

# The exhibition life of a book

## Challenges of space and material

**JEAN HOLLAND & CATHERINE MCFARLANE**

### **Abstract**

In March 2005 the State Library of Victoria's curators presented its conservators with a wish-list of 254 items for display in the new level of the Dome Galleries. The exhibition, *Mirror of the World*, showcases rare, beautiful and historically significant books from the Library's heritage collections. The vision for this exhibit was that it would be long-term or permanent, which highlighted the vulnerability of placing open books on display set within the environmental limitations of a heritage display space. Through the planning process the concept of an 'exhibition life' of a book evolved, based on the number of page-turns a book could sustain.

This paper will describe processes established to manage the assessment, treatment, support construction and display of a large-scale book show. Discussion will focus on the inherent challenges of controlling the environment and light exposure in a heritage space, and of sustaining over 194 books on display at any one time. Equally important was the development of the book monitoring project, established to assess the impact of display on book structure. With little published research available on the effect of extended display of books, items considered to be most at risk were chosen as 'guinea pigs' to be more closely observed. The project aims to gather data which can inform future display decisions and confirm or challenge current notions surrounding book display, which often seem purely intuitive.

### **Introduction**

*Mirror of the World* is an ambitious exhibition with 194 books and 75 two-dimensional works on display. The curatorial scope begins at the very early history of the book and printing and includes how books and texts were generated out of the imagination, how books were used to

record exploration of foreign lands, the scientific and artistic illustration of botanical art, and examples of the artist and the book. The title of the exhibition is taken from William Caxton's *Myrrour of the Worlde* (1490), one of the first illustrated books published in England.

### **Assessment processes**

In March 2005 our exhibitions team handed over a wish-list which included 210 books for display. With the exhibition opening to the public in early December of the same year, our timelines were already tight. With less than a month to assess book items for their suitability for display we had to establish strong management processes.

To deal with what felt like an overwhelming task a conservation assessment process and schedule were established. Prior to this exhibition, conservators had not engaged in a formalised assessment process. This is not to say that works were not scrutinised for their display suitability; what was lacking, however, was a sense that this information was being actively fed into the final curatorial decision-making process. The aim was for conservation assessment and subsequent display recommendations to ultimately inform and transform a display wish-list into a final display list.

The assessment schedule was designed over a three-week period with two teams of book conservators working in pairs within a three- to four-hour block each day. On average 20 books were assessed per day. A Conservation Item Assessment Form was devised to provide information on the book's condition, structural considerations and recommended treatment, and to provide information on its short- and long-term stability as a display item.

Prior to conservation assessing the books, curators had selected and marked desired page openings for day one display, and also selected openings to be photographed for exhibition graphics. Conservators were briefed to not only advise on the books' condition, treatment and display requirements, but also if graphic photography could occur, pre or post treatment.

In order to reduce the unnecessary movement of some of the library's most irreplaceable and valuable books, viewing tables were established

within the Rare Book Collection storage area. An assessment form was completed for each book. The form captured the following information:

- Details of the exhibition.
- Identification of the item.
- Whether a book could be displayed safely.
- Recommended display design. Display supports developed into three categories with the majority being book cradles, card supports for pamphlet-style bindings or books that were displayed closed, and specialist supports for the object-based material.
- Whether treatment was recommended for the book.
- Whether the book required rehousing. If so this would be flagged with rehousing to occur once the book had come off display.
- The structural considerations. This would range from information specific to the text block, to type of binding and materials used and to the condition of the spine and joints.
- Maximum display period. Earlier in the year a changeover schedule had been set for every four months, with changes in March, July and November. Therefore display durations were set at increments of four months, eight months and 12 months.
- Changeover recommendation. This recommendation was based on the suitability of display of the day one page opening and how many additional page-turns the book could sustain. Taking structural considerations into account, future page openings were recommended by book conservators. Recommendations generally kept page turns close to each other or alternatively at opposite 'ends' of the text so the book could be reversed on the same cradle but still fully supported.

