibliography For Costume/Textile Preservation
RECOMMENDATIONS FOR COSTUME/TEXTILE PRESERVATION AND STORAGE AT A SELECTED MUSEUM

Introduction

The following recommendations were developed by the researcher to provide general guidelines and background information for the care and storage of the costume/textile collection of the selected museum. These recommendations focus specifically on the care and storage problems at the selected museum as identified by interviews with the museum directors and direct observation.

A survey of the management, care, and storage of costume/textile collections in other small Ohio museums provided further insight into the commonality of various problems identified at the selected museum. Those problems found to be most common among the museums interviewed were given special consideration in the development of recommendations.

The following recommendations deal with the areas of management, care and maintenance, storage and display. Each of these subject areas is an essential component of the adequate care and storage of a costume/textile collection in a small museum. Each subject area is addressed separately to facilitate use by museum staff. Basic principles are identified, followed by recommendations based on those principles. Following the recommendations is a brief list of sources for further information. Detailed explanations, examples, and suggested methods for implementing the recommendations are also included. The format used makes it possible to separate and file or duplicate the recommendation methods for staff
use. When used initially, a detailed oral explanation of the recommendations and the format was presented to the museum directors. At that time, a separate list of suppliers and an annotated bibliography of informational sources were presented to the museum directors for future use and reference.
Recommendations for Management Policies

Principles:

-A philosophy of purpose and function must be established to provide a framework for the development of museum policies regarding acquisition, maintenance, and use of museum collections.

-Established policies, in written form and consistently followed, provide direction and guidelines for the efforts of museum staff.

-An identified curator of costume/textile holdings provides consistency in decisions made and procedures used for care and maintenance of articles.

-An established file of information regarding care and maintenance procedures provides a convenient resource for the curator as well as assists other persons working with the costume/textile articles.

Recommendations

1. Establish museum policies regarding

   a. acquisition (collection) of articles
   b. documentation of articles (registration, labeling, etc.)
   c. care and maintenance of articles
   d. use, purpose and/or role of articles

2. Place established policies in written form for

   a. documentation of policies as a permanent record
   b. consistency of procedures
   c. accountability of museum

3. Designate one person as "curator" for the costume/textile holdings. Responsibilities would include

   a. gathering information for care and maintenance
   b. developing expertise and knowledge in care and maintenance
   c. making decisions regarding care and maintenance
   d. serving as contact person for questions relating to articles

4. Develop care information file of information and references for the following purposes

   a. reference file for curator
   b. store information to assist volunteers working with articles
   c. store written suggestions and records of actual procedures used for care and maintenance of articles
Recommendations for Care and Maintenance

Principles:

-The core of the museum is its collection of articles. These articles must be maintained for present and future generations.

-By accepting articles, a museum also accepts the responsibility to care for and maintain those articles.

-Costumes and textiles are among the most fragile and easily destroyed of all museum holdings.

-Environmental hazards damaging to costume/textile articles include: light, dust, humidity, insects, mildew, handling, improper methods for cleaning, storage, and display.

-Conservation or preservation of costume/textile articles is an attempt to prolong the life of the article. Conservation consists of a continuous and ongoing process that must be carried out over time.

Recommendations

1. Identify priority and nonpriority articles in collection.
   a. Use priority articles for
      -selection based on historic value, condition, museum purpose
      -greatest concentration of time and effort for care and maintenance
      -examples of a broad overview of collection (i.e., work or everyday clothing as well as formal garments)
   b. Use nonpriority articles for
      -practice of cleaning techniques
      -wearing, if some articles needed for this
      -donation to other organizations (i.e., museums, schools, theatrical groups)
      -reduction of size of entire collection to manageable number of articles

2. Develop care procedures for articles.
   a. Perform reversible treatments ONLY
   b. Mend and repair articles by hand
   c. Vacuum articles.
   d. Clean articles if possible
3. Develop maintenance procedures for articles.

   a. Follow the four basic steps for collection care and maintenance (Lewis, 1976)

      - prepare each article entering the collection for preservation
      - place the article in a safe environment
      - inspect each article periodically
      - provide repeated preservative treatment as needed for each article

   b. Establish a long range schedule for the maintenance and inspection of collection
Recommendations for Storage

Principles:

-Due to limitation of resources for adequate care and storage, costume/textile collections in small museums should be discriminately limited to those articles particularly valuable to the museum purpose and focus.

-Exposure to environmental hazards such as light, dust, and an uncontrolled climate is particularly damaging to costume/textile articles.

-Storage should be designed to protect costume/textile articles from environmental hazards.

