

APPENDIX 2

Examples of British Library digitisation projects

Activity	Percentage of time spent on activity		
	project A	project B	project C
management	7%	7%	2%
selection	4%	0%	3%
preparation	4%	1%	4%
digitisation	12%	41%	42%
metadata	4%	51%	25%
ipr	0%	0%	24%

Project A

Selection was high, because it required very specialised selection by an expert. Metadata was low, because it was derived from existing records.

Project B

No selection was required, but metadata creation took twice as long.

Project C

IPR checking was significantly time-consuming and a manual process.

Preservation Assessment Surveys: an Interdisciplinary Approach

by ALISON WALKER

INTRODUCTION

In this paper I will discuss a standard method of surveying collections to assess preservation need, how it has developed from a library model, to incorporate provision for archive collections, and how we are moving to apply the same methodology to museum collections. I will emphasise how the basic structure has been adapted to accommodate the requirements of the three domains.

Before I start to address the specific topic of this talk, however, I would like to say a few words about the National Preservation Office (NPO) and its work, since this will explain the context of our involvement in the survey programme.

The NPO was set up in 1984 in response to the findings of the Ratcliffe report into provision for conservation and preservation in UK libraries. One of the report's recommendations was that a centre for advice and advocacy should be created. The British Library responded to the recommendation by funding the Office. Eighteen years on, a number of other national and sectoral library and archive bodies [1] have joined the British Library in funding the NPO, and the office continues to provide an independent focus for the preservation and continued accessibility to cultural heritage materials in the UK and Ireland. Our services include information, advisory and referral services, the publication of advisory material, the setting and promotion of standards and good practice guidelines and advocacy for preservation at all levels of institutional management and with government and private funding agencies. As part of our commitment to promoting good practice in disaster management, we provide a secretariat for the UK and Ireland Blue Shield Committee [2].

It was implicit from the inception of the NPO, and increasingly clear as time went on, that in order to target both our effort and that of collecting institutions in the most effective manner, some knowledge of the overall state of preservation of collections was required. All the different preservation measures have their place, but where should the relative emphasis be: should we focus on photographic conservation, environmental control, specifications for new building, preservation boxing? What was the national preservation need?

IDENTIFYING PRESERVATION NEED

In 1998 the British Library Research and Innovation Centre published a research report entitled *A Model for assessing preservation need in libraries* (Eden, 1998). As part of the research programme the model had been exhaustively debated by practitioners and researchers, but only partially tested. The report recommended that the NPO should undertake full testing and the development of software to manage the survey data. The outcome would be a means of identifying preservation need at both institutional and national or regional level. Clearly, this recommendation responded extremely well to the NPO's strategic aims.

The survey is designed to provide a standard method of assessing preservation need by measuring a collection's performance in standard areas of preservation: access, storage, accommodation, environment, security, fire protection, disaster preparedness, condition and usability, and also factors in value and importance and the holding institution's intentions concerning long-term retention. A sample of 400 items is selected for individual assessment, giving an outcome, which has a 95% confidence level, and a level of accuracy of $\pm 5\%$. For each item 15 preservation questions are asked, and in addition, as assessment is made of the type and degree of damage exhibited. The preservation questions receive a weighted score, the scores ranging from 2 to 30 depending on the relative impact of that preservation factor. The maximum score, in theory, is 100, although an item would have to be extraordinarily important and extraordinarily neglected to achieve this. The scores are then distributed across 5 equal bands: 1-20, 20-40 and so on, ranging from Band 1, low preservation priority, to Band 5, very high priority. The incidence of items in each band provides a statistical profile for the collection. One of the principal virtues of such a model is that robust statistical evidence can be relied upon to provide a picture of the whole collection on the basis of a relatively small sample. In addition, if different institutions or parts of the same institution apply the same method, the outcomes allow a meaningful comparison which can be used externally for funding assessments, and internally for budget distribution and estates planning.

