DATABASES, DIGITAL IMAGES, VIDEO AND MORE: DOCUMENTATION FOR THE NMAI COLLECTIONS MOVE

Emily Kaplan and Rachael Perkins Arenstein

Abstract

Extensive documentation was used as a way to facilitate and speed a five-year project to move the National Museum of the American Indian's collection of more than 800,000 Native American objects from New York to Suitland, Maryland. Almost all of the Move Project staff members were contract employees whose term ended with the completion of the project. This loss of institutional memory necessitated that documentation be considered a priority. Conservators used a variety of technologies, some old and some new, to document work on objects and to document move-related activities.

This paper describes the methods used to document conservation treatment and move-related activities. Written documentation of treatments evolved from word-processor electronic text documents through several generations of stand-alone databases. Documentation of pest management treatments involved an additional set of databases that incorporated barcodes and scanners to increase speed and accuracy of data entry. Visual documentation of treatments and general move procedures changed over the course of the project from being primarily film based to relying heavily on video and digital imaging; by the end of the move, over 23,000 such digital images were produced. This mass of images would have been virtually useless without the implementation of a digital asset management system, a database that facilitated organization and allowed the association of data to ensure that the images are searchable and retain their context for future use.

The issues encountered in choosing appropriate documentation methods and the success of various strategies as technology changed is discussed.

Background: History of the National Museum of the American Indian

To understand the complexities of documenting the National Museum of the American Indian (NMAI) Move Project, a review of the institution's history is helpful. George Gustav Heye (1874-1957) founded the Museum of the American Indian in New York City in 1916. Gathered during a 45-year period, his collection became the basis of the museum's collection of more than 800,000 objects from indigenous peoples throughout the Western Hemisphere.

The Museum of the American Indian/Heye Foundation opened at 155th Street and Broadway in Manhattan in 1922. In 1926, when Heye's extensive collecting overwhelmed the storage space in the new museum, a state-of-the-art storage facility, called the Research Branch (RB), was built in the Bronx to house the rest of the collection.

In 1989, the Smithsonian Board of Regents agreed to transfer the Museum of the American Indian Heye Collection to the Smithsonian Institution, renaming it the *National* Museum of the American Indian, thus creating the Smithsonian's 16th museum.

The agreement led to the creation of a third facility, the George Gustav Heye Center at the U.S. Custom House in lower Manhattan. When it opened to the public in 1994, this building replaced the outdated facility at 155th Street and Broadway.

The Cultural Resources Center (CRC) in Suitland, MD, was designed to provide long-term housing and care for the collections and offers Native communities and Native and non-Native researchers access to objects that are not on exhibit. This building opened in 1999, initiating the collections move project that was completed in the spring of 2004. The old Research Branch was sold to a private developer in late 2005. The final element is the NMAI Mall Museum, which opened September 21st, 2004 on the US National Mall in Washington D.C.

Introduction: Documentation

The topic of documentation touches on many aspects of the Move Project. Documentation was used to facilitate and speed the five-year project to move this large and varied collection from New York to Suitland, MD. Several of the methods used to document the status and location of each object through the move process, including labels, notes and barcodes, have been previously presented or published (Kaplan et al. in press; Arenstein et al. 2004; National Museum of the American Indian 2004; Williamson et al. 2001).

Along with many other institutions, the Conservation Department at NMAI now relies heavily on digital imaging and has undergone a transition from individual electronic files and hard copies to a database or databases for object condition and treatment documentation. Rather than focusing on these methods of documenting conservation treatments of individual objects, this paper will examine the documentation of the move process itself.

There were two main reasons for a concerted effort to document the general work on the Move Project. First, documenting the move procedures and progress was important internally – to train staff during the life of the project, and from an institutional archival perspective. Nearly all of the Move Project staff members were contract appointees whose term would end with the completion of the project. This loss of institutional memory necessitated that documentation of the project be considered a high priority. Second, NMAI staff felt a responsibility to present information in hopes that others in the field might learn from the successes and mistakes of the project. Therefore, extensive documentation for conferences, presentations, and publications was produced.