These final three factors: structural considerations, maximum display period and changeover recommendations together came to establish display parameters for the book and to define its exhibition life.

### **Length of display**

Curators conceived this exhibition as an opportunity to showcase the wealth of the collections, and were keen to maximise the display period of individual items. In order to sustain a permanent exhibition we had to

be realistic about the workload we were facing. If books were frequently recommended to come off display then this meant curators selecting an appropriate replacement, conservation assessing the book and treating it if required, new cradles being constructed, new text labels being written and produced and an installation schedule formatted to facilitate these changes. With 194 books on display we needed to keep our decision-making in the 'real world'.

We found we were tending to recommend longer display times than we had ever allowed for previous exhibitions: eight or even 12 months for much of the material. In the past book conservators had tended to recommend three to four months display for open books based on the belief that book structures would be overly stressed and potentially damaged if left on display for longer periods. Although books are designed to be opened, this function causes stress to the interconnecting parts of the book such as their sewing structures, joint attachments and spine materials. An unsupported book left open will commonly develop a 'memory' and tend to fall open at that point, indicating a permanent change to its internal structure.

Despite the fact we extended display durations for much *Mirror of the World* material, we continued to limit display times or request more frequent page turns for books that we considered 'at risk'. These included bindings with parchment leaves and covers, tight-back bindings, illuminated manuscripts and some 19th-century bindings in extremely poor condition. Much of the library's very early material, though sound structurally, fell into this 'at risk' category.

### **The Dome Galleries**

The balconies encircling the domed La Trobe Reading Room house our two permanent exhibitions. On one level is *Mirror of the World: Books & Ideas* and on the level above is *The Changing Face of Victoria*, which traces the cultural and social development of the state of Victoria and its people. The octagonal shape of the open balconies allows varied and fluctuating levels of light to enter via the glassed Dome. Despite the fact that both galleries were fabricated to reduce illumination by natural light, diffused light appears and shifts throughout the space over the course of the day and

throughout the year. This particularly appears in the morning as defined blocks of light. The case layout in both spaces prevented the diffused light from falling directly on the collection; however initial concerns about exposure to light informed our early display decisions.

The other concern was the environmental limitations of the space, where temperature controls exist but no relative humidity controls are available and heritage limitations prevent any retrofitting of the system. Testing using hygrothermographs was carried out in the previous year to determine environmental stability within the display cases. Though we were reasonably confident in the level of stability they provided, concern remained for vellum material due to its sensitivity to humidity.

The number of page changes required was based on acceptable light exposure for inks, pigments and paper. In *Mirror of the World* we recommended page changes for most items displayed longer than two to three months, with more frequent page turns for very light sensitive items. The library's Exhibition Lighting Policy provided useful guidelines based on the notion of perceptible and acceptable levels of change due to light damage. We had, however, no useful guidelines to define acceptable risk to book structures.

### **Literature search**

To begin to establish an understanding of what might be acceptable risk of structural damage, we first looked for published research on the topic. A conservation literature search was carried out with the assistance of Marika Kocsis, a University of Melbourne conservation student on a professional internship at the library. Scant information specifically dealing with the effects of length of display on book structure emerged. In her article on the display of books at the Victoria and Albert Museum in *The Paper Conservator*, Helen Shenton (1997) clearly identifies the issues surrounding book display, including those on permanent exhibition. However, there are no guidelines for the length of display, or how one might document or predict outcomes for books on extended display. Again in *The Paper Conservator*, Christopher Clarkson (Bell and Clarkson 2001) talks of the need for a "reliable condition monitoring system which is a record of the subtle visual and physical changes over time". This struck a chord

as we wanted to track and record how the 'at risk' books were reacting to exhibition. Clarkson's final question about how to make a "visual archive that curators and conservators can rely upon to make informed decisions about objects, or that can show that objects have suffered subtle damage" was our question too.

