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# For the Love of Books (and Other Materials)

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Hartford, CT  
October 18, 2009



## Today's Presentation

- What is preservation, and why is it important?
- Why do collections deteriorate?
- Preservation planning and the development of a long-range preservation plan
- Emergency preparedness and security issues
- Specifics on deteriorating agents
- Steps to take to minimize damage
- Proper basic repairs that are easily done in-house



# Fundamental Preservation Problem Facing Libraries and Archives

- Library, archival, and personal collections comprise materials in a variety of formats and media types...virtually all of which are prone to natural deterioration over time.
  - Deterioration can be chemical, biological, mechanical, or incidental
  - Deal with the problems of inherent vice
    - Modern materials self-destruct over time
      - Paper, leather, film bases, magnetic media, etc.
    - Brittle paper is a major problem
      - Roughly 33% of all research collections is already embrittled



## Why Do Collections Deteriorate?

- *Inherent Vice* - weakness in the chemical or physical makeup of an object introduced during its manufacture
- *Extrinsic Vice* (or “agents of deterioration”) - heat, light, and humidity; pollution; pests; disasters; poor storage materials and furnishings; rough handling, etc.



## Why is Preservation Important?

- Professional responsibility to care for the collections in our care
- Dual responsibility/contradiction
  - Make materials available for use
  - Maintain the collections in a usable condition
  - Extend the life expectancy of the materials through preservation, conservation, or reformatting



## What is Preservation?

- The professional discipline of protecting materials by minimizing chemical and physical deterioration and damage to minimize the loss of information and to extend the life of cultural property. The act of keeping from harm, injury, decay, or destruction, especially through noninvasive treatment.

- SAA, *A Glossary of Archival & Records Terminology*



## What is Preservation?

- “... the activities associated with maintaining library and archival materials for use... in their original format or in some other usable way.”
  - *ALA Glossary of Library and Information Science*



# Administrative Oversight

- Focus on high-priority collections
- Do not collect what you cannot save
- Get the best value for your budget dollars
- Work to minimize damage to the collections to keep them usable for use
- Encourage cooperative activities (local, state-wide)
- Seek grant funding



## Who Should Be Responsible?

- Much can be done by collection managers, curators, librarians, archivists, town clerks, etc. guided by published resources and with advice from preservation professionals.
- For preservation to be effective, it must become an integral part of all activities within an organization.
  - Therefore, all staff have some responsibility for the preservation of the collections



## How Is It Integrated?

- Acquisition
  - Purchasing quality materials
  - Judicious use of library binding
- Disaster preparedness, response, and recovery
- Shelving
  - Storing oversized books flat or spine down
  - Using proper bookends, etc. and keeping books upright



## How Is It Integrated?

- Processing materials
  - Use of non-damaging spine labels
  - Proper attachment of dust jackets
  - Manuscript materials
    - Proper arrangement and description
    - Proper foldering, boxing, and storage
- Research use (security, procedures, supervision)



## How Is It Integrated?

- Photocopying
  - Using an “edge” photocopier with an edge platen and being careful not to damage the spines of books, etc.
  - Preferable for trained staff to do the photocopying, especially for more valuable materials
- Exhibitions
  - Supporting collections properly and using non-damaging exhibit techniques and supplies, etc.
  - Limiting exhibition times of materials



## Initial Steps That Can Be Taken

- Take advantage of preservation education opportunities
- Document deterioration in your collections and show damaged materials to others
- Share preservation information with others
- Conduct a preservation survey of the building and collections
- Monitor the environment



## Ongoing Preservation Activities

- Incorporate preservation:
  - Into your institution's mission statement (if it is not already there)
  - (At least implicitly) into your institution's collection policies
  - Into day-to-day activities in your institution
- View preservation realistically as a long-range challenge
- Develop a *formal preservation program*



## Ongoing Preservation Activities

- Identify and focus on high-priority collections
  - Do not forget or ignore circulating collections
- Allocate resources whenever possible for preservation
- Develop appropriate policies and procedures
  - Collection development and management policies
  - Preservation long-range plan
  - Disaster preparedness plan (*dPlan* and *dPlan Lite*)
- Explore cooperative activities
  - e.g. purchasing preservation supplies



## Collections Care

- Facilities maintenance
- Environmental control
- Storage and handling
- Security and fire protection
- Housekeeping
- Integrated pest management
- Staff and user education



## Collections Care

- Reformatting
- Basic repairs
- Conservation
  - Intensive treatment of individual objects with significant value by a professional conservator



# What is Preservation Planning?

A process by which general and specific collection care needs are determined, priorities are established, and resources for implementation are identified.