Recommendations:

1. Designate a safe storage environment and location for costume/textile articles.

   a. Store all similar articles together in one location for ease in maintaining a suitable environment and constant climate.

   b. Attempt to store articles in an area with a constant balance of temperature and humidity.

      -improper climate may cause fibers to become brittle or may promote growth of mildew.

      -unstable climate may cause internal damage to articles due to expansion and contraction of fibers.

   c. Do not store articles in basement or attic.

      -climate is generally very unstable

   d. Ideal climate conditions are

      -a constant temperature of 70°F or less
      -a relative humidity of 45-55%

2. Protect articles from environmental hazards such as:

   a. Humidity and/or moisture

      -store clean articles in dry, climate-controlled area with ventilation - to prevent mildew growth
b. Light

-both visible and invisible (ultraviolet) light rays are extremely damaging to costume/textile articles
-avoid all light in storage areas whenever possible
-minimize intensity of light and length of exposure as much as possible

c. Pests

-clean storage area often
-do not allow any food or trash near storage area
-inspect collection and periodically vacuum, air, and rotate articles
-store wool articles together and check often for moth infestation
-fumigate all new wool acquisitions
-fumigate all wool items periodically as needed
-protect from moths and carpet beetles by suspending a small muslin bag containing paradichlorobenzene crystals over articles

d. Dust

-dust mop floors daily in storage and display areas (or as often as possible)
-cover articles to eliminate dust
-use washed, unbleached muslin; washed sheets; acid free paper
-cover or wrap articles loosely to allow for ventilation
-dust barriers such as muslin curtains behind doors, muslin or paper coverings placed over articles in drawers and boxes are needed in all storage cabinets, drawers and boxes
-polyurethane plastic bags are not recommended to cover articles; they reduce ventilation and attract dust due to static electricity

e. Other hazards

-place similar weight items together in boxes or drawers and avoid overcrowding and crushing articles
-eliminate contact with acid sources such as wood, cardboard and paper
-avoid contact of textiles with acid by lining containers with washed unbleached muslin or acid-free paper
-eliminate all possible sources of rust (remove pins, cover metal shelves and metal cabinet interiors
-do not hang articles on wire hangers
-prevent handing of articles by museum visitors
3. Develop safe and effective storage methods.

a. Type of storage, accessibility and retrieval systems selected must relate to the functions of the museum.

b. Store articles by the least damaging method possible

- flat storage if possible
- hanging storage recommended for sturdy articles; saves space

c. Prepare safe storage areas for articles.

- air drawers, boxes, cabinets etc. to allow acid fumes to escape
- sand any rough edges; remove any old nails or staples that might snag articles
- line containers with Mylar (or other inert plastic if possible) to act as acid barrier
- change acid-free paper (every 1-5 years) or wash muslin (ideally, every 6 months) if these linings are the only acid barriers used
- apply a coat of polyurethane varnish inside cabinets; allow to dry thoroughly
- use rustproof staples (if staples are used to attach lining); tap staples in completely with a hammer to prevent articles from snagging
Recommendations for Display

Principles:

- Display should not be used as visible storage of articles.
- While on display, articles should be protected from environmental hazards and stress.

Recommendations:

1. Display only those articles which can safely withstand the stress and hazards created by display.

2. Limit the time period of display of an article to 3-4 months at a time to minimize exposure to hazards and strain.

3. Minimize environmental hazards as much as possible.
   a. Minimize light intensity
      - draw shades or blinds when museum is not on tour
   b. Minimize exposure to dust
      - carefully cover articles when not on tour (if possible)
   c. Minimize possibility of handling of articles by observers

4. Display articles with care.
   a. Provide as much support to the article as possible.
   b. DO NOT use pins, tacks, or staples for display
      - place undue stress on a few fragile fibers or threads
      - may rust
      - use display techniques that will minimize and/or distribute strain imposed on the article such as flat display or on body forms

5. Following display, prepare article for storage.
   a. Inspect for soil, insect damage, needed repairs or weakening of fabric.
   b. Complete needed repairs.
   c. Vacuum article thoroughly prior to storage.
Sources of Information

Technical leaflets and books available from

American Association for State and Local History (AASLH)
1400 Eighth Avenue, South
Nashville, TN 37203

Technical leaflets available from

Division of Costume
The National Museum of American History
Smithsonian Institution
Washington, D.C. 20560

Booklet and assistance from a textile conservation laboratory available at

Indianapolis Museum of Art
1200 West 38th Street
Indianapolis, IN 46208

Booklet: Considerations for the Care of Textiles and Costumes
by H. F. Mailand.

