This paper discusses the background, operation, and findings of the Pilot Preservation Project conducted at the Library of Congress. A representative sample of deteriorating materials was thoroughly searched at the Library of Congress for compilation of statistical data. Information was then gathered on the comparative condition of these titles in seventy U.S. libraries. The formation of a national preservation collection is thought to be feasible, but it cannot be accomplished without problems.

Librarians have long been aware that certain books wear out sooner than others. In years past it was assumed that heavy use was the cause of a book's deterioration; however, during the last decade, the increased volume of deteriorating books forced librarians to look elsewhere for an explanation. Research conducted by the W. J. Barrow Research Laboratory of Richmond, Virginia, for the Council on Library Resources, Inc., established the fact that the introduction of acidic alum rosin sizing in the manufacture of paper during the past century was causing the embrittlement and disintegration of book papers.

The impact of this deterioration bodes evil for the future, as most book papers were and are manufactured using this process. The Association of Research Libraries established a Preservation Committee in 1960 to begin studying the problem of deteriorating materials and to assess its impact on library collections. In 1964, Gordon R. Williams prepared a report for this Committee entitled "The Preservation of Deteriorating Books," which was adopted in principle by the Association of Research Libraries on January 24, 1965. The Williams report covers a great deal of ground and makes several recommendations, but in essence it urges the establishment of a national preservation collection in which at least one copy of every deteriorating book would be physically preserved through deacidification or cold storage, or both. Microform copies of this material, produced as needed, are provided for in Mr. Williams' plan.

After the problem had been recognized, discussions had taken place, a committee formed, and recommendations made, a first step was needed to explore the managerial and technical problems which would be involved in gathering together a national preservation collection. The Preservation Committee of ARL proposed that the "brittle book" collection of the Library of Congress serve as a basis for the pilot program. The library had been gradually separating from its collections copies...
of deteriorating or embrittled books, with some 35,000 so identified. Here was a ready-made collection from which a sample could be drawn.

On October 20, 1966, the library submitted a proposal to the Association of Research Libraries and the Council on Library Resources, Inc., requesting support for a pilot program to serve as the first phase of a national preservation effort based upon the program outlined in the Williams report. LC’s proposal was adopted by ARL, and the ARL Preservation Committee recommended that attention be given to problems in three areas: 1) the location of the same deteriorating titles in other libraries; 2) identification of the “best” copies of such deteriorating titles; and 3) the feasibility of listing the best copies thus identified in a central register.

The pilot program was initiated in March 1967 and lasted approximately one year. This writer was appointed to head the project under the general supervision of the LC Preservation Officer. In accordance with the original proposal, the following objectives were established for the Pilot Preservation Project:

1. To develop routines for comparing titles in the LC brittle book collection with the same titles in other libraries;
2. To obtain an estimate of the work (and thus of the costs) required for LC to identify such “best” copies and for the libraries participating in the program to locate the volumes requested and to prepare the necessary report of their physical condition;
3. To collect data during the course of the project as a basis for estimating the usefulness of the National Union Catalog in identifying the location of a deteriorating book;
4. To determine the extent to which libraries may have discarded their brittle or deteriorated books.

**IMPLEMENTATION**

An initial sample of seventy-five monographic titles was selected from the LC brittle book collection. After an examination of these volumes to determine the problems likely to be encountered in describing physical condition and degree of paper deterioration, a special form was designed for use in reporting on the books in the sample. This form, which was printed on the verso of the LC catalog cards for the books in the sample, was filled in for each title. The National Union Catalog of pre-1956 imprints (hereafter referred to as NUC-1956) was then checked for additional locations of these titles. The project head visited the Harvard University Library and the Boston Public Library to test the local use of the form on titles also held by these libraries, and to discuss the procedures for participation in the project with the librarians at these institutions. In designing the form, both bibliographic completeness and the physical condition of a given title were considered. The form was kept as simple as possible in order that it might be completed by clerical staff. Figure 1 shows the final form of the Book Condition Report as filled in by librarians at Harvard University, Peabody Institute, and the Library of Congress.

Following the initial small sampling and a revision of the form, a larger, more selective sampling was begun. Most of the titles selected were single-volume monographs. About 5 per cent of the nearly 1,100 titles (785 non-fiction, 300 fiction in English) selected and searched were multi-volume works. An attempt was made to select titles on very brittle paper, or of which the LC copy was incomplete. Primary consideration was given to works in the English language, particularly American imprints. Selections were made from all major classes of material, including PZ 3 (fiction in English), with imprint dates ranging from the early 1850’s to the 1930’s. Most of the titles selected for the
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<thead>
<tr>
<th>Library of Congress</th>
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<td>6. Binding: [ ] Cloth [ ] Leather [ ] Other; [x] Rebound; [x] Secure; [ ] Broken Or Torn</td>
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<td>7. Microfilm Master Held: [ ] Yes [ ] No</td>
<td>7. Microfilm Master Held: [ ] Yes [ ] No</td>
<td>7. Microfilm Master Held: [ ] Yes [ ] No</td>
</tr>
<tr>
<td>8. Remarks: (e.g. Significant Copy, Fine Binding, Mutilated Or Defaced By Readers, etc.)</td>
<td>Several pages loose</td>
<td>Several pages loose</td>
</tr>
</tbody>
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Fig. 1—Book Condition Reports as completed by three libraries on Sir John Thomas Gilbert’s A Jacobite Narrative of the War in Ireland, 1688-1691 ... (Dublin; J. Dollard, 1892).
project were published between 1870 and 1910.

