A Natural Collaboration: Preservation for Archival Collections in ARL Libraries

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ABSTRACT

In-house collaboration between the archives and preservation departments of Association of Research Libraries (ARL) member libraries is not well established. This article presents data from a survey of special collections repositories in ARL member libraries, conducted in 1995 and repeated in 2006, that document the low levels of collaboration. The authors probe the history and development of preservation efforts in archives and in libraries and make a case for further examination of how the expertise and resources of archives and preservation departments can be shared in managing the preservation of archival materials.

Introduction

The paradigm of collaboration is ubiquitous in all sectors today, public and private, and between diverse partners. As James E. Austin (2000), of the Harvard Business School, has pointed out, "When you cannot go it alone and succeed, collaboration becomes a prerequisite to effectiveness"; it is natural for institutions to "come together to assemble sufficient collective confidence, knowledge, financial resources, or political power to enable them to be effective" (p. 10). In the world of research libraries, it has become a keystone of the culture. Collaborations and partnerships have allowed them to pool resources, collect cooperatively, manage collections efficiently, achieve long-term preservation goals more effectively, and adapt to new technology. At the same time, collaboration improves institutional vision and raises awareness both within and without individual institutions. Partnerships in the realm of research institutions benefit contemporary and future societies by ensuring the existence of knowledge and information.

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Many examples of collaboration exist in the landscape of preservation efforts in research libraries. External collaborations among research libraries and internal partnerships within libraries to achieve preservation goals are ongoing and have been for decades. Externally, instances of reciprocal agreement between libraries to achieve preservation goals began collegially as far back as the 1960s, as librarians shared their knowledge and skills to develop techniques and management systems to keep collections useable. Proof of the preservation communities' cooperative behavior was never more evident than in the collective efforts to salvage the cultural heritage of Florence after the flood of the Arno River in 1966. November 4, 2006 marks not only the fortieth anniversary of that legendary flood; it also commemorates a remarkable communion of teamwork, an important point of reference in the history of cooperative efforts within the preservation community. Looking back on that event, Darling & Ogden (1981) said, "[c]onservation activities in the rest of the world virtually came to a halt as binders, restorers, and conservators joined a massive international salvage effort" (p. 14). In the United States, other early examples of cooperation, partnerships, and collaborative efforts to preserve library collections were primarily led by the Council on Library Resources (CLR), founded in 1956; the Association of Research Libraries' (ARL) Committee on Preservation of Research Library Materials, appointed in 1960; and the Research Libraries Group's (RLG) Preservation Committee, appointed in 1978. Later, preservation partnerships grew to include state and regional consortiums, such as the Northeast Document Conservation Center (NEDCC), founded in 1973 under the name New England Document Conservation Center; the Conservation Center for Art and Historic Artifacts (CCAHA), founded in 1977; the New York State Conservation and Preservation Program (CPP), established in 1984; and the Committee on Institutional Cooperation (CIC) Preservation Committee, begun in 1988. While no one has written a formal history of collaborative preservation efforts among libraries, library literature is rife with examples of partnerships created to promote the preservation enterprise for book collections.

Collaborative alliances within research libraries exist amid an array of joint efforts between circulation, collection development and preservation departments that combine their efforts to identify books in need of preservation. Co-determined efforts also exist between preservation and cataloging departments to maintain bibliographic control over books that are reformatted, deacidified, or otherwise conserved. These internally coordinated efforts achieve a common goal: to protect and keep the library's collections in useable condition. Many of these collaborative paradigms were fostered and established through the Preservation Planning Program, or PPP, sponsored by the ARL in the late 1980s until the mid-1990s (Darling & Ogden, 1981). As a result, most of today's research

libraries have well-established systems to ensure the viability of their preservation efforts.

In spite of this admirable tradition of collaboration, and despite the integration of preservation activities within research libraries, libraries essentially have bypassed the preservation management needs of special collections, particularly archival collections. When the "archival stone" is upturned, cooperative efforts are curiously absent in the very place one would most expect to find them: in ARL research libraries where preservation programs are administered alongside archival and special collection programs. A study of special collections in ARL membership libraries conducted in 1995 by Tyler O. Walters, found that the two functions of preservation and archival administration within research libraries rarely intersected. Walters concluded that "archives generally are not benefiting from the expertise found in library preservation departments, even though about 80% of the reporting archives [participating in the study] reside within the library organization" together with preservation departments (1998, p. 176). Ten years later, De Stefano and Walters (2006) conducted a follow-up survey of the preservation activities among the same population of ARL member libraries and found some minor improvements in the level of preservation activity within individual archives, but there were few gains in partnerships between archives and their respective library preservation departments. Given the propensity and willingness of research libraries to form partnerships and their capacity to further preservation goals, the absence of well established in-house collaborations between the departments of archives and preservation at this time warrants earnest examination.

The following article presents data that continues to document a history of low levels of collaboration between archives and preservation departments in ARL libraries. The authors probe the history and development of preservation efforts in both archives and libraries and make a case for further examinations of how these two units could share expertise and resources to jointly manage the preservation of archival materials. The inspiration to achieve a joint resolution to this problem lies at the heart of the mission of preservation programs. Certainly, a shared path promises to culminate in a purposeful fortification of the rich archival collections held both individually and collectively by ARL member libraries. While internal collaboration may appear to have consequences only to individual institutions, by extension within the ARL membership, an enhanced alliance between archives and their preservation departments stands to have significant national benefits.

SURVEYS OF ARL SPECIAL COLLECTIONS

In 1995, Tyler O. Walters surveyed special collections repositories in ARL institutions. The findings of the survey were published in his article

entitled, "Special Collections Repositories at Association of Research Libraries Institutions: A Study of Current Practices in Preservation Management" (Walters, 1998). The stated "goals of the preservation study were:"

1) to create a base of data regarding the development of archival preservation programs in North American research institutions and interpret that data, and 2) to understand the extent to which the archives and library preservation departments interact in their common mission to ensure the availability of research materials to present and future generations. (p. 164)

Thorough research methodology was employed to examine preservation management practices at 170 archival repositories. Walters describes the population surveyed as follows:

The target group of this study was institutions whose libraries were members of the Association of Research Libraries (ARL) and were responsible for collecting, preserving, and providing access to archival materials. The target group was not restricted to those archival repositories administratively placed within the library. Archival units reporting to offices such as college or university president, provost, dean, or the director of a non-profit cultural institution [were] included. The only requirement was that the surveyed institution or institution's library was a member of ARL. Of the 120 ARL members, 113 institutions representing 170 archives and manuscripts were asked to participate. No archival repositories were found in seven of the ARL institutions (p. 165).

