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Archives at the Millennium

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Cover: These early photographs of Welch miners, American school boys, and up-state New Yorkers form part of the precious yet fragile archival record of the 20th century. Photo by Hugh A. O'Connor.

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Diane Vogt-O'Connor

Archives at the Millennium

Most of us regularly produce personal papers, such as correspondence and family photographs, as well as project files and reports. We produce documents as evidence of our actions, to capture our fugitive memories, to place our knowledge and information in a permanent form for future re-use, and as commemoration of our lives. The lifetime accumulations of these electronic, paper, and audiovisual documents are the raw materials of archives, as well as of history. Few of us realize just how short-lived many of our personal documents are.

Most of us have little experience in managing our records effectively, particularly fragile audiovisual and electronic document formats. Few of us produce and manage our papers in a way that ensures they will be around for our children's children. Yet in many cases, unless we are artists, filmmakers, or authors, these records are the only voice with which we can speak directly to the future. Our diaries; project files; web sites; photo albums and scrapbooks; memos, letters, and email, are often the only true proof of our activities, thoughts, and the events that shaped us. They are our legacy to future generations who will wonder who we were, why we did what we did, and what we were thinking. Without these papers, the record of our lives and our century may rapidly pass into the gray oblivion of the undocumented past.

This issue of *CRM* describes:

- what risks and challenges archives face today ("Is the Record of the 20th Century at Risk?," page 21)
- what the values of archives are ("The Value of Archives to NPS Historians," page 9)
- how an archives functions ("Archives—A Primer for the 21st Century," page 4),
- how to gather essential baseline data on your archives for management purposes ("Those Old Files...Surveying Archives in the National Park Service," page 35)
- how the National Park Service is cataloging archival collections ("Archives and the New NPS Collections Management System," page 34)
- how the archival profession has set standards for placing descriptive finding aids on the Web ("What is the Encoded Archival Description Standard?," page 28)
- how to obtain records management assistance from the National Archives ("Records Management Assistance from NARA," page 39)
- how to discover the best practices for preserving existing records you may have ("Preservation Information from the NPS," page 17)
- what an affiliated archives is ("What are Affiliated Archives?," page 42)
- how tribes are managing their archives ("The Archives and Special Collections of the Mashantucket Pequot Tribal Nation," page 15)
- how parks are managing their archives including:
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We hope that this issue of *CRM* will inspire you to care for your own personal, family, and professional documents so that the record of your life and your century will be available to future historians, scholars, and students, some of whom may be your own descendents.

Diane Vogt-O'Connor is Senior Archivist, National Park Service, and guest editor of this issue of CRM.

Note

This issue of *CRM* is linked to *CRM* Vol. 21, No. 6, "The Information Ecosystem," which can be accessed through the *CRM* homepage at <http://www.cr.nps.gov/crm>.

Diane Vogt-O'Connor

Archives—A Primer for the 21st Century

From the days of ancient Mesopotamia, archivists have served as society's keepers of proof. Archivists manage the authentic by-products of human actions—records. As humans, we produce records at every stage of our lives as proof of our actions—from birth certificates to contracts. We also create records as milestones for our memories, leading to the development of diaries, scrapbooks, sketchbooks, photographic albums, personal web pages, and entire genres of commemorative documentation.

In totalitarian societies, records remain closed. In democracies records are essential tools for discovering whether individuals, organizations, and governments are meeting administrative, cultural, ethical, fiscal, and regulatory mandates and guidelines. In the late-20th century, American citizens, stockholders, organizational members, and others insist that public records be available to auditors, educators, historians, journalists, lawyers, and the general public for examination and analysis. The archivist's job has broadened to include becoming a keeper of information as well as evidence.

Archives function as an institution or group's long-term memory by preserving and describing permanently valuable audio-visual, paper textual, and electronic records that contain:

- data (discoveries, facts, and observations)
- information (data collected systematically with purpose and complete context)
- knowledge (valuable information reflecting human insight and understanding)
- wisdom (excellent understanding, appropriate balance and emphasis, and sound judgment)

While it is relatively easy to capture data in databases for short-term sharing, the process of capturing an organization's knowledge for sharing through time has yet to be effectively managed except through oral and administrative histories, cross training, and effective records management. Such "deep knowledge" is rarely modular or easy to transfer.[1] Sadly, information and knowledge torturously acquired by an individual over decades can be lost in a minute through retirement, transfer, or death. In many cases, all that remains is the written records of the individual's thoughts, transactions, and work.

The practice of archives grew out of the disciplines of history and library science, with a focus on establishing and maintaining control, both physical and intellectual, over physical documents. These documents themselves are often the only trace of how and why events happened as they did. Both the building that holds the records and the permanently valuable records themselves are called archives. Visitors from every age, culture, economic background, and nation regularly visit archives.

Why Do Researchers Come to Archives?

Researchers come to archives to:

- discover evidence within the archives' sifted and arranged information in support of an assumption, law suit, or scientific/cultural theory
- explore an event/action/relationship within a sea of related context that provides variant viewpoints
- gather cultural and natural resource data for management purposes including baseline data
- locate illustrations or stories for exhibits, films, publications, teaching, videos, and web sites
- glimpse the authentic past by finding out about their community, ancestors, or a favorite topic
- eavesdrop on the past by listening to the internal dialogues of individuals and groups in their own words in letters, oral and video histories, diaries, and meeting notes[2]

Archives are the legacy we leave to the future, the natural byproducts of our actions, and the raw material of memory.

Why Keep Archives?

At the cusp of the 21st century as we reach for the knowledge-based economy, we keep archives because they are vital to our organizations, culture groups, professions, and perhaps even to our survival as a species. First and foremost, **we require the essential information archives contain for accountability, collective memory, management of our organizations and resources, as proof of our authentic past, and as data grist for endless reprocessing in our information management mills.** In parks, we need archives to document how the cultural resources and natural ecosystem have changed over time and, in particular, how the hand of man has helped cause these changes.[3]

Beyond information alone, archives serve as important repositories of documents as evidence.

Where Can I Find Help on Keeping Archives?

The Society of American Archivists is the professional organization for individuals wishing to learn more about how to become an archivist or wishing to increase their knowledge of best professional practices. The Society offers courses, publications, activities, and events nationally. Announcements may be found on their web site at: <http://www.archivists.org/>. Contact SAA at 527 South Wells, Street, 5th floor, Chicago, IL 60607; 312-922-0140; fax: 312-347-1452; or email: <info@archivists.org>

The Academy of Certified Archivists is an independent non-profit archival organization established in 1989, which certifies (identifies and provides a basic credential for) professional archivists by examination, educational credentials, and experience. The Academy can be reached at 48 Howard St, Albany, NY 12207; 518-463-8644; fax: 518-463-8656; or on the Web: <http://www.umw.edu/Library/arch/aca/index.htm>.

University Archival Training Programs at the masters and/or doctoral level are offered by over 30 colleges and universities nationally. The Society of American Archivists annually publishes a *Directory of Archival Education*, available on the SAA web site at: <http://www.archivists.org>. Beyond providing staff training, these programs can provide managers with trained archival interns to help with arrangement, description, preservation, research, archival finding aid production, and documentary publication projects.

Regional and Thematic Archival Associations. A recent archival associations directory at <http://sophia.smith.edu/~pnelson/regionals/usa.htm#m> lists over 68 organizations. Most regions have an archival association that meets regularly to discuss the interests of the membership. Associations are good places to meet one's colleagues, take workshops, and tour the other archives in the area. The most active archival associations include:

- Conference of Inter-Mountain Archivists <http://www.lib.utah.edu/cima/>
- Mid-Atlantic Regional Archives Conference <http://www.itd.umd.edu/MARAC/marac-hp.htm>
- Midwest Archives Conference <http://www.uwm.edu./Library/arch/mac/mac/htm>
- National Association of Government Archives and Records Administrators <http://www.nagara.org>
- New England Archivists <http://www.lib.umb.edu/newengarch/>
- Northwest Archivists <http://www.orst.eduy/Depart/archives/misc./nwa.html>
- Seattle Area Archivists (206-543-6512)
- Society of California Archivists <http://dlis.gseis.ucla.edu/society_of_california_archivists/>
- Society of Georgia Archivists <http://www.soga.org/>
- Society of Rocky Mountain Archivists (303-866-4602)
- Society of Southwest Archivists <http://lib-01.lib.un.edu/ssa/ssa.htm>

Materials in archives are valuable as legal or historical proof of events such as births, deaths, accidents, and celebrations, as well as proof of activities, such as land purchases, competition results, and work completed. As historical or legal detectives, we need archives to discover and prove what we have, what we did, why we did what we did, and when it all happened. When lawyers and historians ask, "What did he know and when did he know it?" we go to archives to discover the truth. **Archives are the ultimate weapon in the battle for accountability.**

An archival collection is an accumulation of records, created or assembled by an individual or group. Historians call these records primary sources (original documents). These documents are often associated with individuals, events, organizations, and activities we would remember, from the Gettysburg Address to the Declaration of Independence, from John Muir's journal to Franklin Delano Roosevelt's musings on the Second World War.[4]

Some materials in archives also stand on their own as material culture. These architectural drawings and plans, broadsides, graphic drawings and prints, ephemera, motion picture footage, correspondence on unusual letterhead, photographs, photomechanical and similar items are of high scholarly interest due to their excellence as representative artifacts, part of our world heritage of material culture. Rare items in unusual formats, processes, or genres qualify as having artifactual value.

What Purpose Does an Archives Serve?

Archives serve as a group or organization's memory. The records included in the archives tell us how an individual, group, or organization's goals, resources, and activities changed over time and how they met their responsibilities to those they served.

Archives are an organization's information bank. Like banks, archives:

- hold major investments in information capital that were very skill and labor intensive to produce
- hold resources that increase in value over time, particularly in a knowledge-based economy
- make their resources available to their users for purposes of creating secondary value

Our cultural and scientific certainties of today will not always be valid. When we want to reexamine our conclusions and develop new theories, we will need to go back to our primary data sources, whether textual, electronic, or audiovisual for renewed examination and analysis.[5] Whether we are documenting the human effect on the envi-

ronment, what peoples lived in an area, what led to the development of a particular series of structures, or how a particular artifact was created, the basic data should become part of our organization's archives.

As scientific revolutions take place and our view of our cultural resources and history changes, we can go back to the basic observations and data captured in the organizational records and personal papers in the archives to develop new ways to view our world. **The richness and long-term accuracy of future scientific and cultural developments depend upon the long-term storage and accessibility of today's data.** This long-term accessibility requires more than simply dumping paper in a drawer; it requires that we actively manage, preserve, and describe this data to facilitate both preservation and access.

Archives capture the knowledge of the staff who shape and enrich our organizations. During our lifetimes of work as archeologists, architects, architectural historians, archivists, curators, educators, historians, historic preservation officers, interpreters, landscape architects, and tribal cultural resource specialists, we develop expertise in hundreds of areas. Our official records and personal papers reflect that expertise in ways that are otherwise uncaptured.

If mankind is the ecosystem's way of studying itself, then archives are the product of what we find out. In our personal papers and official records is the informational legacy that each of us

Where Can I Find Funding for Keeping Archives?

Your long-term goal should be to obtain baseline funding for archives. In the short term, you may need to operate on other sources of funding. Here are a few funding sources, both external and internal (National Park Service). You may draw upon a wide variety of resources when managing your archival collections including:

External (non-NPS) Funding. You may use the following two major categories of funding sources:

Cooperating Association. Work with your cooperating association or non-profit friends group to solicit funds from corporate philanthropic sources or foundations.

Foundations and Corporate Giving. Foundations that fund archival projects throughout the U.S. include:

- Ameritech National Digital Library Competition—funded by Ameritech but managed by the Library of Congress (202-707-1087; email: lc_ameritech @loc.gov; web: <http://lcweb2.log.gov/ammem/ award>)
- Nathan Cummings Foundation (212-787-7300)
- Arthur Vining Davis Foundation (904-359-0670)
- Ford Foundation (212-573-5000)
- Henry Luce Foundation (212-489-7700)
- John D. and Katherine T. MacArthur Foundation (312-726-8000) <www.MACFDN.org>
- Andrew W. Mellon Foundation (212-838-8400; <http://www.mellon.org>)
- Pew Charitable Trust (215-575-9050)
- The National Park Foundation (NPF) writes and helps administer grants for NPS staff. Individual projects should be approved by superintendents before contacting the NPF at 1101 17th St, NW, Washington, DC 20036; fax: 202-785-3539; 202-785-4500.

Federal Grant Funding Sources. Guidance on how to proceed with selecting such sources can be found at the Foundation Center. Consider such organizations as the following:

National Endowment for the Humanities Division of Preservation and Access (202-606-8570; email: preservation@neh.gov

Institute of Museum and Library Services (202-606-5226, Web: <http://www.imls.fed.us>);

National Historic Publications and Records Commission (202-727-7340; fax: 202-727-7211; Web <http://www.ci.washington.dc.us>)

NPS Funding. Beyond park budgets, there are four major NPS internal funding sources available only for NPS archival work. The NPS Museum Management Program of the National Center for Cultural Resources Stewardship and Partnership Programs coordinates the first two funds. The Field Directorate coordinates the latter two funds. Contact your regional or support office curator for further guidence.

Backlog Cataloging funds. Obtain Backlog Cataloging funds to hire temporary staff or to extend temporary staff appointments to survey and catalog NPS materials that were in the park prior to 1987.

Museum Collections Preservation and Protection Program (MCPP) funds. Use MCPP funds to eliminate NPS museum collection storage and security deficiencies that affect NPS archives as reported on the Checklist for Preservation and Protection of Museum Collections.

Cultural Resources Preservation Program (CRPP) funds. In the NPS, use CRPP funds to survey, assess, catalog, arrange, describe, rehouse, and protect and conserve archival collections, particularly projects in the park's Resource Management Plan.

Cultural Cyclic Maintenance Funds. Use these funds to survey, assess, arrange, describe, and conserve NPS archival materials on a greater-than-one-year cycle.

leaves for future generations. Our heirs are not only our children, but also the children of our minds, the generations of professionals who come after us. Whether our knowledge is lost, our contributions forgotten, and our information discarded depends upon how we manage our records during our lifetime.

Archives form part of the fabric of our organizations, as linked to our organization's history as the staff, site, structures, and other resources we cherish. For example: at the NPS, we hold not only Thomas Edison's furnished house and fully equipped laboratory, but also his business records, laboratory research findings, and correspondence. Without the early archival sound recordings, the recording equipment would be diminished in value. Without the laboratory notebooks and records that illustrate how the equipment was used, the laboratory equipment would be less compelling. Taken together the laboratory and home sites, structures, furnishings, equipment, personal library, and the archives provide a complete information ecosystem, a glimpse into the life, work, and mind of an American genius.

How Do Archivists Decide What to Collect?

Before being sent to an archives, records must be scheduled (listed for transfer on a certain date by a records manager) and evaluated (appraised as to their significance to determine if they are permanently valuable). In manuscript repositories it may also be necessary to determine if the records fit the collecting focus (Scope of Collections and mission statement) of the archives.

Legal issues (e.g., copyright, privacy, and publicity restrictions), donor-imposed restrictions (e.g., not available until after the creator's death), management policy restrictions (e.g., restrictions on fragile or physically endangered materials), and cultural restrictions (e.g., restrictions on images of sacred ceremonies or burials when requested by a culture) may affect whether materials are collected and how they are made accessible.[6] Archivists must only collect collections they can afford to responsibly arrange, describe, preserve, and provide access to, whether they are personal and family papers, corporate records, or the organizational records of groups.

How Is an Archives Different from a Library?

An archival collection consists of original, often unpublished, materials accumulated by a single individual, family, group, or organization over time. A collection, such as the Smith Family Papers or the Hawk Project Records, may include letters, photographs, and other items created by their colleagues and given to the Smiths or the Hawk Project. The key organizational concept of "provenance" is used in archives rather than the library concept of "authorship." Provenance suggests that materials with a shared history of creation and/or ownership, such as the Smith Family Papers or Hawk Project Records, each be kept together. The collections have enhanced value as groups of related items that the individual letters or photographs removed from context will lack.

Knowing who created the records and why helps researchers understand what the records will cover and what functions they originally served, as well as indicating that the files are authentic and not tampered with by someone with a special agenda. Archivists keep archival collections in their original order; not rearranged by subject, as they would be in a library. This maintenance of original order is both cheap and efficient, as it allows archivists to use indices and guides already prepared by the collection creator. **The original filing order of a collection also serves as valuable physical evidence of the collection creator's actions, relationships, and work patterns. Original order can be used by historians to date undated items, to attribute unsigned documents to likely creators, and for similar purposes. Loss of original order is a significant damage to a collection.**

While the many documents in an archival collection have a shared creator or collector, they may also be related by subject matter, document type (e.g., correspondence, photographs), and history of ownership and usage. Archives may also contain personal papers of individuals and families or groups, as well as manuscript collections assembled by collectors on a common theme. Unlike library cataloging, archival collections are not usually described at the item level. Archives have many millions of items, few of which can be speedily and cheaply copied through copy cataloging online as libraries do with duplicates of a book. Since most archival documents are originals, copy-cataloging that duplicates the records of another institution is not a common option.[7]

Archival materials are described in a series of hierarchical levels, each of which may have extensive interrelated details. Important materials worthy of attention may appear at any level.[8] At the top descriptive-level are national bibliographic databases that provide key metadata (descriptions of finding aids and collections) for researchers. Archivists may also provide descriptive abstracts of all collections that their institution holds in a single indexed repository guide, as well as a finding aid for each collection within their repository.

Finding aids are descriptive guides to collections that assist researchers in locating or using archival collections. Finding aids include guides (for example, repository, collection, and subject guides), descriptive inventories, accession registers, card catalogs, special shelf and box lists,

indices, and even software documentation. In the past, archival finding aids varied widely from archives to archives. Recently archivists have begun standardizing the data, nature, and style of finding aids. In the last 20 years, archivists have focused on augmenting traditional finding aids with library-type cataloging at the archival collection level within bibliographic utilities, such as the Research Library Information Network (RLIN) and the Online Computer Library Center (OCLC), to facilitate access.

What Is Involved in Keeping Archives?

Essential elements of an archival program are:

Trained Staff, knowledgeable about archival theory, practice, and techniques of preservation, access, and description and your organization's policies and procedures.

Archival Procedural Guidance including

- *Mission Statement*, which indicates your audience, your goals, and your focus.
- *Scope of Collections Statement*, which indicates what manuscript materials you will collect by detailing the eras, locales, groups, activities, events, and other topics to be collected and whether your archives holds your organization's records or they must go to another federal or state repository such as the National Archives.
- *Records Management Program*, which delivers permanently valuable records no longer being actively used by staff offices to the physical control of the archives, while disposing of inactive records of no value.[9]
- *Standard Operating Procedures (SOP)* for appraisal, acquisitions, accessioning, arrangement, description, researcher access, as well as for duplication publication permission requests. An SOP should indicate how you will handle these activities. These procedures indicate how the staff will gain administrative and intellectual control of the archival collections in the form of a manual or workbook.[10]
- *Processing Plan* for collections, which provides a work plan, budget, and job description for arrangement, preservation, and description of the materials.[11]

Cataloged, Arranged, and Described Archival Collection(s) under the administrative, physical, and intellectual control of the archives staff.

Finding Aids (repository guides, box and folder lists, calendars, catalogs, databases, indices, inventories, registers, and similar descriptive systems) that capture information about each archival collection, including information on appraisal, circumstances of creation, ownership, preservation, statistical compilations, as well as interpretation and bibliographic descriptions. Finding aids may be on the Web.

Storage, Work, and Reading Room Space in a secure building with a good environment.

Researchers who are aware that the collections exist, know how to get to them, and are aware of the policies they must follow for access, usage, duplication, and publication.

Without archives, which support an organization's memory and sense of history, an organization or group lacks a systematic understanding of the complex web of underlying causes and effects that have shaped it. Without a sense of history, we lack a sense of who we are, where we are going, and why. Most frequently this handicap manifests itself by a lack of vision; an inability to sort through the complex choices ahead of us based on more than personal preference and the latest management theory. A sense of who we are historically empowers us to move into the future with confidence and integrity.

Notes

1 Diane Vogt-O'Connor. "The Information Ecosystem," *CRM* 21:6 (1998), pp. 3-6.

2 Mary Jo Pugh. "Information Seeking in Organizations and Archives," *CRM* 21:6 (1998), pp. 10-14.

3 Susan Kraft. "The Yellowstone Archives and its Affiliation with NARA," *CRM* 21:6 (1998), pp.27-29.

4 Kellee Blake. "The Stories You Could Tell: Using NARA Regional Resources for Site Interpretation," *CRM* 21:6 (1998), pp. 24-26.