Ohio Historical Society
Interstate Route 71 and 17th Avenue
Columbus, OH 43211
Curator of Textiles
**Methods Relating to Recommendations:**

**Management of the Collections**

Determine and write the museum goals, purpose, and priorities. Based on these established goals, purpose, and priorities, determine and write an acquisition policy to identify the type of articles which will and will not be accepted for the museum. Include procedures involved in acquisition. The acceptance of article may be based on: geographic origin, time period, condition of the article, type of article, value of article, comparison with duplicate holdings, the conditions of gift (do not accept anything as a loan), suitability and usefulness for museum purposes, museum limitations in space, time and/or ability to care for the article effectively. Establish who will make the final decision regarding acquisitions.

Procedures of acquisition should include the following: a statement or deed of gift to provide the museum with a legal title and complete jurisdiction of an article, and possible alternative recipients for the article (such as another museum) if the article is not accepted.

Based on museum goals, purpose and priorities, determine and write the procedures for documentation of articles including:

- the registration system to be used.
- assign a registration number to each article.
- record each number along with a description of the article and other information pertinent to the article.
- means of labeling each article with the registration number.

**Example:** The registration system used for The Ohio State University costume/textile collection is as follows:

For the article with the number 1980.3.2b
1980 = the year the article was acquired.
.3 = the number of the donation acquired in that year.
.2 = the article is the second item listed in the above donation.
.2 = the article is one of several pieces belonging to the same garment. Thus 1980.3.2b might be the number of a skirt and 1980.3.2a would refer to a matching bodice, etc.

A general numbering system, regardless of date of acquisition and donation number may be used for ease of implementing. A means of coding or identifying pieces that go together would be helpful.

A safe and reversible labeling system should be used. Labels may be made with strips of cotton twill tape that have been marked with the registration number of the article, using India ink or some other color-fast means of marking (test with soap and water). Do not mark directly on articles.
The labels of all articles should be sewn on by hand in the same general location on each article for ease in relocating the label with a minimum of handling.

Example: In the Ohio State University costume/textile collection, labels are usually sewn in the lower edge of the left sleeve, hem edge, or lower left corner of an article. Articles are hung with the left side out for ease in finding the label on the sleeve without removing the article from storage.

Cataloging of information is vital if the museum is to preserve as much information as possible and make this information retrievable. Maintain an acquisition book with registration numbers and a description of each article listed. Maintain files for information storage. The following three files are suggested:

- **Registration File**: Information filed by order of registration number; includes basic information and background, if known, a more complete description of the article, source or donor of article, and may contain legal title or deed of gift.

- **Category File**: Information filed according to category or type of article. May be a card file. Helpful in identifying display articles, duplicates, and for research of a specific type of article, etc.

- **Donor File**: Information filed by last name or donor or source. Should include a listing of all articles received from that donor or source.

The Registration File (or Category File) may be used to note care or repairs made on an article as well as display use.

All records should be legible, consistent, up to date and simplified to suit the needs and resources of museum staff. Time and ease of use should be considered.

Designate a curator for the costume/textile collection. Select an individual with interest in collection and time and willingness to pursue information and to assume responsibility for decisions regarding the care of articles. The curator would care for articles and/or oversee the work of others and act as a resource person for information.

Develop a care information file and/or library of information regarding the care and maintenance of articles. File would be used by the curator as well as others working with articles. The file should include:
- suggestions for care for articles.
- notes of actual procedures attempted and results.
- curator suggestions and notes for articles.

See inspection and care considerations.
CURATOR'S INSPECTION SHEET

PHYSICAL CONDITION

Fiber Strength
Weak Areas
Tears, Raveled Areas
Spots and Stains
Discoloration and/or Fading
Odor
Dust
Missing Notions and Trims
Fiber Content

CONSTRUCTION

Method of Sewing (Hand or Machine)
Seam Type/Finishes
Evidence of Alteration
Other
CURATOR'S CARE SHEET

COSTUME/TEXTILE

OBJECT: ____________________________
(Classification)

(Category)

PERIOD: ____________________________

DATE OF OBJECT: __________________

FIBER CONTENT: ________________ TRIMS: __________________

COLORFASTNESS: ________________ PHOTOGRAPH OR SKETCH: __________

CARE/MAINTENANCE REQUIRED: (Check all that apply.)