Testing of the model and development of a database to hold the results progressed throughout 1998 and 1999. We were able to test the model in a variety of library types: a small historic collection, a large university library, a specific document type (a collection of university theses), a discrete area of a national library, a collection of nineteenth century novels, and a medical archive. The mixture of staff skills also varied: librarians, conservators, students, or NPO staff. At the same time, the British Library began a large-scale programme, which still continues, using the NPO model to survey the whole of its collections, and specific subject or organisational areas. The BL programme will be used to prioritise preservation work across collecting departments. The experience and feedback from all participants led us to make certain changes to the original model, mainly by expanding survey questions in order to capture more, or more meaningful,

data. We were also able to make recommendations for the most efficient mix of staff competencies and for the most efficient ways of working.

The database chosen for development was Microsoft Access, selected because it is readily available as part of office software suites, and familiar to many potential users. Survey data are input to the database through two forms. One details the preservation questions, and the second form records the material type and the damage exhibited by the item. The database attaches the relevant scores and calculates the preservation priority bands. A series of standard reports have been developed, which show the priority bands in graph form, and how this preservation profile compares with the aggregate of all surveys completed. Tables show the types and degree of damage shown, and the distribution of material types within the collection. A series of variations to the scores demonstrate potential alterations to the preservation factors, showing 'what if...?' profiles. Thus, the improvement in preservation profile should environmental conditions be improved is demonstrated, as is the potential increase in need should use of the collection increase significantly.

DEVELOPMENT OF A UNIFIED LIBRARY & ARCHIVE SURVEY MODEL

The original model was designed for use in libraries. The research team had wished to include provision for archives but this was not possible because of time constraints. Happily, in 1999 the Public Record Office (PRO) was able to allocate staff time to the investigation of the relevance of the existing model to archives, and to the development of sampling and descriptive tools appropriate to archives. The option of a separate model was considered, and existing survey models designed for archives were examined, but the common ground between library and archives and the overall similarity of material type – basically, paper and leather – meant that we were able to create a unified model for libraries and archives by expanding and adapting the library model.

The main area of difference between libraries and archives proved to be in how material is arranged and shelved, and this has significant implications for the creation of the survey sample. The research model was created on the assumption that library books tend to be arranged on shelves, that mostly the shelves follow a regular pattern and that books are mainly much the same size. The sample could therefore be very easily derived from dividing the total number of shelves by 400 to ascertain the selection interval, (call it x) and choosing a book from every x^{th} shelf. Archives, being generally shelved in boxes, each box possibly containing a variety of types and sizes of material, and also typically interspersed with objects of different sizes and type, were more difficult to measure. The systematic sampling method, which is commonly used in libraries, can be used in many archives, but an alternative solution has been to create a stratified sample, which allows material of very different types and sizes to be represented proportionately

within the sample. Naturally, many libraries have varied patterns of shelving, and the added flexibility developed for archives is generally applicable.

Identifying the item to be assessed may also be different. When the item produced in the search room is an entire box with a range of contents, as opposed to a single bound volume, what constitutes the item? After debate and testing, it was concluded that the 'production item' should be assessed as a whole, and if the whole box was normally produced for the user in the search room, then every item in the box should be assessed, just as one would assess a bound volume that contained a number of different publications, single sheets, pamphlets etc., bound together. The assessment of condition becomes more complex, and must be done very consistently, but is perfectly feasible.

The second part of the survey records material type as well as damage, and here too changes were made to accommodate the requirements of archives. The original model listed only printed monograph, newspaper, serial, manuscript or photograph, and distinguished between bound and unbound material. Additional categories were added both in the course of initial testing and while working on the archives model: vellum or parchment documents, microforms, music, cartographic materials, audio disc, audio tape, electronic objects, prints, drawings, paintings. An option for the free-text description of any other object type was added. A looser definition of 'binding' was adopted to encompass papers held in a fixed order without a structured binding. Already the list of artefact types was much expanded, but as we shall see, when it comes to surveying museums, the number of artefact types increases even more.

