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The Challenge of Archival Preservation

INTRODUCTION

The field of archival preservation is increasingly recognized as an area of specialization within the broader discipline of preservation of artistic and cultural works. Archival preservation is akin to both fine art and library preservation; but, while it shares common approaches and philosophical concerns with each of these fields, there are also several important differences. In large part, these differences relate to the nature of archival materials. Unlike fine art collections, archival records are generally intended to be used and handled by a variety of researchers. Although there are possibilities for duplicating or reformatting unstable or fragile records, large quantities of archival materials in original formats still must be capable of being used and handled. Paper must flex and bindings must function as vehicles both to protect and to allow access to information. Fine art holdings—even study collections—are subjected to much less (and less rigorous) handling than are archival materials.

Unlike library materials, archival records are most often unique; they do not exist in other formats, editions, or repositories. Issues of mass and scale also enter into the equation. While library collections often consist of hundreds of thousands of individual titles, archival holdings generally consist of such large numbers of individual items that archival series are measured in linear feet, not by the number of discrete pieces. Further, the value or significance of archival records tends to reside with groups and their relationship to one another, rather than in individual documents, although there are obviously exceptions to this generalization. The library preservation problem has been

popularized almost exclusively as the brittle book problem. While archival repositories contain a good measure of brittle paper, archival records are just as likely to have been recorded on good quality papers that have retained their strength and flexibility over time.

ARCHIVAL PRESERVATION PROGRAMS

The characteristics of archival records briefly described—that is, uniqueness, size of holdings, and the relation of individual parts to the whole—have influenced the development of archival preservation programs. The complexity and diversity of archival records have also had great impact on the preservation challenge. Archival records are composite objects that reflect the history of technology and the ingenious ways that have been devised to record information over time. Materials composing archival records range from animal skins, such as parchment, to a wide variety of paper types manufactured for different purposes. Ledger papers, tissue papers found in letterpress copy books, tracing and drawing papers used for architectural renderings, bond and writing papers, and coated paper used for graphic works are but a sampling of the types of papers found in archival holdings. In addition to skin and paper materials used as supports for recorded information, metals, glass, and plastic films are also common substrates for archival records. Media used to record information are equally diverse and include graphite and colored pencils; carbon, iron gall, and numerous modern solvent- and water-based manuscript inks; printing and typewriter inks; pigments; and also photographic imaging methods. Magnetic media used to create computer tapes and video and sound recordings expand and complicate the problems of archival preservation. The abundance and variety represented by archival records have necessitated the development of multifocus preservation programs designed to meet the needs of diverse and disparate materials.

Archival preservation activities may be clustered into several programmatic areas: provision of a stable storage environment; copying, duplicating, and reformatting; controlling access and use; disaster preparedness; and conservation treatment. Remarks here will be limited to two of these areas, which are closely related: holdings maintenance and conservation treatment.

Holdings Maintenance

Holdings maintenance is a term that was devised at the National Archives to describe a range of basic preservation activities that are

designed to prolong the useful life of archival records and defer expensive laboratory treatment by ensuring a stable storage environment. In the macro storage environment, temperature and relative humidity are controlled at approximately 70°F and 45 percent relative humidity (RH). (The temperature and relative humidity recommended is for mixed collections that are largely comprised of textual materials; other media, such as photographs and electronic records, have specialized storage requirements.) Holdings maintenance, which is actually concerned with the microenvironment in which records are stored, ensures that all storage enclosures coming into contact with record materials are stable and nonreactive over time. Holdings maintenance activities include rehousing archival records in file folders and boxes that meet National Archives specifications. Such paper and paperboard enclosures must be made from 100 percent fully bleached kraft pulp, be free of groundwood, have an alkaline reserve of 2 to 3 percent magnesium or calcium carbonate, and a pH between 8.0 and 10.0. In addition, enclosures intended to store photographic materials must pass the Photographic Activity Test as described in ANSI IT 9.2-1988. Other holdings maintenance actions include removing damaging fasteners, such as metals that rust or corrode, and the proverbial government red tape which contains dyes that are susceptible to bleeding. Fragile or damaged documents are placed in polyester L-sleeves with seals along two perpendicular edges to allow for safe placement and removal of weak paper. Holdings maintenance guidelines define the manner in which file folders and boxes should be filled in order to properly support and protect records. Provisions exist for removing oversize records to storage that will safely accommodate large dimensions and formats. Bound volumes with loose or detached spines or covers are tied with white cotton twill tape to keep component parts together. Photographic materials that are retained within textual files are lightly dusted and placed in polyester sleeves, both to protect them from handling and to segregate them from adjacent records. Given the difficulty of locating a consistent commercial source of ink that meets archival requirements (that is, ink that is nonacidic, nonbleeding, and colorfast), only graphite pencils are used to write notations on file folders. Pencils are a safer alternative at any rate, since it is not uncommon to find random, accidental marks made directly on the surface of record materials.