NONE _______ DRY CLEANING _______

MENDING _______ STAIN OR SPOT REMOVAL _______

UNDERLINING _______ BLEACHING _______

VACUUMING _______ OTHER _______

WET CLEANING _______ Specify:

SKETCH - Indicating location of repairs needed, trim placement, etc.

FRONT BACK

***Special instructions or directions:
(may be continued on back)
Care and Maintenance of Collection Articles

Conservation is basically an attempt to prolong the life of an object. Conservation procedures include careful handling, cleaning, maintenance, and storage techniques. All of these procedures are within the grasp of the concerned staff of a small museum.

Restoration, the process of restoring an article to as near to its original state as possible, is a highly technical and specialized skill that should only be attempted by experienced professionals. Small museum staff should only attempt basic conservation and preventive care of costume/textile articles that are within the skills, knowledge, and resources of the museum staff.

Mending:

Mending or repairing articles should be done by hand methods (not by machine) and only with reversible methods (no fusibles!).

Use natural fiber thread for all mending and sewing; synthetic threads cut the fibers.

Use the finest hand sewing needles and pins possible to avoid damaging fragile fibers.

DO NOT leave any pins or other sharp items in articles to avoid snags and tears.

When sewing, make stitches over several fabric threads at a time and in random placement, if possible, to distribute stress. Place the needle in the fabric at a right angle and between fabric threads, not through individual threads. DO NOT knot thread; do back stitch several times at beginning and end of sewing.

Resew loose trims and closures and repair seams as needed.

Underline weak areas and tears with sheer polyester or nylon fabric (that has been washed first) to give support to fragile fabrics. Crepeline, nylon chiffon (fabric or scarves) and other lightweight sheer fabrics may be used to back lace or fragile sheer fabrics. Heavier underlining fabrics will be needed to support heavier articles.

Cleaning:

The purpose of cleaning is to neutralize and stabilize the article prior to storage and to prevent further deterioration. Soil, stains and dust cause chemical and abrasive damage to fibers as well as detract from their appearance. The condition and requirements of each article must be considered individually.
The steps in cleaning include vacuuming and further cleaning if possible. A brief overview of each step follows.

Vacuuming:

Vacuuming is done first to remove dust and other damaging abrasives. Place article on a clean, flat surface. Place fiberglass or nylon screening (with bound edges to prevent snagging) over article. Vacuum using a low-powered hand-held vacuum or low setting on a canister model.

Screening is used to protect article from suction and abrasion and to prevent suction of loose fibers. Several layers of nylon net, held together by an embroidery hoop, may be used.

When vacuuming, the vacuum attachment should barely touch the screening. Vacuum in the predominate direction of the weave of the article. Vacuum both sides of the article. For very fragile articles, cleaning procedures should not go beyond vacuuming.

Wet-Cleaning:

Wet-cleaning is a hand washing process that is done on articles that can withstand the process. Generally, wet-cleaning is not used for wool or silk. Wet-cleaning is effective in removing damaging substances such as acid build up, perspiration, blood, food and corroded metals. Goal is to neutralize the article. The process uses water and detergent solution to clean the particle.

Preparation - Before wet-cleaning, test for colorfastness for all fibers/fabrics/colors included in the article. Test by allowing a drop of water to soak into a small, hidden area on the article and blot with a white cloth or white absorbent paper. Repeat test with a drop of the nonionic detergent/water solution. Check for evidence of color on the blotting material.

- If any color does bleed, article is NOT colorfast and cannot be wet-cleaned.

- Trims that may bleed or rust may be removed prior to wet-cleaning; indicate trim location on article with hand basting stitches for resewing later.

Provide support for the article at all times. Place weak or fragile articles between two layers of fiberglass, polypropylene or nylon screening, or several layers of nylon net. Edges should be bound to prevent snagging. Hand baste through all layers of screening close to and around entire article to prevent slippage. Place sturdier articles on a single layer of screening. Use screening to gently lower article into water for cleaning process, and to remove article from water. Never pour water over the article.
Containers - for wet-cleaning should be large enough to accommodate the entire article as flat as possible. Use photographic plastic trays, bath tub, sink, or a wooden box frame lined with polyethylene plastic. The container should be made of glass, inert plastic, stainless steel, or porcelain.

Water for cleaning and rinsing - use distilled water, deionized water, or very soft water to avoid mineral deposits on the article. At least use distilled water for the final rinse if possible. Maintain all water baths at a constant temperature to avoid damage to fibers. Room temperature is recommended.

Detergent - use nonionic detergent added to water. Possible detergents include Orvus WA Paste, Igepal, or a mild dishwashing detergent such as Ivory liquid or Joy. Neutrogena may be used for a soap solution. Use no more detergent than necessary to produce a mild suds.

