Abstract

Much of our response to what we see is modified by the context in which we find ourselves and from which we view the subject. The distinction between what zoo visitors perceive unconsciously (message) and observe consciously (content) frequently nullifies the efforts of zoo educators and interpretive planners.

The integration of context, content and message requires parallel integration of the efforts of participants in the design of the zoo environment.

Introduction:

Investigative work by Wolf and Tymitz (1979), Brennan (1977), Serrell (1979), O'Reilly and Martin (1982) and others has contributed to a rapidly growing understanding of how zoo visitors use interpretive signs and other materials. There is a consensus that such materials should be well-integrated and "...responsive to the environment in which they are placed," (Serrell, 1979, p. 4). Could zoo visitors themselves be responsive to the environment in which they are placed? Context may have a great effect upon perception. Could this effect equal or even exceed the importance of interpretive information in the education of zoo visitors? In some cases it may.
Definitions:

The terms context, content and message are used throughout this paper and are defined by the author as follows:

Context: the perceived environment surrounding exhibit viewers, including people and public areas, animals and animal areas, interpretive displays and other features perceived consciously or unconsciously by visitors.

Content: the information and concepts which zoo designers and educators intend to convey to the public through their interpretive displays; what the graphics literally say.

Message: the subjective mosaic of information and emotion which zoo visitors actually experience within the total environment of the exhibit context.

The Context

Picture, for example, a row of 12 steel cages filled with shrieking macaques, protesting patas monkeys and pacing lemurs. Children run in front of the cages, making faces at the monkeys and screaming at each other. Masonry ceilings, walls and floors echo this cacophony.

In one of the cages a male liontail macaque slaps the steel door, then ricochets off the tile wall to a chain and pipe swing from which he screams threats at the neighboring baboon. His mate crouches on a platform above, grinning appeasement. A sign on the cage states that liontail macaques are an endangered species that live in large troupes in the tropical forest canopies of India. Similar interpretive plaques are on all 12 cages. How much would you remember about each species after leaving these exhibits?

The first example shows us why graphic systems often fail. The unconscious perception (message) received by the viewer is one of enforced captivity, which presents the animal in the most prejudicial way possible. The subjective association with confined human deviates is especially strong when primates are displayed in this way. It is doubtful that any amount of artistic excellence and clever wording in the interpretive material can overcome the multisensory chaos and feeling of revulsion created by such exhibits.

You may say this is an unfair example, and that everyone agrees such exhibits belong to a less sensitive past. All right, how about a second example?

Now picture yourself strolling along a broad paved walk under evenly spaced spreading maples. On your right is the polar bear exhibit and, seeing an opening among the several score of people lining the rail, you step up for a better look. Between the rail and moat wall is a well-pruned hedge of Japanese boxwood. A graphic panel is mounted in the hedge and describes interesting features of the species, including the fact that they are often seen swimming far out to sea. In the exhibit a bear is splashing in a pool three times its own length, playing with an empty beer keg. The exhibit is surrounded on three sides by abstract forms of artificial rockwork sixteen feet high. Two red steel doors are set in rectangular openings in the rear wall.

Surely most zoo visitors would find this exhibit more attractive than the first example. Yet this is the type of exhibit more attractive than the first example. Yet this is the type of exhibit that tends to hold a viewer's interest for an average of only ninety seconds (Brennan 1978). Probably less than twenty percent of the people will read the interpretive panel (Serrell 1978). The viewing context is attractive; the graphics are good and relate to the exhibit, the animal is active. What is wrong?
Here are some possibilities:

1. The viewing context feels too safe. The viewers are on safe and familiar ground—a public park called a zoological garden. The animal, though known to be dangerous, is obviously well contained by massive walls and a deep moat. This is plain to see. The scene is dominated by a great number of unconcerned onlookers, so it seems safe. The shade is comfortable. If one's senses are filled with feelings of safety and comfort, can complacency be far behind?

2. The entire setting is too obvious. It can be seen at a glance and understood in an instant. The graphic information talks about swimming and the bear's in the water, isn't that enough? And sure, the rock background looks as if it was built on a Hollywood movie set, but most people won't know the difference, right? Perhaps we should ask them before they wander on.

Very little is required of the viewers and very little is gained by them. There is a surfeit of superficiality and over-simplification.

How can this be improved? Let's look at a third example. Imagine yourself walking along a trail beside a dark creek in a lush forest. Ahead is a group of people looking and pointing at several trees across the creek. Their hushed voices are barely audible above the sound of tumbling water. Peering from beneath a mimosa branch they can see a male lion-tail macaque run along a limb twenty feet above the ground, leap twelve feet to a dead snag and swing down it to the water's edge. He is followed quickly by six females and a number of youngsters. A pair of lesser whistling ducks emerges from the reeds and swims away from the bank. After drinking, the macaques retire to a sunny boulder top where several females commence grooming. An unobtrusive sign indicates that these macaques are in danger of becoming extinct because their forest home is being destroyed.

