Introduction

One of the chief concerns in library administration and operations for the 1980s is the conservation and preservation of library materials, an area, which for too long, has been neglected. Faced with rapid deterioration of collections from the ravages of time plus increased widespread use and transportation of materials through networking operations coupled with the rising cost of materials, supplies and staff and other problems associated with inflation, librarians and archivists are finding it increasingly difficult to preserve their collections.

A dozen years have passed since a landmark conference at the University of Chicago Graduate Library School brought to the profession's attention the serious problems of deterioration and opened up for the decade of the seventies many solutions which are now being implemented. In choosing the topic for the annual Allerton Park Institute, the faculty of the Graduate School of Library and Information Science at the University of Illinois at Urbana-Champaign thought it appropriate, at this time, to assess the state-of-the-art and to help set the objectives for the 1980s in conserving and preserving library and archival materials. Specifically the objectives of the conference were to make it possible for those in attendance to: note the scope of preservation problems; discover the philosophy of preservation and conservation of library materials; learn new methods and techniques in the field; identify new research needs; discover cooperative approaches and programs; receive current information on developments in paper manufacturing, deacidification, etc.; gather information on preservation of nonpaper materials such as film, recordings, computer records etc.; learn how and when to use the services of binders, restoration specialists and others outside the local library; learn how restoration specialists
work; and find ways to implement a conservation/preservation policy in a local library.

From November 15 to 18, 1981, over one hundred librarians, curators, archivists, conservators, binders, and library and information science faculty and students gathered together to attempt to meet these objectives through the messages of speakers, the viewing of exhibits and demonstrations, and discussion with others.

Warning that the 1980s are the "best of times, the worst of times" for library conservation and preservation efforts, the keynote speaker, Robert H. Patterson, deems these areas the biggest challenge of the next two decades for librarians. Since a shortage of trained and educated personnel exists in these areas, librarians must take the responsibility for education about preservation by designing and implementing their own programs. Preservation is expensive and, therefore, is a crucial part of library management requiring critical judgment and cooperative efforts. Such efforts call for high quality information on preservation including information about clearinghouses and regional treatment centers as well as judicious appraisal of newly developed commercial products. Urging that almost all libraries establish a preservation committee, Patterson outlines the responsibilities for such committees. Many of Patterson's points are elaborated by other speakers.

Reiterating a theme broached by Patterson, Pamela W. Darling notes that preservation is not solely the domain of a few persons who are specialists in the field, but is the responsibility of all librarians. To help librarians utilize information that is emerging on preservation, research efforts are underway by a number of individuals and organizations. With her charge being to describe some of these efforts, Darling notes the Collection Analysis Project (CAP) of the Association of Research Libraries (ARL)/Office of Management Studies (OMS) which called upon many libraries, for the first time, to take a serious look at preservation needs and possibilities as well as other projects of OMS and the Basic Archival Conservation Program of the Society of American Archivists (SAA). She also discusses professional education programs in conservation/preservation now being developed by library schools as well as other research activities in professional organizations and "invisible colleges." In concluding, she notes that only a coordination of all efforts, a sharing of developments, and a dissemination of information will result in solutions to the problems of preservation.

Some such coordinating and sharing efforts are chronicled by Carolyn Clark Morrow. She cites the ARL reports of 1964 and 1972 and the 1969 University of Chicago Graduate Library School's conference as "early warnings" to librarians about the realities of preservation needs. Between the two ARL reports, the Florence flood brought together conservation
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experts from around the world to aid in recovery and reclamation efforts and to experience, for the first time, the synergism of working together. Other events of particular importance to the growing efforts at cooperation have been the formation of the National Conservation Advisory Council; the Research Libraries Group (RLG) which, for the first time, united an integrated preservation program with dissemination and access; the National Preservation Planning Conference held at the Library of Congress (LC) and the recent establishment of the Preservation of Library Materials Section (PLMS) within the American Library Association's (ALA) Resources and Technical Services Division (RTSD). The best known regional conservation effort has been that of the Northeast Document Conservation Center (NEDCC) which serves several hundred clients and provides professional treatment for a wide variety of materials. Other cooperative efforts which Morrow discusses are the Book Preservation Center, serving the New York metropolitan area; the Western States Materials Conservation Project; the statewide preservation plan developed for Colorado; and the Illinois Cooperative Conservation Program growing out of a plan developed at Southern Illinois University at Carbondale. Areas which Morrow feels are feasible on a cooperative basis for conservation/preservation activities are information, consulting, surveying, cost sharing, coordination and treatment. She concludes with ways that these can be accomplished cooperatively.

