



Museums for America

Sample Application MA-31-16-0434-16
Project Category: Collections Stewardship
Funding Level: \$5,000-\$25,000

Logan Museum of Anthropology Beloit College

Amount awarded by IMLS: \$9,958

Attached are the following components excerpted from the original application.

- Abstract
- Narrative
- Schedule of Completion

Please note that the instructions for preparing narratives for FY2017 applications differ from those that guided the preparation of previous applications. Be sure to use the narrative instructions in the FY2017 Notice of Funding Opportunity for the grant program and project category to which you are applying.

Abstract

Beloit College's Logan Museum of Anthropology seeks an Institute of Museum and Library Services Museums for America, Collections Stewardship non-matching award of \$9,958 to rehouse images from its photograph collection in cold storage. The goal of the *Anthropology Photograph Collection Cold Storage Project* is to improve collections stewardship and long-term preservation of photograph resources by implementing the museum's highest preservation need identified through a recent conservation assessment of the photograph collection. To accomplish this goal, the project has four objectives: (1) rehouse highly significant nitrate and acetate negatives (1,064), color slides (17,034), and color photographs (272) in vapor-proof packaging in cold storage; (2) create a cold storage shelf map to aid retrieval; (3) develop a duplication plan; and (4) consult with Gary E. Albright, paper and photograph conservator, to benchmark progress and ensure best practice.

In 2012 the Logan Museum was awarded a National Endowment for the Humanities Preservation Assistance Grant for Smaller Institutions to conduct a conservation assessment of the museum's significant photograph collection. In November 2013 Gary E. Albright, paper and photograph conservator, completed the conservation assessment report. A Photograph Collection Preservation Plan was then written to address the six conservation priorities, arranged from highest to lowest priority, identified in Mr. Albright's report: (1) freezer storage for nitrate and acetate negatives and color material; (2) duplication (scanning) of negatives and color materials placed in freezer storage; (3) removal and disposal of duplicate and extraneous materials; (4) flatten rolled and curled photographs; (5) conservation treatment of select photographs; and (6) continued improvement of storage conditions through the use of proper enclosures and boxes. This project addresses the highest priority need—cold storage for nitrate and acetate negatives and color material—identified in this plan and in the Logan Museum's current strategic plan.

The Logan Museum's photograph collection consists of over 29,000 images that date from the late 1890s to the present. They document collection history, curricular use of collections, and exhibits over the course of the museum's 121-year history. The photograph collection has been organized into five subject areas with aligned levels of significance as part of the museum's effort to gain intellectual control over this important resource.

Only nitrate and acetate negatives and color material from subject areas deemed to be of high to medium significance will be rehoused in cold storage. Volatile nitrate and acetate film negatives and color materials destined to fade will be rehoused in vapor-proof packaging and kept "in stasis" in cold storage. A cold storage map will ensure physical control. Intellectual control will be realized through the development of a duplication plan. The result will be improved collections stewardship, long-term preservation of significant photograph collections, and increased institutional control over and capacity to manage these important and irreplaceable resources.

NARRATIVE

Statement of Need

Beloit College's Logan Museum of Anthropology seeks an Institute of Museum and Library Services Museums for America, Collections Stewardship non-matching award of \$9,958 to rehouse images from its photograph collection in cold storage. The goal of the *Anthropology Photograph Collection Cold Storage Project* is to improve collections stewardship and long-term preservation of photograph resources by implementing the museum's highest preservation need identified through a 2013 conservation assessment of the photograph collection. To accomplish this goal the Logan Museum identified four project objectives: (1) rehouse highly significant nitrate and acetate negatives (1,064), color slides (17,034), and color photographs (272) in vapor-proof packaging in cold storage; (2) create a cold storage shelf map to aid retrieval; (3) develop a duplication plan; and (4) consult with Gary E. Albright, paper and photograph conservator, to benchmark progress and ensure best practice.

In 2012 the Logan Museum was awarded a National Endowment for the Humanities Preservation Assistance Grant for Smaller Institutions to conduct a conservation assessment of the museum's significant photograph collection and provide a workshop on the care of photographs for museum staff and Beloit College museum studies students. Gary E. Albright conducted a preservation assessment of the photograph collection and presented the workshop in 2013. The museum's curator of collections used the resulting conservation assessment (Supporting Document 1: Conservation Assessment) to draft a long-range preservation plan for the photograph collection (Supporting Document 2: Photograph Collection Preservation Plan). Mr. Albright's report identified six conservation priorities, arranged from highest to lowest priority: (1) freezer storage for nitrate and acetate negatives and color material; (2) duplication of negatives and color materials placed in freezer storage; (3) removal and disposal of duplicate and extraneous materials; (4) flatten rolled and curled photographs; (5) conservation treatment of select photographs; and (6) continued improvement of storage conditions through the use of proper enclosures and boxes. This project addresses the highest priority need—cold storage for nitrate and acetate negatives and color material—identified in Mr. Albright's conservation assessment report.