5 Harrison Eiteljorg, II. "Archiving Archeological Data in the Next Millennium," *CRM* 21:6 (1998), 21-23.

6 Melissa Smith Levine. "Electronic Publishing: A Legal and Practical Primer," *CRM* 18:9 (1995), pp. 23-26.

7 Richard Pearce-Moses. "The Information Ecology of Archives," *CRM* 21:6 (1998), pp. 29-33.

8 Mary Jo Pugh. "Information Seeking in Organizations and Archives," *CRM* 21:6 (1998), pp. 10-14.

9 Betsy Chittenden. "Records Management in the National Park Service," *CRM* 21:6 (1998), pp.15-17.

10 In the NPS, the Regional Curators and Support Office Curators maintain files of Standard Operating Procedures or Scopes of Work for archival work.

11 In the NPS, the Regional Curators and Support Office Curators maintain work plans, budgets, and sample contracts for preservation and description of archival materials.

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Barry Mackintosh

The Value of Archives to National Park Service Historians

Most professional disciplines dealing with cultural resources focus on particular resource types. Historical architects and landscape architects exist to understand and treat historic structures and cultural landscapes. Curators acquire and manage museum objects and collections. Archeologists derive meaning from sites containing remnants of structures, objects, and other traces of human activity. Ethnographers are concerned with places and features significant to groups traditionally associated with them.

These discipline-related resource types organize the cultural resource management chapter of the National Park Service's *Management Policies* and the Service's *Cultural Resource Management Guideline* (NPS-28), which contain sections or chapters for archeological resources, cultural landscapes, historic structures, museum objects, and ethnographic resources. During the preparation of the last release of NPS-28, some National Park Service historians complained that they were being slighted. If the archeologists, architects, curators, etc., were getting chapters, why weren't they?

The chapters were not for the disciplines, they were told, but for the management of the particular resources that fall within the disciplines' purview. There is no discrete class of resources for historians because history is not a resource-based discipline. Historians generally lack specialized expertise in performing research with, treating, and maintaining cultural resources. Although they sometimes use them in their research, their primary milieu is the written record.

The Harpers Ferry Center Library houses the NPS History Collection.

While the historical architect is examining the fabric of an old house for evidence of past modifications, and the archeologist is excavating the presumed site of a vanished outbuilding to determine its location, dimensions, and other attributes, the historian will likely be using whatever archival documents he or she can find containing information about the property's ownership, improvement, occupancy, and use. Such documents may include photographs, maps, and other graphic depictions as well as written records: deeds, wills, inventories, letters, published and unpublished first-hand accounts, and so on. These primary sources pertaining to cultural resources are to historians what the resources themselves are to the other professionals.

A schoolchild assigned to do a paper on a historical topic is seldom expected to come up with new or definitive information on that topic. It is sufficient for him or her to read a few secondary sources—books, encyclopedia articles, or other accounts written by others who may or may not themselves have done primary research on the topic—and summarize or synthesize their contents. Historians also use secondary sources to discover what others have learned and concluded about historical topics, but normally as a starting point for their use of primary sources to uncover new information enabling them to re-evaluate prior conclusions and possibly reach different ones. **This archival research is what fundamentally distinguishes the professional historian from both the young student and the popular historical writer.**

It follows, then, that historians have a vested interest in the proper management and use of archives, or primary source collections. Like the archivists charged with their management, historians should be concerned that the documents are carefully preserved and handled. Historians must also be concerned that the documents are maintained in their original order, which may shed additional light on the thinking behind their cre-

David Nathanson, keeper of the NPS History Collection.

ation; and that access to them is facilitated by inventories or other finding aids.

(Excellent guidance on handling archival documents and manuscripts is provided in *Conserve O Gram* Number 19/17, issued by the NPS Museum Management Program.) Unlike an archeological site, which once excavated no longer exists for future archeologists seeking new information with more sophisticated techniques, **a properly maintained archival collection can be researched repeatedly by historians asking new questions about the topics it covers.** The official records of public and private institutions and collections of personal papers are found in many repositories, including governmental archives, university libraries, and historical societies.

The National Archives. The repository probably used most often by NPS historians is the National Archives, comprising the original building in Washington, DC, the new Archives II facility in College Park, Maryland, 13 regional archives around the country, and presidential libraries for most presidents since Herbert Hoover. The National Archives, which holds the retired records of the federal government, is vital to NPS historians because so many national park system areas commemorate and interpret the activities of federal officials and agencies, from presidents to the military services to the Bureau of Immigration.

Among the federal agency records housed in the National Archives are those of the National Park Service. The NPS records, designated Record Group 79, are centered at Archives II, with smaller holdings in the regional archives in or near San Francisco, Philadelphia, Los Angeles, Kansas City, Fort Worth, Atlanta, Seattle, Boston, and Chicago. In addition to correspondence and other textual records, they include still and motion pictures, maps, plans, charts, and other graphic materials. Many official records pertaining to Yellowstone National Park are retained in an "affiliated archive" under an agreement with the National Archives and Records Administration (NARA).

NARA's web site, at <http://www.nara.gov>, contains essential information on the National Archives and its holdings, including the online version of NARA's *Guide to Federal Records in the National Archives of the United States*. For direct access to the Record Group 79 portion of this guide, enter <http://gopher.nara.gov:70/00/inform/guide/10s/rg079.txt>. Administrative and environmental historians addressing the NPS, its parks, and its activities can seldom avoid research visits to one or more National Archives facilities.

The NPS History Collection. Historians will also do well to visit the NPS History Collection in Harpers Ferry, West Virginia, and the NPS Historic Photo Collection in nearby Charles Town, West Virginia, both archival components of the Service's Harpers Ferry Center. The keepers of the NPS History Collection collect, inventory, and maintain many kinds of material, beyond official records subject to NARA disposition requirements, that document and illustrate the history of the NPS and its parks and may not be saved systematically elsewhere. Themes represented include development of the national park concept, the history of historic preservation, the history of interpretation, women in the NPS, park-related tourism, the Civilian Conservation Corps, park forestry, the American Revolution Bicentennial, and NPS uniforms and insignia.

The collection's contents include duplicates of selected official records, legislation, and executive orders; annual reports of secretaries of the Interior, NPS directors, and park superintendents. Also included are reports of official conferences and staff meetings; master plans and interpretive prospectuses; interpretive and informational publications; personal papers of, biographical data on, and transcripts of interviews with NPS officials and park supporters; as well as NPS uniforms, badges, and other artifacts. Further information about the collection can be obtained by calling 304-535-6262.

The NPS Historic Photo Collection encompasses about 100,000 images dating from 1890 to the present, including those by official NPS photographers from 1929 to 1980. Illustrating many of the topics covered in the NPS History Collection, they are also valuable primary sources for park

Tom DuRant, Keeper of the NPS Historic Photo Collection.

historians. More information about this collection is available on 304-535-6707.

Repository Overview. It would be impossible to list all the archival repositories useful to NPS historians because their research interests are so wide-ranging. At the risk of slighting many equally relevant ones, only a few more will be mentioned here.

Director's Papers. Papers of 10 NPS directors, sometimes limited to the desk files they kept during their directorships, are in four university libraries in addition to Archives II.

- The University of California at Berkeley holds papers of Stephen T. Mather.
- The University of California at Los Angeles holds papers of Horace M. Albright.
- Clemson University holds papers of Russell E. Dickenson, George B. Hartzog, Jr., William Penn Mott, Jr., and Ronald H. Walker.
- The University of Wyoming holds papers of Arthur E. Demaray and Conrad L. Wirth.
- Archives II holds papers of Arno B. Cammerer and Newton B. Drury and other papers of Albright and Wirth within Record Group 79.

The Denver Public Library's Conservation Library has numerous collections on its topic, including papers of the Nature Conservancy and the Wilderness Society.

The Pennsylvania Historical and Museum Commission in Harrisburg holds the papers of J. Horace McFarland, a leading proponent of the National Park Service as president of the American Civic Association in the first decades of the 20th century.

The University of Maryland's McKeldin Library contains the National Trust for Historic Preservation Library, which houses records of the National Trust and a major collection on preservation including the papers of Frederick L. Rath, Jr., and interviews by preservation historian Charles B. Hosmer, Jr.

Frederick Law Olmsted National Historic Site preserves the extensive records of the landscape architecture firm founded by Olmsted and continued by his sons. Frederick Law Olmsted, Jr., participated in the creation of the National Park Service and shaped many park landscapes.

The Library of Congress holds the papers of many early presidents beginning with George Washington. It also holds the papers of Booker T. Washington, Harold L. Ickes, and numerous other noted figures. It is also the repository for the documentation produced by the Service's Historic American Buildings Survey and Historic American Engineering Record.

A personal experience exemplifies the value of archives to NPS historians re-examining accepted interpretations of the past. George Washington Carver, whom the NPS is charged with interpreting at George Washington Carver National Monument and Tuskegee Institute National Historic Site (where he taught under Booker T. Washington), has been widely credited with creating hundreds of new products from peanuts. Carver's work stimulated peanut production and freed southern agriculture from dependence on cotton.

Research in the Carver papers at Tuskegee, the Booker T. Washington papers in the Library of Congress, and contemporary agricultural publications and production records at the National Agricultural Library revealed that few of Carver's "discoveries" were new or commercially viable. Even more interestingly, peanut production peaked before Carver became popularly associated with the crop.

The NPS could legitimately present Carver as a noted teacher and humanitarian, but not as a scientific pioneer who transformed the South's economy. Of course, appealing historical myths die hard—a new poster in the Service's history office in Washington featuring noted African Americans pictures Carver with the caption "Revolutionized agriculture in the South"!

Barry Mackintosh is Bureau Historian, National Park Service .

Photos courtesy NPS Historic Photo Collection.

Mary Jo Pugh

The Historic Documents Department
San Francisco Maritime National Historical Park

San Francisco Maritime National Historical Park (SAFR) preserves and interprets the maritime heritage of the Pacific Coast—the history of the trades, technology, traditions, and lifeways of the peoples who lived on or through the sea—with emphasis on the San Francisco Bay Region and its maritime waterways.

The park focuses on four areas:

- Historic structures—including seven historic vessels
- Objects—including small craft, manuscripts, historic documents, and photographs
- Information—including library materials, oral histories, public programs, and publications
- Craftsmanship—assuring the continuation of traditional maritime skills

This work began in 1950 with the establishment of the San Francisco Maritime Museum Association. In 1951, the Association opened the San Francisco Maritime Museum in the Aquatic Park Bathhouse building and purchased the square-rigged ship *Balclutha,* which was restored and opened to the public in 1955. In 1957, a California state park unit was established to acquire, restore, and display additional historic ships, such as the schooner *C.A. Thayer,* the steam schooner *Wapama,* the ferry *Eureka,* and the scow schooner *Alma.*

Archives are tools, and like all tools, they are kept to be used. In the reading room of San Francisco Maritime NHP, archives take on another life. They are used both by park staff and by researchers from all over the world for products that have a multiplier effect—distributing knowledge of maritime history to millions of people beyond the reading room. Photo by Campbell/Danford courtesy San Francisco Maritime National Historical Park.

In 1963, the Hyde Street Pier and the historic vessels were opened to the public as the San Francisco Maritime State Historical Park. In 1972 Congress established the Golden Gate National Recreational Area (GGNRA) and over the next decade the vessels and maritime collections, including extensive collections of archives, manuscripts, and photographs, were transferred and consolidated in the Maritime Unit of GGNRA. In 1988, Congress established the San Francisco Maritime National Historical Park as a separate administrative unit.

The mission of the park's Historic Document Department is to identify archives and historical records for acquisition, to preserve them, and to make them accessible for use. Archival and historic document collections in the Historic Documents Department, estimated at 2.4 million items, are managed as part of the museum collection in accordance with NPS policy.

Archives are the working files of working folks, records made or received in the course of daily activities by organizations or individuals, preserved for their continuing usefulness to their creators and the public. Created in the course of purposeful activities, these records provide both evidence of the actions that brought them into being and information about associated people, organizations, events, and places. As communication tools, records are created with many recording technologies and may be in paper, film, microfilm, audio-tape, video-tape, or magnetic storage.

Archival collections document the maritime heritage of the Pacific Coast and include the archives of maritime-related organizations, the personal papers of seafaring Americans, and the archives of the park and its predecessor organizations. Identifying records for acquisition involves two activities: first, an acquisitions program for the archives of maritime-related organizations and individuals; and second, a records management program for the park's own records. Preservation of archival materials is a management function that depends on a continuum of policies and actions, ranging from actions at the repository level at one end to the item level at the other. Accessibility is provided through arrangement, description, and reference services.

Architectural records document vessels as well as buildings. In the background are the original steel racks and tubes built by Union Iron Works for storing its plans of vessels and mining equipment built in San Francisco from 1880 to 1920. Photo by Campbell/Danford courtesy San Francisco Maritime National Historical Park.

Archives Program

The park has assembled a well-educated and experienced staff to manage its archival program. Staff of the Historic Documents Department consist of three archivists, who collectively have nearly 30 years of experience, a supervisory archivist with nearly 30 years experience, and two photographers with over 20 years of experience.

The Department currently occupies about 6,000 square feet on the third floor and mezzanine levels of Building E, Fort Mason. The basic elements of a sound preservation program are in place. The building has both a sprinkler system and a smoke detection system. Two vaults have temperature/humidity control and Halon fire suppression systems. The third floor is equipped with a motion detector security system and a key monitoring system. The photographers have copied all nitrate negatives onto safety film, and the original negatives are stored in seven flammable materials freezers, equipped with dataloggers. Smoke detectors and a sprinkler system protect the space.

The staff engages in an active acquisitions program, identifying areas for acquisition and working with potential donors. The park acquisitions committee reviews potential donations and recommends to the superintendent that the park acquire those offers found to be significant and valuable. Managing the internal records of the park requires a records management program to ensure sound management of active records by implementing filing procedures, by segregating temporary records from permanent records according to records schedules, and by transferring permanent records to the archives. Park archivists provide records management services to park units. Photographers document park activities, recording actions for accountability, management, and interpretation.

Providing Access to Historic Documents

The third element of the archival mission is making historic documents accessible for interpretation and education, achieved through arrangement, description, reference services, and outreach activities. The arrangement of records serves as the primary mode of access. Records resulting from one activity are kept together and are not mingled in a subject classification with records resulting from other activities. Where possible, the creator's original order within a collection is retained. These principles ensure that the value of records as evidence is preserved. As records are arranged, basic collection level preservation actions are taken in rehousing into appropriate containers. Although segments of collections are physically separated for proper housing (plans, photos, textual records) their intellectual integrity is maintained.

The arrangement of photographs is particularly complex as there are two arrangement systems. When the Maritime Museum began to collect photographs in the 1950s, photographic collections were not kept together. Instead, individual photographs were arranged in a classification system according to size and form of image, thereunder by geographical location, and thereunder type of view. This classified collection was indexed on handwritten cards, with a typed catalog begun for a portion of this collection. The park began managing the photographic collections according to archival principles about 1978.

Archival holdings can be described at any level of aggregation, whether at the repository level, collection level, series level, container level, folder level, or the item level. At the repository level, the J. Porter Shaw Library and the Historic Documents Department report to appropriate directories of libraries, archives, special collection, maritime history, and the like. Collection-level description varies. At a minimum, all collections are accessioned and added to the ANCS accession database.* Properly documented deeds of gift or loan forms are executed for all accessions. As they are accessioned, all materials are rehoused in acid free boxes and housed on shelving or flat files.

Finding Aids. Since 1984, WordPerfect and dBase have been used to produce a basic control document, or *finding aid*, for each collection. The finding aid typically includes elements such as an administrative history or biography, scope and

A volunteer dusts a Hicks Engine marine drawing covered with oily dirt from the machinist's shop where it was used to build engines. Photo by Campbell/ Danford courtesy San Francisco Maritime National Historical Park.

content note, and series descriptions, followed by elements produced with dBase, such as the folder or item description and the index of vessel names, vessel types, personal names, place names, organizational names, subjects, and document types. Index terms from all collections are integrated into a master index, so that researchers can find the collections useful to their work. These finding aids are printed out and used in paper form. The dBase program is also used to print out envelopes and labels.

Cataloging. An ANCS record has been produced for accountability, but has not been used for access. In 1997, SAFR served as one of the test sites for ANCS+ (see page 34, this issue) so departmental staff now have access to ANCS data through the park network.

SAFR archivists made many suggestions for the archives module in ANCS+ and wrote the field definitions and help screens for it. The existing finding aids, including both the WordPerfect text and the dBase indexes, will be migrated to the archives module in ANCS+ this year and will give us integrated online access to nearly all our holdings.

The department has adopted the Machine Readable Cataloging (MARC) standard for collection level cataloging, and has reported some collections to the Research Library Information Network (RLIN). We look forward to having the MARC export function in ANCS+. We will use it to take all our legacy data, bring it to national standards for data content (APPM) and data values (LCSH, AAT, NAF), and export to the national bibliographical databases, such as RLIN and the Online Computer Library Consortium (OCLC) and to the local online public access catalogs (OPAC) and local networks.

In 1999, staff are also learning to implement the Standardized General Markup Language (SGML) for the Encoded Archival Description (EAD) (see page 28, this issue) to allow for easy interchange and distribution of finding aids across an internet working environment. The department is working with the University of California at Berkeley to encode our finding aids. This will increase the accessibility of the collections to staff and the public. Digital images can be attached either to the ANCS+ database or the EAD finding aid so that users can access the images in the context of their description without having to wait for the staff to pull the images. The advent of digitization is most exciting in its potential to provide access to a visual surrogate of the item itself. Much of the existing item-level indexing can be linked to a scanned image of the item itself.

Archives are tools and like all tools, they are kept to be used. Reference services for historic documents are provided by the reference staff of the J. Porter Shaw Library. The Historic Documents Department provides additional reference services, especially for complex queries regarding plans, manuscripts, and photographs, publications, or copyright. The SAFR photographic laboratory is equipped to copy and reproduce most forms of images.

At San Francisco Maritime NHP, archives take on another life. They are used by park staff, scholars, students, and the general public from around the world for a wide variety of public and private purposes. The archives are used in producing exhibits, books, magazine articles, genealogies, ship models, films, and videos. Thus the archives here have a multiplier effect, bringing a deeper understanding of maritime history to millions of people beyond the reading room, helping them, and us, to nurture and understand our inheritance from the past and our connection to the sea.

Note

* ANCS is the NPS Museum Management Program Automated National Catalog System.

Mary Jo Pugh is Supervisory Archivist, San Francisco Maritime Museum National Historical Park.

Donna Longo DiMichele

The Archives and Special Collections of the Mashantucket Pequot Tribal Nation

In August 1998, the Mashantucket Pequot Tribal Nation opened the Mashantucket Pequot Museum and Research Center, Mashantucket, Connecticut, the largest native-owned institution of its kind. A major educational endeavor of the tribe, the museum has permanent exhibits on the prehistory and history of northeastern native peoples, with a particular focus on the history, culture, and changing way of life of the Mashantucket Pequots.

Highlights of the exhibits include a diorama depicting a caribou hunt; a re-created 16th-century village populated with life-cast mannequins; exhibits depicting Pequot life after the 1637 massacre of the Mystic village; and the contemporary life of the tribal nation. The Research Center includes a Research Library, the Archives and Special Collections, and a Children's Library, which are open to the public. There are also archeology and conservation laboratories and a 420-seat auditorium for educational programs and performances.

The revival of the Mashantucket Pequot Tribe has been a source of curiosity to the local and national community. Many believed that the tribe was extinct; Pequot children heard their teachers tell them so in class. A museum that tells their story has been a goal of the tribe for many years. Theresa H. Bell, Executive Director of the Museum and Research Center, is a tribal member. Her day-to-day involvement in the project assures that the exhibits, programs, and collections are consistent with the tribe's mission for the Museum and Research Center.

The mission of the archives, similar to that of most modern archives, is to appraise, acquire, organize, preserve, and make available the archives of the tribe and to support the inquiries, primary research, and programs of the Mashantucket Pequot Tribal Nation. In particular, the Archives and Special Collections supports the Museum and Research Center's overall mission to document and reconstruct Native American culture and history.

The archives is the repository for records, manuscripts, printed materials, and other primary resources that document the activities, history, and culture of the Mashantucket Pequot Tribal Nation and its members. Materials held by the archives include tribal government records, oral histories and oral history project records, architectural records, photographs, scrapbooks, tribal newspapers and newsletters, clipping files, pamphlets, broadsides, memorabilia, and family and personal papers of tribal members.

The Special Collections encompasses materials that document the histories and cultures of other Native Americans. There are special collections of maps, photographs, manuscripts, ledgers, engravings and woodcuts, research files, professional papers of scholars, popular culture, and other materials that date from the 16th to the 20th centuries.

The primary clientele of the tribal archives are the members of the Mashantucket Pequot Tribal Nation and tribal employees. However, as a division of the Museum and Research Center, the Archives and Special Collections include as its clientele scholars and the public in the region, the nation, and the world.

The development of the tribal archives' program depends on the support of the Tribal Council. We hope to work with the tribal chairman and the Tribal Council to develop a resolution for the mission of the archives. A tribal resolution will secure a viable mandate for the development of the tribe's archives. The endorsement and support of the chairman and the Tribal Council will be critical to the success of the program.

An archivist depends on the trust and respect of the community to develop a successful archives program. When the archivist is not a member of the community that he serves, then it is particularly important to understand the group's history and culture.