Preservation actions carried out under the mantle of holdings maintenance are intended to be performed by custodial archives technicians and archivists, rather than by conservation laboratory staff. It is important that all preservation actions be implemented consistently throughout an institution. For this reason, it is advisable to prepare

written guidelines and to provide preservation training for all staff members.

There are a number of concrete benefits resulting from implementing a holdings maintenance program. Much damage to records occurs because of poor or inappropriate storage systems; improved housing practices will protect archival records and alleviate possibilities for damage. Replacement of unstable enclosures with paper and plastic materials of known good quality will eliminate sources of contamination that could otherwise increase the rate of degradation of archival records. Records in actual need of conservation treatment can also be identified during the course of performing holdings maintenance, making it possible to establish priorities and schedule necessary laboratory treatment.

Conservation Treatment

The primary goals of archival conservation treatment are to chemically stabilize and physically support archival records. Cosmetic improvement is generally not the overriding concern, although it is often a byproduct of treatment and may in fact be desirable for items required for exhibition or publication purposes. The quantity of most archival holdings makes it necessary to establish treatment priorities based on such factors as the condition, value, and intended use of the materials. Issues pertaining to value can be quite complex, since records requiring treatment may range from highly significant individual items—such as George Washington's inaugural address or the Emancipation Proclamation—to records of relatively low individual value, such as pension applications, military enrollments, or constituent mail. The assigned value of a record and its condition may be at great variance, at least in terms of treatment needs. An item of low intrinsic value may require a complex, time-consuming treatment, while a document of high intrinsic value may need nothing more than encapsulation. Given large quantities of records of varying value and condition and the fact that resources for conservation treatment are generally limited, it is necessary to set priorities, establish institutional policies, and develop good working relationships between archivists and conservators. Conservators can generally offer treatment options which range from stabilization and minimal intervention through complete treatment, without compromising the item. The latter point is very important, since most conservators working in the United States abide by the code of ethics and standards of practice adopted by the American Institute for Conservation of Historic and Artistic Works (AIC). Adherence to this code requires that all items be treated in accordance with a common high standard. Thus,

while it would be inappropriate to take treatment shortcuts on an item of relatively low value, it would be permissible to perform a high quality but more limited range of treatment steps on the item to achieve the desired stabilization.

Single Item and Batch Treatments

The concepts of single item and batch treatments are still evolving in archival conservation. This dual approach was developed in response to the particular nature of archival records and the size of institutional holdings. Because of limited resources that must be used conscientiously to meet the treatment needs of large numbers of diverse materials, it is appropriate to allocate these resources in accordance with the varying values, intended uses, and condition of the items in question. However, it is important to understand that the attitudes and philosophy governing single item and batch treatments are the same. It is not intended that either the quality of treatment or materials used will be compromised, but rather that the degree or complexity of treatment be adapted to the specific needs of the records.

Single item treatments are normally reserved for individual records of great historical significance. Such records are likely to be institutional treasures and the focus of much institutional, scholarly, and constituent attention. Their value is such that it is mandatory to focus undivided attention on the item during the course of examination, testing, and all treatment steps. Examples of such highly important archival records will vary from institution to institution, but may include such items as constitutions or charters, treaties, and proclamations or speeches in the hand of historically important individuals. Another reason for selecting single item treatment involves the complexity of the treatment required in relation to the physical and chemical stability of the item. The nature of the component elements of a document, such as media, the presence of adhesives, and the type and condition of the support will also affect the choice of treatment approach and whether it is likely to be more or less intrusive or relatively passive. Single item treatments may be very complex, and may also be undertaken in experimental situations where treatment innovations are being explored that must be closely monitored.