Cellulose nitrate film negatives present serious preservation, health, and safety concerns. All cellulose nitrate film will deteriorate at unpredictable rates unless stored at very low temperatures. As it deteriorates, the film gives off acid byproducts that can have a negative health impact on people working in proximity to stored negatives and can affect surrounding museum collections. In addition, deteriorating nitrate film is highly flammable. Cellulose acetate film (often referred to as Safety film) presents similar preservation concerns but is not flammable. As cellulose acetate deteriorates acids are released and the film shrinks, causing distortion and buckling that make duplication difficult. To slow the deterioration process of both nitrate and acetate film negatives, to protect surrounding collections, and to reduce health and safety risks, rehousing in cold storage is critical.

Color slides (Kodachrome and Ektachrome) and prints are subject to deterioration in the form of fading due to the instability of the dyes. The degree of fading is affected by the type of material

(for example, Ektachrome fades more quickly than Kodachrome), processing, age, and temperature and relative humidity in the storage environment.¹ According to Albright (2013: 3), “The only feasible techniques to preserve these materials are cold storage (below 40 degrees F, and 30-40% RH).”

The Logan Museum’s photograph collection consists of over 29,000 images that date from the late 1890s to the present. The collection includes approximately 19,995 color slides, 6,627 black and white prints, 1,064 nitrate and acetate negatives, 1,020 lantern slides, and 469 color prints. The collection has been organized into five subject areas with aligned levels of significance as part of the museum’s effort to gain intellectual control over this important resource (for details, see Supporting Document 2: Photograph Collection Preservation Plan). Only nitrate and acetate negatives and color material from subject areas deemed to be of high to medium significance will be rehoused in cold storage. A brief description of each subject area and its level of significance follows.

High significance (collections-related)

For over 90 years, Beloit College faculty, staff, and students have undertaken ethnographic and archaeological fieldwork around the world, generating significant collections. The collections-related photographs constitute essential associated documentation and are a significant research resource to faculty, students, outside scholars, and source communities because they document fieldwork methodology and in-situ finds, provide temporal context, and record cultural and ecological landscapes. As such, they have the highest significance to the mission of the institution. This category represents the largest quantity of photographic material and also presents the greatest preservation challenges as it contains the majority of the cellulose nitrate and acetate negatives.

Medium significance (use-of-collections and exhibits & events)

Use-of-collection images document the museum’s role as a teaching laboratory and illustrate how museum practice has evolved over time. These images depict students researching, cataloging, and inventorying collections, and illustrate how faculty have used material culture for teaching anthropology, museum studies, and art and art history over the years. Images of exhibits and events document the development and installation of exhibits and modes of representation employed by the Logan Museum since its founding in 1893. These two subject areas—use-of-collections and exhibits & events—are of medium significance because they document institutional history but are not directly collections-related.

Low significance (instructional and objects)

Instructional images are maintained for teaching purposes. Objects have been photographed for publication, research, and preservation purposes, documenting the condition of collection items at a moment in time. Instruction and object photos are of low significance because many are duplicate images, they are accessed infrequently, and they are not directly collections-related.

Assessment of the intellectual content and preservation needs of the photograph collection has involved multiple stakeholders. The primary audience and users of the Logan Museum are Beloit

¹ Reilly, James. *The Storage Guide for Color Photographic Materials*. University of the State of New York. 1998: 3. https://www.imagepermanenceinstitute.org/webfm_send/517. Accessed 11/13/15.

College faculty and students. Anthropology and museum studies faculty were consulted about curricular connections, research potential, and exhibit ideas. Students have been involved in all facets of the project from inventory, through preservation training via Mr. Albright's workshop, to upgrading of storage enclosures. Since the assessment was conducted in 2013, Beloit College students working with museum staff and the college archivist completed two of the six priority recommendations: removal and disposal of duplicates and extraneous material and continued improvements to storage conditions through the use of proper enclosures and boxes. In addition, a 2014 summer intern cleaned and rehoused all the lantern slides in archival enclosures and boxes and created a finding aid.

