

PART 2  
HOW TO USE THE BOOK



## THE USE OF THE BOOK

This book can be used in several ways by different users: design professionals can construct a building program and a resultant solution which are based upon, or enhanced by design principles. For example, "circulation which overlooks" can be the schematic and physical form-giver for a particular design solution.

The example case studies in the discussion about "circulation which overlooks" can be used as an inspiration for generation of concrete design alternatives, from which a selected solution or a composite scheme might emerge.

The examples for each principle were selected because they represented one or several aspects of the relevant topic in a special--or sometimes ordinary but skillful--way.

The examples are several in number, because it is clear that there is more than one right way to go about any given problem. The diversity of the examples represent also the spirit of children's museums which are abstractly and often literally topsy turvy.

The choice of examples, on the other hand, is not meant to imply that the illustrated situation is perfect and the recommended approach. Therefore, each case study from which the illustrated example was drawn is not necessarily flawless.

Museum planning committees can review the issues and decide which ones are high on their list, thus establishing an outline for a program with a hierarchy of priorities.

Museum curators and directors can review both issues and principles/approaches/ examples for design ideas while thinking about changes, renovations or even routine display changes.

Last but not least: in addition to programming and design, the book and its principles can be used for evaluation. Does the building evaluated have the qualities and characteristics which enhance performance and contribute to a better museum-experience?

The various topics in the book can be used as a checklist and qualitative criteria for examining case studies.

A key to an effective use of the book is a familiarity with the concept of Design Principles.

#### DESIGN PRINCIPLES: AN APPROACH TO PROGRAMMING AND DESIGN

An important part of any program for a building design is the articulation of the basic goals or issues to which the designed environment should respond. These issues should be generated from the global purposes of the museum or facility. For example, the mental and physical development of children can be a primary goal that is then further developed/expanded and then refined and defined to specific goals. The "mental and physical development of children" can be partially met by "learning through participatory experience," and further defined by the specific example of "manipulating selected variables."

A closely related process for organizing the programming for design is to identify the important, user-relevant issues and problems like museum fatigue or wayfinding, and to define its sources and overt manifestations.

Goals and issues form a strong basis for design principles. For example, given the issue of wayfinding, it is clear from the research literature that a coherent path can facilitate easier visitor's wayfinding. Two design principles that emerge from this issue are "understandable structure" and "circulation which overlooks."

Design principles suggest critical environmental factors, qualities and characteristics of those settings which will facilitate the goals or resolve the issues. For example, the main quality of "circulation which overlooks" is clear from its title: The visitor's commanding view on all or most paths from the initial point of entry or central location.

Design principles are intended to be abstract, general, evocative and suggestive of a range of design options.

A good design principle should evoke a number of equally good design alternatives, not just one solution.

Although architects use design concepts like "symmetry" or "central spine" as organizing tools, usually they are form-based, not issue or user-relevant. Seldom have they been evaluated, or questioned seriously. The design principles advanced in this book are much like that of Alexander's patterns (Alexander, Ishikawa, and Silverstein, 1977). They are based on behavioral issues that are derived from research of problems in the built environment and the myriad opportunities for enhancing people's lives. Some of these are from research literature on basic behavioral issues, others are from literature on children's environments and child development, and others yet are museum issues. The principles are several in number and testable. Whereas Alexander's patterns are often criticized as being too concrete, specific and dogmatic, the intention here is to communicate information which may provide a direction and a range of design options. The goal is to inform the reader, designer, to stimulate the imagination and intuition, while avoiding doctrinaire solutions which might inhibit design innovation.

The use of design principles listed in this book is meant to be selective and flexible. It is clear that several design principles, e.g. "distribution of services," are appropriate for some museums, particularly large ones, but not for others.

While some design principles are truly universal, a few principles might be conflicting with other, equally sensible principles. So which ones are really the proper principles to be used?

There is no simple answer to this question. Most are useful in any given situation, but like helpful tools in a tool box, not all are necessary or appropriate in each problem situation.

Design principles are indeed tools to aid in the design process, and guide the formation of the design environment. Therefore they should be used selectively, with care and flexibility.

## KEY FEATURES OF THE DESIGN PRINCIPLES

The format for each design principle allows use by a variety of users--designers, museum workers, museum administrators, community groups, educators, parents, researchers and students of the above disciplines.

The principles are stated independently of each other so that programmers and clients can specify which principles are appropriate for their particular situation. This also allows the designer to develop a selective set of design principles.

As developed specifically for this project, each design principles has seven parts:

## TITLE:

An evocative name that is memorable. It is stated in general terms, usually specifying some quality the environment should have.

## DEFINITION:

An expanded description of the title.

## ISSUES:

A statement of the problem(s) to be solved and the context for the principle.

## QUALITIES AND CHARACTERISTICS:

A succinct statement of the basic qualities and characteristics the environment should have in order to solve the identified problem(s). The terms used are evocative and open-ended, but directional.