In her paper on "Preservation of Paper Based Materials: Mass Deacidification Methods and Projects," Carolyn Harris notes that the term deacidification is actually a misnomer. The acid in the paper is neutralized and is buffered so that new acid formed in the paper through further degradation or introduced through pollution is also neutralized. Mass deacidification of library materials will not return the items to their original condition—brittle items are still brittle—but the process of deacidification does return the items to a neutralized state and buffers them as well. Harris evaluates the four most commonly used forms of deacidification—vapor phase deacidification (VPD), the Barrow morpholine process, Wei T'o, and diethyl zinc (DEZ)—against criteria that have been determined essential for a good mass deacidification process. Despite these efforts, Harris warns that "mass deacidification is not the fountain of youth we're seeking; and can't ever be." The future in this area depends on creation of the awareness of library needs among publishers, the economics of papermaking, the development of information storage techniques such as optical discs and complete preservation programs which may, some day, include mass deacidification.

Gerald W. Lundeen picks up on Harris's comments concerning the paper industry by reporting on research and developments in that industry which are affecting the preservation of paper based materials. He reminds
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us that the essential nature of paper has changed little since its invention in China in A.D. 105—paper still consists of cellulose fibers suspended in water and formed into a matted sheet on screens; however, while handmade methods have changed little, modern machinemade paper is very complex and a highly capital-intensive mix of craft, science and engineering. Decrease in paper strength can be explained primarily by two synergistic chemical processes which attack the paper over time—(1) acid catalyzed hydrolysis of the cellulose polymer linking bond, and (2) oxidation; but paper is susceptible to many other degradation processes: therefore, the study of chemical reactions in paper is difficult and especially so in trying to attribute the effects in physical properties to specific reactions. On the encouraging side, Lundeen notes a trend toward use of alkaline paper as reported by monitoring tests at the Library of Congress. He attributes this trend to economic reasons rather than concern about the lasting quality of paper. Therefore, librarians must continue to work to influence even more publishers to adopt long-lasting paper. This can be done by insisting that standards for paper quality be used when purchasing library materials and by continued work through professional organizations to enhance the longevity of paper based materials.

Considerably less concern for the longevity of nonpaper based materials has been exhibited by librarians than has been shown for paper based materials, yet the problems of these newer materials may be as great, if not greater, than those of paper based materials. Indeed, the problems of paper based materials are not escaped with nonpaper based materials since the latter frequently carry paper labels. In addition, the newer materials are often composed of a mix of materials and these various combinations may find one substance interacting with another according to Gerald D. Gibson, who reviews the principal preservation problems faced in preserving the nonpaper based materials and cites the storage conditions and preservation procedures recommended today. He does not neglect the containers and labels of these materials, speaking to their preservation when they are particularly important. Gibson sees encouraging signs through the active interest presently being shown in the preservation of nonpaper based materials by a number of organizations in the private and public sectors and he reviews the most promising current research and development in this area.

"Preservation and Conservation Decisions in the Local Library" are delineated by William T Henderson. Organizing his decisions around Daniel Boorstin's division of preservation problems into epistemological (or social) questions and technical questions, Henderson cites three broad areas under the first set of questions: Should a library preserve its materials? What should be preserved? and How should things be preserved? Under technical questions, he includes those of preserving the intellectual
content versus preserving the original artifact or both. He ends with a
description of the treatment of mildew with orthophenylphenol as an
illustration of his points.