- Main purpose is to outline a plan or define a course of action that will allow an institution to set its present and future preservation agendas.
- It identifies the actions an institution will take and those it probably will never take so that resources can be allocated appropriately.



## What is a Preservation Survey?

- Identifies and describes the problems that affect the preservation of collections, analyzes the causes of these problems, and suggests a plan of action.
- It is essential to preservation planning



# Preservation Survey

- It must:
  - Evaluate policies, practices, and conditions in an institution that affect the preservation of all collections
  - Address the general state of all collections, what is needed to improve that state, and how to preserve the collections long-term
  - Identify specific preservation needs, recommend actions to meet those needs, and prioritize the recommended actions



## Preservation Survey

- Covers the entire building in which the collections are housed
  - Hazards to all collections are identified
    - Environment, storage, security and access, housekeeping, conservation treatment, and policies and practices
  - Sometimes the building is part of the collections (historically and/or architecturally significant)
- Needs to include the rationale for particular recommendations and priorities
  - Identify available resources



## Preservation Survey

- Should the survey be carried out by an outside surveyor/consultant or in-house staff?
- Consultant – advantages
  - May be more experienced than the staff
    - May have done more surveys, is more familiar with the process and in working with more diverse situations
    - More aware of outside resources
  - May be a specialist in a particular area of type of collection



## Preservation Survey

- Comes without preconceptions or biases
  - No personal agenda
- Can say things that may be interpreted as critical without fear of being penalized
- More credibility with the administration and staff
  - Not always warranted
- Has the time to do the job
- Consultant – disadvantages
  - Does not know the history of the institution
  - Requires an outlay of funds for fees



# Preservation Survey

- In-house staff – advantages
  - Knows the institution's values and functions, institutional framework, and background of existing situations
    - Can lead to more realistic recommendations than from a consultant
  - Knows where collections are housed, the particularities of the storage spaces, and how the facility works
  - May be more thorough
    - No limit on the staff member's time
  - Avoids additional cash expense
    - May cost more in staff time



# Preservation Survey

- In-house staff – disadvantages
  - Has own prejudices and agendas
    - May cloud the interpretation of the situations
  - Harder for an in-house person to be an instrument of change than for a consultant
  - May take longer than a consultant to conduct the survey and produce the report
    - Has regular job responsibilities
  - May be viewed by the administration and staff as not having the same level of knowledge as a consultant
    - Even if not true



# What is a Preservation Long-Range Plan?

- Defines and charts a course of action to meet an institution's overall preservation needs for its collections.
- Provides the framework or context for carrying out established goals and priorities in a logical, efficient, and effective manner.
- Based on a coherent and well-defined collection policy.



# What is a Preservation Long-Range Plan?

- Is a working tool for achieving agreed-upon priorities over a set period of time.
- Helps maintain continuity and consistency in a preservation program over time.
- Validates the role and importance of preservation, helping to make preservation an equal partner with other library and archival functions.