It is my responsibility to learn what the members of the tribal community want for their archives. I must also learn the role of the recent past in shaping contemporary Mashantucket Pequot culture. A contemporary Native American tribe has several major spheres of activity, including the cultural, political, economic, and familial. As an archivist for a tribe, I must be aware of each aspect and try to understand how they have an impact on the collections and mission of archives.

The Museum and Research Center are new tools in the tribal organization. Now that the archives is open to researchers, staff have more opportunities to talk to tribal members and employees about the role of a tribal archives. As we have the opportunity, archives staff describe the types of materials we are collecting and the importance of community and tribal government support. We talk with people about why we collect certain records and special collections materials and how they are used for research.

One special collections purchase provides an interesting example of this educational process. The acquisition was a 17th-century engraving that depicted the execution of Jesuits by Iroquois. The scene includes various torture scenes and executions. A visitor was concerned about the fact that the image depicted Native Americans as violent and savage. To try to answer this question, we talked about the engraving as an interpretation of a documented event and the role of images in communicating information about historical events. We discussed the possibility that this image was perhaps the only information that some 17th-century Europeans had about Native Americans.

From a European perspective, the priests appear to be martyrs and the Iroquois are murderers. Historically, images like this helped to perpetuate the stereotypes of natives as savages; today such images tell us about how some stereotypes may have developed in history. In addition, we talked about the fact that the image does contain real information about Iroquois dress, wampum use, hairstyles, quill work, and post-contact material culture such as iron pots, knives, and axes. Perhaps most importantly, the discussion was an opportunity to talk about the importance of the tribal archives as a place where the tribe can document its history in its own words and images, not those of others.

Another educational goal that sets the Mashantucket Pequot Tribal Nation's archives apart is the priority that we will give to supporting Native American interns. Encouraging internships among tribal members and other Native Americans is one way that the archives can empower its primary constituents, the membership of the Mashantucket Pequot Tribal Nation, and other Native Americans.

Collections

When it is appropriate, the staff of the archives will work with Tribal Council members to facilitate the transfer of their personal papers to the archives. In our work with the Council, we will use the National Archives and Records Administration's model outlined in "Personal Papers of Executive Branch Officials."* Federally recognized tribes are sovereign nations that generate records like those generated by any government. We will continue to look to federal, state, and local government records models for direction as we develop the archives. Moreover, we will continue to consult with the staff of other tribal archives to work toward a unified model of tribal archives.

The archives is the repository for a comprehensive oral history collection that was created through an oral history program developed by the tribe. Professional oral historians interviewed members of the tribe. Portions of the audio recordings are incorporated into the museum's exhibits. However, access to the collection itself is currently limited to tribal members.

Family correspondence and papers currently in the collection include letters from a Pequot woman to her daughter. The letters, written in the 1920s, include information on the efforts of Pequot and neighboring tribes to work with the federal government, basket making, and disease.

The Report of the Committee on the Sale of Pequot Land was written by a committee created by the County Court of New London in 1856. **The information contained in the manuscript was a key in the tribe's successful land claim suit in 1976 and its ultimate success in obtaining federal recognition.**

The recent history of the Mashantucket Pequot Tribal Nation is vibrant with tribal enterprises, including a pizza restaurant, hydroponics gardens, maple sugar production, and a bingo hall. Records from these enterprises are slowly coming into the archives.

Some manuscripts that document Pequot history are acquired by purchase. Such materials provide valuable insight into life in native communities and often about interactions between natives and non-natives. The types of documents are the same as those collected by most special collection libraries and historical societies. We acquire materials to document social, political, and legal history as well as material culture. One example is a roster of Revolutionary War soldiers from Stonington, Connecticut. The roster includes Pequot names and is accompanied by receipts for goods supplied to each soldier's family. The receipts provide information about individual families and the differences in rations received by natives and non-natives.

Collections are cataloged into Endeavor's *Voyager* system and the Research Library Information Network (RLIN) database. Catalog records and other collection information are avail-

able through the public access catalog in the Research Library and the Archives and Special Collections. Materials in the Archives and Special Collections are being imaged in the in-house photography studio. In the spring of 1999, on-site researchers will be able to view linked images of materials described in the catalog. Researchers will be able to access the catalog through the Web in 1999; however images will remain available on-site only. An illustrated, automated catalog of a collection focused on depictions of Native Americans in popular culture is also available on-site.

Facilities

The Archives and Special Collections facility is on the floor above the Research Library's reading room. Researchers in Archives and Special Collections are accommodated in a reading room that seats eight comfortably. There is a technical services workroom with five workstations for archives staff. Another room is used for new accessions, as a staging area for processing, and supplies storage. The closed stacks include 9,872 linear feet of space on electric compactor cantilever shelves, the same type that is used in Archives II facility in Suitland, Maryland.

On behalf of the Mashantucket Pequot Tribal Nation, the staff of the Archives and Special Collections invites you to visit the Museum and Research Center. We look forward to welcoming you.

Note

* Personal Papers of Executive Branch Officials: A Management Guide. National Archives and Records Administration, Management Guide Series. Washington: National Archives and Records Administration, Office of Records Administration, 1992.

Donna Longo DiMichele is Head, Archives and Special Collections, Mashantucket Pequot Museum and Research Center.

Information about the Museum and Research Center, including hours, is available at <www.mashantucket.com>.

Preservation Information from the NPS

A *Conserve O Gram* is a short, focused leaflet on the preservation of museum and archival collections published in a series. Updates are issued twice a year. *Conserve O Gram* leaflets are on the Web at <http://www.cr.nps.gov/csd/publications.index.htm> with a range of topics that address preservation problems and questions relating to archival materials. The *Conserve O Gram* series is also available by subscription from the Government Printing Office. Recent preservation topics include:

- 3/7 Monitoring Insect Pest with Sticky Traps
- 3/8 Controlling Insect Pests: Alternatives to Pesticides
- 14/6 Caring for Color Photographs
- 14/7 Caring for Photographs: Special Monochrome Processes
- 14/8 Caring for Cellulose Nitrate Film

Other National Park Service information on the World Wide Web includes:

- the Primer on Disaster Preparedness Management and Response: Paper-based Materials, at <http://www.cr.nps.gov/csd/publications/primer/primerintro.html>.
- a bibliography with a wide range of references containing information about care of archives and archival materials at <http://www.cr.nps.gov/csd/publications/mmpbib1.html>

The *NPS Museum Handbook, Part I* contains in-depth information on care of museum and archival objects. Twelve chapters address different issues in the preventive care of collections with topics such as: Museum Collections Environment, Emergency Planning, and Security and Fire Protection. Care of specific types of materials such as photo collections, cellulose nitrate film, and paper objects are addressed in the appendices.

Jessica S. Johnson
Conservator
Museum Management Program, NPS

Susan McElrath

The Archives at the Mary McLeod Bethune Council House NHP

Located at the Mary McLeod Bethune Council House National Historic Site in Washington, DC, a unit of the National Park Service and National Capital Parks-East, the National Archives for Black Women's History (NABWH) is the fulfillment of Mary McLeod Bethune's vision of a legacy for succeeding generations. Its mission is to identify, collect, develop, interpret, and preserve the legacy of Mary McLeod Bethune including her unique focus on the individual and collective history of African-American women.

The NABWH collects materials about or illustrating the life and work of Mary McLeod Bethune, the National Council of Negro Women, and other African-American women's organizations. While focusing on the years of Mary McLeod Bethune's life, 1875-1955, the NABWH seeks to document the continuing impact of her vision to the present time.

Mary McLeod Bethune. Photo courtesy Mary McLeod Bethune Council House National Historic Site.

Promoting access and encouraging use of the collection are key goals for the staff of the NABWH. This emphasis means that researchers are able to turn to a variety of tools to gain information about the archives. The Bethune Council House's newly expanded web site <www.nps.gov/mamc> features an index and a description of the archives holdings. In addition, information in computer-searchable formats appears in the National Union Catalog of Manuscript Collections (NUCMC), the National Inventory of Documentary Sources (NIDS), and ArchivesUSA. These tools will provide potential users with remote access to all levels of available bibliographic data such as finding aids, collection descriptions, and information on the institution. Archives staff has also developed several internal databases to assist staff and users to locate photographs and other useful data.

Like other archives, NABWH provides reference service in person, by mail, by fax, by phone, and via email. **Last year, the archivist developed two document packets for use in the classroom.** Teachers are currently field testing the packets. The outreach program at the NABWH includes a newsletter, staff presentations to a wide variety of groups, and an annual open house. The archivist has given talks on cataloging archives to beginning library school students at the Catholic University of America. The outreach program not only encourages use of the collections but also occasionally leads to the acquisition of a new collection.

As with all archives, preservation and protection of the collection are a high priority. Recently, the National Park Service installed a new compact shelving system that provides additional security along with needed additional storage space. In addition to the traditional measures of removing staples and paper clips, flattening folded and rolled documents, and storing documents in archival folders and containers, staff store material separately by media when possible and isolate items with mold or other problems. **Staff is currently looking into working with a commercial microfilmer to film the archives largest collection, the Records of the National Council of Negro Women.** The microfilm will ease the wear and tear on some of the more fragile parts of the collection and permit use by researchers unable to travel to Washington, DC.

As part of the Mary McLeod Bethune Council House National Historic Site, the NABWH follows the management procedures of the National Park Service. The Bethune Council House is in the process of developing a General Management Plan. This plan will guide the National Park Service's decisionmaking process for the site over the next 15 to 20 years.

One of the crucial elements of the General Management Plan is the Scope of Collection Statement that provides the National Park Service with the parameters for collecting materials for the archives. PL 102-211 which incorporates the Bethune Council House into the National Park System also established a Federal Advisory Commission to advise on matters relating to the General Management Plan. The archivist serves as liaison to the Commission's committee on the NABWH. The commissioners have proved to be vocal supporters of the NABWH and its programs.

Susan McElrath is Archivist, Mary McLeod Bethune Council House National Historic Site.

Anyone interested in the archives or the General Management Plan is encouraged to contact the staff at the Bethune Council House for additional information at 202-673-2402.

Karen Stevens

Managing Documentary Resources
Independence National Historical Park

On June 28, 1998, Independence National Historical Park (INHP) celebrated the 50th anniversary of the signing of its enabling legislation by President Harry S. Truman. The park is listed on the National Register of Historic Places. Independence Hall and Independence Square are designated a World Heritage Site. Independence Hall, the First Bank, and the Second Bank are National Historic Landmarks. During its 50 years of operations, the park accumulated a significant body of research, management and site project records.

In 1983, INHP created a central research repository for these archival records which reflect the development of the park and its resource management activities. The archival project team shelved the collections in a locked stack in the library and compiled a preliminary inventory, *Guide to the Archives of Independence National Historical Park*, which still serves as the primary physical and intellectual key to the collections.

Although the archival center was established some time ago, until recently there was only minimal provision for program management. At the time, responsibility for curatorial care and reference use of the archives was assigned to the library technician, under the supervision of the chief historian, the administrative niche it occupies today.

In the intervening years, the park lacked the resources to address many conditions related to standard appraisal, holdings maintenance, accessioning, processing, cataloging and descriptive finding aids, reference and use. **Recognizing the value of the archives and documentary resources, the Cultural Management Division hired a professional archivist to manage its archives and manuscripts and supervise the library in 1995.**

Today the archives contains nearly 500 linear feet of materials in all archival formats including slides, negatives and prints; drawings and plans in all media; audiotapes and reels, videotapes and film; electronic formats; and microforms. Other associated archival and manuscript collections, which pre-date the organization of the park and relate to the park's historic buildings and museum collections, reside in the museum collections under the management of the Museum Branch. These records, along with the cultural resource management materials in the archives, reflect a seamless continuum documenting the park's history for over 200 years and shaping its identity.

In 1995, the archives implemented its archival program by establishing an access policy and printing a brochure describing its holdings and services. To promote use of the photograph collections, the archivist reorganized the Photograph Reproduction Services program, in partnership with Eastern National Park and Monument Association, establishing policy and procedures for use of images. The fiscal year 1998 statistics show that the archives served 409 researchers and processed orders for 725 photographs, a 20% increase in use over the previous year.

During the past three years, INHP Archives has made considerable progress toward integrating its resource documentation records into the museum management program according to guidance in the *Museum Handbook*, 1994, and Part II, Appendix D, 1997. Support for projects to implement museum standards and accountability came from a combination of NPS Museum Management Program funding and the INHP Cultural Resource Management Division's budget.

The archives recently completed a retrospective accessioning project to identify the processing and cataloging backlog which currently has an estimated 533,000 items. Prior to 1995, records deposited in the archives were not accessioned. The backlog includes the collections listed in the 1983 guide as well as field collections transferred to the archives since then.

In 1996, the Museum Collections Preservation and Protection (MCPP) program, funded the preparation of a Collection Management Plan (CMP) and Action Plan of priorities and recommendations for managing the park's archival collections. The accompanying records survey of park buildings and offices identified nearly two million items for appraisal and disposition, clearly revealing the need for a records management program.

Two processing projects awarded Backlog Cataloging funds produced Automated National Catalog System (ANCS) records and finding aids for eight of the park's most significant pre-park records collections. These collections relate to the individuals and organizations pivotal to the establishment of the park in the 1940s and to the development and management of Independence Hall as a

The original stack in the library is full; an adjunct storage area has been created at the Second Bank to house new acquisitions until the move to the Philadelphia Exchange. Photo courtesy Tawny Nelb, Nelb Archival Consulting, Inc.

National Museum by the City of Philadelphia, from 1860 to 1950.

Three projects funded from the park's History Branch budget address thorny issues related to preservation and access to the park's voluminous body of site construction records, 1950 to date. In 1997, an architectural archivist consultant prepared *Recommendations and Processing Guidelines for the Architectural Project Records.* Using these guidelines, an archivist processed, cataloged, and created a finding aid to the Office of Architect's research records, 1938-1993.

In 1998, a student prepared a preliminary inventory for more than 4,200 architectural drawings and plans. Phase II of the project will inventory the remaining estimated 2,500 drawings in 1999. With MCPP funds, the park bought flat files to store the drawings and plans rehoused by these projects.

While making progress to implement NPS museum management standards, improve accountability, and provide access to archival materials, the archives established procedures for new accessions and transfer requests from park offices. Park staff, informed of the opportunity to transfer noncurrent records to the archives, readily cooperated with the archivist in shipping appropriately appraised files according to the procedures.

From 1994 to 1997, INHP was involved in developing a new General Management Plan (GMP). The GMP calls for construction of a Gateway Visitor Center, a new Liberty Bell complex to replace the current pavilion, the Independence Park Institute and a National Constitution Center as part of the development of Independence Mall over the next five years. Concurrently, construction design and projects to rehabilitate the park's historic buildings will generate mountainous piles of reports, drawings, photographs, and construction records for upwards of 20 years.

To deal effectively with these records, the archives devised an innovative, pro-active documentation strategy for documentation deliverables from these projects. The plan appraised construction project reports, drawings and photographs, submittals and correspondence as archival records at the time of creation. Rather than capture it all somewhere down the road, creators of these records are advised to send them to the archives at mutually agreed upon times. This is an approach in line with the National Archives and Records Administration's strategic plan to identify federal records of permanent value at the front-end of the record life-cycle.

When the above projects are completed in the next decade and beyond, the volume of resource management documentation generated will more than double the quantity of park records archived to date. For a fuller discussion of this strategy see the article entitled "Building Project Records at Independence" by Karen Stevens in *CRM*, Vol. 21, No.2 (1998): 26-27.

In one phase of the building improvement program at INHP, a new library and archives facility will be included in the Philadelphia Exchange rehabilitation project within the next five years. The archivist has been working with NPS Denver Service Center staff to design a facility which meets NPS museum preservation standards and the park's archival program and storage needs for 25 years.

Several important planning projects still need to be addressed before full implementation of an archival program at INHP is complete. **At the top of the priority list is a records management program.** In addition to the library and archives, all park division office staffs, about 100 employees, eventually will move into the Philadelphia Exchange. This impending relocation presents a prime opportunity to implement a park records management program. And the park archives is positioned to support that initiative.

A second priority is to develop a comprehensive Photograph Collection Management Plan to process, catalog and rehouse the research and study photo collection of over 50,000 items and the photographs from park maintenance, rehabilitation and construction projects. This includes a collection of photographs, covering the years 1950 to date, from the historic architect's office, which plans a future CD-ROM scanning project for these images.

Independence NHP recognized the importance of the park's documentary resources to NPS staff and researchers long before there were funds and staff to manage them properly. Staff took steps to preserve and protect them as best they could until the time was right. Now in its 51st year, with a professional archivist on staff, funding opportunities available, and the prospect of an adequate archival facility, INHP continues to honor its commitment to the NPS mission of preserving, protecting, and interpreting cultural resources.

Karen Stevens is Archivist, Independence National Historical Park.

Diane Vogt-O'Connor

Is the Record of the 20th Century at Risk?

At the end of the 20th century the world's archives are facing challenges of a scale that were unimaginable only a decade ago. First, the size of the human record has grown at a geometric progression beginning with the development of the photocopy machine and desktop publishing and greatly enhanced by electronic communications. The National Archives and Records Administration is now annually accepting 10 times more electronic records from the Treasury Department in email alone than it received from the entire federal government in the previous 25 years according to a recent article by Archivist John Carlin.[1]

Not only are the old creators of records writing and producing more documentation, but new voices—new organizations, new individuals, and new groups—are being empowered by these media to produce documentation reflecting their views. Every eight minutes, more new information is added to the Internet alone than is currently held by the United States National Archives and Records Administration.[2]

This wealth of digital data provides us with a chance to learn more about humans as a diverse, often frivolous, and endlessly inventive species than any previous media since the printing press. We can explore our world and its cultural and natural resources without leaving home. Yet this elegant and playful electronic record is endangered. Unlike our photographic, paper, and motion picture film, which gradually decline into full loss over a period of centuries, digital media self-destruct in decades with little warning. Some vanish much more speedily—the average life expectancy of a web page is roughly 70 days according to Brewster Kahle of the Internet Archive.[3] **We may paradoxically be both the best documented era in history and the least understood, as much of our documentation will be lost.**[4]

While we have the first telephone and telegraph messages still, the first email message, chat group session, and web site have already been lost. The predicted pace of electronic information loss is accelerating. Not only do we have to contend with the fragility of digital media; even more worrisome is the speedy obsolescence of the software and hardware that makes the files usable.[5] These market-driven systems change rapidly—roughly every 18 months—and are often not able to play earlier files, leaving historic data orphaned and inaccessible. Since this data is our cumulative memory as a species, the situation is dire.

The market incentive for software and hardware manufacturers to step in and solve this problem for society doesn't yet exist. The vendors profit from system obsolescence by selling corporations, groups and individuals new or upgraded software and hardware and new formats of old content over and over again. How many different versions of your favorite music do you have (records, tapes, digital tapes, CD-ROMs, DVDs)? Few groups or individuals have budgeted to keep moving old content to new formats endlessly; therefore, we lose significant portions of our heritage of data, information, and knowledge daily.

Why Do Archivists Fear a New Dark Ages?

Many electronic preservation specialists believe that a significant portion of late-20th-century data, information, and knowledge will be lost permanently. In a letter to the editor of the *Washington Post* and in the newsletter *CLIR Issues,* Deanna Marcum of the Council of Library and Information Resources has predicted a 10-year loss of digital records.[6] Danny Hillis of Walt Disney predicts "A 'digital gap' will span from the beginning of the wide-spread use of the computer until the time we eventually solve this problem."[7] Peter Lyman of the University of California at Berkeley asks "Are digital signals destined to be a kind of oral culture, living only as long as they are remembered and repeated?" Our era may in effect become a new dark age about which most of the core information, knowledge, and data will be lost—except for that printed to paper or continuously migrated to newer software platforms.[8]

Conservators point to the significant losses already experienced with such 20th-century media as color photographs, cellulose nitrate motion picture film, audiotapes, videotapes, and high-lignin wood pulp paper records. When combined with the predicted loss of digital files the effect may be a general loss of contemporary memory, perhaps the greatest such loss since the 1400s.[9]

According to many experts, to prevent the emergence of such loss we must develop:

- **a universal preservation format** that ideally is long-lived, compressed, but still eye legible
- **a universal translator** that is able to move old files to the new formats constantly being developed by our market-driven economy [10]
- **certified repositories** that are adequately funded with trained and imaginative staff who are well equipped to ensure the survival of our new major documentation and communications media—particularly digital data. Currently NARA has only 2 million dollars annually to manage electronic records.[11]

When this is contrasted with the 40+ million dollars currently being spent by the National Digital Library to move stable paper records into short-lived, but accessible digital formats, it rapidly becomes clear that preservation of knowledge has not been given equal priority to access in this country.