Without assistance from published material, we relied on our cumulative knowledge of book construction and binding materials, extensive hands-on experience and the fact that we had treated and closely observed many of the items going on display. Ultimately our decisions about the length of display a book's structure could safely sustain were largely subjective and intuitive.

### **Development of the monitoring form and photographs**

Having already identified a category of 'at risk' books, we decided that closely observing them and recording their condition at intervals while on display would allow us to quickly pick up problems and forestall any major damage. This data could help us draw conclusions useful to future decision-making about book display.

We decided to check the selected books at two-monthly intervals. Significant changes would be recorded and material considered at risk of damage could be reviewed.

For monitoring purposes, highly selective assessment was needed that would focus solely on and document the condition of those parts of the book likely to change as a result of being on display. We decided that eight areas of the book were most vulnerable due to the book being displayed open, even with a support, and that we would document these areas using a book monitoring form and photographs. This documentation would capture a 'benchmark' of condition and functionality of the item before it went on exhibition.

Monitoring forms documented:

- any problems opening and closing the boards
- any weakness in the inner and outer joints
- condition and presence of headbands
- losses, wear, flaking or breaks in the spine material

- any problems opening and closing the text block
- the text block falling open at particular pages (memory of opening)
- any leaf cockling
- flaking gold or pigments, and pigments liable to fade
- fore-edge measurements at head and tail (back board corner to front board corner). This was an attempt to capture the state of the book prior to display.

The majority of books had their spines, fore-edges, and head and tail profiles photographed. The phrase ‘warts and all’ best conveyed the photographs we wanted as a checking mechanism. We requested high levels of detail shot in strong raking light with a sharply contrasting background, focusing on specific areas of the book.

Both text and photographs would be used during monitoring to assess and measure deterioration. From the beginning we acknowledged the difficulty of ascertaining and describing the condition of concealed structures and perceived changes in a meaningful manner.

### **Monitoring assessment**

Once curators had finalized the 100% list these books started entering the lab in April 2005 in staged batches for treatment and support construction. Conservators were generally limited to minor consolidation treatments due to inadequate time for more extensive treatments. Exceptions were two books which were rebacked, one being Otto Brunfels’ *Herbarum vivae eicones* of 1532, whose extensive treatment will be discussed in another paper by State Library of Victoria book conservator Katrina Ben. Each book was checked against the eight areas of risk. Any notations made on the monitoring form meant the book became a subject for the monitoring project and was sent to photography to be image captured.

The assessment process produced 34 items to be monitored out of a total of 194 books going on display in November 2005.

### **State Library Victoria book cradles**

Each open book on display had a cradle constructed to support it at the required opening. Cradles are made of black corflute; the advantages of

this material are its strength, flexibility, availability and cost. Corflute cradles have some 'give' which allows the book to settle into the cradle. For this exhibition a wrap-around 'façade' of thick, dark-grey card was used to conceal the corflute supports.

When required, pages were strapped open with a narrow strip of polypropylene. We later introduced a two-strap system for all the early vellum manuscript material, due to their sensitivity to humidity. A wide polypropylene strap was placed around the bulk of the text block, with the exclusion of a few pages preceding the page opening. The remaining pages were secured with the narrow strap. This compressed the text block and reduced the possibility of movement or change.

Conservators with an understanding of book structures fabricated the cradles with the actual objects as a constant reference. By controlling the angle of opening, and thereby not forcing the books open, effective and safe supports were produced.

### **First monitoring**

Installation ran over a two-week period in December 2005, with book conservators working in pairs. The first monitoring took place throughout February 2006. By this time material had been on display for three months, roughly the period of time we would have approved previously.

After being taken out of their exhibition cases, books were examined and their condition compared to information on the monitoring forms and accompanying photographs. Strapping was not removed. While this obviously altered the books somewhat, we predicted any distortions due to strapping would eventually relax. We were looking for significant changes that indicated more permanent change.