Probably an area of conservation and preservation about which librar-
ians are least familiar is that relating to the steps taken by the conservator
for restoring an item that merits this special kind of conservation because
of its intrinsic or artifactual value. Louise Kuflik presents the conservator's
decision making process noting that a careful assessment of the problems
associated with the item is always made and the principle of reversibility is
always applied because a better technique or better material may appear in
the future. Kuflik cites the careful physical examination of the item made
by the conservator and notes the conditions which are documented before the
conservator suggests the proposed treatment and estimates the length
of the process. After the decision has been made by the curator of the item to
proceed with the conservation, the conservator makes further decisions
concerning deacidification, paper mending, washing of the paper, etc. All
decisions are based on consideration of use and the stability of materials.

A panel of four representatives from commercial services spoke to
their roles in the conservation and preservation of library materials. The
first to speak was James Orr, Hertzberg-New Method, Inc., Jacksonville,
Illinois. In the commercial binding business for thirty-five years, Orr notes
the procedures in the business that have remained essentially the same over
that period in time, while emphasizing the changes that have occurred in
the binding business as firms attempt to handle current materials as well as
semi-rare materials. Orr notes that there are many other new developments
which commercial library binders are considering and applying in order to
continue to serve their library customers. He emphasizes the development
of a new adhesive which, in many cases, is replacing oversewing.

Leedom Kettell, Gaylord Bros., Inc., Syracuse, New York, represented
library supply houses. Recognizing that the world is vastly different today
from that of eighty-five years ago when the two Gaylord brothers founded
the firm and could personally seek the advice of librarians as to new
products and could, then, make the products in the Gaylord plant, Kettell
finds that today the Gaylord firm is defining itself more as a vendor or
distributor of products developed by companies that have large research
and development components. He describes a plastic, polypropolone,
which is soon to be marketed by Gaylord providing pamphlet binders and
boxes for preservation.

Representing hand binders was William Anthony of Kner & Anthony
Bookbinders, Chicago, a firm specializing in conservation work and fine
bindings. Materials receiving the conservation process generally fall into
two categories: those with brittle paper (from the eighteenth through
twentieth centuries) and those with flexible paper (from the fifteenth
through seventeenth centuries). Anthony explains some of the procedures used in his conservation studio for dealing with brittle paper and rebacking.

Preservation microfilming, an activity which has been going on for over fifty years either to preserve the artifact or the intellectual content (or both), has become increasingly popular in recent years. Anita Werling, University Microfilms International, describes this type of microfilming as well as micropublishing and republishing. She identifies several large microfilming projects which have made important works available to a wider range of libraries and she relates some decisions which an individual library must make when the choice is between saving the object or the intellectual content. Werling gives some advice for librarians faced with the decision of microfilming locally versus sending the material to a commercial microfilmer or micropublisher.

Using Johannes Kepler's conclusion to his *Harmonice mundi*—as a statement of the conservator's cause before the world of scholarship, D.W. Krummel goes on to state what can be expected from scholarly researchers in the way of dialoguing on conservation policy, and handling and using library materials. Admittedly, there are different kinds of scholars resulting in different concepts of library conservation appropriate to each. Krummel concludes that since the classic distinction between physical form and intellectual content will not go away, the medium will continue to be necessary to the scholars of the future; therefore, the scholar must be sensitive to the problems of the conservator and sympathetic to the need for conservation policy.

All of the above considerations are for naught unless the top library administration takes an active and responsible role in conservation and preservation. E. Dale Cluff, Director of Library Services, Southern Illinois University at Carbondale, centers his presentation of that role and responsibility around two challenges: how to cope with present resources and facilities (i.e., curing present ills) and how to insure that steps are taken to prevent the same mistakes from happening again. A library can begin its preservation role by becoming aware of the necessity for a comprehensive policy, and making the library staff at all levels aware of that need. Strong support must come from the top administration. Other activities which must be completed include assessing the needs in some detail; determining the manner in which materials are presently handled; ascertaining the physical condition of materials presently on library shelves; and finally, setting priorities from among the determined needs. Cluff elaborates upon these and other administrative aspects.