Preventive conservation is the cornerstone of Logan Museum collections stewardship activities, planning, and policy. Completion of the photograph conservation assessment was an action item in the museum's 2010-2012 strategic plan, and implementation of the conservation assessment's highest priorities are action items in the museum's current 2014-2016 strategic plan (see the Strategic Plan Summary). The museum has implemented some priority recommendations using existing resources, but external support is necessary to address the highest priority need, cold storage. The museum does own a 20 plus-year old chest freezer, but it is not frost-free and is used in conjunction with the museum's integrated pest management program. A dedicated freezer is required for cold storage of photographic materials.

Impact

Implementation of the *Anthropology Photograph Collection Cold Storage Project* objectives will result in improved collections stewardship and long-term preservation of significant photograph collections. The project has four objectives: (1) rehouse highly significant nitrate and acetate negatives, color slides, and color photographs in vapor-proof packaging and boxes and place in cold storage; (2) create a cold storage shelf map to aid retrieval; (3) develop a duplication plan; and (4) consult with Gary E. Albright to benchmark progress and ensure best practice—. "Cold storage will greatly slow or halt the rate of deterioration, and in many cases, can even eliminate the need to undertake expensive duplication, especially for low-use collections".² Cold storage is the first step to keep the collections "in stasis" until duplication is feasible.³

The Logan Museum of Anthropology serves as a teaching laboratory for Beloit College's Museum Studies Program and other academic programs. Modeling best practice is central to our teaching mission. Students will assist in the implementation of this project, gain invaluable knowledge about current best practice, and have the opportunity to work with a conservator during the onsite consultation. These are invaluable opportunities that enable students to put theory into practice, while making a dramatic impact on preservation at the Logan Museum.

Improved collections management of the photograph collection will also be realized as a result of the cold storage shelf map and duplication plan. The map of the boxes in cold storage will facilitate physical control by guiding users to the precise box they want while reducing the need

² Ritzenthaler, Mary Lynn and Diane Vogt-O'Connor. *Photographs Archival Care and Management*. Society of American Archivists. 2006: 217.

³ *Conserve O Gram*, Number 14/10, 2009, page 1. <http://www.nps.gov/museum/publications/conservoogram/14-10.pdf>. Accessed 11/13/15.

to leave the freezer door open for long periods of time. The duplication plan will inform and guide future institutional resource allocation toward duplication of images of high significance and high use. These documents will be tangible products that will allow the Logan Museum to plan for access and duplication efficiently and intentionally.

This project addresses key goals in our institutional strategic plan and will result in increased institutional capacity for collections stewardship. These benefits are sustainable on two levels. First, as strategic goals are met, collection stewardship improves, and new systems will be in place that will facilitate long-term preservation (cold storage) and increased intellectual control (duplication plan). The freezer will be monitored for equipment failure and proper temperature and relative humidity, thereby ensuring operational sustainability. Second, the duplication plan will outline actionable steps that will make clear how a program of duplication will proceed after cold storage is implemented and sensitive collections are “in stasis.” Care of the Logan Museum’s photograph collection will not end with the completion of this project. Instead, this project represents an important step in the photograph preservation plan and better positions the museum to be able to address the next steps in the plan.

Project Design

To accomplish the goal of preserving the Museum’s photograph collection, four activities will be undertaken between January and October of 2017: (1) rehouse highly significant nitrate and acetate negatives (1,064), color slides (17,034), and color prints (272) in vapor-proof packaging and boxes and place in cold storage; (2) create a cold storage shelf map to aid retrieval; (3) develop a duplication plan; and (4) consult with Gary E. Albright, paper and photograph conservator, to benchmark progress and ensure best practice. The attached schedule of completion identifies the sequence in which each activity will occur and how long each is expected to take to complete.

The project will be directed and implemented by Nicolette Meister, Curator of Collections, who will be responsible for adhering to the schedule of completion and adjusting the plan as needed. Trained student museum assistants will assist her in implementing activities 1 through 3. Ms. Meister has worked at the Logan Museum since 1999 and possesses a deep understanding of the museum’s collections and usage. She has successfully implemented two collections-related IMLS-funded projects and three collections-related NEH-funded projects (see Resumes for more details about the project director’s qualifications). Each activity that is part of the plan of work is discussed in detail below.

