Chapter 6

WANTED: GUIDELINES FOR EXHIBIT DESIGN

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I would like to begin with a few anecdotes. The first concerns the origin of this paper, which lies in last year's visitor studies conference, or, more precisely, in answering the following question posed by Steve Bitgood (1988):

> "How do we educate the decision makers at museums/ zoos/parks/aquariums so that they can hold consultants and exhibit/graphic design firms more accountable? It is obvious that these firms will not incorporate visitor evaluation unless it is required." (p. 7)

Pretty persuasive and, in fact, largely true–but I stress largely. My firm, Wetzel Associates, believes in the value of the work that this field is generating. We were present at the conference last year. So I began to think about turning the tables: How can I get my agenda for the kinds of useful knowledge we need out to evaluators? This paper is the result.

The second anecdote concerns a surprising experience I had upon my arrival Wednesday night. I apologize in advance for its self-aggrandizing nature, but it helps make a point. I was sitting in the lobby and talking to someone, when, out of the corner of my eye, I saw photographs of an exhibit for which I was the interpretive programmer/project manager six and one-half years ago. Dreading the worst–"You don't know anything about how to design an exhibit!"–I intruded upon the conversation and discovered that... the exhibit works, at least by the standards of attracting power and holding power, based on years of observation and anecdotal evidence. One of the professionals in the group looked at the picture and said it looked like "cognitive overload." I explained the ways in which we had set up the exhibit, some of which were not immediately evident in the photo, and he changed his mind. In fact, he pointed out how in our design we had organized a mass of information in a pattern totally consistent with some current theories and precepts of knowledge acquisition, all entirely without our knowledge. There was even a comment about how "the exhibit breaks all the rules" but "works." The point I want to make here is a simple one: good exhibit design preceded

the existence of good visitor studies. Both parties, in a better world, would work together in a dialectical relationship, the designer being responsible for the task of giving form and direction, the evaluator being responsible for that crucial task of assessing the quality and success–however defined–of the exhibit.

The recent growth of visitor studies as an area of specialization, as reflected in this second annual conference, should be a heartening sign to all of us who care about the quality of museums, zoos, and aquariums–even to that favorite straw man of evaluations, the unresponsive designer. But it is also an opportunity to take stock of what the planning and design of exhibits has, or more importantly can, gain from evaluators.

As a principal at an independent exhibit design firm that works entirely in the realm of interpretive planning and design for museums, science centers, visitor centers, zoos, and aquariums, I have a personal interest in creating the most successful exhibits possible. One of the many ways in which success can be identified is in the communications value of the exhibit (see Reich, 1988, for a discussion of some of the other considerations of success). Anything I can do to improve this value is going to enhance our client's satisfaction, our reputation, and my own peace of mind at the extreme complexities of our work.

I realize that the resistance of exhibit designers, real and imagined, is one of the factors that has inhibited the fullest use of the insights of several decades of visitor studies and evaluations (Bitgood, 1988). In this paper, I would like to lay out an agenda of issues that designers care about. For the reasons I discussed above, I am interested in whatever help we can get from whatever source–our work is hard enough. In as many of our current projects as possible we are building a prototype/evaluation component into the budget, although, I must admit, it is not always easy to convince the client to agree to go along with a budget allocation for prototyping. But designers could use recognition on the part of evaluators that there are many issues fundamental to our work that would benefit from the analysis and establishment of standardized guidelines.

There may be several reasons why designers do not take advantage of the visitor studies literature: (1) ignorance that the literature exists; (2) lack of accessibility (many of the studies are not always easy to find); (3) difficulty of comprehension (much of the writing is not easily digested by an outsider); (4) deficits in research (in many cases, there is not enough research on specific topics); and (5) lack of understanding (on the part of designers) of methodology and theory of research and evaluation.

I have selected several areas of exhibit design (important to me as a designer) that need "cookbook" guidelines from visitor research. It is hoped that visitor researchers will accept the challenge of developing digestable guidelines for exhibit designers.

Needed Research for Suggested Areas

Map Design

As a good working example, let us take the case of maps. Map art is extremely expensive to create, so much so that it is prohibitive for each and every institution to prototype and evaluate map art. Yet each zoo, arboretum, theme park, nature trail, etc. needs and uses a map. In the absence of clear guidelines of what works and what does not, there is a different style and approach to creating maps at each institution. While my research has not been exhaustive, it has been fairly comprehensive, and I have found only a limited number of research studies of rather modest applicability on the subject (e.g., Levine, 1982; 1984). The range of design decisions that go into a good map is quite vast: orientation, size, type of visuals, use of color, etc. If only we knew some guidelines for good map design, we would be able to work to execute such a design. Considering how important an effective map is to "wayfinding," a list of empirical guidelines is imperative.