PRESERVATION ASSESSMENT SURVEY (PAS)

By 2000, the development stage for the library and archive survey model was complete, and the NPO launched its Preservation Assessment Survey (PAS) as a service. A modest charge is made which covers the delivery of a tailored database, the data management and report generation. Workshops are held regularly to train potential users in the survey techniques. So far, over 35 surveys have been completed, and 52 are in progress. Users have been able to use the results to support bids for internal and for external funding, and to prioritise preservation and conservation activity across collections. In several cases, global surveys have been followed by surveys of areas which indicated particular problems. The PAS has become a major focus of work for the NPO. Interestingly, many users have reported that it has given them a view of their collections which they would not otherwise have had, and it clearly had a general educational function and worked as a vehicle for spreading preservation awareness within an institution.

The parallel purpose of the standard survey model, the development of national and regional analyses of need, has been taken forward with the help of a statistician at Loughborough University. Taking into account the regimes which govern libraries and

archives in the UK (local authority archives, university and college libraries, public libraries), their geographical distribution by county and country (Scotland, Wales and Northern Ireland) and their respective collection sizes, a sample framework has been created which indicates the optimum number of institutions required in each category to create a statistical picture for the whole country or for each category. In outline, a national picture of all these types of institution could be obtained from 111 surveys: 24 public libraries, 43 higher education libraries, 28 local authority archives and 16 special archive repositories. A regional picture of Northern Ireland, for example, could be obtained by surveys from one public library, two higher education libraries, two local authority archives and two special repositories. It is a strategic target for the NPO to create the picture of national preservation need by 2005.

THE MUSEUM MODULE PROJECT (M-PAS)

The NPO is currently building relationships with the single regional agencies, which have been set up to provide an infrastructure for the cultural sector in England. The newly constituted agencies will provide a strategic focus for preservation activity across the domains in their areas, and an assessment of preservation need is a natural preliminary to developing an action plan. The Northwest and Southeast regions are likely to be the first to embark on this process. The emphasis on working across the library, archive and museum domains is very important and high profile in the UK. Preservation is one of the most fruitful areas for working together, since the domains share concepts and practices to a significant extent. The PAS which has been so successful in libraries and archives has already been used with some adaptation in museum collections, notably the Imperial War Museum, and is now being formally extended to cover museum collections, under a project funded by Re:source - The Council for Museums, Archives and Libraries. This is a work in progress, due to be completed in October 2003, but it is worth examining some of the areas where museum structures and practices have occasioned significant changes to the model.

Typically, a museum is more complex and varied in its layout, storage, type and variety of objects than a library or archive. Consequently, the planning, sampling and assessment can be more complex, and the guidance we provide will be more extensive. A stratified sample may be needed to provide representative coverage of all artefact types. The storage and environmental requirements must be specified for a wide range of material types and must refer to published standards for museum collections. For the condition assessment we have had to create drop-down menus of a large number - 32 categories in the first draft - of object and material types in order to ensure terminological consistency. Similarly, damage types are closely specified and defined, and may be accompanied by illustrations.

Perhaps less predictable to those of us from a library background is the different impact that the defined preservation factors have in museum collections. When scoring the relative impact of the preservation questions, the library and archive model attributes 30% of the 100 points to use, 20% to accommodation, 30% to condition and 20% to value and importance. In the museum model, it is proposed that access and documentation should account for 6%, handling 8%, accommodation 40%, condition 30% and significance 16%. The biggest change here is in attributing no points to use. It is felt that in a museum environment there is no clear correlation between certain types of use, such as exhibition, and the object's state of preservation. Accommodation, on the other hand, has a critical impact on the state of preservation.