In July 1967 cards for the first one hundred titles, with the blank Condition Report Form on the verso, were sent to eighteen libraries. These first cards were accompanied by a letter explaining the objectives of the pilot project, a copy of the CLR press release of January 31, 1967, announcing the grant, and instructions on filling out the report. An attempt was made to distribute titles evenly among the participating libraries, but the larger libraries with rich holdings of older materials understandably bore much of the burden. Holdings shown in the NUC-1956 determined the distribution. During the course of the project, seventy libraries participated.

It was thought originally that each title should be located in at least five libraries other than LC in order to identify a "good" or "best" copy. Early returns indicated, however, that such copies were usually located in the first two or three libraries queried. After this pattern became evident, only one to three reports on the same title were requested. Additional libraries were queried only when necessary.

In a nationwide project, it would also be important to know those titles that might not be held by LC or might not be deteriorating at LC, but were deteriorating in other collections. Thus, a number of blank condition reports were distributed to participating libraries for use when they encountered this type of material in their own collections. These libraries were asked to furnish the LC card number and a short bibliographic citation, if they could determine that LC had cataloged the book. If not, the responding library was asked to supply the full cataloging information on the blank side of the completed condition report. These reports were then handled in the same manner as were titles in the LC brittle book collection. Presumably due to busy staffs and other priorities, very few of these outside reports were received, but no conclusions can be drawn from the lack of such reports.

Data covering LC brittle books included the number of copies and editions of the work held by LC, the number of editions of the work according to the NUC-1956 and its supplements, the availability of the materials in microform, and a ratio of the number of titles that might have been copyrighted after September 1906 compared with those actually so protected.

**GENERAL RESULTS**

On the whole, responses were prompt and the majority of libraries expressed an interest in the project. Several replies indicated that completion of the reports drew the responding library's attention to materials needing special protection. Suggestions for improvements in the Condition Report Form led to a revision in mid-September.

Reports were received on 795 titles representing 860 volumes. The need for some preservation action is suggested by the fact that ninety-six titles (12 per cent of those checked) listed in the holdings of participating libraries were reported lost, missing, or discarded. Fortunately, the same titles were not missing in all libraries. It is of interest that approximately 15 per cent of the titles checked were in some library's rare book collection or in an otherwise protected collection. The percentage was somewhat higher for American imprints in Class E (American History).

Returns also showed that books deteriorating in the LC collection are brittle in other libraries. The physical condition of a given book, however, was found to vary considerably, presumably because of variations in the amount and kind of use and in the conditions of

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*The latest date prior to which all materials are in the public domain.*
storage. It is worth noting that much of the LC material used in the project was beyond both physical preservation and microfilming, but that in nearly all cases the survey located at least one copy elsewhere which was, except for the brittleness of the paper, in excellent condition.

The time required by a responding library to locate a given title in its collection was always greater than the time required to complete the report. In institutions with storage facilities for older and lesser used material, it was frequently necessary to retrieve titles needed for the project from these facilities. The responses indicated that the condition report can be completed in five to fifteen minutes per volume.

Most libraries indicated that the form could have been completed by clerical staff but that it was actually done by a professional. The NUC-1956 appears to be reliable; in only a few instances was there evidence of an error in the reporting or recording of a library’s holdings.

LC had only one copy of a large majority of the 785 non-fiction titles. Of these, about 30 per cent had appeared in at least one other edition according to the LC shelflist and the NUC-1956. Because cataloging information supplied by some contributing libraries usually does not provide sufficient detail, no distinction was made between variant printings. In most instances it was possible to identify different editions.

In a full-scale preservation program, the inability to distinguish between different printings would create some problems, since it would probably be desirable to preserve all available variants. Of the 785 non-fiction titles, the NUC-1956 and its supplements indicated that some 15 per cent were held by LC only, and that 50 per cent were recorded as held by six or more libraries. A search of the National Register of Microform Masters, and its card supplement, and other microform catalogs indicated that 5 per cent of the non-fiction titles had already been preserved on microfilm, the majority by LC.

Because some concern has been voiced as to how copyright would affect preservation activities in regard to making microfilm copies, the copyright files at the Library of Congress were searched for this information. The total number of titles in the sample for which protection by renewal of copyright was possible (i.e., those copyrighted during or after September 1906) was 19 per cent (149 titles) of the 785 titles searched. Only 10 per cent of the 149 titles were actually protected by copyright. All renewals were of American or English titles. It appears from these figures that copyright would not be a serious obstacle to a major filming effort unless there are significant changes in the copyright law. Searching the copyright file requires as little as five minutes per title after the imprints of 1906 and later have been separated from other titles.