Process - Soak the article in water only for 1/2 to 1 hour; next, soak article in a mild detergent solution until water appears dirty, 15-45 minutes. Do not squeeze or agitate article. Repeat as needed.

- Rinse article (by soaking) in water the same temperature as the detergent solution. Rinse in repeated water baths, five to seven times (or more if needed) to remove any trace of detergent. Use distilled water for final rinse.

- pH paper strips may be used to ensure a neutral (7.0 reading) final rinse.

Drying - Following final rinse, gently blot article to remove excess moisture. Blot with clean, white cotton toweling, clean mattress padding, sheeting, or muslin.

- Allow the article to dry on a flat surface on undyed cloth toweling or on elevated screening. Dry at room temperature and allow adequate ventilation. A portable fan may speed drying.

- A hand-held blow dryer (on a low temperature setting) may be used to quickly dry metal fastenings that might rust.

DO NOT iron article. Pressure will flatten and break the weakened fibers and the heat will accelerate chemical deterioration. Sturdy articles may be gently smoothed (while still slightly wet) on a piece of glass or other inert, nonporous surface and allowed to dry. Place right side of article toward glass for a smooth, ironed look. Gentle steaming may remove wrinkles.
Drycleaning:

Drycleaning is not recommended for white articles. This process should be done by a professional drycleaner, ONLY by hand and ONLY with new solvent. May remove oil-based soil.

Maintenance:

Periodically inspect articles:

- Look for signs of soil, insect infestation or damage, mildew, weakening and other damage.

- Vacuum garments periodically to remove dust; clean if necessary.

- Refold folded articles along new lines.

- Wash fabric wrappings and change acid-free paper yearly, if possible, to remove acid.
Storage

Planning:

Plan storage for the safety of the costume/textile articles. The type of storage, accessibility and retrieval systems selected should relate to the functions of the museum.

Plan a common storage area for convenient retrieval, more efficient design and use of facilities, for protection of more fragile items, and to allow for standard environmental conditions.

Select storage methods based on individual needs of articles and available space and facilities.

Storage Methods:

**Flat Storage** - relieves strain and provides the most support for an article; may require dangerous stacking or crushing or articles. Usually has a lack of accessibility and increased handling of articles. Most suitable for flat textiles and fragile or heavy costumes.

- Use container (drawers or boxes) large enough to hold the entire article with a minimum of folding.

- Vacuum container and line with washed muslin or acid-free paper. Cover article with muslin or acid-free paper for dust cover.

- Fold articles as little as possible; pad folds with rolls of acid-free tissue to prevent damaging creases.

- Refold periodically to distribute stress on fibers; change paper periodically to remove acid.

**Hanging Storage** - requires a minimum of handling and space for storage; provides easy retrieval; may cause stress on articles; most suitable for sturdy articles.

- Space articles to avoid abrasión, crushing and creasing.

- Protect articles from snagging hazards: remove all pins, pad or cover sharp trims, close all fastenings.

Hanging costumes - DO NOT use wire hangers for costumes; these hangers crease and damage shoulder area and may rust. Pad hangers to resemble shoulder shape, using polyester batting. Cover the padding with washed, unbleached muslin; sew in place. Pad and cover wooden hangers for heavy garments.
To hang skirts or trousers - relieve strain from fragile fabric as much as possible; distribute stress. Bend a wire hanger into a rectangular shape, pad lower wire and wrap entire hanger with muslin strip sewn in place.

- Gently fold skirt or trousers in half lengthwise (pad fold with acid-free tissue paper) and drape over padded bar of hanger.

- Other methods include sewing a wide muslin band around the waistline seam to hang garment from a clamp skirt hanger. Added support can be provided by colorfast cloth tape or binding loops sewn to seam allowances and looped over hook of hanger.

Hanging textiles - (such as coverlets, quilts, draperies, etc.)

- Underline fragile textiles for support.

- Hand sew muslin casing along underside edge (to underlining, if used) and hang from a rod.

- Drape textile over padded and/or covered horizontal bar or frame.

- Suspend large underlined textiles from ceiling tracks.

Rolled Storage - good accessibility and use of space; may cause strain and crushing of articles; most suitable for flat, single layer, and large textiles (such as samplers, handkerchiefs, coverlets and rugs).

- NEVER fold textiles before rolling.

- For rolling, select cardboard cylinders that are 2-6" in diameter (depending on scale of textile) and 2-3" longer than the textile. Larger textiles may require slightly longer cylinders.