Closely following Don Dillman's (1978) Mail and Telephone Surveys: The Total Design Method, the Walters survey recorded a high response rate of 84.1 percent (p. 166). The results identified an improvement in preservation activities over earlier surveys of individual archives, but the level of collaboration between archives and preservation departments was "disappointingly" low (p. 173). According to the study, exceedingly low levels of cooperation between the two were found in all aspects of holdings maintenance. Collaboration for conservation treatments was not as low, but survey results showed that archivists were performing their own treatments 50 percent of the time and "a mere four respondents (3%) indicated that [preservation] assistance was occurring" (p. 173). Reformatting results showed that 67 (69 percent) repositories were using external microfilming services and, within this group, 18 said the preservation departments carried out this responsibility and 14 said the archives' staff was responsible (p. 174). Given these results, Walters rightly questioned the degree to which standard pre- and post-microfilming procedures were followed, however, the questionnaire did not specifically seek this information (p. 174). With respect to preservation planning, only 8 out of 135 respondents indicated that a library preservation department representative was responsible (p. 175). (See appendix A.)

Walters' 1998 report of the survey contains more detailed information on the results of the study; his conclusions and recommendations were highly insightful. But it is the last piece of data mentioned above that captured the primary interests of both of the current co-authors in 2006—that so few library preservation department personnel are responsible for, or even involved in, archival preservation. De Stefano and Walters question whether preservation planning in archives has remained primarily within the purview of the archives, or whether more collaboration with preservation departments has developed since Walters' observations were published in 1998. With this in mind, a follow-up survey was conducted in 2006. (See appendix B.)

In order to compare findings, the target population for the 2006 survey used the same list of 113 ARL institutions representing the same 170 repositories. The applied methodology was also the same except for the dissemination method: the 1995 survey used a paper-based questionnaire and the 2006 survey used a Web-based questionnaire. De Stefano and Walters followed the revised edition of Don Dillman's *Mail and Internet Surveys: The Tailored Design Method* (2000), updated for email and Web-based surveys. A test of the Web-based survey instrument was conducted, the population received a trial email to confirm the name and email address of the appropriate person to complete the survey, and the survey was sent with an email message equivalent to a cover letter containing the URL for the survey. The survey questions used exactly the same language and response choices as the original 1995 survey.

Highlighted Comparisons of Data From the 1995 and 2006 Surveys

Ten years later (2006), the data gathered between the two surveys remain essentially the same, based upon a 44.7 percent survey response rate. Despite the authors' hopes and wishes for improved collaboration and resulting improvements in archival preservation (this is our stated bias), library preservation departments and archives departments are still not collaborating significantly. There are limited increases of the application of preservation actions to archival collections. There does not appear to be an increase in preservation planning that is being expressed and coordinated. Specifically, the 2006 data shows no significant changes in areas such as written policies regarding preservation practices like document handling by users, photocopying procedures, reading room monitoring, or policies and procedures for selecting documents for conservation, holdings maintenance, or reformatting. Even the amount of libraries that practice environmental monitoring is about the same, although the new data shows archives changing equipment in favor of new digital temperature and humidity recording devices. This is an expected trend, given how most any kind of equipment in any field is becoming digital. Interactions to conduct preservation planning and surveying have not changed significantly either. The new data suggests the need for a deeper examination of why library preservation and archives departments are not collaborating as robustly as they could. A strategic plan is needed that will alter this situation and result in better-preserved archival collections.

Having put forth this initial description of the 2006 data, there is a small rise in some preservation activities and interaction between the two departments that seems to be borne out by the new data. The responses from question #5 indicate that library preservation departments have about 30 percent more trained archives staff than they did in 1995 in regards to carrying out holdings maintenance activities—a seemingly good sign that preservation collaboration is on the rise. However, when this data is juxtaposed with data from questions #3 and #3a, a different interpretation can be concluded. Question #3 asked if anyone has conducted a holdings survey of the majority of the archives holdings within the past two years. The question results are the same. Question #3a asked whether holdings surveys resulted in more rehousing or reformatting of deteriorated items. In 1995, 86.6 percent of the respondents said that surveys resulted in more rehousing and reformatting activities. However, in 2006, the positive response dropped 35.4 percent. Now there is a positive correlation between holdings surveys and preservation actions only 50 percent of the time. In summary, there is no anticipated upswing in holdings surveys, and preservation activities actually dropped by 35.4 percent, demonstrating that even though library preservation departments seem to be increasing their training of archives staff in holdings maintenance activities, it is not resulting in increased holdings surveys and holdings maintenance work. In fact, the latter appears to be dropping significantly. Unfortunately, the survey was not designed to capture data indicating why this drop in preservation activity appears to have occurred.

Preservation activity has moved positively upward in the area of conducting conservation processes. The 2006 data (question #11) shows that activities such as dry cleaning surface of documents are up 10.5 percent, basic mending and repairs are up 13.6 percent, and encapsulation is up 10.5 percent. Changes in the amount of activity related to pH testing and deacidifying paper are similar to 1995. This modest upswing correlates with data from question #12 in 2006 that points out who is doing the conservation work. In 1995, it was library preservation departments 28.2 percent of the time and 50 percent archives departments. In 2006, library preservation departments now carry out conservation processes 47.2 percent of the time, representing a rise in activity of 19 percent. Archives departments have decreased, but only slightly to 44.4 percent—a 5.6 percent decrease. The data on library preservation departments training archives staff to carry out conservation processes remained about the same. In 2006, 2.8 percent of the respondents indicated this training was occurring; in 1995, it occurred 3.2 percent of the time. The overall data on conservation processes demonstrates that library preservation departments may be doing what they do best—conserving paper—but they are not directly interacting with the archives department to carry out conservation work.

Another basis for data comparison is in the area of preservation planning, financial and staff resources, and organizational placement. Question #15 asked who is principally responsible for preservation planning and monitoring for the archives. The changes are not large, however; the data shows that a library preservation department representative is responsible for archives preservation planning and monitoring 9.9 percent more of the time than the 1995 data showed (15.8 percent, up from 5.9) percent). A designated preservation officer from the archives staff has increased 6.2 percent of the time (22.4 percent, up from 16.2 percent). The archives department head maintains this responsibility most of the time, 42.9 percent in 1995 and 46.1 percent in 2006. While we are pointing out these slight upticks in preservation planning responsibility, it is still more significant that only one in 6.3 times is someone from the library preservation department principally responsible for archives preservation planning and monitoring. No blended solutions between the two departments were indicated in the survey comments either, not in 1995 and not in 2006. Archives still "go it alone."