Each title can be given the total search procedure at LC in about twenty minutes. This estimate does not allow for time taken in moving from catalog to catalog, and it is premised on the assumption that the work is batched for the most efficient searching. Allowing time for other clerical tasks involved in distributing the cards and for copyright searching where required, the total processing time amounts to approximately twenty-five minutes per title. Assuming an increase in efficiency with experience, it seems reasonable that production could be raised to twenty-five titles per day or 6,250 titles per man year. At the prevailing general salary rate for two competent searchers, it appears that the cost of identifying the best copy of a given title would average about $1.20. This amount does not

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5 Subsequent work in the LC Brittle Books Project indicates that the percentage of material actually protected is lower.
include other overhead costs such as unpacking books, record keeping, shelving, and similar tasks.

Fiction in English presents a different picture than nonfiction. Probably no other type of material (PZ 1, 3, 4) so recommends itself for preservation of the physical book in preference to microfilming. Although there are some microfilm projects in this area, it is unlikely that many libraries would be able to justify the expense of purchasing the collected works of popular, but minor, nineteenth-century authors. In addition, scholars interested in these authors would probably want to use the physical volumes. At this time, LC practice is to film nonfiction in preference to fiction. Most of the PZ 3 materials in the LC brittle book collection were published during the 1880's and 1890's; thus copyright is no problem. Of the three hundred titles in this class which were fully searched, 42 per cent were held only by LC.

CONCLUSIONS, PROBLEMS, AND RECOMMENDATIONS

One problem which will have to be faced, if and when a national preservation collection is assembled, is that some older materials have never been fully cataloged at LC because of other priorities, and no LC cards have been printed for them. About 150 titles of the original sample were not searched because of the unavailability of cards. This point may seem to be minor, but the convenience of working with printed cards bearing full bibliographic information is not unimportant for reasons of both accuracy and speed. One solution to this problem would be acceptance of a temporary entry for these works when no other cataloging is available. LC microfilming specifications, however, now require that bibliographic data at the beginning of a reel be in conformity with established LC cataloging practice.

Comments on the condition reports, coupled with discussions with other librarians, raise the question of whether it is realistic to suppose that a library holding the best or possibly only extant copy of a title would (or could because of legal restrictions) give it up to a national preservation collection. It is certainly doubtful that materials in rare book collections or materials of strong local interest would be surrendered. Equally troublesome is the problem of filming. Several reports submitted in the project indicated that a title was in excellent condition, but that any microfilming would have to be done on the premises.

On the basis of the study, it was concluded that it is administratively feasible to establish a national preservation collection of materials now deteriorating in the nation's research libraries. This assessment, however, extends only to the identification of brittle or deteriorating materials in other libraries and to a determination of the physical condition of such materials. Although no special attempt was made to do so, the establishment of a central register of best copies appears to offer no particular problems.

The actual implementation of a national preservation program would pose substantial technical questions as well as administrative problems, although such questions were not a part of this study. In order to preserve volumes effectively in such a collection, a more efficient and much less expensive method of deacidifying paper than now exists is required. Research now underway may solve this problem in the near future, or it may prove to be only a partial solution. Additional research is needed.

Further, there is no assurance that the optimum storage conditions for the indefinite preservation of paper are known. There is, for example, a substantial question as to the proper humidity for storing such materials. Even the matter of proper storage temperatures is uncertain. The work of the late
William J. Barrow and others indicated that low temperature storage may provide maximum protection, but this has not yet been thoroughly investigated.

Other things being equal, it would seem that a national storage collection located near some large metropolitan center would be ideal. Effective arguments can be put forward for locating such a collection near the nation's capital and the Library of Congress, but it may prove prohibitively expensive to construct a suitable building, including the necessary air-conditioning, near Washington. Thus it might be better to consider the use of a large natural or man-made cave, such as an abandoned mine, in which proper humidity and temperature can be maintained more easily and at lower cost than in a building specially designed for this purpose.

There is the further consideration that, for a collection composed of the best remaining copies of all important titles from the nation's libraries, the location should be selected to provide maximum protection from destruction in the event of war. This would seem to argue for an inland and perhaps an underground site.

By way of next steps, the library has suggested to the ARL Preservation Committee that consideration be given to the preparation of a questionnaire to be distributed to all ARL members to determine: a) the willingness of these libraries to contribute volumes to a national preservation collection; b) their willingness to accept responsibility for preserving books in their own collections that have been designated as national preservation copies; and c) the need for development of indemnification procedures.

This pilot study was only the first step in exploring the problems involved in developing a national preservation collection. If physical books are to be saved for future generations, the library community will need more exploratory studies as well as technological breakthroughs. The volume of deteriorating materials requires that action be taken in the near future, if the nineteenth century is not to become known as the beginning of the bookless age.