The move project was halfway complete when it became clear that the documentation was overwhelming in some areas and inadequate or, at least not in a coherent form, in others. For example, at the midpoint of the project the New York end had accumulated over 1,500 digital images that recorded various aspects of daily move activities, as well as special events such as the move of totem poles. At the CRC in Maryland, there were more than 500 additional images of unloading trucks, unpacking boxes and crates, constructing storage supports, shelving objects,

and installing compactor storage unit hardware. With over two years left on the move project, it was recognized that the ability to manage this documentation would quickly spiral out of control.

Staff realized that more concrete guidelines needed to be devised for written and digital documentation of general move activities and that is was necessary to plan for successful implementation. Numerous discussions were held to determine documentation goals, assign staff and equipment resources and plan for the product.

A decision was made to focus on two areas: first, documenting the procedures and methods of the Move Project itself and second, documenting the Research Branch facility, the last remaining part of the original Museum of the American Indian facility as established by the founder George Gustav Heye. A series of documentation projects that included a text based move procedures and packing manual, digital photography, videography and print photography were implemented.

Written documentation: Move Manual

The NMAI Move Procedure Manual, currently a text-based document in PDF format, grew out of the various written procedures guidelines and illustrative images generated by both the New York and Maryland ends of the move. The sections are hyper-linked from the table of contents allowing quick and easy access to each section. The manual was intended to give both an overview of the fundamental policies and strategies for the move as well as some detailed how-to instruction. It includes numerous appendices consisting of forms, checklists, and guidelines that were produced during the move. These procedures evolved over the course of the project, and some of those included in the manual changed after the document was produced.

The document was originally intended as an in-house training manual for immediate use, to be updated continually, as well as a document for the archives and for future planning. At some point along the way, the manual began to be thought of as a potentially useful document for colleagues in the museum field. Another impetus for compiling and editing the manual, besides the impending end of the move project, appeared when the New York move team managers began preparing for presentations at a 2003 AAM workshop on moving collections. A packing manual was compiled and the general procedures manual finalized as best as possible. The fifty participants at this workshop each received a binder with a printed copy of the manual, a CD containing the move manual as a PDF and the packing manual as a PowerPoint show, and a DVD with a video entitled "Follow the Object" which will be discussed below.

Lessons Learned from the Procedures Manual

The Move Procedures and Packing Manuals were time consuming to produce and difficult to finalize, and the definition of who the end-users might be shifted over time as priorities changed. Determining a responsible, ethical, and useful way to disseminate this material has been a challenge, and staff and management are currently considering several options to distribute the manual in either hard copy or digital format. However, initial responses from colleagues who have received the manuals indicate that the manuals are useful. As many colleagues note, any

documentation at all about a move project provides a useful guide as there is a dearth of available information, published or otherwise, on moving collections.

Parts of the document did work well as an in-house training manual, particularly the packing section, and some of the forms and instructions that are now appendices. On the other hand, the document was not particularly useful for training staff on rehousing methods at the CRC. It would have been wonderful to be able to hand new staff a rehousing manual so they would know how to construct supports for moccasins, textiles, baskets, and ceramics, etc. However, despite ongoing attempts, hundreds of digital images, and hours spent processing them, rehousing techniques were constantly being refined throughout the life of the project, so any draft document inevitably because virtually obsolete by the time it was produced. With the move project now finished, work is being done to organize and disseminate examples of rehousing techniques to colleagues, primarily through digital images, PDF documents, and PowerPoint presentations.

Digital documentation: Photography

Digital photography was the method most frequently used for documenting the overall move process. (Here, a distinction must be made between these "snapshot" move documentation images taken, often on the fly, by move project staff, and the high-resolution images, taken by NMAI Photography Department staff, of each object in New York before it was packed for the move. These object images, which are used for the museum's collections database, for exhibit planning, research, repatriation, and sometimes publication, were managed separately and continue to be managed separately at the CRC.) Initially, the move documentation images were simply organized by re-naming them and filing them in folders grouped by year and subject using Microsoft Explorer. However, as the numbers of files increased into the thousands it became clear that staff were losing the ability to find these images and associate important data images with them.