The preservation planning responsibility data may further tell a story when compared to data about the apparent, but modest growth of library preservation departments (question #17, 2006), the status of budgets for preservation supplies and services (question #14, 2006), and the growth of professional education in preservation administration (question #21, 2006). Question #17 asked, "Does your university library include a department or individual staff dedicated to managing and implementing a library preservation program?" The 2006 data shows an upswing in responses, 78 percent, as opposed to 63 percent in 1995, indicate they have such a department (a 15 percent growth in positive responses). With the 44.7 percent response rate, it is difficult to draw the conclusion that more library preservation departments have been created; however, the data does seem to indicate some kind of increase in commitment to library preservation. Libraries with budgets designated for preservation supplies and services rose by 10.9 percent, so at least we know libraries are not ceasing funding in these two areas—they remain stable (question #14). In addition, the amount of expertly educated preservation-related staff is rising slightly. Data from question #21 indicates that employees with specialized graduate preservation degree rose 10.5 percent (16.4 percent, up from 5.9 percent), and employees with graduate level preservation courses within their degree program rose 15.3 percent (38.4 percent, up from 23.1 percent). Again, we emphasize the relatively minor nature of this growth in employees with advanced preservation education. It remains

that only 16.4 percent (or one out of 6.3) of ARL libraries responding to the survey have a preservation administrator with a specialized graduate degree in preservation administration. The good news is that there is modest growth in employees with some level of graduate education in preservation—about one out of every 2.71 responding ARL libraries (38.4 percent) has an employee with this education. The general trend to conclude from this data is that library commitment to preservation, demonstrated by some educated staff and some basic financial resources, is stable to slightly rising in the aggregate during the past ten years.

For the authors' purposes, the question becomes: is this stable to small growth in library preservation in the past ten years positively impacting archives departments? First, one more key piece of data should be examined—archives and their administrative placement. Data from question #16 (2006) further indicates that archives units at universities are moving increasingly to administrative placement in libraries and, in theory, should benefit from library resources, services, and expertise. The reporting lines for archives units continue to coalesce around libraries at the director and assistant director levels. Archives units reporting to non-library university administrators fell 6.4 percent (down from 11.7 percent to 5.3 percent). Concurrently, archives units reporting directly to library directors went up 9.6 percent (36 percent, up from 26.4 percent), and went up 10.8 percent with assistant library directors (38.7 percent, up from 27.9 percent). Archives units reporting to library department heads went down 4.4 percent (from 19.1 percent to 14.7 percent). Today, 89.4 percent of all respondents are reporting somewhere within the library organization.

To discern whether there has been small growth in library resources dedicated to preservation, additional data gathering and study needs to be undertaken. This is not necessarily the objective of the current survey. However, from the current survey data collected, we can surmise that ARL libraries' commitment to preservation—in finances, personnel, and overall institutional priority—has at least remained stable. Hence, we would hypothesize that, after ten years, collaboration between library preservation departments and archives departments would find a way to occur. With the small exceptions detailed above in our data interpretation and analysis, the data suggests that overall collaboration between library preservation and archives departments is not occurring; it remains utterly elusive.

Professional Divides

Ideally, the same constructs that support book preservation in research libraries should also support archives preservation. That they commonly do not is both noteworthy and regrettable. It is regrettable because archival collections are critical to scholarship and people's overall understand-

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ing of history and culture. It is also noteworthy because the ARL membership defined the need for preservation in research libraries many years ago. How were archival collections left out of that enterprise?

One explanation involves the genesis of libraries and archives as cultural repositories and the evolutionary stretch of their separate professional climb. When compared alongside each other, the trajectories of development in the fields of library and archive science have proceeded in tandem but along distinctly separate paths and in accordance with substantive differences organic to their separate mandates. Although the fundamental missions of library and archival science are akin to one another, the material aspects of their focus diverge and divide along biases that form the basis of their respective occupations. One clear departure in their paths is evident in the concept of preservation that developed within the practices of these two sciences.

What becomes known in comparison is that in the very impetus to collect, preservation is more basic to the notion of archives, than it is to libraries. Frangakis and Ward (1995) present the early archival concept of preservation as though part of a professional ethos, one that "implied merely the identification and acquisition of documents, salvation from destruction by virtue of materials' being assumed into a repository" (pp. 377–378). Archivist Richard J. Cox (1992) affirmed this belief, too, when he said, "preservation' was used repeatedly to summarize all archival endeavors" and, in fact, "for many years preservation for American archivists meant little more than bringing records with archival value into the repository" (p. 228–229).

Libraries, on the other hand, have traditionally served a primary mission to collect and make accessible resources specific to the needs of their constituency. Preservation follows as an adjunct to access; it ensures the continuum of usability for a shared resource. Unlike archives, the function of preservation in libraries is subordinate to the principle concern for dissemination in the forms of access and use. For libraries, this juxtaposition of access and preservation is awkward, yet inextricably linked. There is, indeed, an inherent paradox between access and preservation, explains Michèle Cloonan (2001), but preservation does not equal access: "preservation is preservation, and access is access" (p. 240). Charles Dollar (1992) points out that this is true most distinctly in the physical realm where a carrier, for example, paper, or microfilm, bears the information and must be preserved (p. 67). However, in regards to electronic information resources, Dollar observes that "an emphasis on the carrier of information offers little useful guidance. . . . The preservation of electronic records requires shifting the emphasis from preservation of the information carrier or physical storage media to the preservation of access to information electronically captured and stored" (p. 67). It was in this context that Pat Battin asserted that preservation equals access, and this notion was

subsequently misconstrued to pertain to all materials (Cloonan, 2001, p. 240). Cloonan separates access and preservation and, although she does not further distinguish the primacy of one over the other, the history of libraries strongly points to the primacy of access.

T. R. Schellenberg, the father of modern archives management in the United States, devoted the first two chapters in his 1965 book, *The Management of Archives*, to the topics of library methodology and archives methodology. There, he illuminates the essential differences between archives and libraries and provides a historical context that makes plain the root of the professional divide between them. As others have observed, the division stems primarily from the nature of the materials and the purposes of acquisition. Summarizing a more lengthy delineation of their differences, Schellenberg (1965), states that "librarians are *mainly* concerned with publications and archivists are *mainly* concerned with records" (p. 5). Forty years later, the professional divide between libraries and archives is described similarly by Helen Forde (1997). Speaking as an archivist she says:

The differences between us are largely to do with the physical differences of the material which we hold and the position of that material in terms of its final destiny—destruction or survival. . . . Both [library and archive] resources deal with information, but at different stages of its development. Archival information is primary information, but not current information—or rarely so. It is expected to be at least 30 years old, selected but undigested; it has been chosen for its evidential value, but it has not been edited or turned into an alternative format. Library information . . . curiously, is regarded as current (which it may be in comparative terms) but it has already been processed in most cases, and the built-in timescale of delay, through publication of serials or monographs, is both expected and tolerated. . . . [E]ach acquisition has some form of protection such as a cover. . . . For most libraries much of this material will be new. . . . Archival material, by contrast, arrives frequently in . . . insubstantial folders, on variable types of paper, already used and possibly damaged, and with a long term survival expectancy. . . . Another difference in perception stems from the unique character of archival material and the apparent ability to replace library material. (pp. 530–532)

James Gregory Bradsher (1988) provides further context and distinguishes the difference between libraries and archives in the statement:

Books in a library or items in a historical manuscript repository are "collections" of isolated pieces that have been put in some sort of logical order. Archives, on the other hand, are "accumulations" and their arrangement is determined as they grow, not afterwards. (p. 7)

In summary, preservation clearly has primacy in the very act of archiving that does not exist in the context of libraries where the preservation function is subordinate to the primacy of access to collections. Considered from this perspective, it is not surprising that preservation

denotes something different within the two settings and, perhaps, this disjuncture explains why collaboration between the archives and preservation departments in ARL institutions has not emerged naturally. In order to move forward and redress this inconsistency within the ARL institutional mission, the level and character of collaboration between both departments must be considered in light of the breaches noted above. Most importantly, the vocabulary of collections care and the meaning assigned to preservation must co-exist harmonically, on common ground, to accommodate partnership. This is not so difficult a task. Rather it requires understanding, openness, commitment, and a unified vision—a task not unfamiliar to ARL libraries.

DEVELOPMENT OF PRESERVATION PROGRAMS IN ARL LIBRARIES

Walters (1998) identified 80 percent of ARL libraries with preservation programs (p. 160). A key catalyst in the formation of preservation programs in ARL libraries was the Preservation Planning Program (PPP). Administered within ARL's Office of Management Studies (OMS) and funded by the National Endowment of the Humanities (NEH), the program was an "assisted self-study" program directed by Pamela W. Darling. Planning for the program began in 1979, led by Darling and an ARL advisory committee, and in 1983, the ARL/OMS published its first edition of Preservation Planning Program: An Assisted Self-Study Manual for Libraries, accompanied by a separate volume entitled, *Preservation Planning Program:* Resource Notebook. Both were published again in an expanded version in 1987. The study manual contained a blueprint for institutional preservation planning and the resource notebook contained articles on diverse preservation program elements to support the planning process. The third essential ingredient in the program was a series of on-site consultations with experienced preservation professionals to help guide an institution's staff through the planning process. As stated in the 1987 edition of the manual.

The Preservation Planning Program Manual is designed primarily as a guide for libraries undertaking a formal study of preservation needs as a foundation for planning programs to meet those needs. It is based on the "assisted self-study" process and presupposes a library staff large enough to permit the assignment of about two dozen people to the job. Most of these will be involved an average [of] five or six hours per week for a two or three month period, with a smaller team coordinating the study over four to six months. The Office of Management Studies, as part of its Academic Library Program, will provide consultants on a fee basis to libraries wishing to use the Preservation Program materials in this formal "assisted self-study" manner. (Darling, 1987, p. iii)

With a sound construct, internal commitment and stable external support, participating ARL libraries succeeded in internalizing a systematic,

library-wide approach to preservation determined to insert itself holistically into the institutional mission. "To what purpose the acquisition, cataloging and maintenance of vast collections if the materials themselves will rot in half a lifetime?" the manual asks (Darling, 1987, p. 2). The manual makes clear that the PPP grew out of a concern for acidic book paper, but the intent was to develop comprehensive programs, moreover, to "incorporate technical and procedural information about preservation in a structured planning process leading to the phased development of a comprehensive preservation program" (p. 3). The accomplishments and momentum of the PPP were amazing, but, in retrospect, those efforts resulted in successful, healthy preservation management programs primarily for libraries' book collections. Unfortunately, that success did not extend its reach to archival collections even within their own domain.

The lack of preservation planning and management extended to archival and special collections is abundantly clear in studies conducted between 1995 and 2006. In addition to the Walters study in 1995 and the De Stefano and Walters study in 2006, this conclusion is also supported by another more general survey of special collections conducted by ARL in 1998 and published in 2001 (Panitch, 2001). A high response rate of 80 percent provided ARL with a fairly accurate snapshot of the "issues facing special collections at the dawn of the 21st century" (p. 3). Among other things, the results raised questions about whether preservation was adequately being addressed. In the executive summary, Panitch (2001) reports on preservation activities in special collections.

There is apparent dissonance between subjective ratings and reported activity. One-quarter to one-half of those libraries reporting that their programs were making progress or holding steady on the conservation of special collections also report no conservation or repair treatment of special collections materials in 1996–97 [the year studied]. More than a quarter of all institutions had no staff time at all devoted to conservation or repair of special collections materials, and contracted services were not generally being used on a large or comprehensive scale. Over a third of all institutions reported inadequate temperature and humidity control for all or most special collections facilities (p. 8–9).

Likewise, institutions were "less optimistic about reformatting operations for special collections materials" (p. 9). The results led Panitch to observe, "special collections materials may, in fact, not be receiving the preservation attention they require" (p. 9).

The "dissonance between subjective ratings and reported activity," identified in the ARL survey, may have been the result of adverse characteristics within the survey methodology, at least with respect to the preservation portion of the survey. Each ARL library was limited to one special collections survey form, even where multiple special collections and archives were held in separate repositories, and respondents were instructed

to combine data for all collections. The survey was directed to the highest level authority overseeing all special collections. This is hardly ideal and had to have been extremely difficult for respondents. The subjectivity of the questions asked of professionals not necessarily qualified to properly access preservation needs and practices across diverse collections was not likely to yield useful data. Confusion resulted in confused results. For example, the survey asked respondents to rate the "perceived effectiveness" of their preservation/conservation programs for special collections in terms of "making progress," "holding steady" or "losing ground." Panitch observed that "8 of the 42 institutions making progress on conservation and seven of the 35 institutions holding steady had no FTE staff devoted to special collections conservation and repair" (p. 55).

David Stam (2001) registered concern over this aspect of the data in his keynote speech at a special ARL symposium: "It seems to me counterintuitive that 87% of respondent's should claim that they are progressing or holding steady on conservation, when we know from elsewhere in the survey that many are adding collections which bring new preservation problems: manuscripts and archives acquired as gifts, video and film collections of volatile materials, sound recordings, and other materials that must be preserved if they are to be heard or used. Perhaps 'holding steady' was the misleading phrase, if it meant no more than coping along as we always have" (p. 4). Stam's comments highlight the lack of preservation policies, planning, and management, for both existing and new acquisitions, and affirm the conclusion presented by Walters (1998) that "archives generally are not benefiting from the expertise found in library preservation departments [in ARL libraries]" (p. 175–176).