# What is a Preservation Long-Range Plan?

- Records past and present preservation activities and plans for future institutional efforts.
- Must dovetail with other key management tools in an institution
  - e.g. Institutional mission statement, collection management policy
- Needs to be comprehensive and include all collections



## Preservation Long-Range Plan

- Every institutional plan is different
  - Some are lengthy, complex, and detailed
  - Others are short and simple
  - All need to flow from the preservation survey
  - All must make sense for that particular institution
- Ideally the initiative will come from the Director or the Board
  - More frequently it comes from curatorial or conservation staff



## Preservation Long-Range Plan

- Takes a considerable amount of time and may cause considerable inconveniences
- Sometimes people may construe the development of a Preservation Long-Range Plan (LRP) as admitting to a preservation problem in the institution
  - Not so – all collections suffer deterioration, damage, and loss over time, but rates vary.
- Must be supported by the administration



## Preservation Long-Range Plan

- Must also have the commitment of the non-administrative staff for the plan to be effective
  - Team approach usually works best
    - Representative of a range of knowledge and skill
    - Include staff with credibility within the institution
    - Representatives from every department
    - Representatives from Advisory Committee and the Board



## Preservation Long-Range Plan

- Some of the components of the LRP probably exist already:
  - Mission statement
  - List of goals
  - Strategic LRP
  - Collections policies
  - Disaster preparedness plan
  - Preservation survey report
  - Appraisals
  - Grant proposals



## Preservation Long-Range Plan

- As a rule it should be as short as possible and still be effective
  - Three sections should be on separate sheets for easy separation (easier to distribute and update)
    - Executive summary
    - Action plan and timetable
    - List of preservation accomplishments to date



# Preservation Long-Range Plan

- Components include
  - Title Page
  - Acknowledgements
  - Executive Summary
  - Table of Contents
  - Introduction
  - Description of collections
  - Summary of collections' needs and actions
  - Prioritizing actions



# Preservation Long-Range Plan

- Components include
  - Title page
    - Name of institution, address, date, title of plan, name of funding source (if applicable)
  - Acknowledgements
    - Authors, people who provided assistance, acknowledgement of outside funding if appropriate



# Preservation Long-Range Plan

- Executive summary
  - Acquaint the reader with the institution's preservation plan
  - Provide a brief overview of the plan
    - Essential points and high priority items
  - Concise, positive, clear, and direct wording
  - Easy to comprehend at a glance
- Table of contents



# Preservation Long-Range Plan

## – Introduction

- Brief history of the institution's past and current preservation activities
- Deals with institutional mandate to take care of collections
- Contains the mission statement
- Helps focuses on what the plan should/will contain

## – Description of the collections

## – Summary of the collections' needs and actions



## Description of Collections

- Information may already be in an inventory
  - If not, it is a great opportunity to develop one
    - Key component of a Preservation Long-Range Plan
- Amount and type of use collections receive
  - Important as heavily used materials have different needs from those used occasionally
- Condition of the housing of the collections
  - Poor environmental conditions, harmful containers, susceptibility to theft, vandalism, fire, or disasters put the collections at high risk



## Description of Collections

- Particularly threatening to materials in poor and/or fragile condition
  - Mitigation actions are a high priority for implementation
- Value of the materials
  - Monetary, historic, aesthetic, legal, administrative, intrinsic, associational, and bibliographic
- Length of time and in what format the materials need to be preserved



# Summary of Collection Needs and Actions

- Specific actions required to meet preservation needs of each collection
  - Must be prioritized
  - Include such things as proper shelving practices, appropriate repairs, install HVAC, purchase of special furniture, individual conservation treatment, etc.
- Can be done by collection or by category
- Most needs fall into certain categories
  - Environment



# Summary of Collection Needs and Actions

- Storage facilities and containers
- Exhibitions
- Conservation treatment
- Security and access
- Housekeeping
- Policies and practices
- Professional outreach
- Funding
- Staff, consultants, and training



## Prioritizing Actions

- Prioritization is the process of deciding which actions will have the most significant impact, which are the most important, and which are the most feasible.
- Must be done once the needs and recommended actions have been recorded.
  - Initially for each collection, then on a departmental level, and then on an institution-wide basis



## Prioritizing Actions

- Consider the impact and the urgency of the actions as well as the use, condition, and housing of the materials in the collections in question.
- Concentrate on the importance of the actions.
  - Do not deal with the value of the collection or feasibility at this point.
    - High, medium, or low priority
    - Weigh each recommended action against the other potential actions



## Prioritizing Actions

- Institutional resources are always limited
  - Not every action can be accomplished
- Prioritization is carried out in three phases
  - Actions required to preserve each individual collection are prioritized one collection at a time.
  - Priorities of each collection are weighed against those of every other collection to determine the institutional preservation priorities as a whole.