Let me cite some other kinds of issues that have a similar need for effective, cross-institutional evaluation and generalization. For example:

Interactives

We, along with other designers and institutions, have in recent years been exploring the merging of science center techniques of hands-on interactives with natural or naturalistic habitats, often in the same environment. The Primate Discovery Center at the San Francisco Zoo, Cincinnati's Cat House, the Maritime Center at Norwalk, and the Bird House at Brookfield are all examples of designers and institutions creating such new forms. I strongly believe that such a combination can be an effective one, but I have no empirical evidence upon which to base this. In addition, some of the institutions involved in this end of work are new institutions where there is limited or no ability to conduct an evaluation study in advance. Admittedly, philosophical ("competing with the animals") and financial ("I had no idea how much interactive exhibits cost") issues also enter into the matrix of decision-making, but in the absence of systematic study of the relationship between live and interactive exhibits, it is difficult to engage in rational analysis of the issues.

Advance Organizers

Conceptually, there is general agreement that "advance organizers" can enhance the exhibit learning process, but as programmers and designers, we need to move from theory to concrete practice. How much information, located where, and broken up how? Would we be better off with advance organizers pegged to different age (or reading) levels? Are

symbols and/or color coding effective organizers and, if they are, should they be introduced as part of an advance organizer?

Positioning

We work with a number of zoos and aquariums. In every project the question of positioning of graphics arises. Enough work had been done to provide everyone with a reasonable sense of how to create good graphics, but these studies appear to have focused upon the layout itself. Bitgood (1986; 1987), Serrell (1983), and Patterson and Bitgood (1987), among others, have discussed many of the key issues of effective graphics but they have not addressed the question of label position. As far as I can gather, very little work has been done to determine the best positioning of the graphic: whether to be in front, beside, or behind the visitor (or in some combination); if in front, whether to be above or below the view; and if beside or behind, exactly where. Our firm is engaged, in concert with the North Carolina Zoo, in organizing a study on just this subject, but even so, we will only end up with suggestive evidence, not a final conclusion.

Videodiscs and Computers

There are by now dozens, probably hundreds, of computers and videodiscs at work in the exhibit environment (Binder, 1988). A great deal of money goes into them. Our firm has been responsible for a good 30 or 40 separate interactive computer "games" and videodiscs. Yet, can anyone tell me what constitutes a good videodisc or computer interaction? Attract loops, instructions, titling, length, density of information, desirability of the visitor interacting for the entire length of the program—these are issues that cannot be solved even with one or two studies, but they represent the core material of creative decision-making. Current work is going on at the Brookfield Zoo on this subject, but there is little published literature.

Type Legibility

You may believe that graphics studies have told us all we need to know on the subject. They have not. We have looked at many studies, and no one has really gotten down to the level of assessing the literal typography of graphics. When we want someone to notice something, how big should it be? Do visitors find serif or sans serif type more legible, and which faces in particular qualify as easy-reads? How effective are highlighting techniques, such as boldfacing?

Multi-Generational Audiences

Much lip service is given to the recognition of the multi-generational nature of visitors to zoos, museums, and aquariums. Yet, again, there is very little study that considers the implications for exhibition design of

how either a multi-generational group's or a multi-generational audience's needs can be satisfied. Does a single exhibit need to reach all groups, or are we better off "designating" different exhibits as specific to different age groups? The reader is encouraged to contrast Miles (1986) and Hensel (1982; 1987) on this issue.

In a sense, what I have outlined here constitutes a research agenda for the next few years, driven specifically by the needs of exhibit designers. I sense an interest in generalization in this field, if only because increased agreement on general principles is probably the best single way to improve the quality of exhibit work. There has been some nascent interest in beginning to compile principles of exhibit design, such as Roger Miles' presentation at this conference. I realize I am calling for several different kinds of studies: behavioral, conceptual, technical. Some evaluators are in a better position to work in specific areas than others, but with a focused agenda for research we will all benefit.

Conclusion

In conclusion, I would like to remind everyone of my favorite form of graphic statistical presentation: the bell-shaped curve of distribution. Our whole purpose should be to reshape the curve so that we have more good exhibits, and work to make better sense of this mysterious, complex form called an exhibit. As a designer, I appeal to researchers/evaluators to produce working guidelines in easy-to-digest format to aid the exhibit design process and improve the results.

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