The efforts of numerous archivists acting on behalf of their collections should not be discounted and it is not the purpose of the analysis herein to criticize the progress and achievements of untold preservation efforts administered in archives. They are prodigious and highly valued. The emphasis, here, is on the lack of a full array of the programmatic elements that traditionally support the preservation of book collections, not the typically ad hoc approach archivists must dutifully practice. Even where conservation treatments, for example, are methodically practiced, as Forde (1997) accurately points out, "dependence on conservation strategies alone is insufficient to cope with the growing need to deal with material in bulk, whether in the form of books or files" (p. 533). While ARL libraries with preservation programs may include conservation treatment of archival materials and, perhaps, environmental monitoring of archival storage areas within their programs, strategic, comprehensive preservation management of archival collections remains starkly neglected within most ARL archives. In too many instances, the responsibility for preserving archival collections in ARL libraries is isolated and rests solely with the archivist; it is not a community-based approach that fosters a shared or

blended responsibility between the archivist and the library preservation professional.

Within most ARL libraries, this current division of labor is insufficient to address the level of preservation needs within most archival units. The outcome of this partition will be the unintended and unfortunate loss of unique historical materials of all formats within ARL libraries. Harkening back to the words of the 1987 PPP manual, we ask: "To what purpose the acquisition, cataloging and maintenance of vast collections if the materials themselves will rot in half a lifetime?" (Darling, 1987, p. 2).

Support for Preservation Program Development in Archives

Rationales for preservation program development in archives have evolved separately from those of the library community. Building these rationales largely upon the nature of the collections, archivists have built a common understanding of preservation and conservation principles and share them in their professional literature. Mary Lynn Ritzenthaler's book, *Preserving Archives and Manuscripts*, is a first-rate example. Published first in 1983, and again in 1993, by the Society of American Archivists (SAA), it embodies the definitive guide for addressing the preservation needs of archival materials both at the collection and item levels in clearly articulated, practical detail. Ritzenthaler addresses the need for planning and management of preservation and, even more specific to the argument contained herein, suggests, "archives that function as a department within a university library or museum may interact with an institution-wide preservation unit" (p. 16). While some value of acting collaboratively is implied in that statement, little has come of it.

Dating back to the 1970s, preservation education for archivists has taken the form of workshops offered through the Society of American Archivists (SAA) or other regional professional archival organizations. Early workshops focused primarily on conservation treatments. In the 1990s, however, ad hoc and piecemeal approaches to preservation were recognized as insufficient and the need for a more holistic approach to preservation management took hold. Evelyn Frangakis and Christine Ward (1995) published an essay that accounted for "the changing emphasis in archival preservation education" (p. 376). They examined the course of preservation and conservation workshops offered for archivists beginning in 1978 and culminating in the three-year, NEH-funded Preservation Management Training Program (PMTP) for archivists offered from 1992 to 1994. The latter was a joint effort between the NEH and SAA to develop "comprehensive, systematic preservation programs across the United States" (Frangakis & Ward, 1995, p. 383).

The PMTP was an ambitious effort to build a cadre of archivists equipped with preservation management skills developed during an intensive series of four workshops offered sequentially over a four-month interval (Frangakis & Ward, 1995, 384). An experienced faculty was carefully chosen and participants were selectively admitted to the program based on specific criteria. According to Frangakis and Ward, "the SAA recognizes that both individual and institutional commitment are key to the success of the program," thus, institutions were required to "sponsor" individuals and "only one participant from any given repository was selected" (p. 386). Institutions were expected to have the infrastructure and capacity to support a preservation program and participants were expected to "have the authority to implement that program" (p. 385). Participants were required to draft five-year preservation plans for their institutions at the conclusion of the workshop. While NEH subsidized the costs, the participant's institution paid for the applicant's registration, meals, and instructional materials (p. 386).

The hope was that the participants in the program would "serve as the future leaders of archival preservation through implementation of their institutional programs" (Frangakis & Ward, 1995, pp. 388–389). When the three-year program finished, archivists, such as Walters (1995), looked forward with anticipation to the development of a group of qualified archivists, noting, "only time will tell whether the PMTP has created the critical mass necessary to shift archives away from ad hoc conservation activities and toward coordinated programs of preservation management" (p. 426).

The intent of the PMTP was very similar to the objectives of the ARL/OMS PPP: to establish preservation management programs that were holistic in their administration with widespread acceptance within the archival institution. It is tempting to compare the outcomes of these two similar planning projects, but the PMTP was directed at a broad, diverse community of archivists, whereas the ARL/OMS PPP was more closely focused within the confines of its membership. Considering the absence of well-developed and comprehensive preservation management programs in ARL member archives, as measured by the two preservation surveys in 1995 and 2006, neither planning tool effectively permeated the archives of the ARL to assist archivists in the systematic care and handling of their collections.

COLLABORATIONS:

ARCHIVES AND PRESERVATION DEPARTMENTS

Libraries and archives are conceived of and composed very differently, and each assigns a separate context and understanding to preservation; this makes collaboration between them counter-intuitive, but not impossible. Helen Forde (1997) warns that the "differences between libraries and archives, highlight the reasons why solutions are not always applicable to both" (p. 533). It is important to heed this caveat because it underscores

the inherent complexities likely to threaten a successful alliance. Indeed, such a relationship will demand true collaboration to succeed.

Librarians must begin by understanding the daunting, voluminous nature of modern archival collections that confound preservation management efforts. Archivist James M. O'Toole (1989) interrogated "the idea of permanence" with great insight, and his observations assist in understanding the phlegmatic development of preservation programs in archives. As awareness of the magnitude of impermanence grew in the 1960s, O'Toole speaks of a "steadily gloomier tone" among archivists. "Virtually everywhere in the profession there was a subtle but steady retreat from the idea of physical permanence as archivists had come to understand it" (p. 21). In his thoroughly researched essay he concludes, "the idea of permanence as it is understood by archivists has changed over time, passing from an unattainable desire to an absolute value within the realm of achievement to an extremely relative notion of little clarity" (p. 23). It is as though archival collections themselves resist manageable concepts for preservation; but, in truth, what is missing are clearly defined collection management strategies akin to what is found in ARL libraries. Archivists have been alone too long with this management burden. Nowhere is there more expertise to build upon than in ARL libraries with established preservation programs.