The museum module project (known as M-PAS) is due to be completed in October 2003. In the summer and autumn there will be a programme of testing of the model and its software by museum professionals. It is hoped that the single regional agencies will use the museum module together with the library and archive model to assess needs across the domains. The value of the interlocking models is in providing comparative and integrated statistics through a framework which evaluates the preservation risks experienced in each domain. There is still much work to do to complete the tool kit required to paint a picture of national preservation need. Strategic coverage of libraries and archives must be completed, the museum module must be finished, the sample map for museums must be created, detailed provision must be made for electronic and audio-visual formats. Although digital and audio-visual materials can be assessed within the existing format we have not yet developed the full apparatus required to describe them and the form of damage they exhibit.

However, to give some examples of our indicative survey findings, the results obtained from simply combining 24 of the completed library and archives surveys show that 8% of material falls in Band 1 (very low preservation priority), 57% in Band 2, 28% in Band 3, 4% in Band 4 and 0.3% in Band 5 (very high priority). Material in Bands 3 to 5 (32% of the total) are a matter for concern, and the 4.3% which falls in Bands 4 and 5 is technically unstable and should be addressed as a matter of urgency. It is a well-established pattern to find that most material falls in Bands 2 and 3, and it is a significant indicator of need when more material is in Band 3 than 2. Further analysis will be required to define the types of material which are tending to fall into medium priority and unstable categories. The distribution by priority bands is based on scores weighted according to preservation risk. A less-sophisticated but equally telling figure is the finding that 75% of all material surveyed shows some form of damage. Within this overall figure, 90% of newspapers were damaged, 87% of all parchment and vellum, 78% of photographs, 78% of all cartographic material, 76% of all manuscripts, 73% of monographs and 70% of serials.

Responses to the questions about the preservation environment will help to direct effort in education and information provision. Here we find that 83% of collection items have proper fire detection and security, 62% have a written disaster plan, 62% of items are

covered by good handling regimes, but only 45% have correct storage and 41% have adequate environmental monitoring and control. The questions about storage reveal that 19% of items surveyed are in need of protection, which normally means proper boxing or enclosure. For the moment, the indications which emerge from completed surveys are no more than that, but the more results we obtain, the more the findings will become robust and reliable. Extrapolation of the percentages to total collection sizes reveals a very significant preservation need, and provides a focus on which to base realistic plans of action.

NOTES

1. The National Archives, the National Archives of Scotland, the National Library of Scotland, the National Library of Wales, Cambridge University Library, Oxford University Library Services, SCONUL (Society of College, National & University Libraries), Trinity College Library Dublin, the National Library of Ireland, The National Archives of Ireland, the Heritage Council, CONUL (the Consortium of National & University Libraries).
2. In partnership with English Heritage and on behalf of the four heritage non-governmental organisations (NGO's): IFLA, ICOM, ICOMOS and ICA.

REFERENCES

Eden, Paul, Nancy Bell, Naomi Dungworth. *A Model for assessing preservation need in libraries*; no 125. British Library, Research and Innovation Centre, 1998

WEB SITES REFERRED TO IN THE TEXT

British Library. <http://www.bl.uk/>

English Heritage. <http://www.english-heritage.org.uk/>

ICA - International Council on Archives. <http://www.ica.org/>

ICOM - International Council of Museums. <http://icom.museum/>

ICOMOS – International Council on Monuments and Sites. <http://www.icomos.org/>

Preservation Assessment Surveys: an Interdisciplinary Approach

IFLA – International Federation of Library Associations and Institutions.
<http://www.ifla.org/>

Imperial War Museum. <http://www.iwm.org.uk/>

National Preservation Office. <http://www.bl.uk/npo/>

NPO Preservation Assessment Survey.
<http://www.bl.uk/services/preservation/survey.html>

Public Record Office (PRO). <http://www.pro.gov.uk/>

Re:source - The Council for Museums, Archives and Libraries.
<http://www.resource.gov.uk/>