NSCG Newsletter

Title: Conservation for Display - a designers perspective Conservation vs. Design or informed compromise

Author(s): Killington, C.

Source: Killington, C. (1999). Conservation for Display - a designers perspective Conservation vs. Design or informed compromise. *NSCG Newsletter*, *Issue 12*, 31 - 36.

URL: http://www.natsca.org/article/678

---

raenosaurus leedsii based on this specimen (Evans, in press), and am now looking at other specimens to fill in the missing pieces.

Both Richard and I were volunteers when we undertook the rebuilding of Mr Swales' plesiosaur, and we had the luxury of spare time. Now I am employed by the Museum Service, and I doubt that I would be able to find the time to start it all over again. Volunteers are a valuable asset in this sort of long term, labour intensive project.

Epilogue: Redisplaying Mr. Swales' plesiosaur

1999 is the 150th anniversary of Leicester City Museums, with special events and a celebratory exhibition. The curatorial staff nominated objects for display, and I chose the *Muraenosaurus* skeleton. As the exhibition neared completion, we rebuilt Mr Swales' plesiosaur again. This time the bones were arranged and supported on plastazote, with grey gravel in-between substituting for the Oxford Clay substrate. The gravel was chosen, as it is more inert than the vermiculite used previously, and provides more contrast in colour with the bones. The exhibition will be up until the beginning of 2000, and I hope to have the plesiosaur, or part of it, in the new Evolution galleries in the future.

Acknowledgements

Thanks are due to John Martin, Arthur Cruickshank, and, of course, Richard Forrest for their input and hard work on the plesiosaur project.

References

Evans, M. (in press) A new reconstruction of the skull of the Callovian elasmosaurid plesiosaur *Muraenosaurus leedsii* Seeley. *Mercian Geologist.*

Leeds, E.T. 1956 *The Leeds collection of Fossil Reptiles from the Oxford Clay of Peterborough.* Blackwells, Oxford. 104 pp.

Martill ,D.M. 1987 A taphonomic and diagenetic case study of a partially articulated ichthyosaur. *Palaeontology* **30**(3): 543-555.

Sizer, C.A. 1962 *A Catalogue of the Figured and Cited Specimens in the Department of Geology.* Leicester Museums and Art Gallery; Leicester. 46 pp.

Conservation for Display - a designers perspective Conservation vs. Design or informed compromise

Cassandra Killington, Leicester City Museum, New Walk Museum, 53 New Walk, Leicester, LE1 7EA

Introduction

Museums provide a wealth of opportunities for designers. Each exhibition is different from the last, with diverse and fascinating stories to tell plus wonderful, awe-inspiring objects to reveal. It is a veritable Aladdin's cave, or is it? Are we placed in a straight jacket by the curators list of requirements? How does designing for museums and in particular the Natural Sciences affect the design process?

We need to look at the role of the museum and how the design team fits into this and importantly how the roles of the museum affect our ability to design successfully.

The definition of design according to Chambers dictionary is: To plan and arrange in an artistic manner. So why the need for designers in a museum environment? Because museums have a duty to display and explain the collections in their keeping. However, this isn't the only purpose of a museum. The main function of a museum is the collection and conservation of materials for posterity. The difficulty is that these two main functions of the museum are in direct conflict with one another. The ideal environment in order to maintain collections is that they should be kept in complete darkness with carefully controlled temperature and relative humidity without human interference. The ideal environment for the visitors is one in which they can view and understand the collections, in an environment that is comfortable yet stimulating, so that they feel involved in the experience. So displaying collections in the pitch dark and asking them to rest their lungs and stop breathing isn't going to draw the crowds in.

Role of the Designer

It is the role of the designer to assist the visitor in understanding the language of the objects and the story that they tell, by the physical arrangement and appearance of the exhibition, in a way that is stimulating and enjoyable whilst at the same time providing a secure environment for the ob-

jects on display - not just from theft and vandalism but also from environmental conditions. We provide the link between the two functions of the museum - the wish to preserve the objects and the wish to show them as fully as possible to as many people as possible.