We noted 'no visible change' for 30 of the books. We noted changes in four of the books. Two books displayed a slight increase of swell at the head profile, though this appeared as a minor change. A parchment repair had lifted on the third book. The book that concerned us the most was *Historia Naturalis de Quadripedibus* (1657), a vellum binding with turn-ins that were lifting and breaking through the paper pastedowns. This had been noted prior to display, but appeared to have increased and was forcing the cover further away from the text block. We decided to take this

book off display at six months and to treat it.

In order to record this change photographs were taken when it was removed from display. Comparison with pre-exhibition photography was made difficult as a more overall view of the book's condition had been captured rather than focusing on this specific area. We had not been able to clearly predict what might happen to this book on display and therefore determine what images would be most relevant.

Light-sensitive material had been identified through the initial assessment process and included Japanese block books, illuminated manuscripts, comic books and other contemporary printed material. Lux readings within the cases were compared with those outside, and on average the cases reduced lux levels by 20%. Further testing using Alsec 764 dataloggers was carried out. With dataloggers being placed inside the case and strapped to the underside, logging was set for every 10 minutes with weekly readings downloaded. The readings show stability with no dramatic change in the level of relative humidity or temperature and no UV present.

### **Changeover schedule revised**

Before installation it was already clear to curatorial and conservation teams that four-monthly changeovers were unworkable. A decision was made to impose a six-monthly changeover schedule. This forced us to revisit all the decisions made about how long each book could be safely displayed. This exercise was challenging to say the least, due in part to the number of books involved, but also because it forced us to question our earlier decisions.

The comparative data gathered from logging inside and outside of the case helped in deciding it was acceptable to reduce the number of page-turns in cases where light exposure had been considered a major issue.

By this time innumerable decisions had been made about length of display for each book. This proved that decisions made around this issue were complex and subject in part to the institutional environment. This experience reinforced the need for concrete measures against which we could test these decisions, and furthered our commitment to the book-monitoring project.

## Conclusion

We learned that it was important to remain open-minded and allow the information to 'speak', and to keep prejudices and previously formed beliefs in the background. In order to clearly determine the impact of display on book structures we needed more information than was obtainable after three months of display. Consequently we plan to gather further data at regular intervals for the book monitoring project.

Our aim is to arrive at a measure by which we can set display and non-display times. Our expectation is that these will be based on structural categories and therefore allow us to establish a scale of display ratios.

This exhibition alerted us to significant material requiring further treatment. We know that use frequently increases for material which has been on display, and that some fragile items may need more extensive treatment to ensure their stability. Once off exhibition, these books will be scheduled into conservation treatment programmes.

We hope that this paper has given a sense of what is involved in managing a large-scale permanent book show and how the notion of a book's exhibition life evolved along with the book monitoring project. The information and experience gained from this work has assisted us in making ongoing display recommendations.

## References

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## Author biographies

*Catherine McFarlane* obtained a Bachelor of Arts (Hons) at the Queensland University. She has worked in the registration departments at the Tate Gallery, London, the National Gallery of Victoria and in collection management at Museum Victoria. She commenced work at the State Library of Victoria in 2004.

Registrar, Exhibitions & Loans  
State Library of Victoria  
328 Swanston Street  
Melbourne VIC 3000  
Australia  
Tel: +61 8664 7351  
Fax: +61 9639 6559  
cmcfarlane@slv.vic.gov.au

*Jean Holland* obtained a Bachelor of Arts (Hons) in English Literature from the University of Michigan, and then completed a two-year course in Archive Preservation and Repair at the Camberwell School of Arts, London, in 1972. Afterwards she studied hand bookbinding at the London College of Printing, London, while working in two hand binderies for a number of years. Jean has worked in the conservation department at the State Library of Victoria since 1989.

Senior Book Conservator  
Collection Management Division  
State Library of Victoria  
328 Swanston Street  
Melbourne VIC 3000  
Australia  
Tel : +61 3 8664 7353  
Fax: +61 3 9639 6673  
JHolland@slv.vic.gov.au