To keep electronic files, they must be migrated (moved to the next generation of hardware and software) and refreshed (copied to new and more durable media as digital media itself is fragile and short-lived and given a new tape wind to limit stresses) every 18 months or so.[12]

Costs of Managing Digital Data Over Time

Electronic records project experts have estimated that digital records are roughly 10-16 times more expensive to manage over time than paper records. National Digital Library Ameritech grant experience indicates that the cost of digitizing an item is only one third of the start up cost of digital work, with two thirds being the cost of cataloging, metadata, and quality control.[13]

Archives are not funded to a level that empowers them to deal with the long-term management of the growing quantities of digital data, nor are most archivists trained to work with these media. Yet ignoring the problem is not an option. In recent court cases, archivists at the National Archives have been held responsible for managing electronic versions of federal documents effectively, regardless of institutional abilities and funding.[14]

These demands and legal requirements for super-archives to save an ever greater and more diverse record are coming at a time when:

- organizations and governments are reorganizing and downsizing
- archival budgets are flat or in decline
- archival descriptive standards are in flux[15]
- archival staff must retrain to learn the new standards
- legislation affecting archives is changing

What Legal Challenges Affect Archives?

Legal standards are also in flux. Archivists are currently facing some of the most stringent legal challenges ever to their right to provide fair use access to materials whose copyrights are held by others. Recent legislation has extended the duration of copyright protection by 20 more years. Archivists' traditional role has been to provide access under the legal concept of "fair use," which allows access for scholarship, parody, education, and news reporting purposes. Recent rulings by the courts and developing legislation seem to promise an ever-shrinking and more restrictive definition of "fair use purposes" particularly in the digital world. Archivists face the possibility that they may end up providing access to collections in a pay-for-use services digital environment with all funds received going to intellectual property rights holders.

State and federal privacy and publicity laws raise serious concerns over what may be made accessible and how, as do recent publications by culture groups on their wishes to gain legal control over materials already in the public domain or materials created by non-group members.[16] In our litigious times many of these issues are likely to be resolved in the courts or by Congress, rather than by archivists. How can archivists balance the complex and often contradictory requirements and needs of donors, copyright holders, creators, individuals who are documented, scholars, and the general public?

Archival budgets are being seriously eroded by increasing costs, decreased budgets, fewer staff, more users, burgeoning information, increasingly unstable information formats, changing professional information standards and practices, revised laws on fair use and copyright, and institutional restructuring and instability. Simple neglect alone is enough to ensure disaster. The looming dark ages of information loss present us with a renewed mission to save what we can despite our institutional constraints.

What Can We Save?

At the millennium, faced with a new digital dark age of information loss, archivists are reexamining our appraisal strategies. We don't want to be crushed under the weight of the past, nor can we afford to save everything.

Yet, we are aware as never before that our records must reflect the full diversity and complexity of our world, rather than becoming an edited compendium that celebrates a specific world view or a single group. Real archives, like the human unconscious and memory, contain some materials that will be unpopular. A real archives is a by-product of the full range of human actions, rather than the neatly edited version of reality presented by most publications.

Who decides what is preserved and what is destroyed? How do we ensure that the record of "what did he know and when did he know it" is not lost? How do we ensure the memory of the holocaust, slavery, women's suffrage, and Native American disenfranchisement? How do we record the human mistakes, the average day, as well as our best and brightest moments, so that we can learn as well as celebrate? How do we ensure that what we save is authentic, of enduring value, and accessible? Some options are described below.

Working with records creators and users and teaching these individuals to:

- save digital master files in common non-proprietary file formats like TIFF

- avoid using compression when creating master digital files to facilitate future use; instead use compression on derivative or copy files as necessary or desirable
- store master files offline in a redundant array of independent disks, which use multiple servers to back-up data in several different servers simultaneously
- maintain software and hardware and move files to the next generation of software as necessary to keep them useful
- incorporate standard color bars and measuring scales within a digital file to aid in management and viewing
- keep a systematic record of file modifications and changes
- capture and manage file metadata (documentation about digital files) to help when accessing, managing, or viewing the files
- exercise or use all data regularly to ensure full functionality

Some archivists believe we can afford to wait for a technological solution that will not require any change in our relationship with records creators. If technology doesn't provide this answer, these archives will be dependent on whatever knowledge is captured and maintained by the various affiliated user communities in whatever format the communities use. Archives might support these creator or user communities by providing guidance on how to create permanent and durable records and how to manage and preserve their content and their software and hardware over time.

Intervene and statistically sample the digital realm, avoiding the use of human judgment in selection. Work under the assumption that we can't count on a technological fix. A sample has the merit of providing a non-editorial sketch of the whole, although much material of proven and enduring value will be missed simply because it doesn't fit the sample profile. Brewster Kahle's Internet Archives, a digital backup of the Internet taken at regular intervals, captures this data. The question remains: who can afford to continue to manage and migrate this information and provide access to it over time? Kahle recently gave a 12 terabyte copy of his Internet Archives to the Library of Congress, which must determine whether it can afford the management mortgage on this gift.

In ancient India, the gift of a white elephant often bankrupted the state treasury while conferring high status; the Internet Archives may be a similar gift with much status, high user demand, and a punitively high cost to manage through time.

Intervene and select items based upon traditional archival selection criteria such as institutional mission, audience, value in relationship to the mission, usage level of the items, and risk of loss. These criteria have the merit of being based upon what our users want and what history tells us is valuable. However, the resulting archives will reflect a particular worldview rather than the full range of human experience. The advantage of this approach is that it reflects seasoned human judgement and it may be scaled to suit the repository's budget since the repository is selecting in priority order.

Hybrid approach: use the best of all three methods above. First, work with the records creating and using communities to encourage them to create long-lived and durable records, manage them effectively over time, and responsibly provide the records to archives when the creators or the users are done exercising the data. Preserve and manage the hardware and software necessary to make these user-selected materials accessible. Next, statistically sample everything, to an extent that is economically feasible by the archives. Third, select any items that fit the collecting statement of the archives and which are evaluated as having high value to the archives and its audience. Allow value, use, and risk factors to influence the selection process. Finally, pray for technological help and funding from the government, individuals, and the organizations benefiting most from the new technologies, the software and hardware firms.

New Partnerships to Approach

Even as archives face some of the greatest challenges since the first archivists assembled collections of clay tablets in ancient Assyria, we are finding some powerful new partners, including:

The Edutainment Community. Entertainment when wedded with education equals "edutainment." This is best illustrated by the huge growth in specialized book clubs, cable television channels, special interest groups, and web sites focusing on culture, history, natural history, or similar issues, such as:

- The History Channel
- The Learning Channel
- The Knowledge Channel
- The Discovery Channel

New Internal Uses, such as:

- Geographic Information System demands for historic maps and plans, which result in massive databases that allow land-based agencies, states, governments, and historians to study and know areas in ways previously unimaginable
- Government Performance and Results Act (GPRA), which uses baseline data, available often only in archives, to track progress toward accomplishments

Electronic Freedom of Information Act (E-FOIA) mounting of frequently requested federal and state documents on the Web to facilitate access to federal records

Affiliated User Communities, such as:
Civil War re-enactors
collectors
hobbyist networks, such as railroad buffs
clubs, such as historic preservation aficionados

Information Brokers, such as:
Contract researchers, who conduct research for a fee
Picture researchers, who find imagery for films, books, and articles
Online Fulfillment Services, such as Image Directory and Corbis Media, who post the images for others to aid in their resale
Online Rights Management Services, who help organizations track and manage intellectual property rights

Foundations, Organizations, Universities, and Consortia, such as:
The Council for the Preservation of the Anthropological Record's work on preserving the papers of anthropologists (see *CRM* Vol. 18, No. 9, p. 34)
Council on Library and Information Resources focus on preserving the digital record
The Long Now Foundation
Brewster Kahle's Internet Archives
The Getty Information Institute's "Time and Bits" Conference
Northeast Document Conservation Center's "School for Scanning"
Universities, such as:
Cornell University
Harvard University
the University of California at Berkeley
the University of Pittsburgh
Yale University

No organization or profession working alone can preserve our knowledge and historical evidence, or ensure the survival of our information and make it accessible to the insatiable audiences who demand it. We must work together as allied professions and organizations to share our expertise and resources if we are to ensure the survival of our data, information, evidence, and knowledge for future generations. We must explore all options open to us with open minds that are eager to share the message of what is at risk. This legacy, which safely stores our factual observations for future theorists and managers, our information for later adaptive re-use, and our professional knowledge and evidence for enhancement of our organizations and professions, is our greatest gift to the future.

Notes

1 Carlin, John W. "Records Everywhere, But How Are They Going to Survive?" in *The Record*, 5:1, September 1998, p.3.

2 Kahle, Brewster. "Setting the Stage: Summary of the Initial Discussion," in *Time & Bits: Managing Digital Continuity*. Edited by Margaret MacLean and Ben H. Davis, Santa Monica, CA: The J. Paul Getty, Trust, 1998, p. 39.

3 Ibid.

4 Hillis, Danny. "Public Session: Panel Discussion," in *Time & Bits: Managing Digital Continuity*. Op cit., p.42.

5 Ibid, pp. 18-20.

6 Marcum, Deanna. *CLIR Issues*, number 2, March/April 1998, pages 1-3.

7 Hillis, Danny. "Public Session: Panel Discussion," in *Time & Bits: Managing Digital Continuity*. Op cit., p.42.

8 Lyman, Peter in *Time & Bits: Managing Digital Continuity*. Op cit., p.11-12.

9 Carlin, John W. "Records Everywhere, But How Are They Going to Survive?" in *The Record*, 5:1, September 1998, pp 1-3.

10 Taylor Shelley Z. "Ongoing Digital Dialogue: The Time and Bits Threaded Discussion," in *Time & Bits: Managing Digital Continuity*. Op cit., p 65.

11 Carlin, John W. "Records Everywhere, But How Are They Going to Survive?" in *The Record*, 5:1, September 1998, pp 1-3.

12 Eiteljorg, Harrison. "Archiving Archeological Data in the Next Millennium" *CRM*, 21:6 (1998), pp. 21.

13 Puglia, Steven. "Cost Benefit Analysis for Reformatting Option," Speech at AfterImages: Reformatting Visual Materials in a Digital World, Conference of NEDCC and NPS at NARA Archives II, September 17-19, 1998.

14 Public Citizen, Inc., et. al, v. John Carlin, Archivist of the United States, U.S. District Court, 1997 (Civil Action 96-2840 (PLF)).

15 Kiesling, Kris "What Is the Encoded Archival Description Standard?" in this issue of *CRM*, page 28.

16 Brown, Michael F. "Can Culture Be Copyrighted?" in Current Anthropology, 19:2, April 1998, pp.193-206 and "Cultural Records in Question: Information and its Moral Dilemmas," in *CRM* 21:6, (1998) pp. 15-17.

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Creating Permanent and Durable Information

Physical Media and Storage Standards

The following outline provides references to guidance on the creation and management of durable copies of information, including paper records, microfilm, photographs, and digital images.

Systems Perspective: Standards Overview

Standards organizations can be grouped into three categories:

Industry Standards

AIIM—Association for Information and Image Management
ANSI—American National Standards Institute
ASTM—American Society for Testing and Materials
ISO—International Standards Organization
NISO—National Information Standards Organization
PIMA—Photographic and Imaging Manufacturers Association

User-Group Standards

RLG—Research Libraries Group

Government Standards

CFR—*Code of Federal Regulations*

Life Expectancy

ANSI and PIMA have adopted the following definitions relating to the longevity of imaging materials. ISO has also adopted several of these definitions.

Archival Medium is a recording material that can be expected to retain information forever, so that such information can be retrieved without significant loss when properly stored. However, there is no such material, and it is not a term to be used to describe material or system specifications in American National Standards.

Life Expectancy (LE) is the length of time that information is predicted to be usable in a system at 21° C and 50% relative humidity (RH). The latest photographic film standards use this definition. An alternate definition is that LE is the length of time that information is predicted to be retrievable in a system under extended-term storage (definition used in photographic print standards).

LE Designation is a rating for the life expectancy of recording materials and their associated retrieval systems. The number following the LE symbol is a prediction of the minimum life expectancy in years for which information can be retrieved without significant loss when stored at 21° C and 50% RH. LE-100 indicates that information can be retrieved after at least 100 years storage.

Extended-Term Storage Conditions are storage conditions suitable for the preservation of recorded information on the majority of freshly processed photographic films for 500 years (definition in latest photographic film standards). The previous definition of this phrase referred to storage conditions suitable for the preservation of recorded information having a permanent value.

Medium-Term Storage Conditions are storage conditions suitable for the preservation of recorded information for a minimum of 10 years.

Life Expectancy (LE) Ratings

LE ratings have been assigned for the following types of photographic film materials:

Black-and-white (B&W) polyester-based photographic films	LE-500
B&W acetate-based photographic films	LE-100
Diazo microfilm	LE-100
Vesicular microfilm	LE-100
Thermally processed silver microfilm (dry silver)	LE-100
Polyester-based magnetic tape	LE-50

Research is being conducted to determine the LE ratings for other materials, but no other LE ratings have been assigned at this time. Accelerated aging studies indicate that digital optical media will last between 30 and 200 years (the physical longevity is very specific to the type of disks and the manufacturer due to differences in the dyes used). **However, the system obsolescence of digital data may be only 5 to 10 years (often less) and is the critical factor in migrating data to new technologies or systems.**

In the fall 1998 *AIIM Review*, 10 technologies were listed that will affect document management over the next two years. Number five on this list was replacement of optical disk systems with computer output microfiche. A large market is emerging for computer output microfilm for all companies that were early adopters of optical disk storage. These companies are finding the cost of maintenance and migration of optical digital storage prohibitive.

Comparison of Information System Models

Preservation Microfilm Model

- Information is human readable with magnification only.
- Life expectancy of 500 years when stored properly.
- Need to duplicate only every 50 years to produce new printing master.
- Lower cost to store.

Digital Preservation Model

- Machine readable only, very system dependent.
- Life expectancy of system only 5 to 10 years.
- Need to refresh (recopy) an average of every 5 years through data migration and
- Software/hardware upgrades necessary.
- Higher cost to maintain data (cost is expected to continue to decrease at a rapid rate).

Physical and Chemical Stabilty Standards

Standards exist that specify the properties for the following areas relating to the long-term keeping of recorded information. Use them when planning documentation projects. They include physical and chemical stability standards, such as the following:

Paper Permanence

ANSI/NISO Z39.48-1992-Permanence of Paper for Publications and Documents in Libraries and Archives.

National Archives and Records Administration Bulletin No. 95-7.

Joint Committee on Printing A270.

ISO 9706 and ISO 11108.

Inks

1987 UNESCO *RAMP Survey.*

Specifications for Stability of Photographic Materials

ANSI IT9.1-1996 / ISO 10602-1995 Processed Silver-Gelatin Type, Black-and-White Film.

ANSI IT9.5-1996 / ISO 8225 Ammonia-Processed Diazo Photographic Films.

ANSI IT9.12-1995 / ISO 9718 Processed Vesicular Photographic Film.

ANSI IT9.19-1994 Thermally Processed Silver Microfilm.

Test Methods for Stability of Photographic Materials

ANSI IT9.9-1996 Stability of Color Photographic Images—Methods for Measuring.

ANSI IT9.21-1996 Life Expectancy of Compact Discs (CD-ROM)—Method for Estimating.

Test Methods in Progress

PIMA IT9.26 Life Expectancy of Magneto-Optic (MO) Disks.

PIMA IT9.27 Life Expectancy of Information Stored in Recordable Compact Disc Systems.

Storage

The following storage standards provide specific recommendations for the proper storage of materials.

NISO TR01-1995 Storage: Paper Records.

ANSI/PIMA IT9.11-1998 / ISO 5466 Storage: Photographic Film.

ANSI/NAPM IT9.18-1996 / ISO 3897-1997 Storage: Photographic Plates.

ANSI/NAPM IT9.20-1996 / ISO 6051-1997 Storage: Photographic Prints.

ANSI/NAPM IT9.23-1997 Storage: Magnetic Tape

ANSI/PIMA IT9.25 Storage: Optical Disc Media

The recommendations above fall into two categories of storage—*general* storage and *cold* storage.

The following general conditions come closest to meeting all the environmental requirements in the above standards for extended term storage:

General Storage: 68° F (18° C)
30% to 40% relative humidity

These storage conditions are appropriate for extended-term storage of:

paper records
B&W polyester-based photographic film and prints
photographic plates
magnetic tape
optical discs

Cold Storage: 35° F (2° C)
30% to 40% relative humidity

These cold storage conditions are appropriate for extended-term storage of:

B&W acetate-based photographic film
color photographic film
chromogenic color photographic prints
color hardcopy output

Note: Users of cold storage need to remember that the time materials are out of cold storage will mitigate the benefits of the cold storage, so time out of storage should be kept to a minimum.

Enclosures (Institutional Specifications)

ANSI IT9.2-1996 Photographic Processed Films, Plates, and Papers—Filing Enclosures and Storage Containers.

ANSI IT9.16-1993 Photographic Activity Test.

Preservation Planning

Traditionally, the selection and planning for preservation was based on the needs of the materials, such as brittle paper or deteriorating film. Over the last 10 years there has been national initiatives to integrate the archival, curatorial, and/or institutional needs with the needs of the materials. The tools used for selection and planning include appraisal, surveys, and preservation selection models.

A more sophisticated planning approach—the cost-benefit analysis—can be used to prioritize preservation activities. See "Negative Duplication" in *Topics in Photographic Preservation,* 3 (1989), pp 123-134.

Reformatting

Standards and guidelines exist for the reformatting of a variety of records.

Electrostatic Photocopy Quality

Use archival bond paper.

Use carbon-black based toner.

Note: For further information see *NARA Technical Information Paper (TIP) No. 5,* Archival Copies of Thermofax, Verifax, and Other Unstable Records, 1990. Copies should pass the peel-test for toner adhesion that is described in this paper.

Microfilm Procedures and Quality

AIIM / ANSI standards.

Research Libraries Group *Preservation Microfilming Handbook.*

CFR Part 1230—Micrographic Records Management.

The above sources provide standards and guidance for records preparation, targets, background density, resolution, QI (quality index), residual hypo and silver, film base, and the quality of duplicates.

Photographic Copying and Duplication

Approaches to Duplication of Historic Black-and-White Photographic Negatives

Interpositive / duplicate negative method—2 steps: best tonal accuracy.

Direct duplicate negatives—1 step: least generational loss; hard to work with and maintain image detail.

Print and copy negative: easiest to do, but lowest quality.

See the following Kodak publication: *Photographic and Digital Imaging Techniques*, M-1, CAT No. E152 7969, Eastman Kodak.

Approaches to Photographic Tonal Reproduction

Standardized Exposure—traditional approach: potential for loss of detail with dense negatives and negatives with large density range; shadow mask optional (technique developed by Chicago Albumen Works).

Shadow Normalization (NARA/Library of Congress)—minimizes loss of detail, produces consistent duplicate negatives, and allows for objective evaluation of tone reproduction.

Hybrid Standardized Exposure with Highlight Normalization—has benefits of both techniques.

Specifications

National Archives and Records Administration/Library of Congress specifications (available from the author of this outline). The NARA/LC duplication specifications have:

applied the concept of statistical process control to the duplication of negatives;

measured the variability of duplication systems;

determined +/- limits for the average contrast and average shadow density of duplicates;

determined +/- limits for individual duplicates for contrast and shadow density; and

required evaluation based on a random sample.

For guidance on how to select the best approach for duplicating historic negatives, see Puglia, Steven."Negative Duplication: Evaluating the Reproduction and Preservation Needs of Collections," *Topics in Photographic Preservation*, Vol. 3, American Institute for Conservation, Washington, DC.

Digitizing Standards and Initiatives

Standards and guidelines that define the best practices and the test methods for evaluating both scanner performance and digital image quality are not as well developed at this time for digitizing as they are for microfilming. Existing standards and guidance include:

AIIM standards and technical reports.

AIIM Document Management Alliance (DMA).

AIIM Open Document Management API (ODMA).

RLG working group on digital image capture.

RLG working group on digital archiving.

Digitizing Standards in Progress at PIMA

Measure noise.

Measure spatial frequency response (SFR).

Test objects and procedures for the color characterization of electronic still cameras.

Color Management Activities

International Color Consortium (ICC) Digitizing guidelines.

Digital Project Guidelines

For Scanning Textual Documents:

200 to 600 pixels per inch (ppi) for 1-bit scanning.

200 to 400 ppi for 8-bit greyscale scanning.

200 to 300 ppi for 24-bit color scanning.

For Scanning Photographs:

3,000 to 5,000 line files for 8-bit greyscale scanning.

3,000 to 5,000 line files for 24-bit color scanning.

For Scanning Maps/Plans/Oversized Materials:

200 to 300 ppi for 8-bit greyscale scanning.

200 to 300 ppi for 24-bit color scanning.

Cornell University Library Scanning Recommendations for Printed Type

Scan at:

600 ppi for 1-bit scanning.

400 ppi for 8-bit greyscale scanning.

NARA Digitizing Guidelines

NARA guidelines provide the minimum digitizing requirements for on-line access being used for the Electronic Access Project, and include guidance on quality assurance procedures and records handling guidelines. See them on the Web at: <www.nara.gov/nara/vision/eap/eapspec.html>

Images scanned for on-screen representation on a generic or "average" monitor.

Grayscale and color scanning of reflection materials in reference to a Kodak grayscale to ensure accurate tonal representation and neutral color balance.