- Pretreat the cardboard cylinder to provide an acid barrier. Coat with polyurethane varnish or cover with inert plastic; cover with acid free paper and/or washed unbleached muslin.
Process - Place textile on large, clean, flat surface face down. Table may be covered with acid-free paper or washed muslin, sheet, etc. Slowly and carefully roll textile onto pretreated cylinder, avoiding slack areas and wrinkles in the textile.

- For brittle, abraded surfaces, special dyes or metallic threads, interleaf rolled layers with acid-free tissue. When rolling large pieces, more than one person may be required to ensure even rolling.

- Cover rolled textile with washed unbleached muslin and tie loosely with string or broad tape (tape eliminates creases).

- If covered with plastic, tie ends loosely with string and leave ends open for ventilation and reduce moisture condensation.

- Attach an identification tag to end of tube.

Rolled textiles may be stored:

- On horizontal shelves, wooden dowels, or pipes and suspended from the ceiling by chains and "S" hooks.

- On wooden racks that are free standing or built against a wall.

- On wooden frames in drawer-like suspension, or on dowel and brace system in a cabinet.

Framed or Mounted Storage - provides rigid, bulky storage; supports entire article; requires space for flat storage when not on display; most suitable for small, fragile, flat textiles.

- Frame or mount articles, using acid-free mat board or 100% rag paper backing.

- Wrap mat board with washed, unbleached muslin prior to framing.

- DO NOT allow textile to touch glass or plexiglas, if possible.

- Sew small articles such as collars or samplers carefully onto a piece of permalife paper or store between two layers.
## List of Supplies and Suppliers

### Boxes (acid-free)

<table>
<thead>
<tr>
<th>Company</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hollinger Corp.</td>
<td>3810 Four Mile Run Drive, Arlington, VA 22206</td>
</tr>
<tr>
<td>Pohlig Brothers, Inc.</td>
<td>25 East Franklin, Richmond, VA</td>
</tr>
</tbody>
</table>

### Cardboard Rolling Tubes

- Local carpet dealerships

### Packaging Unlimited

<table>
<thead>
<tr>
<th>Company</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Platt Corp.</td>
<td>1415 Key Highway, Baltimore, MD 21230</td>
</tr>
</tbody>
</table>

### Detergents

- (D.W. 300)
- (IGEPAL CA-630)
- (Orvus WA Paste)

<table>
<thead>
<tr>
<th>Company</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lever Brothers</td>
<td>390 Park Avenue, New York, NY 10020</td>
</tr>
<tr>
<td>GAF Corporation</td>
<td>140 West 51st Street, New York, NY 10020</td>
</tr>
<tr>
<td>General Offices</td>
<td>Proctor &amp; Gamble Distributing Co.</td>
</tr>
<tr>
<td></td>
<td>P. O. Box 599, Cincinnati, OH 45201</td>
</tr>
<tr>
<td></td>
<td>Attn: J. J. Garvey, Manager Textile Specialties</td>
</tr>
</tbody>
</table>

### Frame Backing Materials

- Pluted Mylar: 48" X 60" sheets
- Artistic Woodwork Company, Ltd.
  991 St. Vital Blvd.
  Montreal, Canada 459 Quebec

### Pegboard

- Any well-stocked lumber company

### Polyester Pellon

- Most fabric stores

### Hangers

- Long-neck, white plastic shoulders:
  Frankel Plastic Corporation
  493 Seventh Avenue
  New York, NY 10018
  No. 144: 15½", infants 10", children's 12", Junior 14", No. 126: 16¼

### Lighting

- Fluorescent tube filtering sheaths:
  Filter Light Corporation
  P. O. Box 6292
  Greensboro, NC 27405

- Ultraviolet light filters:
  Sun Screen, Inc.
  150 Twelfth Road
  Whiteside, NY

- West Lake Plastic
  West Lenni Road
  Lenni, PA 19052

- Solar Screen Company
  1032 Whitestone Parkway
  Whitestone, NY
Lighting (continued)

J. B. Henriques, Inc.
P. O. Box 728
New Milford, CT 06776

Rohm & Haas
Independence Mall
Philadelphia, PA 19105

Window glass coating:
Sun Stop
Transparent Glass Coatings, Co., Inc.
531 North La Cienega Boulevard
Los Angeles, CA 90048

Lining & Supporting Fabrics and Related Supplies

Crepeline-silk chiffon, natural (off white) or smoky brown:
Talas
104 Fifth Avenue
New York, NY 10011