In addition to the published papers, the proceedings include the discussion sessions that followed each presentation. These sessions were taped at the conference and transcribed and edited for the proceedings.
Names of the speakers are identified when they were clearly audible from the tapes; otherwise, speakers are unidentified. Impossible to include in the published proceedings is what transpired at the Tuesday evening "Conservation/Preservation Fair" during which time several demonstrations and exhibits were available to the conference. This proved to be a very popular and well received part of the conference. Carolyn Jane Gammon, Conservator, Library, University of Illinois at Urbana-Champaign, assisted by Daniel Freeman, displayed many tools, techniques and materials that can be used in the local library to foster conservation activities. James Orr, Hertzberg-New Method, Inc., Jacksonville, Illinois, along with Tom Farrell and Jim Fischel explained to the participants the many facets of commercial binding and demonstrated, in person and through audiovisual means, many of the techniques. William Anthony, assisted by Bernie Anthony, answered questions about their exhibit of "before and after" examples illustrating the work done in the Kner & Anthony conservation studio in Chicago. Gerald Gibson, Library of Congress, presented slides illustrating many of the points he made in his presentation earlier that day in addition to making further explanations and comments about the video disc as a future means of storage and preservation of information. During this time, too, each of the speakers was present to answer questions or to comment on his/her presentation.

The anatomy of a conference takes many shapes and involves many persons who should be recognized for their contributions. It is not possible to mention every person who made some contribution to this conference, but there are some who should be singled out for special recognition. First of all, we are grateful to the faculty of the Graduate School of Library and Information Science (GSLIS) for putting aside a previously agreed upon topic until another year in order that this especially timely topic might be given priority. The faculty Planning Committee for the conference included Dean Charles H. Davis and D.W. Krummel, who assisted the co-chairpersons in many ways. As a GSLIS conference proceeds, the staff of the University's Division of Conferences and Institutes of the Office of Continuing Education and Public Services soon becomes involved and we particularly acknowledge the work of Ronald G. Sears, Mary E. Bussert and Mary R. Lewis from that division for their untiring efforts at handling the myriad of logistical and support services which provide for registration, accommodation, transportation, publicity, and so many other important details. Each of the speakers and each participant at the Tuesday evening "Conservation/Preservation Fair" enthusiastically accepted and carried out his/her responsibility. A number of University of Illinois faculty assisted in chairing sessions: Walter C. Allen, Charles H. Davis, Linda C. Smith, and Terry L. Weech, from the GSLIS, and Maynard J. Brichford and Jean Geil from the University of Illinois Library. The
following GSLIS students were responsible for taping the sessions so that
the discussions and comments to the presentations could be included in the
proceedings: Deborah Beckel, Cynthia Fugate, Allen Hoffman, Elaine
Huang, Kerry Miller, Deborah Pierce, Kathryn Prichard, Catherine Salika,
and Janet Stolp. Kathryn Painter, of the GSLIS staff, carefully transcribed
the tapes and cheerfully performed many other responsibilities before and
after the conference, while Steve Andrews, Learning Resources Labora-
tory, served as photographer for the Tuesday evening session.

In the final analysis, this conference does not end with the publication
of its proceedings, but in the action of those who have heard and heeded its
messages. Long since, we have all become aware of the truth that our
worldly library and archival treasures of books, maps, photographs,
recordings, films, tapes (even computer tapes) are finite and perishable—
they can be “here today” and, perhaps, “gone tomorrow” as books become
brittle, maps break at the folds and seams, photographs fade, recordings
warp, films ignite, and tapes erase. At the end of the conference, no doubt
some attendees found little solace as once again they learned that these
problems are persistent and universal—no one has yet performed a miracle
in this area. Perhaps, the conference even increased the anxiety for some—
dangers that might not even have been suspected are lurking in their
libraries and archives—now there is more, not less, to cause worry. If
anxieties have increased, so, too, do we hope has resolve toward finding
solutions to the problems. We hope that each person has been touched in
some way by the messages of the conference and will find some new ways to
try out, some new sources and resources in material and people to call
upon, and some increased support to persist in the struggles that lie ahead.
This seems the time to move from the dire prophecies concerning the doom
that the future holds for our collections into the “good news” that a
concerted effort is being launched in many ways to conserve and preserve
our collections and to move toward action to spread the “gospel” of
preservation. We thank each person who attended the conference and who
will read the proceedings for the challenges that each takes up and the
actions that each brings about to accomplish the goals of “conserving and
preserving library materials.”

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