Aimpoints established for three steps on the Kodak grayscale.

Plus or minus variability limits established for RGB levels (color scanning) and % black (grayscale scanning) for three aimpoints.

Digital Resolution for Photographs

Access screen resolution: minimum of 600x400 pixels

Reproduction: 3,000 line file-
8"x10" photo quality output
11"x17" magazine halftone

Preservation: match the original (color negative or transparency)-
3,000 to 4,000 lines for 35mm
10,000 lines to 16,000 lines for 4"x5"
20,000 lines to 32,000 lines for 8"x10"

Machine Dependant Media Types

Photographic and motion picture.

Magnetic—audio, video, and digital data.

Optical—audio, video, and digital data.

The media listed above need an active program for the frequent migration of recordings and digital information.

Steven Puglia
Preservation and Imaging Specialist
National Archives and Records Administration

Kris Kiesling

What Is the Encoded Archival Description Standard?

Archivists, librarians, and museum curators use EAD (Encoded Archival Description), a data structure standard for:

- creating archival finding aids (such as guides, inventories, registers, catalogs, and container lists) for records and personal papers, in a standard and clear fashion; and
- coding archival finding aids for use online in order to clarify their contents and provide hierarchical access to the collection description in a way that mimics the way a researcher uses a collection.

Most simply, EAD is a sequence of fields or elements into which bits of information from or for an archival finding aid are placed.

Archival finding aids to be encoded with EAD are typically more detailed than summary-cataloging records found in a library cataloging system. Finding aids may include:

- contextual information about how and why the materials were generated (creator sketch)
- the formats of materials included, topics and persons represented, and a general description of the contents (scope and contents note)
- more detailed descriptions of groups of materials within the collection (series descriptions)
- container or folder lists and administrative information that the repository uses for intellectual and physical control of the materials.

The hierarchical listing of the EAD elements shown below outlines some of the basic structural elements, which are repeated at various levels of description. Archival collections are by their nature hierarchical—the meaning of an individual item is clarified and enhanced by the materials surrounding it—and EAD represents that hierarchy in a series of unfolding layers of information using the same basic elements for each layer. It should be noted that not all EAD elements would be used at every level of description, and that very few of the elements are required.

EAD encodes the logical components of a finding aid, i.e., a paragraph is not just a paragraph, rather, it is a paragraph within a scope and contents note or a creator sketch. This kind of markup, called descriptive markup, permits the re-use of the data for other purposes, such as guides to holdings or machine readable cataloging format (MARC), library records, and facilitates indexing and information retrieval.

EAD is being used by many repositories to encode collection-level descriptions of hundreds of linear feet of material with a common history of creation (provenance), while Durham University

Sample of Encoded Archival Description SGML Tag Use

<ead>
- <eadheader> (describes the encoded finding aid document)
- <frontmatter> (material for formal publication of the finding aid)
- <archdesc> (description of the archival unit (the text of the finding aid))
  - <did> (descriptive identification of the unit)
    - <repository> (name of the archives providing access)
    - <origination> (unit creator(s) or individual(s) who assembled it)
    - <unittitle> (unit title)
    - <unitdate> (date(s) of unit creation)
    - <physdesc> (physical description including extent, dimensions, genre, form, and physical characteristics)
    - <abstract> (abstract of the unit contents)
    - <unitid> (the unit accession or catalog number)
    - <container> (the storage device, such as box)
    - <physloc> (the physical storage location of the unit)
    - <note> (explanatory text, such as a footnote)
    - <dao> (a URL type link to an actual digitized archival object)
    - <daogrp> (URLs of linked groups of digitized archival objects)
  - <admininfo> (administrative information)
    - <accruals> (information about expected unit additions)

(UK) is using EAD for the very detailed item-level descriptions provided in their hand lists.

EAD is flexible enough to support many different types of screen or page formatting. EAD is ISAD(G) compliant (International Standard Archival Description General), and is based on SGML (Standard Generalized Markup Language), ISO 8879. SGML is platform independent and nonproprietary, supporting much more sophisticated navigation and retrieval in a World Wide Web environment than does the more commonly known HTML (hyper text mark-up language). SGML documents are stored as ASCII text, a stable data storage mechanism.

The intellectual component of the community-based EAD standard is owned by the Society of American Archivists; the standard is maintained by SAA's Technical Subcomittee on Descriptive Standards Encoded Archival Description Working Group (EADWG). The Working Group has representatives from Canada and the United Kingdom, as well as from a variety of repositories within the U.S. In partnership with SAA, the Library of Congress Network Development/MARC Standards Office makes available the EAD files at its FTP site, and maintains the EAD web site.

For more information on EAD, visit the EAD web site at <www.loc.gov/ead/>. There is also an EAD listserv <ead@loc.gov>, where everything from institutional tagging practice to the pros and cons of various pieces of software is discussed (instructions for subscribing to the listserv are available at the web site).

Two recent issues of *The American Archivist* are dedicated to EAD: the first (vol. 60, #3, Summer 1997) contains articles that cover context and theory, and the second (vol. 60, #4, Fall 1997) includes six case studies from repositories that have implemented EAD. For those who are interested in putting EAD into practice, the *EAD Tag Library* (Chicago: Society of American Archivists, 1998) is an essential tool. For more information on SGML and XML, visit Robin Cover's home page <www.oasis-open.org/cover>.

Kris Kiesling is Archivist, University of Texas at Austin.

Lynn Marie Mitchell

Archival Reorganization at Little Bighorn Battlefield

Original ledger drawings made by Richard Woodenleg, a Cheyenne who participated in the Battle of the Little Bighorn June 25-27, 1876; letters from General Philip Sheridan to Brevet Brigadier General George Armstrong Custer during the Civil War; a full halfplate tintype of Brevet Major General George Armstrong Custer in civilian clothes taken by the photographer Eastabrooke in New York's Union Square; Custer's military commissions signed by presidents Abraham Lincoln and Andrew Johnson; all these items represent just a small portion of the archival holdings being treated at Little Bighorn Battlefield during the next four years.

At the request of Matthew Wilson, curator at the National Park Service Intermountain Region's Support Office in Denver, this author completed the first official archival assessment of Little Bighorn Battlefield National Monument in May 1996. The author evaluated archival holdings, including the photographic collection, rare books, and archival materials and provided suggestions for their preservation, arrangement, description, and use for reference. The park's archival collections, described below, rank with the finest in the National Park Service.

The Elizabeth Bacon Custer Collection (Accession #19), donated to the park in 1943. After Custer's widow Elizabeth died in 1932, his personal papers were stored in trunks and kept intact by a trust administered by a New York City bank, until such time that a museum could be constructed to display the collection according to her wishes. This collection includes George Armstrong Custer's personal effects and clothing, as well as extensive photographic and documentary items. A large portion of the archival materials include Custer's military records and correspondence beginning with the West Point years and continuing through the Civil War. The final portion concerns the Indian Campaigns, from the Battle of the Washita through to the end at Little Bighorn.

The Walter Mason Camp Collection (Accession #312), contains primary source materi-

als about the Battle of the Little Bighorn from the perspective of battle participants and survivors. Walter Mason Camp completed these early interviews after the turn of the century, when he was an employee of the Chicago Burlington & Quincy Railroad. This is one of the collections most heavily used by researchers.

The Seventh Cavalry War Records (Accession #11), originally located in a quartermaster's building in Fort Bliss, Texas, and transferred to the park around 1942. These materials primarily pertain to the Seventh Cavalry between the years 1865-1910.

Little Bighorn also has a vast collection of original 19th-century photographic materials including ambrotypes, tintypes, albumen prints, stereographs, and lantern slides, as well as *cartes de visite* and cabinet cards. These images document military forts and posts, military life (soldiers and scouts, camps, daily occupations, campaigns, etc.), American Indian views (personalities, daily life, etc.), and myriad additional plains-related subjects and activities. In addition, other historical events (dedications, ceremonies, etc.) are covered. All items are valuable, both as artifacts and as historical evidence.

Additionally, the photographers themselves have historical significance, both individually and when viewed collectively. Their names include such well-known 19th-century American photographers as David F. Barry, Christian Barthelmess, William R. Cross, Orlando S. Goff, John C.H. Grabill, Frank J. Haynes, John K. Hillers, Stanley J. Morrow, and George E. Trager. Rare or lesser-known views by photographers such as William S. Soule have been tentatively identified.

Chief Sitting Bull, 1885. Photo by D.F. Barry courtesy NPS.

The park also has a fairly extensive collection of rare book material with significant value. While some titles may also be located in other libraries or special collections, the park has many extremely rare volumes that have high value for military historians and collectors of Western Americana. In addition to such expected items as four copies of *My Life on the Plains*, by George A. Custer, the collection also contained such oddities as *Recollections of Old Milestown*, by S. Gordon, published in Miles City, Montana, in 1918, and inscribed by the author.

Collection Challenges That Limit Usage

Unfortunately, access and use of the materials by researchers and historians have been hampered by overcrowding, lack of finding aids, incorrect cataloging information, and poor storage conditions. **The most apparent and significant problem with the archival materials at the park stems from the fact that at some point in the past, all items from all the unique collections (accessions) had been merged—mingling items of different provenance and obliterating original collection order.** These intermingled collections were then stored together, thereby creating a substantial problem in access to the collections. Furthermore, all letters and documents had been cataloged at the item level. Often each page of a letter was given its own catalog number. Due to this loss of provenance and original order and chaotic cataloging, it has been impossible to create a finding aid for any given collection.

In the photographic collections, there are extreme cases where 50 or 60 copy photographs of the identical images or events were cataloged, again each with a unique catalog number. There is an existing register of photographs, but it has not been updated since it was originally created.

Planning for Improved Access

Based on the findings and observations during the initial two-week visit, the author prepared a series of detailed recommendations to guide the park over the next four to five years in the reorganization of the archival holdings. Foremost was the proposal that materials should be reassembled into their original provenances (original collections by their history of creation and ownership). Although labor intensive, this work would be well worth the effort as over 40 archival collections would be accessioned, cataloged, and rehoused and stored with an extensive finding aid completed for each. The collections would also be microfilmed, and when additional funding is obtained, scanned onto CD ROM. Microfilming and scanning will greatly enhance access to collections as well as provide copies to take the place of the original for preservation and security purposes.

This initial report served to obtain the extensive funding needed to correctly inventory and reassemble historic collections, catalog and re-catalog items, complete storage upgrades of all archival materials, and complete conservation treatments for certain items.

In the fall of 1997, planning began for the three Little Bighorn archival projects. It was decided that the re-establishment of the prove-

General George A. Custer, 1875. Photo courtesy NPS.

nance of the archival collections was the first task. In order to complete this reorganization, a comprehensive inventory of all archival items was necessary. The Western Archeological and Conservation Center (WACC) archival staff designed a database to record information about each cataloged item. The database contains 18 fields including: catalog and accession number, object name, date, description, re-housing work necessary, present location, cataloger, and a duplicate field. Once the item-level inventory is completed, lists will be produced for each unique accession number, allowing a complete sorting of items into their respective accession groups.

All work, including processing, cataloging, rehousing, and other collections care for the 30 boxes of unprocessed Seventh Cavalry War Records, the archeological project material, and the rare book collection, was done at WACC in Tucson. This allowed the park to proceed with two additional projects, the remodeling of the collections storage area and the rehabilitation of the historic Stone House as a library and research center. Constructed by the War Department in 1894 as the home for the first battlefield superintendent, the Stone House was selected as the curatorial workspace.

In fiscal year 1997, the park received funding to complete upgrades to the museum collection storage area. This included various repairs to the visitor center's security and electrical systems, flooring, and other physical improvements. Museum Management program specialist Don Cumberland, Harpers Ferry Center staff, Matthew Wilson, and the park and WACC staff also completed collections planning documents including a Collection Storage Plan (CSP), which was created in 1992 for the park's entire collection of cultural resources.

The final CSP included an official recommendation to relocate the park's library and historian's office to the nearby Stone House in order to make room for additional museum collection storage and a curatorial office and workspace next to the existing museum vault. Working collaboratively with the park's former superintendent, Gerard Baker and Rick Cronenberger, historical architect at the Intermountain Regional Office in Denver, Wilson initiated a second project for the Stone House to help complete more extensive rehabilitation and repairs to this important National Register property, including a handicapped accessiblity ramp. The combined goals of the two projects were to:

- **Correct park-identified deficiencies** in several categories documented on the park's fiscal year 1996 NPS, *Checklist for Preservation and Protection of Museum Property.*
- **Create a dedicated storage space** for the museum and archival collections with a separate curatorial office, located in an adjacent room, which had formerly been used as the park's library, and previously as storage for books by the park's former benefiting association.
- **Improve the museum storage and housing conditions** for the large museum and archival collections, including the archeological collections and associated records that had recently been returned from long-term storage, and objects. This work included upgrading security, fire protection, housing equipment, room layout and design, and developing dedicated oversize storage (for artifacts, documents, photographs, and fragile items, such as the Seventh Cavalry regimental flags and silk guidons found in the park's textile collection).
- **Complete a Collection Condition Survey (CCS)** for the framed works of art, large format documents, photographs, and other items found in historic and non-historic frames in order to more effectively store and preserve this element of the park's unique collections.

The various Phase I portions of these museum collection storage upgrades for this multi-year project have all either been fully or partially completed, by the end of 1998. Park and Support Office staff are working to complete new fiscal year 1999 funding proposals. The Stone House project is complete and park staff are planning to relocate the park's library collection and to move the historian's office into the building before the end of fiscal year 1999. This rehabilitated historic building is now once again serving the large numbers of park staff, visitors, and researchers who visit the park each year.

The archival reorganization at Little Bighorn began in January of 1997 with WACC's archival staff completing the first of four scheduled on-site visits to the park for fiscal year 1998. Working closely with park curator Kitty Bell Deernose, the author, and archive technician Khaleel Saba began the task of verifying the accession and catalog number of each item and packing the records for

transport back to Tucson. This required a physical comparison of the document to the catalog record, then recording the appropriate accession number on both the back of the items and its accompanying folder. An estimated 3,000 items were verified during this first visit, and by the end of April 1997, a total of 8,000 items had been processed by volunteers (VIPs) and Student Conservation Assistants (SCAs), under the supervision of curator Deernose.

Succeeding on-site visits were completed by a WACC archival team in April, July, and September to work on the inventory. In addition to WACC, Deernose, along with assistants and volunteers from the park participated in this effort. During the April visit, procedures were developed for completing the item index to ensure a certain level of standardization. Standardization also allowed for correct identification of the object name field. This was important because of the incorrect identification of archival items on the original catalog record. A full halfplate tintype of Custer had been identified as a daguerreotype, items were often identified only as "photograph" when they were actually *cartes de visites* or copies of drawings. "Letters" was another ambiguous area, so staff began using the term "holograph" to differentiate a hand-written document from a typed copy.

The inventory process was completed during September 1997 with over 14,700 items recorded. The success of this project was due to the fact that in addition to the scheduled on-site visits, Deernose had people working on the project throughout the fiscal year.

The actual reassembling of the collections was completed with the additional assistance of two contract employees, both with previous museum experience. The reorganized materials were all arranged in ascending chronological order and rehoused. With a list generated per accession from the inventory, a cross-check of collections was completed. **In all, the park now has 38 archival collections, although the creation of finding aids remain to be completed until the collections are cataloged.**

The backlog cataloging activities were being completed concurrently at WACC, while the inventory process of cataloged items was being completed on-site at the park. A total of 412 items, consisting mainly of rare books with some unique items—morning reports, scrapbooks, burial registers and the like—were cataloged at WACC using the Automated National Catalog System, the NPS Museum Management Program catalog system. Items were identified as to place and date of publication, materials, condition, and physical description based on archival cataloging standards. New storage boxes were prepared and labeled by Custom Manufacturing Inc. in Fairfield, Pennsylvania. The individual items were then appraised, based on booksellers catalogs and advice from professional appraisers and Custer scholars.

After cataloging and re-storage in fall 1997, the materials were returned to the park in December 1997. Once returned, they were organized in alphabetical order by creator, when present, and title, if not. Another 35 items were cataloged and received storage upgrades at the park. In addition to the rare book cataloging completed by librarian/archive assistant Maurya Smith, Khaleel Saba completed processing and cataloging of the associated field records from the three archeological projects completed in 1983-1989, 1989, and 1994-95.

Working with volunteers and SCAs, Deernose re-housed the 4,000-item historic photograph collection and placed the cataloged portion of the Seventh Cavalry War Records in archival map folders and storage boxes from their previously overcrowded storage conditions. With the assistance of WACC's conservator Gretchen Voeks, a humidification chamber was built in the conservation lab in order to flatten rolled items. Many of the 10,000 item Seventh Cavalry War records require humidification in order to clean, house, and store them in oversize map folders and storage boxes. Some items will require additional conservation treatment, such as the estimated 700 burned and brittle documents that will require treatment by a paper conservator. This conservation component continues through fiscal year 1999.

Archival work for fiscal year 1998 included the re-cataloging of 10 historic collections, including the Dodd Collection, the Marquis Collection, the Fougera-Gibson Collection, the O'Donnell Collection, the Windolph Collection, the Snyder-Ronayne Collection, the Mary Jane Colter Collection, and the Barry Collection. Many of these names should be familiar to Custer scholars.

Archival storage is being improved for all materials and collections. Backlog cataloging of the Dustin and Hammer Collections, the last of two large research collections currently unprocessed and cataloged, is being completed. These collections include correspondence and writings of Fred Dustin and Kenneth Hammer, two well-known researchers and writers of the Custer legend. The remaining inventory of the unprocessed records of the Seventh Cavalry is also being completed.

The re-cataloging of collections will be accomplished using the National Park Service's cataloging system called the Automated National Catalog System+ (ANCS+) and work is being com-

pleted both at WACC and during several two week on-site visits scheduled in April/May and in September. Mitchell and Smith are developing written policies and guidelines for this ongoing project, which will continue through fiscal year 2000.

Deernose has prepared a notebook containing copies of accession information (from park accession folders) for each collection. These references to specific accession material will be a great asset to WACC archival staff during the re-cataloging efforts, as well as for the preparation of finding aids. During the re-cataloging of historic materials, certain collections will be off-site and not available for research for up to six months at a time. Deernose is alerting park staff, historians, and researchers of what collections/materials are closed for processing and when they can anticipate resuming research.

The cataloging of the Dustin and Hammer Collections will be done via a more traditional archival approach, by processing and organizing the materials into appropriate series. Finding aids will be prepared for both collections and all work will be done with the new ANCS+ museum program described in an article by Kathleen Byrne, elsewhere in this issue.

The reorganization of the archival materials at Little Bighorn has been, and will continue to be an immense professional challenge. All individuals associated with this effort will feel the satisfaction of knowing that this achievement will have a profound impact on history and research for generations to come.

Lynn Marie Mitchell is Archivist, Western Archeological and Conservation Center, NPS.

To Whom are Archivists Responsible?

As professionals, archivists are responsible to:

their own organizations to:
- follow the letter and spirit of policies and procedures
- ensure that access restrictions are enforced equitably, even to staff
- ensure the security of the collections from theft and vandalism
- preserve the collections while making them accessible both physically and intellectually
- capture and share expert knowledge about the collections

the collections creators, donors and their heirs to:
- ensure their privacy to the extent allowed by law and requested by the donor
- obtain all intellectual property rights (copyrights, model and interview release forms, and related permissions) or honor the donor's intellectual property rights
- enforce agreed-to access restrictions to the extent allowed by law
- give full credit to the creator/donor in all credit lines

the user community of scholars, students, publishers, filmmakers, and the public to:
- provide equitable access to all individuals
- keep researcher usage data confidential except when the user allows it to be shared
- provide courteous, timely, and knowledgeable reference services
- maintain documentation on collections used, duplicates provided, and permissions granted
- document all permissions granted for publication, distribution, and so forth

the collection subjects to:
- ensure that their privacy is not infringed
- be aware of and follow legal and policy guidance on access and use
- be aware of potentially sensitive materials, evaluating them for appropriateness before the collections are acquired, or if this is not possible, consulting with the affiliated group before decisions are made that may affect the group

the professional archival community to:
- follow the professional ethics statements of archivists and records managers
- adopt national standards for all work, particularly description and preservation
- share information on policies, practices, and procedures at professional meetings
- obtain adequate training and experience to operate as a full professional (See "Archival Certification and the National Park Service," in *CRM* 18:2, p.13)
- cooperate in acquisitions with other regional groups so as to avoid competition in acquisitions and foster sharing of collections and expertise
- work with partners to produce regional union guides, thematic Web exhibits, and similar works

Diane Vogt-O'Connor

Kathleen Byrne

Archives and the New NPS Collections Management System

In 1998, almost 300 National Park Service sites received a new museum collections management program that includes a component for fully describing archival collections. The program is called ANCS+. It is a customized version of Re:discovery for Windows, a product of Re:discovery Software, Inc., of Charlottesville, Virginia.

