

PRESERVATION SITE SURVEY REPORT

for

Museum of the Western Prairie



Submitted by:

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I. Introduction

On September 24, 2013 Rebecca Elder, Adjunct Preservation Field Services Officer, Amigos Library Services, visited the Museum of the Western Prairie in Altus, Oklahoma, to conduct a site survey and staff interviews relating to preservation management. The site visit included a physical structure survey, a general collection assessment overview, an examination of preservation staffing and activities, and interviews with staff representing a number of different departments on disaster planning, security, and preservation management issues at the institution.

Sections III - VII of this report describe the present state of the museum in terms of its physical structure, the overall condition of the collections, current preservation activities, and disaster planning; included in each section is advice on correcting problems and/or advocacy for specific policies and procedures. Section VIII, Future Options for Preservation Management, is concerned with setting achievable goals and objectives to most effectively and efficiently maintain the collections, and can aid the museum in setting both short- and long-term goals.

II. The Building

The building is the first defense against the outside environment and all the potential hazards, including weather, pests, water, pollutants, etc. Maintaining the roof, foundation, building seams, gutters, and drains will better your investment in preserving the building and the contents within.

The museum building was constructed in 1970, with two additions since. This year, the Braddock Gallery, the First Gallery, and collections storage areas will undergo renovations. The one-story structure is fairly small but structurally sound with a flat roof that was replaced in 2012.

Recommendations:

- Trim back trees that overhang and touch the building to discourage pest entry.
- Clean the insect debris from under the eaves of the roof. (See Figure 1 on the next page.)



Figure 1: Insect debris under eaves

- Weather-strip the exterior doors in the First Gallery.
- Caulk the seal between the slab and the building in the courtyard behind the First Gallery.
- Keep up the good work on maintaining the building.

III. The Building Environment

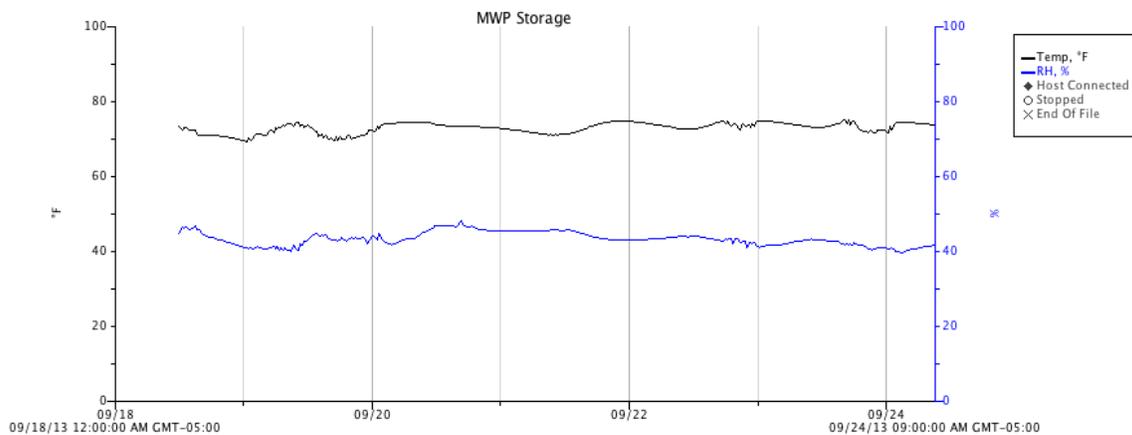
Temperature, relative humidity, pollution, and light all have a great impact on the rate of deterioration of museum collections: increases deteriorating chemical reactions, mold, warping, insect infestation, fading, and embrittlement. A good building environment will insure the longevity of your collections.

A. Temperature and Relative Humidity

The Heating, Ventilating, And Air Conditioning (HVAC) unit(s) is an important component to a good building environment. The current HVAC unit was installed when the building was built, and is a compressor unit. The unit has only temperature control and runs 24 hours, 7 days a

week, 365 days a year. There are zones to provide different conditions in different areas. The system does not offer dehumidification and was not designed for humidification. As there is no control in the HVAC system over the relative humidity, the indoor RH will vary, following the outdoor RH; during the winter, however, the use of heat can significantly lower the indoor RH. The only sure way to determine the performance of the HVAC is through initiating an environmental monitoring program.

The museum does not currently keep records of daily temperature and relative humidity levels. A datalogger measured temperature from 69-74° and relative humidity from 40-46%. Results are attached below. Humidity and temperature are fairly stable, which is probably due to the thick walls and the building's dugout structure. The temperature is slightly higher than the recommended temperature of 68-70°. Humidity falls well within the recommended range of 35-50%.



Recommendations:

- Implement an environmental monitoring program using dataloggers. Loggers should be placed in all of the storage areas, all of the galleries and the library.
- Lower the temperatures to 70°.
- Continue the excellent maintenance practices for the HVAC system.

B. LIGHT

All visible light can quickly damage library and museum materials and can cause fluctuations in temperature and humidity as well. Light levels were monitored on the day of the visit and found to be acceptable.

Recommended light levels for libraries and museums are displayed in the chart below:

Recommended Light Levels

<i>Type of Space</i>	<i>Light Level Range</i>
Storage	10-50 lux (1-5 foot-candles)
Display	50-150 lux (5-15 foot-candles)
Reading/work areas	300-600 lux (30-60 foot-candles)

Recommendations:

- The most vulnerable artifacts on display are the original George W. Long photographs. Because the artist created frames for the photographs, they have artifactual value and the originals need to be displayed. The lights for this case should be placed on a motion sensor to help reduce light exposure.
- Place a blue wool card in the Long exhibit to help determine the effects of light damage on the materials in this case.
- Place UV filters on the fluorescent bulbs in the library and storage areas.
- Purchase a light meter to help adjusting light levels in galleries, particularly the new First Gallery, which will have lights that can be adjusted.