Compromise

Linking these functions produces a compromise.
Nevertheless, design is all about compromise and I would add to the definition of design that it is to plan and arrange in an artistic manner given a set of conditions.
There is compromise because of conditions created:-

- by the finite space available
- by the budget constraints
- by the time available
- by the target audience by corporate design and other policies
- by the staff involved
- by the nature and scale of the project
- and of course the collections themselves with their conservation requirements.

It should be noted that these conditions should be considered from the outset as they form the starting point for any design and are best included in the outline design brief along with the aims and objectives of what one wants to achieve in the exhibition.

How do we design?

There are a number of stages in design and production to be worked through before the exhibition is complete.

Outline brief

Essentially - what you want to achieve.

Discussion

We like to spend time with the rest of the appointed exhibition team and in particular the project manager in order to really understand what the requirements of the job are. Often what isn't said is as important as what is said.

Concept

An exhibition style and a general layout are developed.

Detailed brief

Objects and text finalised.

Final design

Style, detailed layout and working drawings

Production

There is more to successful design than just presenting information. Feelings and impulses must be transmitted to aid appreciation and understanding. In other words, we need to create atmosphere.
This can be created by: -

- Lighting
- Use of structure
- Triggering memory
- Colour

We also need to move the visitor around the exhibition in such a way that they feel in control and therefore comfortable. We can prompt action even though the visitor may be unaware of how he is being paced or propelled by: -

- Sense of space
- Enticement
- Teasing
- Size of graphics
- Arrangement of objects

We can punctuate the storyline by breaking down the exhibition into more digestible sections, each section containing repeated elements. We can also emphasise the underlying importance of a section in the exhibition by: -

- Use of graphics
- Positioning of objects
- Using other senses.

Conservation Issues

We have seen how the processes and tools are used by the designer, but how is this affected by the conservation requirements of Natural Science objects. Specimens range from minute to enormous, light to incredibly

heavy. They can be highly sought after by collectors or as a schoolchild's souvenir. There are objects, which can be easily damaged by touch and so must be kept out of reach from caress. Security is vital. Security doesn't only apply to theft and vandalism, it also applies to keeping the objects safe from incorrect temperature and relative humidity, from damaging ultra violet light and from dust and pests. How does a designer deal with these problems without losing atmosphere?

Lets look at the problems how they can be dealt with.

Cases - this has an impact on the layout and consequently how the visitor is paced around the gallery.
Budget - cases are very expensive. With limited budgets, all money might go on cases and other aspects suffer as a consequence. Cases can all be large and bulky imposing restrictions on the layout of the exhibition and consequently how the visitor is drawn through the exhibition.
Atmosphere - If you can't touch you are not utilising an important sense.
Lighting - spotlights can cause glare from reflections off the cases. Partially sighted visitors will suffer as a consequence.

Relative Humidity - RH

If the gallery doesn't have a carefully controlled environment then the designer is looking at cases where precise conditions can be maintained unless the object is on display for a very short space of time.

Lighting

Low levels of lighting are required to prevent rapid deterioration of the organic specimens. It is important for a designer to remember that 50 lux doesn't stop deterioration but it is the lowest level that a normally sighted human can make out form and colour without distortion. Seeing isn't a problem to most at these levels but creating a dramatic effect by contrast lighting has to be carefully engineered, as humans cannot adapt to high levels of contrast.

UV filters add cost to lighting, which, as mentioned has a knock on effect to what can be produced for the money available. As a designer, you don't have the range of contrast lighting.

Temperature

This also has an effect and should be carefully controlled. This causes the came type of problems to a designer as RH.

Dust and Pests

Dust is always a problem with open display and cleaning can cause problems. Cases can of course alleviate the problem.