## Prioritizing Actions

- Institutional priorities are ranked further by feasibility
- Results are the institutional implementation priorities
  - Form the basis for the institutional preservation long-range plan
  - Serve to create a timetable for action
  - Provide the rationale for actions in the future



## Criteria for Prioritizing

- Impact – the extent to which an action will improve the preservation of the institution’s collections
  - High impact actions are “... those that will result in dramatic improvement in the present condition of the materials, a substantial decrease in the rate of deterioration, a substantial increase in the efficiency of current preservation activities, or considerable savings of time, energy, or money.” (Pam Darling.)



# Criteria for Prioritizing

- Feasibility –
  - For some institutions something may be easy and for others the same thing may be impossible. Determined by a number of factors including:
    - Staffing levels and expertise available
      - Availability of technical and management capability
    - Financial implications
      - Capital outlays, expenditures for materials and services, ongoing operating costs, fundraising potential



# Criteria for Prioritizing

- Policy and procedural changes
  - If these are required and who can make them
- Political feasibility
  - Whether it is possible to implement or not
- Urgency of action
  - Will waiting to implement the necessary steps cause further problems or result in bypassing an opportunity to make significant progress in preservation?



## Influencing Factors

- Amount and type of use
  - Permanent exhibition (not recommended) is different than materials that are always in storage.
  - Frequent use is different from infrequent use.
- Housing of the collections
  - Poor environmental conditions, harmful containers, susceptibility to theft, vandalism, fire, or disasters put the collections at high risk.



## Influencing Factors

- Poor or fragile condition of the materials
  - Risk factor is greater for these vulnerable items
- Value of the materials
  - Monetary, historic, aesthetic, legal, administrative, intrinsic, associational, and bibliographic
  - Rarity, provenance, and significance to the institution
- Length of time to be preserved and in what format
  - e.g. consider the artifactual value as compared to the informational content/value



# Impact vs. Feasibility

Feasibility	High	1	2
	Low	3	4
		High	Low
		Impact	



## Impact vs. Feasibility

- **Box 1** – easily accomplished and will have significant impact
- **Box 2** – Often can be eliminated
  - Accomplish little but may be worthwhile because they are easy to do
- **Box 3** – Deserve careful consideration
  - Difficult but warrant implementation because of high impact
- **Box 4** – Postponed or disregarded
  - Little achieved and great effort



# Impact vs. Feasibility

Feasibility

High

Low

1 Improve building maintenance plan Create a disaster preparedness plan	2 Purchase cotton gloves and train staff to use for handling photographic collections
3 Replace HVAC system	4 Redesign and renovate main reading room for maximum architectural interest

High

Low

Impact



# Emergency Preparedness

- Planning - the umbrella activity for:
  - Prevention and protection
  - Response and recovery
- A risk assessment = basis of a disaster plan
  - Identifies greatest threats to the organization and collections
  - Allows for the development of procedures to eliminate or reduce their impact



# Emergency Preparedness

- Emergencies
  - Fire, flood, pests, mold, theft, vandalism, earthquakes, tornadoes, blizzards, etc.
- Development of a disaster plan is crucial to the protection of collections (*dPlan* and *dPlan Lite*)
  - Needs to involve all staff in its development and implementation
  - [www.dplan.org](http://www.dplan.org)



# Emergency Preparedness

- Focus needs to be on prevention, reduction of potential threats, and recovery
- Existence of a plan can help ensure:
  - Survival of greatest amount of material affected
  - Usability of the greatest amount of the surviving materials



# Emergency Response and Recovery

- Existence of a disaster preparedness plan greatly facilitates any and all response and recovery efforts
  - Allows staff to assess the situation and plan how to prioritize response and recovery activities
  - Determine staffing, supply, equipment, service needs



# Emergency Response and Recovery

- Response
  - Determine extent of the damage and the kinds and quantity of media affected
  - Gather staff and all supplies and contact services needed
  - Organize staff and plan either to air-dry or freeze materials
  - Carry out plan for recovery