C. Housekeeping, Pests and Mold

Housekeeping, pests and mold are closely interrelated issues. Good housekeeping is one of the best ways to prevent pests and mold. The Museum of the Western Prairie has had few pest infestations and no mold outbreaks to their knowledge.

Recommendations:

- Implement a pest monitoring program using sticky traps to help quickly spot infestations.
- Clean the storage rooms periodically.
- Implement a three day quarantine period for donated materials and inspect them thoroughly to ensure that no problems are introduced into the collections.
- Continue the excellent housekeeping practices throughout the public areas of the museum.

IV. Collection Condition

This section of the report is not intended to provide an item-by-item evaluation, but to provide a summary of the general condition of the collections, the damage most characteristic of the institution's collections, storage, and handling practices. Any special, rare, or unique items that require conservation treatment should be identified and evaluated by a conservator. See this online resource on how to [identify and select a conservator](#).

The collection contains approximately 27,000 items, including, photographs and negatives, books, audio recordings, textiles, and artifacts. Overall, the collection is in reasonably good condition.

Recommendations:

- Write a collections development policy and deaccession materials that do not fall under the policy.
- Rehouse all material that is not already stored in acid-free boxes.
- Box the framed Long photographs individually and store them flat. This will provide extra protection for the handmade frames.
- Ensure that all boxed photographs and negatives are standing straight in their boxes.
- Box damaged and deteriorated books.
- Rehouse the costumes, refolding them and padding the folds with acid-free tissue.
- Box the damaged stained glass window or hang it in a safe place.
- The books in the library do not have enough room on the shelves to use bookends. This promotes damaging handling practices. See more information in the section on shelving

and storage.

- Move the collections out of the general office storage. Box the scrapbooks (See Figure 2 below) and store them flat.



Figure 2: Fragile scrapbooks in general storage area

- Roll the oversized documents that cannot fit into the flat files around acid-free tubes and store them flat.

V. Storage and Shelving

Standard metal shelving with a powder-coated finish is recommended. Certain paint applications and wood furniture are known to off-gas damaging pollutants such as formaldehyde; this offgassing can stain books and hasten their deterioration. Museum objects are best stored in museum cabinets.

Recommendations:

- Consider compact shelving for the artifacts and the library. This will alleviate the current overcrowding. (See Figure 3 below.)



Figure 3: Overcrowded artifacts storage

- Replace the wooden shelves in the library or cover the surfaces with an acid-free buffer material like Mylar® or alkaline-buffered board.
- Pad the metal artifact shelves with Ethafoam® to add a layer of protection for artifacts.
- Put the existing workbenches on casters so they can be moved in and out of the new storage area.
- File cabinets and the old safe are poor choices of storage furniture because they do not allow air to circulate around the collections. Material in the cabinets and the safe should be rehoused into document boxes on metal shelving.
- Consider adding photographs of the objects in each box to the labeling information on the boxes.

VI. Exhibits

Exhibits are a crucial function of museums and many libraries, but care must be taken that artifacts are not damaged when on display. Exhibits should have low light levels (between 50-150 lux). Cases should be made of non-damaging materials and the environment in cases should be monitored. Artifacts should also be rotated frequently.

Recommendations:

- Rotate light sensitive artifacts frequently, particularly the George W. Long photographs (see Figure 4 below), but also textiles, paper, and anything else that can be affected by light.



Figure 4: George W. Long photographs on display

- Refold the displayed quilts periodically.
- When the small journal is put on display, ensure that it has a safe cradle and that pages are turned regularly to ensure that a permanent opening does not form.

VII. Disaster Planning

Developing and implementing a [Disaster Preparedness and Recovery Plan](#) for protecting and salvaging collections materials in the event of a disaster should be considered a priority. To be practical and useable, the plan should include specific information (descriptions/instructions) on activities staff must undertake in the event of an emergency. The plan should include a list of suppliers and disaster recovery resources. Local resources such as hardware stores, plumbers, and paper suppliers should be included, along with those resources that would be needed in a major disaster recovery effort. The most important phone numbers and contacts in the museum should be located at the very front of the report. Other “secondary” phone numbers can be included in the rest of the report or in appendices.

Recommendations:

- Create a pocket disaster plan using the Council of State Archivists’ Pocket Response Plan. (<http://www.statearchivists.org/prepare/framework/prep.htm>)
- Stock disaster supplies in collection storage and the library to ensure they are at hand when needed.
- Invite first responders to tour the collection once the renovations are complete.

VIII. Future Options for Preservation

There are a number of available options for expanding and structuring the institution’s preservation program. Many of the recommendations made in this report require relatively little or no cost to implement; rather, they entail changes in practices and policies. However, some will require more planning and financial investment. Possible short and long term goals are listed below.

Short Term Goals

- The museum should have a dedicated budget line for preservation to ensure that each year there is some funding available for preservation projects.
- Implement the environmental and pest monitoring programs.

- Place the light for the George W. Long exhibit on a motion sensor.
- Create the collections policy and begin to deaccession unneeded material.
- Begin the rehousing projects.

Long Term Goals

- The museum currently has one full-time employee and one half-time employee. This is not enough staff to perform all of the functions associated with running a museum and caring for the collections adequately. At least one full-time position should be added.
- Install compact shelving in the library and the collections storage areas.
- Because there is no way to add on to the building, consider building a Collections Management Facility on the grounds of the museum. This would have storage and work space, allowing the collection to grow. Once this facility is built, the current collections storage spaces could be converted to exhibit spaces.