Therefore, do these conservation requirements act as a straight jacket? It is the knack of the designer to turn the problems into advantages after all they are just additional conditions to add to the long list that has already been mentioned. To say there is informed compromise is right. We can design the cases so that the visitor has to interact with the case. The specimens have to be viewed from different angles in order to see the full display. Exciting lighting can be used to great effect. It can be used to imply habitat and temperature. It can highlight objects of particular interest. It is probably one of the most effective ways of producing dramatic effect. A stand-alone object also helps create atmosphere and can help punctuate the exhibition thus speeding up / slowing down the pace of the visitor. By including handling objects, the importance of the cased object is highlighted. If money allows including associated activities and interactive add to the experience and, hopefully, repeated visits. In addition, we should not forget that the specimens have lots going for them.

- They are beautiful, awe inspiring objects in their own right.
- The largest to the smallest.
- Easily identifiable objects.
- There is something for everyone.

Conclusion

Design is all about compromise.
There may be problems, preferred options but designers thrive on problem solving. Whatever the topic, the task of the designer is essentially the

same - the attention of the visitor must be drawn to the objects and displays, to alert them to receive the scheme and the story behind the exhibition whilst providing an acceptable environment for the objects on display.

The curator makes academic sense of a collection, but the designer has to translate this into visual sense. It is very much my ethos and that of the design section here that the design of the arrangement should be subordinate to the objects themselves. As Margaret Hall comments in her book On Display, Other designer may use banners in the wind outside or a magnificent entrance to attract attention and introduce the subject. The mechanics of design should never be obvious, the designer being no more noticeable than the good pianist accompanying the soloist

Further Reading

Hall, M. 1987 *On display: Design Grammar for Museum Exhibitions* Lund Humphries, London 256 pp.

Society for the Preservation of Natural Science Collections (SPNHC) Annual Conference, Washington DC, 28th June – 3rd July 1999

Caroline Buttler & Vicky Purewal National Museums & Galleries of Wales, Cathays Park, Cardiff, CF1 3NP
CB was supported in part by a travel grant from the Museums & Galleries Commission

The 14th Annual SPNHC meeting took place in Washington, DC, hosted by the Smithsonian Center for Materials Research and Education and the National Museum of Natural History. This was the largest ever SPNHC meeting with over 200 delegates registered.

The Smithsonian Institution encompasses 17 museums and 10 research centres, it cares for over 140 million artifacts and specimens. One major problem was finding time in the busy conference schedule to visit museums such as the Air and Space Museum and the Museum of American History. The Smithsonian Folk-life festival was also taking place on the Mall in front of the Smithsonian Institution; this enabled us to try Romanian and South African food during the lunch breaks.

The conference lasted six days, the first three were devoted to workshops, committee meetings and tours of the host institutions and the final three were technical sessions.

The National Museum of Natural History is an impressive building opposite the Smithsonian Castle. The entrance is dominated by a large stuffed elephant and by the smell of naphthalene!

The age of the exhibitions varies within the museum, the new Janet Annenburg Hooker Hall of Geology, Gems and Minerals was opened in 1997, but the older exhibitions are still interesting because of the high quality of the material on display. Tours were available of all the main departments and here we could appreciate the scale of the collections held in the Museum. It was, however, incredible that in the Department of Paleobiology, which contains over 40 million specimens, there is no dedicated conservator.

A tour of the Museum Support Centre was organised for Tuesday afternoon. This complex includes the Smithsonian Center for Materials Research and off-site storage for the National Museum of Natural History. Tours were arranged to look at different disciplines. The scale of the facility is impressive. It includes four storage areas, called pods, each the size of a football field. The height of the pods has allowed mezzanine floors to be added when required and in other areas, high racking was installed to take out-sized palletised items. The pallets were custom-made from aluminium with fabric dust covers. Forklift trucks are used to access the pallets.

Few people seemed to make their way to the Materials Research laborato-