Looking back at the absence of collaboration between archives and preservation departments in ARL libraries, Walters (1998) stated preemptively that his survey "was based on the assumption that these two units have many opportunities to interact" (p. 171–172). It is true, "they share similar elements in their missions, perform similar preservation operations in specific areas, and in the majority of cases, are both administratively placed within the library organization" (p. 172). What they do not share, however, is a similar context for preservation; they do not share the same perspective of format; they do not share similar education and training for preservation; nor has any common ARL mandate fostered collaboration and collapsed the walls between them. It is not surprising that the levels of collaboration between archives and preservation departments were found relatively unchanged in the follow-up survey (De Stefano & Walters, 2006).

The culmination of this inquiry forms the basis of the authors' broad recommendation to foster collaboration between archives and preservation departments. Further, these two units within individual ARL institutions need more than opportunities to interact. In order to fully collaborate they need policies, planning, and mutually agreed upon management structures. It is precisely, here, at this juncture, that library and archives professionals within the ARL membership can share responsibilities and expertise to construct new paradigms and reduce the loss of valuable cultural and research collections.

CONCLUSION: CREATING "COLLABORATION-READY" ARCHIVES AND PRESERVATION DEPARTMENTS

Through education, reformed practices, and collaboration, preservation program planning and management in the archives of ARL libraries need no longer be an illusive ideal. Preservation and archive professionals need their graduate education programs to instill in them the context and skills needed to integrate archival processes and preservation management effectively and efficiently. Workshops are not enough to cultivate a proficiency in preservation decision making, however; education alone cannot improve preservation management in archives. A conscientious effort to reform archival processing functions needs to be undertaken. Processing functions must strictly follow disciplined collecting, appraisal, and preservation policies. Christine Ward (2000) provides an excellent outline of preservation program planning for archives and stresses the importance of the "archival context" (pp. 47-48). She states, "Every institution should have a collecting policy that clearly states the scope of collecting and the criteria employed to identify archival records." Further, she continues, "Appraisal analysis should include a review of preservation needs... Preservation planning begins with appraisal" (p. 47). Even more pointedly, Walters (1996) translates the idea of integrating the appraisal function with preservation decision making in terms of actual appraisal methods, such as "documentation strategy" and "macro-appraisal" (pp. 330–333). Preservation administrators need to understand these methodologies to participate in the preservation management dialogue. The grounds for doing so are quite fertile—in the literature. The next step is to develop models that ARL libraries can practice. Collaboration between archivists and library preservation professionals must preface such an alliance and be guided by the missions, goals, and capabilities of ARL libraries. All should commit to the hypothesis that working closely together will result in a more robust archival preservation program, replete with more staff and financial resources and the improved outcome of more stable, long-lasting archival collections.

EPILOGUE: A LIST OF ESSENTIAL ACTIONS STEPS

- Preservation administrators need more archives-specific education to advance strategic management programs to preserve archival collections.
 They need to become familiar with the archival mission, its principles, challenges, and practices in order to effectively assist archivists in their work.
- Preservation planning and management must be integrated more strictly within all archival functions, including collection development, acquisition, appraisal, re-appraisal, and deaccessioning techniques.
- An ARL-assisted, "self-study" planning initiative is needed to develop

program management models for healthy, productive, and sustained collaborations between archives and preservation departments.

APPENDIX A

1995 ARL Archives & Manuscripts Repositories Preservation Activities Survey Tabulated Results¹

1. Is the storage area of your archives equipped to provide controlled temperature and humidity $(+/-3^{\circ}F)$ and +/-5% relative humidity? N=133

Temperature	93	yes	40	no
Relative Humidity	78	yes	55	no

2. Have any of the following types of equipment been used in the past year to monitor the environment of the storage areas of your archives? N=135

Thermometer	63	yes	72	no
Hygrometer	38	yes	97	no
Recording hygrothermograph	84	yes	51	no
Sling psychrometer	38	yes	97	no
Temperature/Humidity data logger	33	yes	102	no
Other	6	yes		

3. Within the past two years have you conducted a holdings survey of the majority of your archives to identify potential preservation problems? N=136

38 yes 98 no

3a. If yes, have any of the findings from the survey resulted in actions such as rehousing or reformatting deteriorated items? N=38

33 yes 5 no

- 4. Please indicate which of the following holdings maintenance actions are *routinely* carried out (Circle all that apply). N=136
 - 133 Place holdings in acid-free folders or containers
 - 118 Remove, copy, or segregate newsprint or highly acidic paper
 - 117 Remove or segregate photographic media
 - 127 Remove or replace rusted or damaged fasteners
 - 119 Copy deteriorated items
 - 35 Other action

¹ Previously published in Walters, T. O., & Hanthorn, I. E. (1998). Special collections repositories at Association of Research Libraries institutions: a study of current practices in preservation management. *The American Archivist, 61*(1), 158-186.

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- 5. Please indicate which ONE of the following selections best describes which unit is principally responsible for carrying out the holdings maintenance actions mentioned in question 4. N=135
 - 1 Library preservation dept.
 - 121 Performed internally by archives staff
 - 7 Archives staff trained by library preservation dept.
 - 0 Contracted, external preservation service vendor
 - 6 Other
- 6. Does your archives have a written disaster preparedness and recovery plan in case of fire, flood, or other disaster? N=134

yes 31 no 26 in process

7. Please indicate which fire detection/suppression systems are present in your main storage areas.

Smoke detectors	111	yes	24	no
Fire detectors	74	yes	61	no
Fire extinguishers	123	yes	12	no
Wet pipe sprinkler system	42	yes	93	no
Dry pipe sprinkler system	14	yes	121	no
Halon gas system	23	yes	112	no
Other	12	yes		

- 8. Does your archives have written policies and procedures regarding any of the following? (Circle all that apply). N=123
 - 95 Document handling procedures
 - 98 Photocopying procedures
 - 96 Reading room monitoring
 - 94 User identification procedures
 - 13 Other
- 9. How is any instruction in handling documents given to users of your archives? (Circle all that apply). N=136
 - 59 Briefly during use
 - 118 Briefly before use
 - 25 In workshops/classes
 - 30 Other
 - 4 None of the above

- 10. Does your archives have written procedures for selecting documents for any of the following conservation processes? (Circle all that apply). N=134
 - 17 Reformatting on microforms
 - 14 Replacing deteriorated originals
 - 7 Deacidifying paper documents
 - 18 Encapsulation
 - Dry clean surface of documents 14
 - Lamination of paper documents 3
 - 12 Other conservation treatments
 - 101 None of the above
- 11. Please indicate which of the following conservation processes are routinely carried out (Circle all that apply). N=136
 - 51 Dry clean surface of documents
 - 65 Basic mending and minor repairs
 - 22 pH testing
 - 28 Deacidifying paper documents
 - Encapsulation 71
 - Lamination 3
 - 24 Other conservation treatments
 - 40 None of the above
- 12. Please indicate which ONE of the following selections best describes which unit is principally responsible for carrying out the conservation processes listed in question 11. N=124
 - 35 Library preservation dept.
 - 62 Archives dept.
 - 4 Archives staff trained by library preservation dept.
 - Contracted, external preservation service vendor 4
 - 19 Other
- 13. During the past two years has your archives reproduced any holdings on microformats?