Presentations on the topic of documentation in the general session of the 2005 annual meeting of the American Institute for Conservation served to underscore both the growing acceptance of digital imaging within the conservation field and accompanying concerns not only about storage and accessibility but also about managing digital images and accompanying metadata. By the time that meeting was held, Digital Asset Management systems (DAMs) were becoming commonplace. However, during the course of the move project, neither NMAI nor the Smithsonian had yet committed to a comprehensive DAM system. Nevertheless, given the finite nature of the move project in terms of time and staff, staff determined it necessary to implement such a system as quickly as possible. Move staff also needed to assure the NMAI information Technology department that the choice would be cost effective and would allow the images and metadata to be rolled over to a future system.

There were several DAM programs on the market at the time, and staff selected Extensis Portfolio Server as most suited to the needs of the move project. This is a network version of Portfolio, a consumer product for managing graphic files that combines a thumbnail graphic image with metadata fields. Using these data fields, the user can associate text notes and other

information with the image, creating a searchable database. The network version can manage up to 300,000 images per catalog and accommodate multiple users. The cost, along with six user licenses, was about $2,500. Using the server version of the platform allowed staff in New York and Maryland to work on the program together.

Organizing Digital Photography

Extensis Portfolio is Portfolio does not modify the original image. It merely creates a mirror thumbnail to which associated data can be attached. Images can be viewed in three ways: as thumbnails, in list form, and by individual image. Portfolio has several places to input metadata, all of which is searchable. The program automatically generates keywords based on the file name and path, and there is a description field that allows free text.

For the purposes of this project, the program's "Custom Field" capability was most important because it allowed for the creation of some categories with pull down menus and others with free data entry. A committee was formed including conservation, archives, imaging and administration to determine what data would be essential to associate with the images, trying to balance the need for information with the need for speedy data entry and a consistent lexicon of standard metadata nomenclature. The following categories were included as custom fields in the Move Documentation Database:

- Photograph Location – i.e. RB, CRC
- Photographer Name
- Date
- Collection – Archaeology or Ethnology
- General Regional Provenience – e.g. Northwest Coast, Northeast Woodlands, Plains
- Catalogue number – if a specific object e.g. a totem pole was emphasized in the image
- Activities – i.e. packing, conservation, rehousing
- Archeology Provenience
- Ethnology Culture/ Tribe
- Subject(s) –staff names

For each of these categories the committee devised a drop menu of options. For the "Ethnology Culture/ Tribe" category, the entire culture list of more than 100 names was imported from the museum's registration database. Some of the fields - such as "subject" - allow for multiple entries, so the user may add a number of different names. Using these custom fields required the person doing data entry to use only standardized spelling and naming conventions.

The program allows for Boolean searches on any number of fields, allowing search criteria to be easily refined. The images can also be sorted according to any of the fields. As most of the staff members who created these images are no longer at NMAI, maintaining searching viability for long-term end users was essential.

While the museum would not have purchased a DAM system solely for use in conservation, conservation staff at the RB in New York soon realized that there were numerous potential applications for a stand-alone Portfolio database in the conservation lab. In preparation for

transport, an average of 6,000 objects each week were examined, cleaned, and stabilized if necessary. Although less than 1% of the collection was treated, this process still generated massive amounts of documentation as required by the conservator's code of ethics.

Retrieving images, however, was always problematic unless one remembered the object catalogue number. This problem was solved by Portfolio. Custom fields were established with basic catalogue information as well as key words for materials, condition and deterioration issues. This made it easy to find images of objects as illustrations for reports and presentations -- for example, objects that showed particular kinds of deterioration or damage, such as glass disease or pest activity.