Activity 1: Rehouse in Vapor-Proof Packaging and Place in Cold Storage

Because the quantity of photographic material recommended for cold storage is relatively small—approximately 6.6 cu. ft.—the use of a household upright freezer is a cost effective choice. A Frigidaire 16.9 cu. ft. upright frost-free freezer featuring Energy Star compliance, adjustable shelves and door bins, a lockable door, a LED temperature display, and a temperature alarm will be purchased with grant funds.⁴ Freezer capacity will accommodate current needs and provide ample space for future growth. Flammable material storage is not required because the

⁴ This model meets the specifications recommended in *Conserve O Gram*, Number 14/11, 2009, page 2-3. <http://www.nps.gov/museum/publications/conservoogram/14-11.pdf>. Accessed 11/20/15.

museum's nitrate film collection is far less than 25 lbs.⁵ The freezer will be installed in the museum's isolation storage room, which houses incoming collections and deaccessioned objects. The room is locked and adjacent to the collections lab where the majority of the photographs are currently housed.

All nitrate and acetate negatives have been rehoused in archival quality paper sleeves, and relevant information has been recorded in pencil on the exterior of each sleeve. Sleeved negatives will be placed in four archival boxes (9x12x3"), which will accommodate approximately 320 negatives each (stacked side-by-side in four piles of 80 negatives). Slides will be rehoused in their original order in archival quality slide boxes to be placed within a master box. Fifteen 12x15x3" boxes will be required to accommodate 17,034 color slides (each box holds 1,200 slides). 100 large format color photographs are currently housed in archival quality boxes and do not require rehousing in new boxes. The remaining color photographs are in archival sleeves and will be rehoused in two archival boxes (9x12x3"). To the extent possible, like-sized photographs will be grouped together. To maximize storage space we will use only three box sizes, which will be stacked in the freezer. The freezer will be maintained at 35-40°F, 20-30% RH.⁶ The freezer has an alarm that will sound when the inside temperature is too high, if the door remains open, or if there is a system malfunction. Regular monitoring of the digital display on the outside of the freezer will provide visible confirmation that the unit is operating properly.

Vapor-proof packaging is essential for cold storage. Proper packaging will help to maintain the desired microclimate inside individual boxes and will prevent condensation from forming due to high relative humidity (RH), dramatic changes in RH, or removal from cold storage to warm up to room temperature. All household freezers experience daily changes in RH as part of the defrost cycle. Vapor-proof packaging acts as a buffer, ensuring that RH fluctuates minimally (about 1%) inside packaging while the RH in the freezer may fluctuate up to 20% in one hour. We will employ the vapor barrier packaging procedures recommended by Mr. Albright and described in *Conserve O Gram*, Number 14/12.⁷ According to Mr. Albright (2013: 4), this technique "...is a more conservative, more secure approach to packaging" than critical moisture indicator package design. This technique requires an inner bag of barrier film and two outer zipper-lock 6-mil polyethylene bags. Static Shield™ barrier film bags will be used because the product is semi-transparent, making it possible to see labels and humidity indicator cards through the film. Prior to placement in inner barrier film bags, the contents of each box will be inventoried, and filler material (sheets of scrap ethafoam) will be used to fill empty spaces in each box to prevent movement or shifting. Each box will be labeled on the outside on two sides with a box number. Two humidity indicator cards, one adhered to the outside of the box and one on the outside of the barrier film, will be included in each package. Indicator cards will be visually monitored once every three months for color change, which would indicate the inner or outer bags are leaking. Excess air will be squeezed out of each layer of the package before the package is carefully wrapped and sealed in packaging tape. A bone folder will be used to ensure

⁵ *Conserve O Gram*, Number 2/22, 2004, page 1. <http://www.nps.gov/museum/publications/conservoogram/02-22.pdf>. Accessed 11/13/15.

⁶ This set point range was recommended by Mr. Albright and is consistent with *Conserve O Gram*, Number 14/8, 2004, page 2. <http://www.nps.gov/museum/publications/conservoogram/14-08.pdf>. Accessed 11/13/15.

⁷ *Conserve O Gram*, Number 14/12, 2009. <http://www.nps.gov/museum/publications/conservoogram/14-12.pdf>. Accessed 11/16/15.

tape is fully adhered. The storage configuration inside the freezer will be planned before boxes are placed in the freezer. To the extent possible, boxes will be stored in numerical order to facilitate accessibility and ease of removal from cold storage.

Activity 2: Cold Storage Map and Monitoring

A cold storage shelf map will be prepared and posted on the outside of the freezer along with the box inventories. The map and inventories will facilitate physical control and box retrieval. In addition, a monitoring log will be placed on the outside of the freezer to document that humidity indicator cards and the external temperature display are being visually checked at least once every three months. Accessing collections for use or duplication will involve a warm-up process. Vapor-proof packaging will not be removed until the boxes have reached room temperature, which depending on the size of the box can take eight hours to overnight.