# Collection Security

- Security is a primary staff responsibility, yet it is one of the most difficult to enforce
  - Must enforce the security rules and regulations uniformly with all researchers
  - Must provide access to the materials with security
  - Must ensure the preservation and security of the collections



# Agents Contributing to Deterioration (1)

- Chemical catalysts
  - High temperature
  - High relative humidity (RH)
  - Fluctuations in temperature and relative humidity
  - Light
  - Ultra-violet radiation
  - Pollution



## Controlling the Environment

- Most cost-effective means of preserving collections available
  - Affects the largest number of items for the least cost per item
  - In the short-term, it seems expensive because of up front costs and actual bills
  - In the long-term, it is less expensive if one considers replacement costs, loss of materials, repair costs, etc.



# Controlling the Environment

- Monitoring the environment
  - Documents existing conditions
  - Indicates efficiency of existing climate system
  - Supports funding requests to install controls
- Maintain the temperature and RH within certain parameters
  - Maximum of  $68^{\circ}\text{F.} \pm 2^{\circ}\text{F.}$  for general collections and  $65^{\circ}\text{F.} \pm 2^{\circ}\text{F.}$  for special collections/archives
  - 25 % - 45 % RH for general collections and 25 % - 40 %  $\pm$  3 % diurnal and  $\pm$  5 % annually for special collections/archives



# Limiting Light Exposure

- Control lighting
  - All light is damaging
    - Maximum of 300-600 lux for general collections
    - Maximum of 200-400 lux for special collections/archives
  - UV radiation is most damaging
    - $<75 \mu\text{W}/\text{Lumen}$  and  $<20 \mu\text{W}/\text{M}^2$
  - Light damage is cumulative
  - Low cost changes can make a difference



# Avoiding Harmful Pollutants

- Control Air Quality
  - Filter outdoor pollution
  - Reduce indoor pollution
    - e.g. Do not put a photocopier in a storage area
      - Also a fire hazard



## Agents Contributing to Deterioration (2)

- Biological Agents
  - Mold
  - Insects and other pests
- Mechanical
  - Vellum affected by moisture
  - Poor storage and handling practices
- Incidental
  - Water and fire emergencies, earthquakes, blizzards, etc.
  - Vandalism and theft



## Handling Procedures

- Create handling guidelines for staff and researchers
- Train staff and users
  - Needs to include shelving practices, book drops, date stamping, photocopying, etc.
- Lock book drops when library is open
  - Empty book drops over long weekends and vacations
  - Encourage patrons to return books on top of circulation desk and not into an internal book drop



## Handling Procedures

- Must supervise use and handling of materials, especially by users
  - This is particularly true of local history/special/archival collections
- Reduce handling of special collections whenever possible
- Provide copies (microfilm, photocopies, photographic copies, digital surrogates) for use and exhibition



## Storage Methods

- Shelving practices
- Rehousing
  - Phase boxes for books, boxes and folders for manuscripts, proper boxes for microfilm
- Storage furniture
  - Microfilm/fiche cabinets, map cases, book shelves
- Cleaning collections



# Proper, Basic In-House Repairs

- Hinge tightening
- Corner strengthening
- Paper mends
  - High use materials vs. more valuable materials
- Tipping-in pages
- Spine replacement



## Conclusions

- Learn about the materials in your collection to provide the most sympathetic and effective care
- Control external agents of deterioration
- Integrate preservation into daily operations
- Prioritize your collections for preservation
- Plan for preservation
  - It should be “proactive” rather than “reactive”



## Conclusions

- Develop a Preservation Long-Range Plan that will provide a context within which all of the above can be accomplished
  - The goals and priorities of a preservation program need to be firmly rooted in the institutional mission statement as well as in a coherent and well-defined collection policy.
  - It is really a process for allocating available resources to activities and functions important to carrying out an institution's mission.



## Conclusions

- Address the security and disasters needs of the collections
- Provide for the long-term stability of your collections through proper housing, handling and storage practices, environmental controls, etc.
- Begin a basic repair program for general collections



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