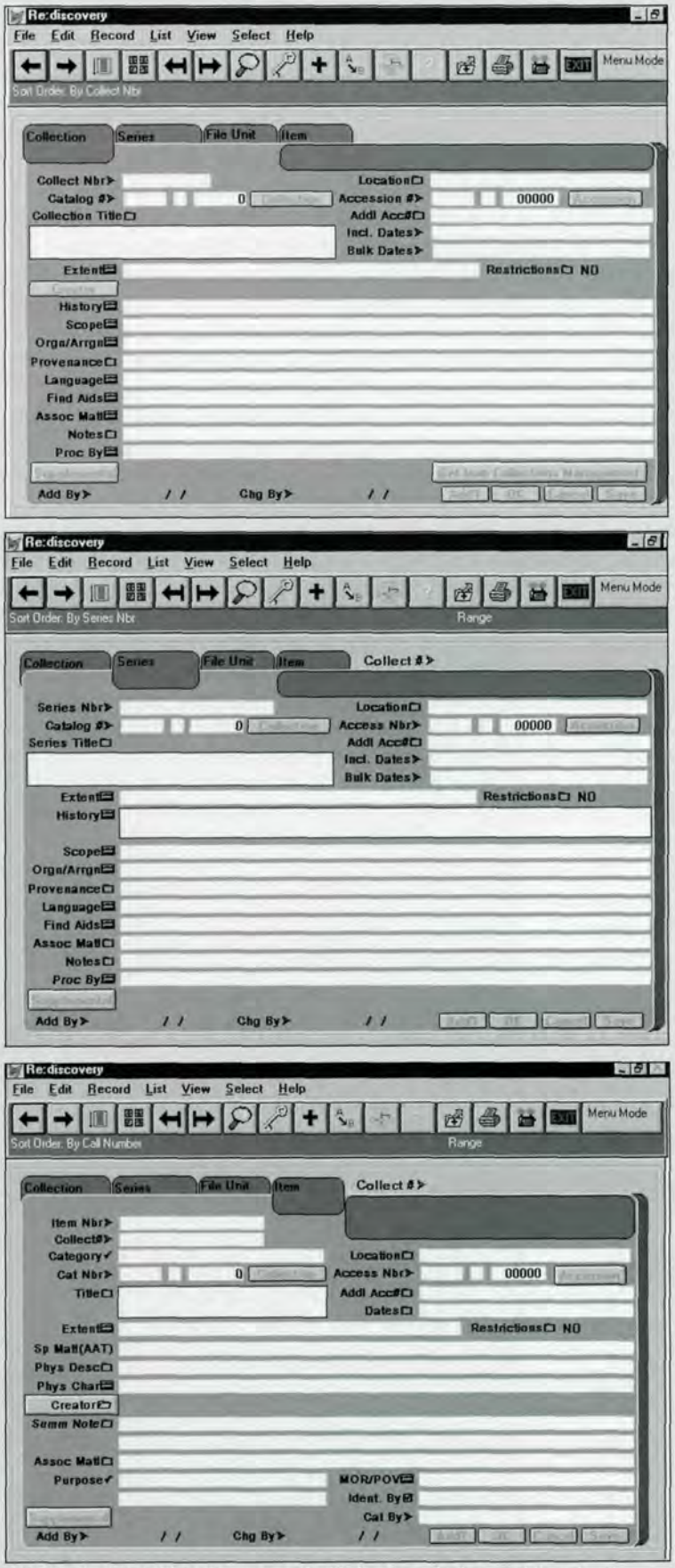
The archives component of the program includes the data elements needed to fully describe collections at the collection, series, file unit, and item levels. The program provides parks with the ability to upload data into national bibliographic systems. It supports data interchange with existing nationwide bibliographic utilities, such as RLIN. Users can import, export, create, and update MARC records.

Other features of ANCS+ include a powerful and easy-to-use word search function, imaging capability, a structured lexicon for managing descriptive terminology, an integrated report writer, and an Internet interface. The program integrates well with a variety of software packages. It includes reports that produce finding aids and container and folder lists. It also provides a researcher registration system and tracks duplication requests.

The archives component of ANCS+ was developed by the Museum Management Program of the National Center for Cultural Resources Stewardship and Partnership Programs with significant contributions from field staff. These include Mary Jo Pugh, Taylor Horton, Lisbit Collins Bailey, and Erica Schoenhals Toland at San Francisco Maritime National Historical Park; Diane Godwin at the Northeast Museum Services Center; Lynn Marie Mitchell and Khaleel Saba at the Western Archeological and Conservation Center; and Amy Verone and Susan Sarna at Sagamore Hill National Historic Site.

ANCS+ is an exciting step into the future. It brings a new level of technology and professionalization to the management of National Park Service archival collections. Most importantly, the program will greatly increase staff and public access to these collections.

Kathleen Byrne is Staff Curator, Museum Management Program



ANCS+ Archives Module screens for Collection, Series, and Item level cataloging.

Elizabeth Banks

Those Old Files...

Surveying Archives in the National Park Service

Surveys can be an above ground archeological excavation into the unknown or a guided tour of managed, valued documentary resources. Parks that have placed a high priority on records management reap the benefits of access to past research, decisions, controversies, and actions as a foundation for current management. Too often, park staffs are unaware of park records at the National Archives or records stored at the site.

Why Survey Records?

An archival survey at a park may help to establish priorities and/or begin to bring to light little known or long forgotten records. Some parks have records of management of the site prior to National Park Service administration as well as NPS records. The survey process includes discussions with park staff to gain a "big picture" view of the history of the park, the extent of records management work, the location of records, and a review of reference use by staff and other researchers. Stewardship of documentary resources is usually not the responsibility of just one division, but this varies from park to park. Sometimes the administrative officer, curator, or historian has taken on the majority of the responsibility. In some areas a committee of staff members work together to review records management decisions and serve as advocates for preservation of important resource management records. Frequently, the records that survive have served as important reference sources for staff for many years. Records that have been packed away in less accessible storage are more likely to be at risk and assumed to be of little or no current value.

What Is Involved in Surveying?

Survey basics include meeting with the division chief (or other representative) from each division in the park, center, or office. This exchange clarifies the goals of the survey, the need for access to records storage areas (except locked personnel files), and a summary of staff knowledge of park records. Survey forms provide a framework for consistent documentation of each collection or group of records. Included in Appendix D Archives and Manuscript Collections, NPS *Museum Handbook Part II*, is a survey form to duplicate for survey use.

Completing the survey form for each collection of records systematically gathers the who, what, when, where, and why. For example, the Gettysburg Battlefield Memorial Association (GBMA) was an organization formed to acquire and preserve 1863 battlefield land in Gettysburg, PA. Extensive research and documentation of the battle was conducted. War Department staff and veterans worked with the GBMA, including placement of monuments on the battlefield. The GBMA operated from 1864 to 1893 when their holdings of lands and records were turned over to the newly designated Gettysburg National Park administered by the War Department.

Organization charts provide an outline that parallels the organization of park records generated and/or acquired during the course of administration of a park area, center, or central office. Current organization charts can be supplemented with information from administrative histories on changes in management and staffing. Records from all divisions and projects may not be found, but the surveyor has a clearer idea of what he or she may find.

A sense of adventure is an asset as archives survey work frequently involves expeditions to basements, attics, other unheated areas, outbuildings, closets, trailers, and other innovative storage spaces. However, it is usually well worth the effort when park staff exclaim, "I've been looking for those files/that report for 10 years!"

What Do Surveyors Ask?

The surveyor needs to ask many questions to understand the historical sequence of major organizations, individuals, and events. Are there records of organizations or individuals that administered the area before the National Park Service? Knowledgeable staff and written administrative histories are major assets when fitting together the pieces of the puzzle. For parks without this information, the staff may be as surprised as the surveyor by the records found. For example, the surveyor may be briefed by helpful park staff that "there are no records before 1970 in the park." During the survey of 30+ file drawers of "old park files" the surveyor may find records back to the 1920s pre-dating the NPS administration of the

area. The 1920s to 1960s records may have been well known to previous park staff, but at some time the memory was lost. In effect, these major park documentary resources were virtually lost and unavailable to current park staff.

Perceptions of documentary materials and "old files" vary greatly. In some cases the records of early preservation/conservation organizations have been mixed in with NPS records and filed by the respective area. In other cases, the records of each organization are respected as distinct organic units that document sequential eras in the management of a park area. **Just as with historic structures, natural areas, cultural landscapes, and museum objects, the less the materials are altered or rearranged, the more integrity they retain.**

There are many instances of one or two heroic staff defending and saving "old files" even though outnumbered by staff with no knowledge of the contents and long-term value of the records. These situations are just as likely to result in the destruction of important records if records management is not a priority and knowledgeable staff are not involved.

Surveys may be a first step in changing perceptions of archival collections—from "taken for granted" to "integral part of the park's natural and cultural resources." Archives surveys begin to document the extent of records, their provenance, condition, and research use. Surveys are also to help staff set priorities for managing records including transfer of specified files to the National Archives and Records Administration as described in *NPS-19 Records Management Guideline*. Based on *NPS-28 Cultural Resource Management Guideline*, *NPS-77 Natural Resource Management Guideline*, and the *NPS Museum Handbook*, certain records are accessioned and cataloged into the park museum collection.

These resource management records are kept with the natural and cultural resources that they document. For records with short-term reference value as specified in the records management schedule, they are destroyed after a designated period of time. The routine administrative records have a short life. If all park records are saved long-term and records management is deferred, the amount of files becomes overwhelming and access is difficult. The survey provides an opportunity to review the records schedule with park staff and/or provide copies of missing portions of the schedule.

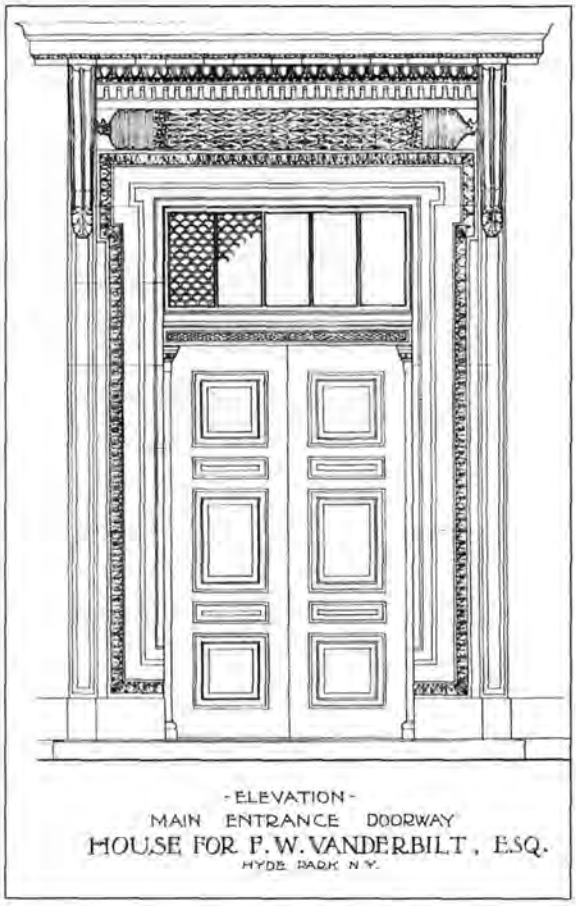
Why Bother Surveying?

Once priorities are set for archival collections, Resource Management Plan project statements should be written for the materials that need to be protected, processed, and cataloged. The management of the park's archival and manuscript collections benefit not just the park, but other parks, central offices, and others needing research access to the records.

Surveys provide evidence that the preservation management of natural and cultural resources is dependent on the preservation management of the related records. These resource management records include architectural drawings, photographs, maps, aerial photographs, charts, statistical data, archeological field notes, natural resource project files, forest and structural fire management research and plans, plant surveys, computer disks and tapes, reports, contracts and cooperative agreements, etc.

National Park Service resource management records are critical resources in their own right, but are often not recognized as such. **Park archival collections, no matter their age or provenance, serve to reconnect current staff with the management history of the park. They illuminate the who, what, where, when, and why to inform current decisions.**

Recurring management issues are found in park files and may document work at other parks as well. For example, a file at Morristown NHP labeled with a pre-1950s NPS file code "701-01.4 TREES," includes correspondence dated 1947 between the tree preservation crew and the park. Included is a schedule for work at Adams Mansion and Salem Maritime NHS in Massachusetts,



One of the original McKim, Mead & White architectural drawings in the archives of Vanderbilt Mansion NHS. C. 1896, ink on tracing cloth.

Vanderbilt Mansion and Home of Franklin Delano Roosevelt in Hyde Park, New York, and Morristown in New Jersey. The tree preservation crew was based in Region One, Richmond, Virginia, was managed by a tree culture foreman, and was responsible for keeping records for each tree that they treated. The forester in Region One consulted with a pathologist, Bureau of Plant Industry, Beltsville, Maryland, to review "the problem of the protection of certain roadside and specimen trees in Morristown NHP from the Dutch Elm disease [and] the desirability of a similar study of the problem at Adams Mansion and Salem Maritime NHS."

In correspondence dated 1938 in the same file, the chief forester informed the superintendent that

> [T]he ECW itinerant tree preservation crew is no longer in existence...The Washington and Richmond Offices of the Branch of Forestry will be of as much help as possible, but the bulk of the work and the responsibility must necessarily rest upon each local staff... For this reason it is deemed advisable to decentralize the file of individual tree records heretofore maintained in Washington. We mailed these to various areas concerned under separate cover with the request that they be maintained in the local office and kept up to date as work is done on numbered trees...

A blank form may provide insight into servicewide management of specific resources. An example was found in the 1930s files at Salem Maritime NHS of a *National Park Service, Museum Division Field Study* form. Although some of the language has changed, the basic issues remain current and in some parks have yet to be addressed. Certainly fire doors, sprinklers, exhibit and storage areas, catalog records, funding sources, building uses, and vermin proof storage cases are ongoing concerns.

Pre-park and park establishment records were found at Salem Maritime NHS. The records are those of a private individual, Harlan P. Kelsey, who "collaborated" with others including the National Park Service to protect part of the historic Salem waterfront. The Harlan P. Kelsey Papers have since been processed and cataloged into the park museum collection.

Although park staff knew that these papers were important, no one was sure who Kelsey was or the extent of his involvement with the park. An obituary located in the September 1958 issue of the journal *Planning and Civic Comment* was found in the library of a Boston area university. This research provided biographical data on Kelsey, his major role in establishing the park and his involvement with other park areas. The notice states:

> Through his appointment to the Commission to choose an area in the Southern Appalachians for Eastern National Parks he worked closely with the officers and board members of the [American Planning and Civic] Association and the National Conference on State Parks. This led to the establishment of the Great Smoky Mountains and Shenandoah National Parks.

We should not have been surprised when letters from Harlan P. Kelsey were found in the personal correspondence of Ferdinand Zerkel's papers at Shenandoah National Park. Zerkel had been working on a history of the planning, establishment, and early development of Shenandoah NP before he died. He was a key figure in this work at Shenandoah and willed his papers to the park. Just as Kelsey's contributions to Salem Maritime NHS were only partly known to a few park staff, so Zerkel's work is not well known at Shenandoah. His papers are currently being processed and cataloged at the NPS Northeast Museum Services Center.

At Independence NHP, the park archivist reviewed the park records at the Philadelphia branch of the National Archives. Among the records were Completion Reports from the 1950s describing park preservation/restoration work on historic structures that were the subject of an ongoing search by park staff. The documentation in the Completion Reports was needed to plan current preservation/ restoration work.

Consistent investment in records management yields huge bonuses in support of current management. Knowledge is a powerful management tool. The mission of the National Park Service is focused on the long-term management of natural and cultural resources, balancing preservation and use. In this context, the resource management records created and acquired by parks are rarely "non-current," but part of a continuum of data, decisions, evaluations and re-assessments. Otherwise, if disconnected from the work of our predecessors, how informed are our decisions and how do we evaluate the quality of current stewardship?

Placing a higher value on preservation of resource management records builds an essential and strong foundation for accomplishing the mission of the National Park Service. **Recognition of resource management records as a critical resource in their own right reinforces the responsible management of all cultural and natural resources.**

Elizabeth Banks is Archivist, Northeast Museum Services Center, NPS, Boston, Massachusetts.

Douglas Stover

The Sewall-Belmont House National Historic Site

The Florence Bayard Hilles Library Opens to the Public

Built by Robert Sewall in 1799-1800, the Sewall-Belmont House is one of the oldest houses on Capitol Hill. Rented to Secretary of the Treasury Albert Gallatin from 1802-1813, the house was a witness to the only resistance to the British invasion of Washington, DC, during the War of 1812. On August 24, 1814, American flotilla men who had occupied the house fired shots at the British. In retaliation, the British burned the house. Rebuilt by Robert Sewall in 1820, the house was owned by his descendants until 1922. The National Woman's Party bought the house for its headquarters in 1929. Named for the original owner and Alva Belmont, a benefactress of the women's movement, the Sewall-Belmont House was designated a National Historic Site by Congress in 1974. Today, by cooperative agreement, the house serves as a National Park Service site.

The Florence Bayard Hilles Library, Sewall-Belmont House NHS, Washington, DC.

Once the property was in National Woman's Party hands, a committee was formed in 1940 to convert the old carriage house of the Alva Belmont House. The group desired a library to accommodate the Alva Belmont Book Collection, which had been in storage since 1933. The chairman of this committee was Florence Bayard Hilles, an ardent feminist and former president of the National Woman's Party. The committee hired a young female architect, Elise Dupont, to help with the carriage house conversion. By October 1941, the committee had completed the physical conversion of the library, and with the help of volunteer librarian, Mary Elizabeth Downey, the Alva Belmont Book Collection was installed. The new library was dedicated on November 12, 1941, as the Alva Belmont Feminist Library. Ms. Downey was named its first librarian. This library was pronounced as the first feminist library in the United States.

Ms. Downey actively promoted the new library with calls for books, biographies, articles, scrapbooks, and other related materials. **She wanted to build the library into a place where women could learn about religion, science, medicine, politics, and the history of the daring women who ventured into these fields.** She also believed that in order to further the educational aspect of this library outreach programming would be essential. Within the first month of the dedication she began an ambitious educational program with teas, lectures, and book discussions. Downey also strongly encouraged National Woman's Party members to promote feminist literature in their local libraries by requesting purchases of books related to women's history or novels by or about women. Downey was instrumental in promoting growth of feminist literature in university libraries.

The Alva Belmont Feminist Library grew rapidly, requiring more shelving for books. A new volunteer librarian, Alice Matthews, came on board. By 1943, the library was a major source of pride for the National Woman's Party. A decision was made to name the library after the woman who chaired the committee, Florence Bayard Hilles. The newly named library was re-dedicated

on December 12, 1943. Prominent members of the library community, such as George F. Bowerman and Clara W. Herbert of the Public Library of the District of Columbia and Dr. Archibald MacLeish, Librarian of Congress, spoke at the dedication. In response to Alice Paul's dedication announcement Florence Bayard Hilles stated that:

> It was Thomas Carlyle who said 'The true university of these days is a collection of books'. So the old Coach House has become a library and a university as well.... In expressing my appreciation and gratitude I find it difficult, so I shall content myself by simply saying, 'Thank you, thank you'.

The Florence Bayard Hilles Feminist Library remained an important force within the National Woman's Party until the early 1960s. With a collection of nearly 3,000 books on woman's history between 1900s-1960s, the library is a substantial resource. The collection boasts over 1,000 historic photographs of the National Woman's Party, Alice Paul, and woman's suffrage. Other special collections materials include diaries, letters, manuscripts, cartoons drawings, and a room full of gold and purple banners that once were used to carry the message of women's rights and suffrage to the White House.

By the mid-1970s, the library was all but forgotten. Today, the National Park Service and the National Woman's Party are restoring the Florence Bayard Hilles Feminist Library, both as a building and as an archival collection. The library's women's history collections are being preserved and cataloged in order to make them accessible to researchers interested in women's history. On September 17th, 1998, the library was re-dedicated and re-opened to the public in a gala ribbon cutting ceremony attended by members of Congress, the White House, and the public. After 25 years of neglect, a national treasure trove will be restored to its former glory and re-dedicated to serving the cause of women's history.

The library is now open to the public to serve scholars and researchers of women's history. You can visit the Sewall-Belmont House National Historic Site and library at 144 Constitution Avenue, N.E., Washington, DC by calling 202-546-3989 or via the World Wide Web at <http://www.natwomanparty.org>.

Douglas Stover is Chief, Cultural Resources, C&O Canal National Historical Park, Maryland. He was Curator, Sewall-Belmont House National Historic Site, Washington, DC.

Candace Lein-Hayes

Records Management Assistance from NARA

National Park Service personnel and other federal agencies around the country have a place to turn for assistance with records management problems or questions. The National Archives and Records Administration (NARA), Office of Regional Records Services, operates a system of regional records facilities which provide records management services to federal agencies. Each regional records facility serves a specific geographic region and provides a variety of services including low cost inactive records storage, reference service, and records disposition; records management training and technical assistance; and reimbursable micrographic services.

In addition, NARA regional staff are available to provide, by phone or during on-site visits, advice and guidance on records management including federal records management regulations, application of agency records schedules, preservation of permanent records, disaster planning for agency records, and electronic records management. Most NARA regional records facilities also house a regional archives which collects, preserves, and makes available to researchers the permanent records created by regional offices of federal agencies. General information about the NARA regional records facilities is available on the NARA web pages at <http://www/nara.gov/regional>.