Activity 3: Develop Duplication Plan

Cold storage buys the time needed to make long-term decisions about the relative values of collections, duplication options, and priorities for action.⁸ Mr. Albright's conservation assessment and the long-range preservation plan chart a course of action for significant improvements to collections care, but intellectual control requires additional assessment and planning. The conservation assessment and plan address needs on a macro-level (i.e., the assessment was based on sampling, not an item-by-item inventory). An itemized assessment based on level of deterioration juxtaposed with collection significance has not been undertaken. This micro-level assessment is needed to establish duplication priorities. It is possible that some nitrate and acetate negatives have already deteriorated beyond the point where duplication is viable. And, while collections-related images have been assigned a high significance level, within each collection there may be duplicate images or poorly composed or processed images that do not merit allocation of duplication resources.

Before preparation for cold storage commences, the curator of collections will review collections targeted for cold storage and assign a duplication priority. The selection and planning for duplication will be based on: significance, presence of active deterioration, and frequency of use. Items with active deterioration will be flagged and will be examined by Mr. Albright to determine if duplication is viable. Resulting duplication priorities and recommendations will be reviewed by stakeholders, whose feedback will inform the final plan. The final duplication plan will judiciously allocate institutional resources, identify which collections require outside resources, and will become part of the Photograph Collection Preservation Plan.

Activity 4: Consult with Gary E. Albright to Benchmark Progress

Continued consultation with Mr. Albright is essential to benchmark progress and ensure best practice. Mr. Albright is very familiar with the museum's collections, staff, and facilities and is therefore well positioned to assess whether the project is progressing successfully. He is a paper and photograph conservator in private practice who previously worked as a conservator at the George Eastman House, Rochester, NY and at the Northeast Document Conservation Center, Andover, MA. See Supporting Document 3: Project Consultant Letter of Commitment and Cost

⁸ Ritzenthaler, Mary Lynn and Diane Vogt-O'Connor. *Photographs Archival Care and Management*. Society of American Archivists. 2006: 215.

Proposal for his letter of commitment and cost proposal, and see Resumes for more information about his qualifications.

The budget includes three days of consultation services which will be used to consult with Mr. Albright by phone, by email, and in person. As each activity commences, questions may arise about proper packaging techniques, freezer configuration, or accessibility. Mr. Albright's assessment of the extent of deterioration of nitrate and acetate film negatives will be vital to recommendations in the duplication plan, which is why one day of in-person consultation is included. The onsite visit will be scheduled shortly after the vapor-proof packaging has begun to ensure proper techniques are being employed and to provide an opportunity to adjust the course as needed. Mr. Albright will also serve as an outside reader of the duplication plan, ensuring that recommendations adhere to best practice.

Dissemination of Project Results

Museum practice is grounded in process, and much can be learned by examining and sharing project methodologies because these methodologies become the foundation of best practice. For this reason, the museum will document the process of installing the freezer and monitoring its temperature, the use of archival supplies, the creation of vapor-proof packaging and the cold storage map, and the development of a duplication plan. Progress will be tracked and documented via the Logan Museum's Museum Mondays⁹ feature, which are blog-like short stories about museum events published online every week. In addition, the completion of project activities will be disseminated on the Logan Museum's Facebook site. The proper implementation of cold storage will serve as a long-term curricular resource to teach students about preservation concerns inherent to different types of photographic media and best practice regarding long-term preservation of and accessibility to different types of photographic media. Results will also be shared with regional museum colleagues through the Midwest Registrars Committee's newsletter, the MRC Courier.

Completing the *Anthropology Photograph Collection Cold Storage Project* will allow the Logan Museum to address the highest preservation need identified in Gary E. Albright's 2013 conservation assessment of the photograph collection. Volatile nitrate and acetate film negatives and color materials will be rehoused in vapor-proof packaging and kept "in stasis" in cold storage. A cold storage map will ensure physical and intellectual control will be realized through the development of a duplication plan that will guide future progress. The museum's current strategic plan also identifies this project as a high priority collections-related need. The project will improve collections stewardship, ensure long-term preservation of significant photograph collections, and increase institutional control over and capacity to manage these important and irreplaceable resources.

Supporting Documents

- 1: Conservation Assessment, Gary E. Albright (2013)
- 2: Photograph Collection Preservation Plan, 2014-2017
- 3: Project Consultant Letter of Commitment and Cost Proposal

⁹ Museum Mondays stories are archived on the Beloit College website and accessible via <http://www.beloit.edu/campus/museummondays/>. Accessed 11/18/15.