Long before the end of the move, Extensis Portfolio proved to be an invaluable resource in preserving memories of the move project. By the end of the move, the database consisted of over 10,000 move images and 3,500 conservation images that remained accessible allowing easy searches to pick images for PowerPoint presentations. The Smithsonian is in the process of adopting a comprehensive Data Asset Management System. As the information stored in Portfolio can be easily exported as tab-delimited files with each of the metadata categories, this information should be incorporated into any future database.

Video documentation

Although the bulk of the move documentation was accomplished with digital imaging, certain aspects of the move were best documented with video. Video was used to document lectures, blessing ceremonies, conservation and packing techniques, and the move of some the larger objects such as totem poles, as well as day-to-day move activities. In the final months of the move, an oral history project was also begun to document memories of present and past employees of the move.

Recent advances in digital video and editing software packages like Final Cut Pro allow almost anyone to be a film producer. This work was accomplished in New York with in-house staff using equipment that is relatively accessible and easy to learn. Some video projects were shown at conferences or burned onto DVDs for museum trustees. The most important project was a high quality video DVD, approximately 30 minutes long, that captures a general overview of the move as well as numerous specialized presentations on specific aspects of the project. The overview explains and documents the standard move procedures by following a single object through registration, conservation, imaging, packing, crating, shipping, unpacking and shelving. Along with the Move Procedure Manual, the DVD has been distributed to interested museum professionals and has garnered positive feedback. Discussions are still on going as to how this might be disseminated to a wider museum audience.

Even if it had not have been possible to produce any final products, the time invested in videography was worthwhile. In the end, the priority was to capture the raw footage, which can always be edited or used as needed down the road.

Documenting the facilities: Print photography

About three-quarters of the way through the project, large format photography began to be used to document the facilities as they changed over the course of the project. The storage vaults at the RB, some of which were empty or half-empty at that point, as well as some groups of objects and areas of the building were recorded using 4x5" format film. Storage areas at the Cultural Resources Center were photographed as they were filled. The resulting beautiful prints have already been used to decorate the walls of the CRC, some are to be accessioned into the collection and there are plans to use them for SI and NMAI publications. The prints and negatives from this project were not so extensive that they were not easily managed, and they fell under NMAI's Photography Department guidelines for storage and archiving.

Panorama Photography

Digital panorama photography was used to add a bit of life to the documentation of the storage vaults. The goal was to capture the conditions in which the objects were stored and show how crowded the interior spaces were. Since the RB facility was to be sold at the end of the move it was important to record the building as it was originally envisioned and established by George Heye. QuickTime panorama photography, the same technology that is often used on hotel web sites to give a "three-dimensional" view of rooms, was used. While this requires a bit of specialized equipment to create, this too was done in-house. The images allow for a 360-degree rotation, moving up and down depending on the scale of the original digital image, and zooming into a particular area to see a detail.

Conclusions

A review of lessons learned from this project generated some general tips that may help guide the development of a documentation program, no matter what the specifics of the project. These suggestions include: establish guidelines on what events or processes require documentation; determine the audience for the documentation; determine what format will best convey the information to that audience; cull and organize digital images and re-evaluate as the project progresses: be selective as more is not always better; make documentation consistent so that it is useful in the future. An institution can benefit from having good project-based documentation in numerous ways: training/education; self-evaluation of workflow, goals, and management; improved productivity, improved accountability, publicity, fundraising and outreach; and planning future projects. Finally, perhaps most important of all, comprehensive project-based documentation can, at the very least, make sincere attempt at capturing institutional memory before it is lost.

Acknowledgements

Suppliers

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Authors' addresses

Emily Kaplan, Cultural Resources Center, National Museum of the American Indian, 4220 Silver Hill Road, Suitland, MD 20746, (kaplane@si.edu).

Rachael Perkins Arenstein, 1 Rectory Lane, Scarsdale, NY10583, (rachaelarenstein@hotmail.com).