NARA regional records facilities provide low-cost inactive records center storage for federal agencies. Records no longer needed for current business in NPS offices can be retired to a regional records center in accordance with the NPS records schedule. While stored in a NARA records center, the records remain under the legal control of the NPS and access to the record is restricted to agency personnel (unless written authorization is

NARA Regional Record Facilities

NARA-Northeast Region (Boston)
Frederick C. Murphy Federal Center
380 Trapelo Road
Waltham, MA 02452
Facility Contact: Paul Wester
Telephone: 781-647-8100
Area served: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

NARA-Northeast Region (New York City)
201 Varick Street
New York, NY 10014-4811
Facility Contact: John Celardo
Telephone: 212-337-1300
Area served: New Jersey, New York, Puerto Rico, the U. S. Virgin Islands

NARA-Mid Atlantic Region (Northeast Philadelphia)
14700 Townsend Road
Philadelphia, PA 19154-1025
Facility Contact: James Mouat
Telephone: 215- 671-8241
Area served: Delaware, Maryland, Pennsylvania, Virginia, West Virginia

NARA-Southeast Region
1557 St. Joseph Avenue
East Point, GA 30344-2593
Facility Contact: James McSweeney
Telephone: 404-763-7477
Area served: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

NARA-Great Lakes Region (Chicago)
7358 South Pulaski Road
Chicago, IL 60629-5895
Facility Contact: Shirley Burton
Telephone: 773-581-7816
Area served: Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin

NARA-Great Plains Region
2312 East Bannister Road
Kansas City, MO 64131-3011
Facility Contact: R. Reed Whitaker
Telephone: 816-926-6920
Area served: Iowa, Kansas, Missouri, Nebraska

NARA-Southwest Region
501 West Felix Street, Bldg. 1
Fort Worth, TX 76115-3405
Facility Contact: Kent C. Carter
Telephone: 817-334-5515
Area served: Arkansas, Louisiana, Oklahoma, Texas

NARA-Rocky Mountain Region
Denver Federal Center, Bldg. 48
Denver, CO 80225-0307
Facility Contact: Mark Ferguson
Telephone: 303-236-0801
Area served: Colorado, Montana, New Mexico, North Dakota, South Dakota, Utah, Wyoming

NARA-Pacific Region (Laguna Niguel)
24000 Avila Road
Laguna Niguel, CA 92677-3497
Facility Contact: Diane Nixon
Telephone: 949-360-2618
Area served: Arizona, southern California, and Clark County, Nevada

NARA-Pacific Region (San Francisco)
1000 Commodore Drive
San Bruno, CA 94066-2350
Facility Contact: Sharon Roadway
Telephone: 650-876-9018
Area served: Northern California, Nevada (except Clark County), American Samoa, Trust Territory of the Pacific Islands

NARA-Pacific Alaska Region (Seattle)
6125 Sand Point Way N. E.
Seattle, WA 98115-7999
Facility Contact: Candace Lein-Hayes
Telephone: 206-526-6501
Area served: Washington, Oregon, Idaho, Hawaii and Pacific Ocean area except American Samoa

NARA-Pacific Alaska Region (Anchorage)
654 West Third Avenue
Anchorage, AK 99501-2145
Facility Contact: Thomas Wiltsey
Telephone: 907-271-2443
Area served: Alaska

provided by the agency). But this does not mean that the records are inaccessible to agency personnel. NARA records centers routinely provide reference service to the records, with most reference requests pulled and on their way back to the agency within 24 hours of receipt at the NARA facility. Once the records stored in a NARA facility have reached their mandatory retention period, NARA staff will handle the records disposition.

Most federal records are scheduled for temporary retention and are destroyed when their mandatory retention period is met. Most inactive-official records scheduled for permanent retention are transferred to NARA with agency approval. Each regional records facility periodically issues a NARA Field Bulletin which provides detailed instructions for records retirement, reference, and disposition. Contact your regional records facility for a copy of the current bulletin.

Records management training is another service available from the NARA regional records facilities. The courses available in most regions include Basic Records Operations: Files Improvement and Records Disposition, Records Transfer and Reference, Electronic Records Issues, and Disaster Planning and Response for Records Managers. These courses assist federal employees in acquiring the skills needed to implement good records management practices within their agencies. The general courses are open to employees and contractors of any federal agency but NARA staff can tailor many of the courses for agency specific presentations. The courses are not only offered at the NARA regional records facilities but frequently at locations throughout each region in an effort to make it easier and less expensive for federal employees to attend. Fiscal year 1999 workshop schedules are currently available at the regional records facility serving your area.

Perhaps the most useful service available from the NARA regional records facilities is the records management advice and guidance available over the telephone from the Records Management staff.

NARA regional staff have access to the federal records management regulations, guidance and directives issued by federal agencies, professional literature relating to archives and records management, and a library of federal agency records schedules. Through their contacts with federal agencies, NARA staff often are aware of records management solutions implemented by other agencies and can share this information. NARA staff is frequently able to provide on-site technical assistance, although such visits may require reimbursement of travel expenses.

Micrographic services are available from several of the regional records facilities. Several national parks located in the NARA, Pacific Alaska Region have used this reimbursable service to microfilm the park's permanent records. In many cases, the paper records were retired to the records center for eventual transfer to NARA after the microfilming was complete and the park maintains a microfilm copy for easy reference. In other cases, the paper records were returned to the park and the microfilm serves as security copy should anything happen to the original records. NARA micrographic labs film to archival standards, so agencies can feel confident that the microfilm will last.

NARA's strategic plan emphasizes working in partnership with federal agencies to improve the management of federal records. One example of this type of partnership is the project to identify, arrange, and describe the archival collection on the Mt. Rainier National Park. NPS and Western Washington University (WWU) have implemented a cooperative agreement for graduate students from the Archives and Records Management program to complete the work on the archival collection. NARA, Pacific Alaska Region under a memorandum of understanding with NPS is providing records management technical assistance to the WWU graduate students and Mt. Rainier National Park staff.

NARA staff have provided guidance in inventorying temporary and permanent records in park offices and storage areas, conducted records management briefings for park staff, and assisted in boxing records for storage in the records center. NARA staff works closely with WWU graduate students to insure federal records management and archival standards are followed when processing the collection. NARA staff has microfilmed much of the archival collection and is now assisting in the creation of a finding aid to the collection. This collaborative effort has benefited all of the parties involved and is making the Mt. Rainier National Park archival collection more easily accessible to NPS personnel and the public.

The NPS mission is to "preserve natural and cultural resources for the enjoyment, education, and inspiration of this and future generations." Good records management will help NPS and other agencies achieve this goal and NARA regional records facilities and staff are a records management resource available to assist federal staff.

Candace Lein-Hayes is Coordinator of the Records Management Program, National Archives and Records Administration, Pacific Alaska Region.

Jerry Wallace

What Are Affiliated Archives?

The Affiliated Archives Program of the National Archives and Records Administration (NARA) offers an alternative to the usual physical transfer of permanent historical records into a NARA facility. This program authorizes the records creating agency to maintain and keep records at a non-NARA facility using non-NARA staff as long as they are maintained to NARA standards and made available to the public. The National Park Service has successfully participated in the affiliated archives program since the mid 1970s through its Yellowstone National Park archives and the Historic American Engineering Record (HAER) collection.

The Archivist of the United States is authorized to establish affiliated archives under the provision of 44 USC 2107. Applicants for affiliation with NARA may be other federal agencies or state and private institutions. The process of affiliation is usually initiated by the applicant and begins with the submission of a formal application to the Archivist. There follows a period of internal NARA review and discussion and then negotiations with the applicant. If the request is approved, the Archivist places on deposit the permanent federal records, which have been previously accessioned into the National Archives of the United States, at the designated non-NARA facility. **As a result of this transaction, the affiliated archives receives physical custody of the records, while NARA retains legal custody and, along with it, ultimate responsibility for them.**

For this privilege, the affiliate, through a formal memorandum of agreement with NARA, agrees to house, maintain, and service the records in accordance with pertinent federal laws and appropriate NARA regulations and archival and facility standards. Essentially, the records are to be treated like any other records comprising the National Archives of the United States, and their status, as such, is seen in their inclusion in NARA's reference guides and listings. The affiliate also is responsible for all costs associated with establishing and maintaining the records and archival facility and for providing a qualified archivist to administer them. NARA may terminate the agreement if the affiliate fails to meet its obligations.

The Federal Records Act of 1950, which first authorized affiliated archives, was passed at a time when NARA had no regional archival operations and no field presence, other than for the lone Roosevelt Presidential Library at Hyde Park, New York. Upon accessioning by NARA, all permanent historical records came from the creating agency to the National Archives Building on Pennsylvania Avenue in Washington, DC. **In time, it was recognized that there were instances when permanent historical records, because of peculiar local interests and uses, ought to remain locally.** The Federal Records Act, by authorizing the establishment of affiliated archives, provided the Archivist with an alternative to the centralization of all permanent historical records in Washington. The first affiliate was established in 1953 at the US Military Academy at West Point.

It was found, however, that because of their specialized nature, as well as a certain NARA reluctance to establish them, affiliated archives offered only a partial solution to the problem of regionalization of archival records. Consequently, in 1969, NARA established a nationwide system of regional archival facilities, which have now grown to 13 in number, to house and make available records of local interest. Their presence in major metropolitan areas across the country has ended the need for affiliated archives as simply an archival storage alternative to NARA in Washington.

Today, affiliated archives are established only under special circumstances when the value of records to their users will be significantly enhanced by their deposit at a non-NARA facility, although other factors may occasionally come into play.

The Yellowstone National Park Archives, which became an affiliated archives in July 1978, illustrates this program's rationale. Researchers at the Yellowstone National Park Archives clearly

Albright Visitor Center, Yellowstone National Park. Photo courtesy Yellowstone National Park.

benefit from being able to use the park's records in the physical setting in which they were created, and to which they relate, and from the availability of the park's cultural resources complex. Among these research resources are related materials found in the park's manuscript collection, in its extensive library holdings, in its non-federal photo and map collections, and in its museum's holdings. Another advantage is the availability of the park's knowledgeable staff.

At Yellowstone, researchers also benefit from the proximity of the records to Montana State University, which, through its Library's Special Collections, makes available its significant holdings of greater Yellowstone papers and books, which expands upon and supplements the park archival holdings. The University's faculty and student body, moreover, with their interest in Yellowstone, constitute a focused and continuing source of researcher interest. A similar value enhancement occurs to the records found at the other affiliated archives.

There are currently seven affiliated archives, four of which are at federal agencies and three at state-operated institutions. The first affiliate, as previously noted, was established at West Point in 1953; the most recent, the Hartranft, which was opened by the Archivist in May 1995 at the Pennsylvania State Archives. The latter's establishment is unusual in that it resulted directly from the settlement of a legal issue involving their ownership. **The federal affiliates are found at:**

- Yellowstone National Park Archives
  - Records of Yellowstone National Park
  - Record Group: National Park Service (RG 79)
- HABS/HAER Division, National Park Service, and the Prints and Photographs Division, Library of Congress
  - Historic American Engineering Record (HAER)
  - Record Group: HABS/HAER (RG 515)
- United States Military Academy Archives
  - Record Group: United States Military Academy (RG 404)
  - William W. Jeffries Memorial Archives, U.S. Naval Academy
  - Record Group: United States Naval Academy (RG 405)

The state operated affiliated archives are at:

- Oklahoma Historical Society
  - Records of the Five Civilized Tribes and of Other Indian Tribes of Oklahoma
  - Record Group: Bureau of Indian Affairs (RG 75)
- New Mexico State Records Center and Archives
  - Land Records of New Mexico
  - Record Group: Bureau of Land Management (RG 49)
- State Archives, Pennsylvania Historical and Museum Commission
  - Records of General John Frederick Hartranft
  - Record Group: US Army Continental Commands, 1821-1920 (RG 393)

In 1995, NARA established a Task Force on Affiliated Archives to consider their future. The Task Force report reaffirmed their place in NARA's archival program and suggested ways for strengthening and improving the program. NARA's 1997 Strategic Plan also addresses affiliated archives' role in a positive fashion, looking toward their possible use in handling certain large electronic records databases. There is the possibility of several new affiliates coming into being over the next few years. One now under consideration is for certain large scientific databases maintained at an agency data center. Another possibility is for a traditional affiliate at a military staff college. Encouragingly, there also have been exploratory discussions with NPS staff regarding the establishment of new affiliates within NPS, focusing in particular on the great western parks, as was originally envisioned 20 years ago when the Yellowstone affiliated archives was established.

Since 1989, NARA has had a formal program for overseeing and supporting affiliated archives activities. As NARA's liaison, I maintain frequent contact with affiliated archives personnel and, in turn, serve as their contact point within NARA. My principal concern is in providing assistance and guidance in areas of archival administration and in ensuring that the provisions of our joint agreements are met. Benefiting the affiliates are periodic meetings with NARA staff specialists to discuss issues and matters of mutual interest and the archival training provided, usually gratis, to affiliated archives archivists and archives technicians. Affiliated archives personnel are also free to call on NARA specialists for assistance, as, for example, in the areas of preservation or in planning a new facility or moving archival holdings.

Jerry Wallace is NARA Liasion for Affiliated Archives, National Archives at College Park, Maryland.

To learn more about NARA's affiliated archives program, please contact:

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TIPS *on How to*

Define your topic focus. Write down your research topic in a clear descriptive sentence. Don't try to research a huge topic, such as the Civil War. Instead, limit your topic by dates, locale, individuals/organizations, specific activities or events, or similar factors. Ask yourself the journalist's six key questions (who, what, where, why, when, and how) about your topic. If your topic is too broad, you will invest years in your research and visit most archives in the U.S. If your research is focused too narrowly, you will soon exhaust all the information on your topic. Think of your topic as question(s) that you try to answer by locating the best and most relevant evidence.

Read extensively about your topic in reputable published sources. Ask your local university reference librarian/bibliographer to help you identify reputable published sources on your topic. Use the sources listed in the provided book's bibliographies to find further reading. Read widely on your topic from a range of viewpoints and sources. Read book reviews in scholarly journals to see what books are respected. Check the various indexing, abstracting, and citation services *(Book Review Index, Humanities Citation Index)*. Keep a list of sources cited in these publications. Use *Who's Who* volumes and biographies to begin researching individuals. Keep a list of major organizations, groups, and individuals associated with your topic. Branch out to discover the major individuals and organizations in their lives. To find all the letters written to your key individuals, about them, and by them, you will need to research the personal papers of all these individuals and the archives of their organizations.

Check all research sources, particularly the World Wide Web. Use critical thinking to check the source's accuracy, authority, completeness of coverage, documentation, objectivity, and timeliness. Be a skeptical and critical reader.

Refine your topic focus. Rewrite your basic research statement to be more precise. Develop a series of the questions you must answer. Indicate what will be covered in terms of an era, the geographic area, key people and organizations involved, trends, activities and events to be documented, and alternative names of events (e.g., Civil War, War Between the States, etc.). Pay particular attention to including the full names of individuals, groups, and organizations that you will research and any alternate names they might have had (e.g., pseudonyms, married names, corporate name changes). Identify the types of documents you will use to answer your questions (diaries? films? correspondence? architectural drawings? photographs?) Once written, set your research statement aside. Reread it a week later to see if it still makes sense. Make any necessary revisions. Add to your list of questions to be answered during your research. Show your questions and research statements to your peers for review. Incorporate their comments. Refine your research statement.

Check reference sources to find out what archives or libraries hold the collections you wish to use. First check "Ready, 'Net, Go" on the Web at <http://www.tulane.edu/~lmiller/Archives/Resources.html>. Check with you local university librarians by showing them your research statement. Ask them to check the Research Library Information Network (RLIN) which contains the *National Union Catalog of Manuscript Collection* within its database <http://lcweb.loc.gov/coll/nucmc/nucmc.html>. Consult the *National Inventory of Documentary Sources* (on CD-ROM and by subscription on the Web), *Archives USA* <http://archives.chadwyck.com/>; *National Register of Microfilm Masters, and Microforms in Print*. If working with photographs, search the *Index to American Photographic Collections* a database and book created by the International Museum of Photography/ Rochester Institute of Technology. If working with motion picture films, ask to consult the American Film Institute's *National Moving Image Database*. Check published sources, such as: 1) *Directory of Archives and Manuscript Repositories in the U.S.* (included in *Archives, USA*); 2) *American Library Directory* (New York: R.R. Bowker, annually); *Subject Collections: A Guide to Special Book Collections and Subject Emphases....* (R.R. Bowker Co. annually). Check guides, such as the *Guide to Federal Records in the National Archives of the United States*, Washington, DC: NARA, 1995.

Contact the appropriate archives. Ask them for their access and usage policies; days and hours of operation; availability of microform or digital copies of the collections you wish to view; availability of finding aids; the sizes of the collections you are interested in; and duplication and publi-

cation policies and procedures. Talk to the staff. Find out how much research you can do from a remote locale using collections published as books, microfilm publications, World Wide Web site content, or CD-ROMs. Some archives, like the Archives of American Art, have an extensive microfilm publication program to facilitate research nationwide. Fill out any researcher registration forms, duplication request forms, and similar paperwork sent to you and return them. Read the access and usage policies and procedures carefully. Plan your research travel on a map, going to the most likely archives first. Find funding. Note: The Foundation Center can help you find funding for individual research efforts. (See *CRM* 18:4 (1995) p.9-13.)

Get oriented at the archives. Meet the staff, particularly the reference archivist and any staff members with expertise on your topic. Show the archivists your research statement. Talk to the reference staff extensively about what collections they think will be most fruitful on your topic. Tell them how long you can stay and what final product (film, report, article, book) you expect to produce. See if the reference staff is aware of any related or similar collections at other archives. Learn the necessary logistical information, such as where you must park; what you can take into the reading room; where to check your coat, hat, briefcase, and other paraphernalia; how and when to sign in and out; what their handling policies are; how to request collections; what fees are charged for duplication services; how to obtain permission to publish an item; how to request duplicates of an item; and where to locate the finding aids. Learn when the research room will be crowded.

Work systematically with the identified archival collections. Wash your hands before entering the archives to limit the amount of oil transferred to the records. Use only pencil or computer to take notes in the reading room, not ink pens. Never place your writing pad or paper directly on an original document or folder. Don't scan, xerographically copy, or photograph items without permission. Never smoke, eat, or drink in the reading room. Remove a folder from the box, look through the documents in the folder from front to back, then replace it in the same position in the box before going on to the next folder. If an item seems fragile, avoid handling it. Wear gloves when requested to do so, such as when working with photographs or film. Follow any required procedures for special format materials, such as oversize materials, friable (e.g., chalk, charcoal) media, sound recordings, motion pictures, and videotape. Don't touch the surface of photographic images. Handle documents carefully by opposing edges, or use a stiff piece of board to support weak documents when turning them over. Alert reference staff about any badly deteriorated ripped, torn, missing, vandalized, or damaged items. Never rearrange materials. If an item looks out of order, alert the staff—don't move it. Never remove an item from a folder for duplication; instead use a separate sheet of blank paper as a flag to make it easy for staff to locate the item and photocopy it. Take clear and complete notes about what you discover, including the collection name and catalog/accession number, box number, and folder number, and a brief description (creator, document type, and synopsis) of each important document you may wish to use. Tell the reference archivist if he/she may alert other researchers to the topic you are working upon so as to avoid duplication of scholarly effort.

When your archival research is done. Thank the staff who helped you. Ensure that you have paid for and received all your duplication orders or that you have paid and left a shipping address for all materials to be sent to you. If the latter is the case, reconfirm your order and the credit lines and captions of your duplicated items. Ensure that you know of any restrictions on publishing items that you have duplicated, including copyrights, privacy and publicity legislation restrictions, and ethical and cultural sensitivities. (See *CRM* 18:9 (1995) pp. 23-26.) Obtain any necessary permissions **before** you leave, while you still remember what it is you want to publish. While writing up your research findings, remember to use appropriate credit lines, captions, and citations as required by the archives. When writing, be conscious of your responsibility to avoid plagiarism and to properly credit sources. After publication, remember to send two or more copies of the completed work to the archives. Thank the archival staff for their assistance in your acknowledgements. If you receive special assistance or outstanding service, write a special letter of thanks to that individual and/or the head of the archives.

Diane Vogt-O'Connor
Senior Archivist, NPS

An Archival Glossary for the Millennium

Acquired archives: Collections created by an organization as a routine part of doing business but removed from the physical custody of the originating institution and now in the physical custody of a second organization. These intact collections maintain their provenance and original order and are still referred to as archives, although legally severed from their creator.

Active records: Official records needed and used for current business by organizational staff.

Administrative value: Refers to the archival material's usefulness for management, as in the case of architectural drawings and plans useful for building repairs, maps necessary for landscaping or rescue, or, in a park, other records that indicate how an ecosystem or cultural resource has been affected over time.

APPM: *Archives, Personal Papers, and Manuscripts* is an archival style manual for description.