On the other hand, *batch treatments* are reserved for groups of records—generally of moderate to low value—that exhibit the same qualities and require the same treatment steps. Therefore, one must know that all of the individual items in a batch have relatively the same value and that the materials composing them are the same. For example, a group of letters written in iron gall ink on early nineteenth-century machine-made papers could be handled as a treatment unit, as could a

series of court transcripts or application forms consisting of printer's and manuscript inks on groundwood paper. Batch treatments should be reserved for groups of like materials that require relatively routine treatments. The number of items in a batch may vary, but could easily consist of groups of five, twenty-five, or even two hundred items. Parenthetically, it should be noted that batch treatment is not mass treatment, which implies treatment on a much larger scale. Further, in batch treatment a group of documents would possibly be subjected to a number of treatment steps, whereas *mass treatment*, as the term is commonly used, refers to a large number of items being exposed to a single treatment operation.

Other basic differences that exist between single item and batch treatments relate to time expended on a single archival record and the degree and type of documentation employed. All archival institutions must expend available treatment hours judiciously. While it is overly simplistic to state that single item treatments take more time than do batch treatments, it is true that complex treatments, or those that are not employed on a regular basis, generally take more time to execute than do more routine treatments. A routine treatment, such as removal of dirt by surface or dry cleaning, can suddenly become complex if the paper is weak or the medium is friable. Usually, however, single item treatments are more time-intensive. For example, it may be possible to perform humidification, flattening, and rehousing on a batch of 500 trifolded records in a period of forty hours. That same forty hours could be expended on treating a single architectural drawing that required dry cleaning, washing, and lining. Given the diversity of archival materials, there is clearly a need for both approaches in an archival conservation program.

Documentation

Conservators are required to document the treatments they carry out. This is another area in which there are differences between archival and library and fine art conservation. The AIC code of ethics requires that all treatments be fully documented. That is, there should be a written condition description, treatment proposal, and treatment report for every item treated, in addition to photographic documentation before and after treatment. Such recordkeeping is necessary for significant archival records as well as for significant treatments, and it is therefore standard practice for single item treatments. Such an approach is not feasible, however, for batch treatments, given the nature of the materials and the routine types of treatments performed. It would be entirely possible in such situations for recordkeeping to take more time than the actual treatment. Therefore, most batch treatments are doc-

umented by use of some type of form or checklist (either manually created or computer-assisted) to describe the treatment steps performed and all materials used. The concept of levels of documentation is one which archival and library conservators are currently discussing within the context of AIC.

CONCLUSION

Decision-making regarding the appropriate implementation of single item versus batch treatment requires close communication between archivists and conservators. The values assigned to records, the relationships among groups of records, and the uses to which the records will be put over time must all be considered in order to make sound conservation treatment decisions. Despite the previously described differences between single item and batch treatments, there is another important characteristic they share. Decisions regarding the type and level of treatment to be carried out must be based upon the evaluation of individual records. While it is possible to make generic observations and decisions regarding a series of records and then to group them into appropriate batches, it is still necessary to actually look at individual records to assure their suitability for the treatment envisioned. This issue relates back to some basic characteristics of archival records, namely, their diversity and uniqueness. Despite efforts to standardize and categorize archival records, they do not always cooperate! It is not unlikely, therefore, to encounter several pieces of parchment in a box containing what was presumed to be all eighteenth-century paper. Obviously, the results could be disastrous if the parchment were overlooked in a treatment that specified washing the entire contents of the box. In a similar vein, a document of extremely high intrinsic value could be interfiled with a group of documents of much less significance. If its existence were not noted during the review of records prior to treatment, the results could be equally inappropriate.

Any time that a particular treatment approach becomes something of a standard procedure, there is a danger that the treatment system will begin to take on a life of its own. In such cases, treatments can be applied inappropriately or unnecessarily if the records are not reviewed carefully prior to treatment and individual decisions are not made. This phenomenon occurred to some degree when cellulose acetate lamination was the primary treatment of choice in some institutions. There is

certainly the potential for such a situation when carrying out batch conservation treatments. Careful examination, evaluation, and testing will always form the basis for sound archival conservation, whether the work is carried out on a batch or on a single item basis.