97 yes 38 no

13a. If yes, please indicate which of the following units carry out reformatting procedures onto microforms. N=97

- 67 External microforms service vendor
- 18 Library preservation dept.
- 14 Archives dept.
- 18 Other

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14. Does your archives have a specific annual budget for the purchase of preservation supplies/services? N=133

69 yes 64 no

15. Please indicate which ONE of the following persons is principally responsible for maintaining preservation planning and monitoring in your archives. N=135

- 8 Library preservation dept. representative
- 22 Designated preservation officer from archives staff
- 58 Archives dept. head
- 23 Other archives staff
- 24 Other

16. Please indicate the administrative placement of your archives within your university (who do you report to).

- 16 University administration (president, vice president, provost)
- 36 Library director
- 38 Assistant library director
- 26 Library dept. head
- 19 Other

17. Does your university library include a department or individual staff dedicated to managing and implementing a library preservation program? N=133

Preservation dept. 84 yes 49 no Preservation staff, but not organized into separate dept. 2 0 yes 113 no Other 10

17a. If yes to any portion of Question 17, what is the total full-time equivalent (FTE) of the following classifications of staff in the library preservation department/unit? N=69

Preservation professionals	235.58
Paraprofessionals	380.68
Clericals	112.50
Student assistants	132.45
Volunteers	10.3
Other	112

18. How serious are the preservation problems that you confront in your daily work? On the scale below, please circle the number that best expresses your personal judgment. N=135

Minimal		Moderate		Severe
1	2	3	4	5
(3.19 average resp	onse)			

19. How successful and satisfied are you with the preservation management and activities in your archives? On the scale below, please circle the number that best expresses your personal judgment. N=138

Minimal		Moderate		Severe
1	2	3	4	5
(2.92 average resp	onse)			

20. What is the total full-time equivalent (FTE) of the following classifications of staff in your archives? N=129

Archivists	485.71
Paraprofessionals	243.26
Clericals	124.20
Student assistants	264.55
Volunteers	80.87
Other	40.30

- 21. Has the person(s) responsible for overseeing preservation management and implementation in your archives received any specialized preservation training? (Circle all that apply). N=134
 - 8 Specialized graduate preservation degree
 - 31 Graduate level preservation courses within graduate degree program
 - 100 Workshops/seminars
 - 12 Internship
 - 23 Other training
 - 14 None of the above
- 22. Please indicate the total volume and number of paper-based archival and manuscript collections in your archives. For reporting purposes, one cubic foot equals one linear foot. Please estimate the requested figures if you are not sure.

1,995,744	Cubic/Linear feet	N=120
157,572	Collections	N=109

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23. Please indicate the total volume of microfilm and microfiche holdings in your archives.

252,063	Reels of microfilm	N=101
888,809	Microfiche sheets	N=71

APPENDIX B

2006 ARL Archives & Manuscripts Repositories Preservation Activities Survey Tabulated Results

1. Is the storage area of your archives equipped to provide controlled temperature and humidity (+/-3°F and +/-5% relative humidity)? N=76

Temperature	55	yes	21	no
Relative Humidity	49	yes	25	no

2. Have any of the following types of equipment been used in the past year to monitor the environment of the storage areas of your archives? N=74

Thermometer	42	yes	18	no
Hygrometer	32	yes	22	no
Recording hygrothermograph	44	yes	18	no
Sling psychrometer	16	yes	29	no
Temperature/Humidity data logger	42	yes	20	no
Other	4	yes		

3. Within the past two years have you conducted a holdings survey of the majority of your archives to identify potential preservation problems? N=75

20 yes 55 no

3a. If yes, have any of the findings from the survey resulted in actions such as rehousing or reformatting deteriorated items? N=34

50 yes 50 no

- 4. Please indicate which of the following holdings maintenance actions are *routinely* carried out (Circle all that apply). N=76
 - 73 Place holdings in acid-free folders or containers
 - 68 Remove, copy, or segregate newsprint or highly acidic papers
 - 67 Remove or segregate photographic media
 - 68 Remove or replace rusted or damaged fasteners
 - 73 Copy deteriorated items
 - 35 Other action

- 5. Please indicate which ONE of the following selections best describes which unit is principally responsible for carrying out the holdings maintenance actions mentioned in question 4. N=76
 - 1 Library preservation dept.
 - 121 Performed internally by archives staff
 - 7 Archives staff trained by library preservation dept.
 - 0 Contracted, external preservation service vendor
 - 6 Other
- 6. Does your archives have a written disaster preparedness and recovery plan in case of fire, flood, or other disaster? N=76

65 yes 11 no 0 in process

7. Please indicate which fire detection/suppression systems are present in your main storage areas.

Smoke Detectors	70 yes	5 no
Fire Detectors	53 yes	14 no
Fire Extinguishers	70 yes	3 no
Wet Pipe Sprinkler System	37 yes	26 no
Dry Pipe Sprinkler System	10 yes	37 no
Halon Gas System	8 yes	36 no
Other	2 yes	

- 8. Does your archives have written policies and procedures regarding any of the following? (Circle all that apply). N=75
 - 58 Document handling procedures
 - 59 Photocopying procedures
 - 60 Reading room monitoring
 - 57 User identification procedures
 - 13 Other
- 9. How is any instruction in handling documents given to users of your archives? (Circle all that apply). N=76
 - 44 Briefly during use
 - 64 Briefly before use
 - 28 In workshops/classes
 - 6 Other
 - 2 None of the above

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- 10. Does your archives have written procedures for selecting documents for any of the following conservation processes? (Circle all that apply). N=68
 - 8 Reformatting on microforms
 - 17 Replacing deteriorated originals
 - 5 Deacidifying paper documents
 - 14 Encapsulation
 - 10 Dry clean surface of documents
 - 1 Lamination of paper documents
 - 18 Other conservation treatments
 - 44 None of the above
- 11. Please indicate which of the following conservation processes are *routinely* carried out (Circle all that apply). N=75
 - 36 Dry clean surface of documents
 - 46 Basic mending and minor repairs
 - 14 pH testing
 - 10 Deacidifying paper documents
 - 46 Encapsulation
 - 1 Lamination
 - 37 Other conservation treatments
 - 14 None of the above
- 12. Please indicate which ONE of the following selections best describes which unit is principally responsible for carrying out the conservation processes listed in question 11. N=72
 - 34 Library preservation dept.
 - 32 Archives dept.
 - 2 Archives staff trained by library preservation dept.
 - 2 Contracted, external preservation service vendor
 - 2 Other
- 13. During the past two years has your archives reproduced any holdings on microformats?
 - 32 yes 44 no