Appraisal: (1) The act of assessing an archival or manuscript collection's value—including informational value, artifactual value (uniqueness and physical qualities such as process, media, or techniques used), evidential value, associational value, administrative value, and monetary value—using criteria such as age, subject content, contextual documentation, condition, quality, quantity, legal restrictions, filing organizational problems, public relations concerns, and associational nature. (2) The act of determining if a collection contains official or non-official records by consulting the records schedule. (3) Used in society as a whole to refer strictly to establishing the monetary value of an item.

Archival assessment: Evaluation of an organization's total archival and manuscript collection management needs incorporating surveys, the production of collection-level survey descriptions, collections evaluations, and recommendations for action. Assessments facilitate records management and the care of archival collections in organizations that have little experience with these issues.

Archival collections: (1) Records created or accumulated by an organization as a natural part of conducting business. Archival collections have a common provenance and a shared internal order original to the collection. (2) The total archival and manuscript holdings of an organization including audio-visual, electronic, and textual records. See **holdings**.

Archival masters: Refers to the first generation of source materials, such as manuscripts, photographs, or original electronic files. When speaking of digital copies, this term (archival master) is also used to refer to the large and high quality preservation and/or duplication digital surrogate file that is kept off-line.

Archival quality: Refers to permanent, durable, and non-destructive storage or copying materials or equipment suitable for use with archives. Also refers to long-lived (100-year-plus) documentation formats such as silver gelatin emulsions.

Archives: (1) The permanently valuable non-current records of an organization, with their original order and provenance intact, maintained by the original organization. (2) The organization that created and holds the records. (3) The physical building/room in which the records are held.

Archiving: Refers to the act of transferring an electronic file from active to inactive memory in an automated system.

Archivist: A professional knowledgeable in archival theory and practice, who is responsible for the administration or management of archival and manuscript collections.

Artifactual value: Refers to the collection or item's intrinsic value as unique or rare examples of material culture. This value relates to the age, format, process, media, condition, and quality of the material. In a photograph, for example, the arifactual value might be due to a combination of rare process (calotype negative or carbon print), good focus and composition, special format (oversize stereograph or *cartes-de-visite*), exceptional vantage point (birds-eye view or satellite image,or a particular genre (a fine portrait, seascape, market scene, or landscape). These characteristics of artifactual value can help archivists attribute an unsigned work to a particular creator, date an item, and discover other contextual information.

Assembled collections: Accumulations of documents, most often gathered from multiple sources by a collector, generally unrelated by provenance. The documents frequently are in the same format or related to the same topic. Assembled collections are sometimes referred to as "manuscript collections," "artificial collections," or "special collections."

Associated records: All documentation generated by the activity of collecting or analyzing artifacts or specimens needed to effectively manage those related objects.

Associational value: Refers to the archival material's relationship, usually by ownership or use, to an eminent individual, group, event, or similar activity or organization. The association may be to the records creator, owner, user, or individuals or groups who appear as subject matter, such as in anthropological records.

Authority files: Published or unpublished lists of data value standards (e.g., subject terms/names) selected for use in description. The lists may provide definitions, occupations, cross-references from variant versions of names or terms, and dates.

Cellulose nitrate film: A flexible film base used for motion picture film and photographic negatives between about 1890 and 1955. This film base self-destructs over time going through five stages of deterioration. The film should be handled with gloves, foldered in buffered sleeves, boxed, placed in Ziplock bags and removed to off-site (non-museum storage) cold storage in a freezer.

Certified Digital Archives: Refers to a potential process described by the Task Force on Digital Archiving of the Commission on Preservation and Access and the Research Libraries Group to monitor and record the authenticity and veracity of digital data maintained by organizations. Some institutions might be selected to serve as digital time capsules to hold and migrate electronic records until their copyrights and privacy concerns have expired. A repository might apply for certification and be subject to rigorous inspection or, alternatively, participants might be expected to meet a set of standards and customers might evaluate the veracity and completeness of the data.

Collections: (1) An accumulation of manuscripts, archival documents, or materials having a shared history of creation and ownership. A collection may be audio-visual, electronic, or textual in format (e.g., personal papers, organizational records, or assembled collections). (2) The total archival and manuscript holdings of an organization.

Context: The circumstances of creation and history of ownership and usage of an archival collection, as well as the collection's original arrangement or filing structure. A clear context gives a collection enhanced legal and research value as it indicates that the collection's integrity was respected during a continuous chain of custody (ownership). The evidence in the collection remains intact. The collection was not rearranged or inappropriately added to or weeded. Historians may depend upon the inferences they draw from the collection's authentic filing structure. See also **original order** and **provenance**.

Client/server: Refers to systems architecture in which one computer supplies information to another. Often such systems are developed so that tasks can be divided up between several machines for efficiency's sake.

Data: Refers to simple facts and easily quantifiable and repeatable observations that may be quickly captured on machines, structured, and transferred to other machines and interested parties. Data is the lowest level of information and the easiest to manage, while information and knowledge are increasingly complex and difficult to abstract and automate.

Digital archives: Refers to the long-term preservation and research accessibility of digital data in an institutional setting. Digital archiving is achieved by following selection criteria for what will be archived, managing intellectual property rights, following open system standards, migrating and refreshing data regularly, maintaining sufficient software and hardware, and developing target scanning resolutions for different materials. On a national basis, digital archiving also involves developing a registry of digital archival master files and determining a basic economic model for sharing long-term retention costs.

Digital watermarking: Refers to the use of encoded patterns in electronic files, such as the Digimarc™ package, which allow the material's creator or owner to indicate ownership and contact information and track down uses of the material on the Web.

Document: The smallest complete unit of record or manuscript material accumulated to form a file (e.g., a letter, photograph, or report). A document may consist of multiple sheets or may have a recto (front) and verso (back), both of which carry information in a fixed form. Documents are also referred to as

papers, records, and manuscripts. Documents are most clearly described when referred to by their specific formats and processes (document types), such as albumen stereographs, outgoing correspondence, diaries, ink drawings, or field notebooks.

Durable Naming Conventions: Refers to registering and recording permanent and durable names and locations for long-lived electronic objects (documents, images, and other files) found on the Internet. Sometimes called URN or Universal Resource Names and numbers, durable naming conventions are viewed as the natural successors to URLs. Durable naming conventions are storage system independent.

EAD: See Encoded Archival Description.

Encoded Archival Description (EAD): A non-proprietary text encoding standard for archival finding aids (guides, registers, indices) which preserves the hierarchical relationships between levels of description, while allowing for element-specific indexing and retrieval. The standard uses Standard Generalized Markup Language (SGML) as tags embedded in electronic documents. These tags identify and establish relationships among finding aid parts and suggest an appropriate ordering to the data elements found in a finding aid.

Ephemera: A broad category of documents originally created for temporary or short-term use, such as advertisements, invitations, posters, programs, schedules, and tickets.

Evidential value: Refers to the collection's ability to serve as historical or legal proof of an activity, event, procedure, or process since the record(s) are byproducts of these activities.

Federal Records Centers (FRC): Regional records centers of the National Archives used as off-site storage records centers for federal agencies. See page 39.

Finding aid: (1) A broader term for any format of textual or electronic tool that assists researchers in locating or using archival and manuscript collections. Basic finding aids include guides (for example, repository, collection, and subject guides), descriptive inventories, accession registers, card catalogs, special lists (for example, shelf and box lists), indexes, and (for machine-readable records) software documentation. (2) The file guides, indexes, registers, and aids produced by the records creator, usually referred to as "control records" or "contemporaneous finding aids." (3) The specific type of descriptive tool described in the text above. See page 28.

Format: Refers to the document type or form, such as the document's size and shape or the configuration of the media and support. For a fuller description of document types or formats see the Getty Information Institute's *Art and Architecture Thesaurus*, 2nd edition, (Oxford, England: Oxford University Press, 1994) for a full hierarchical list of terms.

Genre: Refers to the document's style, content, and form, including the document's purpose (e.g., advertisements, presentation album), the document's viewpoint (e.g., panoramic view), broad topical category (e.g., landscape, still life, portrait, or street scene), method of representation (e.g., abstract, figurative), circumstances of creation (e.g., amateur works, student works), or function (e.g., dance cards, death certificates). For a full list consult the *Thesaurus for Graphic Material II: Genre and Physical Characteristic Terms*, 2nd ed., 1993, Library of Congress Cataloging Distribution Service, Washington, DC 20541.

Geographic Information Systems (GIS): Refers to data maintained and linked to physical coordinates (spatially referenced), such as precise mapping data. Since the entire database incorporates precise physical descriptors it may be displayed in ways not easily possible previously.

GIF: Refers to the Graphic Image File format, a digital file format used for still images. GIF files are extensively used on the Internet.

Historical documents: See **assembled collections, documents, manuscripts**, and **personal papers**.

Holdings: The sum total of all archival and manuscript collections held in physical custody by an organization. See also **archives, collections, physical custody**, and **repository**.

Holographic documents: Documents handwritten in the script of the individual who created or signed them.

Information: Refers to data that has a clear link to a purpose or context, which requires a clear definition, a unit of analysis, and a layer of human interpretation or mediation. To be useful in a computer environment, information requires clear agreement on definitions and communications standards.

Information ecology: Refers to the science of understanding and managing whole information environments, primary, secondary, and tertiary sources as well as data, information, and knowledge.

Information ecosystem: A metaphor that refers to the entire information environment in a

group, organization, agency, or body. The ecosystem includes all those individuals and units involved in creating, managing, using, and adaptively re-using primary, secondary, tertiary information sources. In an effective information ecosystem data, information, and knowledge are all viewed as organizational resources.

Information Resource Management (IRM): Generally refers to the use of technology (hardware and software) to manage data.

Informational value: Refers to the subject content of the archival collections, such as the people, groups, places, activities, events, objects, projects, and processes documented.

Integrity: Refers to collections whose provenance and original order are intact and whose documentary context is complete.

Intellectual control: The mastery or command established over the informational, evidential, and contextual content of archival and manuscript collections resulting from discovering and describing their provenance and original order and from the processes of arrangement and description.

Intellectual Property Rights: Refers to copyrights, privacy rights, and publicity rights found in original works created by human intelligence.

Inventory: (1) A structured guide to an archival or manuscript collection that includes a brief history of the collection and a list of the materials arranged in series. Inventories function as a type of finding aid. (2) A physical count of a collection conducted for accountability purposes. See also **survey**.

Items: Refers to individual documents or manuscripts. An item may be composed of multiple sheets or may have both a recto (front) and a verso (back) with writing or images on both sides.

JPEG: Refers to a digital file format for use with still images created by the Joint Photographic Experts Groups.

Knowledge: Refers to information that has been judged valuable, synthesized, analyzed, and reflected upon by humans. Knowledge is difficult to structure, transfer, and capture, and may be difficult to express in symbols as it requires some consensus on what is relevant, what the data means, what the proper unit of analysis is, and what the purpose of the knowledge acquiring activity is.

Knowledge-based economy: Refers to Richard Lanham's premise in the *Electronic Word* (1993) that in a knowledge-based economy, the scarce commodity is human attention, not information. Human attention is labor, which gives information structure, usefulness, and value—in effect making it knowledge. Information technology as a means to the end of capturing the interest of students and scholars. Technology democratizes access to information, leading to expanding markets for knowledge workers and consumers.

Leaves: See **sheets**.

Life expectancy: Refers to the length of time data will be usable in a system housed at 21°C and 50% relative humidity.

Lossless compression: Refers to any process for compressing an image file that ensures that the file once uncompressed will look identical to the original such as the TIFF file format.

Lossy compression: Refers to any process for compressing an image file that causes the file, once umcompressed to differ (not necessarily substantially) from the original appearance of the image file.

Manuscript collections: Groups of documents that have been assembled due to their individual literary or historical values. Manuscript collections are frequently contrasted with archives, which have a shared creator, a shared history of ownership, and a shared original order. See also **manuscripts**.

Manuscripts: Individual documents, primarily textual, that have literary or historical value. Manuscripts include a wide range of document types from correspondence, book drafts, and diaries to personal papers and resource management records. Manuscripts are often paper-based textual records.

MARC: Machine Readable Cataloging format refers to a electronic communications format for the transmission of library cataloging data, later adapted and adopted by archivists.

Metadata: Refers to documentation about data, such as descriptions of electronic files that effectively tell you the format, structure, contents, and authority of the materials. Metadata standards, such as the Dublin Core and the Encoded Archival Description Standards, are developed and being adopted or adapted.

Monetary value: Refers to the dollar value placed on rare or collectible manuscripts such as autograph letters or photographs. Monetary value is affected by all of the other values listed above.

Museum records: Official records generated by museums, such as accession, catalog, inventory, and loan records.

National Union Catalog of Manuscript Collections (NUCMC): NUCMC is a valuable ongoing program of the Library of Congress that helps smaller archives distribute archival collection descriptions over national bibliographic utilities such as the Research Library Information Network (RLIN).

Non-official records: Non-official records are assembled collections of copies and duplicates created for reference purposes; acquired collections of manuscripts from non-federal sources; resource management records; permanently active records; and materials acquired for reference and exhibition that don't fall under the definition of being federal records materials.

Non-records: See **non-official records.**

NUCMC: See **National Union Catalog of Manuscript Collections.**

Official records: Collections of organizational records that document the creation, development, organization, functions, policies, decisions, procedures, operations, or other routine activities of the organization. Known as "records" by the National Archives, official records are made or received by federal offices while transacting business and preserved as evidence of the offices' actions or functions or because of the records' informational value. They may be active, in which case they are retained by the agency or inactive, in which case they are appraised via NARA records schedules and either disposed of or sent to a federal records center.

Online order fulfillment services: Refers to organizations which post non-publication quality electronic text, images, sound files, and moving image files on the World Wide Web to facilitate browsing and ordering these items for purchase. Ordering and payment may take place in an encrypted (safe) environment.

Original order: The functional filing arrangement imposed on a document collection by its creator. The original order of collections can provide information not found elsewhere, such as when the creator received a communication, who reviewed a document, or what the sequence of an administrative activity was. Original order should be preserved in a collection as it allows for rapid arrangement, accurate contextual research, and additional insight into the record creator's methods and activities. If a collection has no order because of mismanagement or disaster, a decision to impose an order may be made only by an experienced archivist.

Personal papers: The records created or accumulated during a lifetime by an individual or family. They have an intact provenance and an original order. Personal papers differ from archives in that they are routinely removed from the custody of the collection creators and placed in external archival repositories, but they function as the archives of individuals and must be treated with the same respect as all collections. Parks may collect the personal papers of individuals related to the park, such as founding fathers, formative staff, or eminent individuals associated with the history of the site.

Photographs: A fundamental document type found in all categories of records from museum records to assembled collections. Photographs come in many formats (for example, from cartes-de-visites to stereographs), in a wide variety of vantage points (for example, bird's-eye-view, microscope images, satellite images), genres (for example, landscapes, still lifes, portraits), and processes (for example, silver gelatin, carbon). Photographs are formed by the action of radiation (usually light) upon a sensitized surface. While often thought of as a single process, photography is many hundreds of related chemical processes on a variety of supports, such as metal, paper, plastic, or glass.

Photomechanicals: Multiple copies of images made in ink from photographic printing plates. These permanent images include chromolithographs, duotones, halftones, offsets, photolithographs, photogravures, photoengravings, silkscreens, and Woodburytypes. Photomechanical reproductions were most commonly used for postcards and for illustrations in books, magazines, and newspapers.

Physical control: See **physical custody.**

Physical custody: Either temporary or permanent custody of an archival or manuscript collection. Physical custody does not entail intellectual (cataloging and description in finding aids) control or copyright (the right to exhibit, publish, or prepare derivative works). This is particularly true for previously unpublished personal papers, organizational papers, or other historic manuscript collections. In general, the creator of the records holds the copyright.

Primary information sources: Refers to original digital, textual, and audio-visual records including documents, photographs, motion picture films, videotape, and electronic records.

Primary value: Refers to the value that records have to their creating organization, their original usefulness.

Provenance: (1) The entity (for example, person, family, organization, or office) that either created the records or accumulated them in the natural course of activity. (2) The history of physical custody of a collection or item.

Provenience: Museum curators and archeologists use the term "provenience" to refer to the source or origins of objects and to the exact location where the object was found or made.

Quality control: Refers to various inspection techniques and adjustment mechanisms used to ensure that the copy of an original document meets the standards required by the contract. In microfilm and photography quality control includes chemical, densitometric, and visual tests. With digital media, quality control focuses more on systems calibrations, documentation, and adjustments to the equipment after comparing the original to the copy.

Records: (1) All information fixed in a tangible (textual, electronic, audiovisual, or visual) form that was created by an organization as part of its daily business. (2) Two or more data fields that are grouped as a unit in machine-readable records. (3) Official federal files, per the National Archives and Records Administration definition.

Records management: The process of determining the status, value, and disposition of an organization's records throughout their lifetime (for example, official or non-official; active or inactive; of permanent value or not as listed on the records schedule). Records management involves scheduling records for their ultimate disposition and arranging for their disposition when that day comes.

Recto: The facing page (front) of a single sheet of text or images.

Reformatting: Preservation duplication of original archival materials through the use of long-lived copy technology such as silver halide microfilms or large format digital files and computer output microfilms.

Register: A type of archival finding aid. As defined by T. R. Schellenberg in *Modern Archives: Principles and Techniques*, p. 66: "In a register a record is made of documents in the order in which they accumulate. The documents are assigned numbers consecutively. These numbers are the key by which the documents ... are controlled." Most modern registers, such as those at the Library of Congress, are collection-level finding aids that contain the collection title, accession number, date of collection receipt, donor, collection status, and other basic information for purposes of later processing (arrangement, preservation, and description).

Rights management: Refers to the process of setting up equitable financial systems and structures for balancing the rights of the copyright owners with the use interests of the public.

Secondary sources: Refers to publications such as monographs.

Secondary use: Refers to all use of information beyond that for which it was originally created, for example: use in an archives is a secondary use.

Series: A group of documents arranged or maintained as a unit within a file system because of their shared circumstances of creation, receipt, or use. An example of a list of series would be: 1) incoming correspondence, 2) outgoing correspondence, 3) photographs.

SGML: See the **Standard Generalized Markup Language.**

Sheets: Individual pages, for example each page of a 5-page letter. An individual sheet may have both a recto (front) and verso (back).

Special collections: (1) Non-official collections of manuscripts, personal papers, non-federal corporate records, magnetic media, audio-visual materials, and other documents. (2) Non-textual records such as magnetic or audio-visual materials.

Standards: Archivists follow a wide variety of standards created by many associations and organizations, from the Society of American Archivists (SAA), the American National Standards Institute (ANSI), and the Association of Information and Image Management (AIIM), including standards for authority control, automated systems and networks (see Z39.50-1992), data content and cataloging (see APPM), data structure and exchange (see MARC), editing and publishing, non-cataloging structure and contents including finding aids (see EAD), abstract preparation, and information processing (see SGML), and statistical standards. SAA has a working group on standards for archival description.

Survey: A comprehensive and systematic review of a collection conducted either to obtain a brief overview of a collection or a park's holdings or to gain knowledge on a particular point, such as the amount of cellulose nitrate-based negatives and film in a repository, or the physical condition of a group of collections. Surveys may be conducted on any level (item

to repository) and on any topic (for example, the amount of stereographs in a repository or the level of documentation on women in the NPS).

Tertiary sources: Refers to published sources which draw their content from other published sources, such as text books, abstracting services, and indices.

Textual records: A broad category of written records, including holographic, typed, word-processed, and mechanically printed documents, manuscripts, records, and archives.

TIFF: Refers to the Tagged Image/Interchange File Format, a nonproprietary digital file format that has become a defacto standard.

URL: Refers to Uniform Resource Locator, an addressing scheme for finding files on the Internet. The URL tells you the type of resource, the host and domain name, the file path and the file name.

Verso: The reverse side (back) of a single sheet of text or images.

Visual records: A broad category of records containing images including graphic, photographic, and photomechanical prints (in all formats from negative, direct positive, interpositive transparency and slide, to print); drawings; paintings; and watercolors.

Watermarking: (1) Refers to makers marks in paper that are formed when the paper fibers are in suspension and placed over a grid to allow the water to drain off. Watermarks are often used in determining the authenticity and origins of a document by appraisers. (2) Also refers to the use of software to alter an electronic document to produce a subtle pattern that serves as proof of ownership or origins of an image. Electronic watermarks may allow the organization that watermarked the file to trace usage of the file on the Internet.

Wisdom: Refers to knowledge that has a profoundly human context allowing for life-long analysis, reflection, and synthesis. Often based upon a particular life experience, wisdom is not necessarily the same from individual to individual, group to group, or organization to organization. Often in organizations, the organizational wisdom and culture is expressed in the mission statement which provides the context against which all activity can be judged as wise or unwise. Ambrose Bierce said, "[Wisdom is] a special knowledge in excess of all that is known."

Z39.50-1992: An information retrieval service definition and protocol specification for library applications developed jointly by the American National Standards Institute (ANSI) and the National Information Standards Organization (NISO).

Diane Vogt-O'Connor

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