Natural and dark colors:
Les Sucessseurs de H. Combo
S.A. 10 Rue de Capucines
Lyons, France

Paul L. G. Dulac et Cie
3 Rue Romarin
5 Place du Griffon
Lyons, France

Crepeline ('Stablithex')
polyester multifilament No. 4
Plain weave:
Swiss Silk Bolting Cloth Mfg. Co., Ltd.
Grutlistrasse 68, Ch-8002
Zurich, Switzerland

Linen (100%) natural color,
53" width:
Blanks, Inc.
4446 Park Heights Avenue
Baltimore, MD 21215

Silks:
Trapac Corporation
1412 Broadway
New York, NY 10018

Cotton thread, linen thread, muslin, nylon tulle, needles, pins (silk or brass), Pellon, twill tape, silk, Velcro fastening tape:

Above found in most well-stocked fabric or department stores.

Papers

Acid-free tissue paper, smooth or textured finish, roll or sheets:
Process Materials Corporation
329 Veterans Boulevard
Carlstaedt, NJ 07072

Small lots can be purchased through:
Talas
104 Fifth Avenue
New York, NY 10011

(Also has acid-free wrapping paper and Permalife paper for lining shelves and drawers.)

Acid-free rag board:
Any well-stocked frame shop

Andrew-Nelson-Whitehead, Inc.
7 Leight Street
New York, NY 10013

Permalife acid-free papers:
B. W. Wilson Paper Company
P. O. Box 11246
Richmond, VA 23230

pH Paper Strips

EM Laboratories, Inc.
500 Executive Boulevard
Elmsford, NY 10523

Talas
104 Fifth Avenue
New York, NY 10011

Scientific supply house
Polyethylene Plastic Film
Any plastic or hardware store

Polyurethane Varnish
Any well-stocked paint store

Plastic Polymer Trays
(for wet-cleaning)
Any well-stocked photography store

Screening
Nylon for protection of textiles during suction cleaning and support of specimens during washing:
The National Filter Media Corp.
P. O. Box 4217
Hamden, CT 06514

Fiberglass Screening:
Any local hardware store
Nylon net, used in several layers and bound with cloth tape:
Any fabric store

NO ENDORSEMENT OF THE ABOVE SOURCES IS INTENDED.

References:

An Annotated Bibliography
For Costume/Textile Preservation

Documentation, Records and Management:

An extensive classification system utilized by Michigan State University. Incorporates such divisions as geographic origin, age and sex of wearer, date, and position worn on the body.

Brief article which provides an overview of the various steps involved in authentication of a costume. Useful for very general background information.

Discusses filing and acquisition procedures as well as storage techniques. Use of stuffed torso for display is presented.

Describes management procedures such as acquisition, documentation, conservation, storage and use of articles at the University of Arkansas Museum.

Discusses advantages and disadvantages of the use of computer system for documentation and retrieval. The steps and procedures involved are outlined.

Discusses proposed classification and taxonomy system. Would provide a consistent system to be used by all museums.

Describes the documentation procedures utilized by the Smithsonian Institution, Division of Costume.


Describes a color-coded index system that utilizes five subject divisions - technique/structure, object, provenance, time period, and style period as well as a master file.


Describes the registration system used at The Ohio State University and the rationale for its selection. File system incorporates registration, category and donor files.


Brief article discusses various procedures for registration, cataloging, marking, and storage.


Provides a checklist approach to dating costumes.

General References for Care, Maintenance and Storage


Contains an extensive study of primary sources of information regarding historic costume. Includes information on dating, conservation, storage and display.


Valuable list of basic principles and hazards that must be considered when working with costumes. Excellent for a general understanding of concerns and requirements for the care of these articles.


Brief overview of basic care and problems regarding costumes; washing process discussed.


Detailed description of procedures for cleaning and storage used at Old Sturbridge Village. Good background information.


Describes principal sources of damage and suggested solutions and safeguards for each. Excellent background and resource information.


Article regarding curatorial department of Colonial Williamsburg. Describes storage methods and procedures; good background.


General handbook; contains a chapter on the care of leather and a chapter on the care of textiles. Good overview of general care requirements and procedures. Includes a suggested reading list.


Describes storage methods and space utilization at the Costume and Textile Study Collections at the University of Washington. Good storage alternatives.


Good overview of a variety of storage methods for all types of museum articles including costumes and textiles.


Discusses care requirements for costumes and textiles. Good resource for alternative methods of storage.


Brief discussion of basic steps in conservation of costumes and the role of proper storage in conservation.