13a. If yes, please indicate which of the following units carry out reformatting procedures onto microforms. N=34

- 25 External microforms service vendor
- 7 Library preservation dept.
- 1 Archives dept.
- 6 Other

14. Does your archives have a specific annual budget for the purchase of preservation supplies/services? N=75

46 yes 29 no

- 15. Please indicate which ONE of the following persons is principally responsible for maintaining preservation planning and monitoring in your archives. N=76
 - 12 Library preservation dept. representative
 - 17 Designated preservation officer from archives staff
 - 35 Archives dept. head
 - 11 Other archives staff
 - 1 Other
- 16. Please indicate the administrative placement of your archives within your university (who do you report to).
 - 4 University administration (president, vice president, provost)
 - 27 Library director
 - 30 Assistant library director
 - 11 Library dept. head
 - 3 Other
- 17. Does your university library include a department or individual staff dedicated to managing and implementing a library preservation program? N=76

Preservation dept.	51 yes	16 no
Preservation staff, but not organized into separate dept.	16 yes	13 no
Other	10	

17a. If yes to any portion of Question 17, what is the total full-time equivalent (FTE) of the following classifications of staff in the library preservation department/unit? N=62

Preservation professionals	53
Paraprofessionals	49
Clericals	24
Student assistants	40
Volunteers	14
Other	7

18. How serious are the preservation problems that you confront in your daily work? On the scale below, please circle the number that best expresses your personal judgment. N=76

Minimal		Moderate		Severe
1	2	3	4	5
(2.76 average resp	onse)			

19. How successful and satisfied are you with the preservation management and activities in your archives? On the scale below, please circle the number that best expresses your personal judgment. N=74

Minimal		Moderate		Severe
1	2	3	4	5
(3.18 average resp	onse)			

20. What is the total full-time equivalent (FTE) of the following classifications of staff in your archives? N=76

Archivists	73
Paraprofessionals	60
Clericals	33
Student assistants	67
Volunteers	27
Other	14

- 21. Has the person(s) responsible for overseeing preservation management and implementation in your archives received any specialized preservation training? (Circle all that apply). N=73
 - 11 Specialized graduate preservation degree
 - 28 Graduate level preservation courses within graduate degree program
 - 58 Workshops/seminars
 - 11 Internship
 - 27 Other training
 - 3 None of the above
- 22. Please indicate the total volume and number of paper-based archival and manuscript collections in your archives. For reporting purposes, one cubic foot equals one linear foot. Please estimate the requested figures if you are not sure.

1,184,503	Cubic/Linear feet	N = 75
114,253	Collections	N=63

23. Please indicate the total volume of microfilm and microfiche holdings in your archives.

231,355	Reels of microfilm	N=63
75,610	Microfiche sheets	N=42

REFERENCES

- Austin, J. E. (2000). The collaboration challenge: How nonprofits and businesses succeed through strategic alliances. San Francisco: Jossey-Bass.
- Boomgaarden, W. L., Darling, P. W., & Association of Research Libraries. Office of Management Studies. (1987). Preservation planning program resource notebook (Rev. ed.). Washington, DC: Association of Research Libraries, Office of Management Studies.
- Bradsher, J. G. (1988). Managing archives and archival institutions. Chicago: Chicago Press.
- Cloonan, M. V. (2001). W(h)ither preservation? Library Quarterly, 71, 231–242.
- Cox, R. J. (1992). Archival preservation interests and issues: An American perspective. In B. B. Higginbotham & M. E. Jackson (Eds.), Advances in preservation and access (Vol. 1, pp. 228–243). Westport, CT: Meckler.
- Cox, R. J. (2004). No innocent deposits: Forming archives by rethinking appraisal. Lanham, MD: Scarecrow Press.
- Darling, P. W., & Ogden, S. (1981). From problems perceived to programs in practice: The preservation of library resources in the U.S.A., 1956–1980. Library Resources and Technical Services, 25, 9–29.
- Darling, P. W. (with Webster, D.). Office of Management Studies. (1987). Preservation planning program: An assisted self-study manual for libraries (Expanded 1987 ed.). Washington, DC: Association of Research Libraries, Office of Management Studies.
- De Stefano, P., & Walters, T. O. (2006). ARL Archives Preservation Survey 2. Unpublished.
- Dillman, D. A. (1978). Mail and telephone surveys: The total design method. New York: Wiley.
- Dillman, D. A. (2000). Mail and Internet surveys: The tailored design method (2nd ed.). New York: Wiley.
- Dollar, C. M. (1992). Archival theory and information technologies: The impact of information technologies on archival principles and methods. Italy: University of Macerata.
- Forde, H. (1997). Archives and libraries: What can they teach each other about preservation programmes and practices. European Research Libraries Cooperation, 73, 529–544.
- Frangakis, E., & Ward, C. (1995). Archival preservation education: An overview of the Society of American Archivists' programs and new directions for the future. In B. B. Higginbotham (Ed.), Advances in Preservation and Access (Vol. 2, pp. 376–390). Medford, NJ: Learning Information, Inc.
- O'Toole, J. E. (1989). On the idea of permanence. American Archivist, 52, 10-25.
- Panitch, J. M. (2001). Special collections in ARL libraries: Results of the 1998 Survey. Washington, DC: Association of Research Libraries.
- Ritzenthaler, M. L. (1993). Preserving archives and manuscripts. Chicago: Society of American Archivists.
- Schellenberg, T. R. (1965). The management of archives. New York: Columbia University Press.
- Stam, D. H. (2001). So what's so special? In Building on Strength: Developing an ARL Agenda for Special Collections. Providence, RI: Association of Research Libraries.
- Walters, T. O. (1995). Breaking new ground in fostering preservation: The Society of American Archivists' preservation management training program. Library Resources & Technical Services, 39, 417–426.
- Walters, T. O. (1996). Contemporary archival appraisal methods and preservation decisionmaking. American Archivist, 59, 322–338.
- Walters, T. O. (with Hanthorn, I. E.). (1998). Special collections repositories at Association of Research Libraries institutions: A study of current practices in preservation management. American Archivist, 61, 158–186.

Ward, C. (2000). Preservation program planning for archives and historical records repositories. In P. N. Banks & R. Pilette (Eds.), *Preservation: Issues and planning*. (pp. 43–62). Chicago: American Libraries Association.

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