Perhaps this sign would have some relevance because of its forested context.

Notice the fundamental differences between these last two examples:

1. The viewer is no longer in a safe and familiar park, but is now immersed in an unfamiliar multi-sensory landscape, replicating the animals' natural tropical habitat:

2. No barriers are perceived. You feel as if the animals could appear in the trees above you at any time;

3. The animals are behaving naturally, interacting with the landscape and each other;

4. The viewers actively participate in seeking the animals, stalking along the trail and peering from beneath an overhanging branch. They are rewarded for their efforts by experiencing what appears to be a chance encounter with animals in the wild. In exhibits of this type visitors have been observed to speak in quiet tones and hush their children, pointing out the animals' location. Visitors have been heard to say, "Why, it looks like the animals could just walk up behind you and tap you on the shoulder!";

5. This type of exhibit is designed to appeal to both the unconscious and conscious areas of perception, and furthermore, the messages are complementary and mutually supporting. The experience "feels" real to the viewer and, with examination, tangible evidence supports this conclusion;
6. The graphics need not be overly assertive, for if the viewing context is properly developed, many viewers will be stimulated to seek additional information, and it will be associated with vivid memories.

Content

Many zoo interpretive planners have been taking a hard look at the content of their work. By content is meant the concepts and information they intend to convey to the public. Three general directions are commonly seen:

1. Well-educated zoologists presenting rather technical material (scientific name, unique physiology and such) to the small percentage of the public that can understand the material on a scientific level.
2. Minimum information presented grudgingly to a suspect population that "... won't read it anyway."
3. Simplified information presented in vivid format (often cartoon-style) which can compete for and capture the interest of the broadest segment of the population.
4. Graphics that attempt to interpret or explain information about phenomena clearly visible in the exhibit itself and surrounding the viewer. This approach emphasizes concepts about the animals' relationship to its natural habitat and about the habitat itself, as well as behavioral concepts. The graphics themselves do not attempt to compete for attention.

Message

The message, as defined here, means simply the mosaic of information and emotions the visitor walks away with after experiencing a zoo exhibit. Currently, we know very little "hard" data about visitor perceptions, though some work is proceeding on this problem. However, until more is known, my designer's intuition tells me zoo visitors of all ages and backgrounds may be much more perceptive than is generally expected, although much may be perceived unconsciously. Visitors do go away with a *message*, though it may not be the one we intend.

Implementation

And how are we to get across our *message*? We must integrate *context* and *content*. We must examine our ultimate goals and integrate the design of animal exhibits, public areas and interpretive materials to support these goals. We must attempt to align as many environmental stimuli as possible to present a clear, consistent and attractive *message* to the public, with the hope that this *message* will enroll their enthusiastic support in world wildlife conservation and captive propagation.

How can such integrated exhibits be realized? Public space, animal space and interpretive concepts must be conceived of as a whole from the beginning.

Too often one sees the following format:

1. The director has an idea. It is discussed with a few key assistants and board members;
2. An architect is hired to design the buildings;
3. An exhibit designer (often an expert in artificial rockwork) designs the exhibit;
4. The zoo education/graphics staff then designs the labels and signs;
5. A landscape architect designs the planting plan;
6. The exhibit is completed and turned over to the keepers and maintenance staff.

Each team member operates independently within severely restricted bounds. This fragmentation is often obvious when viewing the exhibit years later.

Here is an alternative approach:

1. The Team – architect, landscape architect, biologist/ecologist, engineer, exhibit designer, education/graphics person—holds an initial design workshop under the zoo director's direction. Other key zoo personnel—board members, curators, keepers, facilities staff, etc.—are brought in, depending upon the nature of the project;
2. The Team collectively identifies the goals and objectives of the project, develops implementation strategies, and establishes the various work programs for each member. Special attention is given to ways in which the members can contribute to one another and to the team as a whole;
3. Coordination meetings are held at key stages in the process to ensure continuous collaboration;
4. The Team is reconvened periodically after the exhibit is opened to reassess the work and identify problems and opportunities that lead to further improvements in the exhibit and in future projects.

Conclusions

Is it true that the environmental context within which we operate has a strong conscious and unconscious effect upon our perceptions and upon what we learn? Is it true that zoos have a responsibility to provide learning experiences for the public? If the answer to these questions is affirmative, then we should seriously attempt to design the entire environmental fabric of our zoos in ways that support our principal educational message: conservation of wild species. And if we are to be successful we must do this in a way that provides visitors with positive memorable experiences of high recreational value. We will continue to limit ourselves severely if we persist in compartmentalizing our efforts. We must reassess old stereotypes about where the boundaries of the exhibit begin and end, or where the limits of each other's contributions begin and end.

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