Describes the general situation, environment, and procedures used at Colonial Williamsburg, particularly for costumes and textiles.
Describes unique custom-designed mobile costume storage units, methods of storage used by the Chicago Historical Society. Deals with both advantages and disadvantages of a mechanical storage system.

Collection of papers dealing with a variety of conservation techniques and problems from a variety of larger museums. Good resource; may be technically sophisticated methods.

Describes various aspects of museums collections. Helpful information of acquisition policies and procedures. General section of care and storage of costumes and textiles; a good background.

Valuable handbook for the care and preservation of costumes and textiles. Brief and concise discussion of each topic. Includes list of suppliers. Excellent resource.

Procedures and principles regarding testing for colorfastness, wet-cleaning, bleaching, and drying. Excellent background.

Discussion of care, storage and display procedures for rugs. Also helpful for other large textiles.

Restoration and preservation handbook and guide for the technician. Somewhat outdated; deals primarily with technical approaches; considered a classic resource by some.

A summary of scientific procedure used for a basic course in the Principles of Practical Cleaning....Does not provide information on cleaning process.

Application of basic principles for cleaning textiles applied to doll clothing. Resourceful methods discussed.


Technical discussion of problems and solutions regarding humidity, temperature, atmospheric pollution, etc.


Discussion of basic guidelines and procedures for costume storage. Good background information.


Discussion of short term exhibit methods. Includes procedures for handstitching and preparation for storage. Good background information.


One in a series on preventive care of museum objects for non-conservation museum personnel. Provides step-by-step instruction for lining a drawer and includes a list of supplies and precautions. Good resource.


Discusses the philosophy and procedures of storage. Outlines conditions and evaluates equipment for preservation of museum objects.


Deals primarily with larger leather objects such as saddles and boots, types of leather and their care requirements. Very little on shoes.

Watson, T. C. Archive and costume storage, Curator, 1976, 19 (1), 29-35.

Describes storage system and facilities of the Chicago Historical Society. Costume collection contains 10,000 pieces. Interesting overview of this unique system.


Possible source of information on cleaning techniques.
Display of Costumes and Textiles

Provides imaginative and relatively simple techniques for displaying costumes in a museum setting.

Philosophy of exhibits, their use and selection, for the Brooklyn Museum. A theatrical approach to display.


Discusses the various considerations needed for planning a museum exhibit from the viewpoints of the curator, designer, and the conservator.

A brief article on the philosophy and function of exhibits in a local history museum.

Describes display techniques and uses for the historic costume and textile collection at Kansas State University.

Discusses the philosophy and purpose of displays. The role of the exhibit as a means of communication.

University Collections

Interesting look at what is being done on the university level. Illustrates some questionable procedures for historic costume.

Provides a wealth of information concerning the collections and resources of various universities and colleges throughout the United States. Good reference.


Utilizing and redesigning university furnishings and resources to create storage facilities. Creative approach to costume and textile storage.


Overview of the philosophy and procedures involved in caring for the costume collection of the University of Kentucky.


A case study of a particular situation. An analysis of inherent problems and suggested guidelines for care as well as intended solutions.

Museum Collections


General description of philosophy and methods employed at a small local museum with costume and textile holdings.


Survey regarding Ohio museums with historic costumes. Provides an overview of number, time period, and the general type of care and storage provided by museums in Ohio.


Provides an overview of costume collections in museums in the United States. Categories identified included women's, children's, men's, and theatrical costumes. Dates of costumes and educational programs were also included.
Excellent example of a state-wide survey of textile and costume collections and resources.

Provides a general listing of museums by state. Includes some information about each entry such as address, director, general description of collections, hours and fees.

Other Sources

Good source of references relating to costume.
APPENDIX D

Evaluation for Museum Recommendations
Evaluation for Museum Recommendations

1. Was the amount of written information provided sufficient for current needs?

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<thead>
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   Comments:

2. Was the written information provided clear and understandable?

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   Comments:

3. Was the written information provided in a useful and practical format?

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   Comments:

4. Was the written information provided practical and suitable for museum resources and staff?

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   Comments:

5. Were written recommendations explained sufficiently prior to use?

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   Comments:

6. Was assistance provided for implementing portions of the recommendations sufficient?

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   Comments:
7. What aspects of the written recommendations were most helpful and why?

8. What aspects were least helpful and why?

9. Additional comments and/or suggestions:

Thank you.


Directions for Constructing a Padded Hanger for Costumes and Guidelines for Hanging Costumes. Washington, D.C.; Division of Costume, National Museum of History and Technology, Smithsonian Institution, 1979. (Leaflet)