## APPROACHES FOR DESIGN:

Basic approaches and design strategies to solve the identified problem. The approaches are generic and several in number.

### A PREVIEW

A PREVIEW GIVES THE VISITOR OR VIEWER AN IDEA, CONCEPT OR IMAGE OF WHAT IS AHEAD, BEFORE ACTUALLY ENTERING A PLACE, A BUILDING.

#### THE ISSUES:

Humans, adults and children alike, strive for predictability in their environments by constantly interpreting what is around them and what lies ahead. A good preview of an activity can provide them with a taste of what the museum is all about, a sense of what is inside.

Fortunately, museums have the compatible need to advertise, announce, and invite. Although children's museums may be tenants in buildings designed for other purposes and others may be housed in neutral boxes, all need to project an image, set a mood, convey a spirit. This need can be satisfied by a good preview.

#### QUALITIES AND CHARACTERISTICS OF A PREVIEW:

A preview can provide clues or tangible evidence for the qualities and content of the place. A good preview can do one, all, or some of the following:

- introduce and inform about the inside;
- suggest the uniqueness of the place;
- invite, entice and attract, perhaps tease;
- set the visitor's mood;
- advertise and "push" a desired image, spirit, character;
- be humorous, playful, abstract or literal, non-threatening, descriptive, aesthetically pleasing, outrageous, elegant;

#### APPROACHES FOR DESIGN:

##### 1. A SIGN

A simple sign provides an introduction; it communicates the name of the facility. If the name is also descriptive and evocative, e.g., "The Exploratorium," the word association can trigger the viewer's imagination.

##### 3. HUMAN ACTIVITY POCKET.

The most powerful preview includes people--whether at work, play, or rest. Creating an activity pocket outside, where activity of the museum spills over into the street to get the attention of those passing by is an effective strategy.

Is it open? The presence of human activity can signal from a distance providing a non-verbal clue to the status of the museum.

There are many strategies for design of situations which become the catalyst for human activity that attracts others--the street corner store that attracts a crowd.

One example is the placement of a restaurant or museum store outside the museum proper. The advantages of externalizing them include their role as a symbolic sign as well as placing an active area upfront. Hot dog stands and street corner vendors are versions of a temporary activity that announce happenings. The Museum of Art in Santa Fe is aided in capturing attention away from the other attractions on the main square by the lemonade and hot dog stand on its corner.

**EXAMPLES:**

Selected case studies which illustrate the more important features of the approaches and characteristics above. The example are several in number and uniquely different from each other.

**EXAMPLES:**

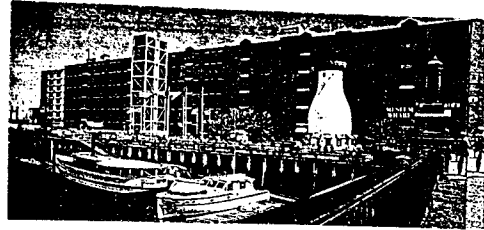
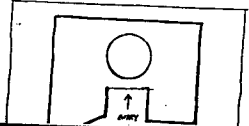
Museum of Modern Art, New York  
Edward Durrell Stone & Philip Goodwin

A "Storefront" allows people on the street to view the inside; they can see a glimpse of the main or current "show." If they miss the sign, they can "know" the function of the interior or a whole building by what they view. This preview allows the museum to work after hours, capturing the attention of those passing by, and enlivening the streetscape.



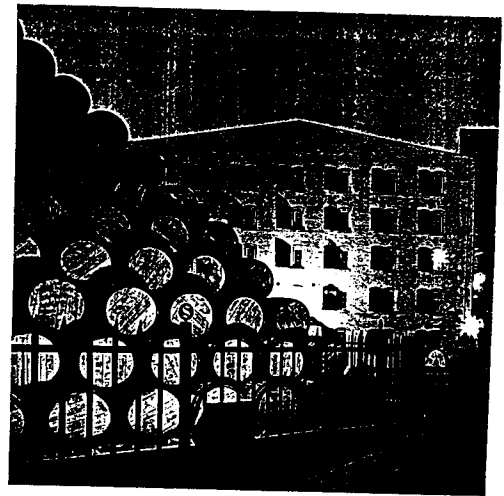
The New England Aquarium, Boston  
Cambridge Seven Associates, 1965

Adjacent to the entry, a pool with seals basking in the sun provides a small show that attracts spectators in the public plaza, while at the same time introducing the thematic content of the aquarium and setting the mood for the interior.



The Boston Children's Museum,  
Dyer/Brown and Associates, 1979

This landmark milk bottle is an indirect reference to the mood of the museum: old and collectible; a place for kids of all ages; a place for the unexpected. An everyday object...



The Seagram Museum Waterloo, Ontario  
Barton Myers Associates, Architects  
1983-84

The stack of barrels at the Seagram's arrival court serves as a massive, but elegant sign and a concrete tie to the main theme of the distillery museum.

**RELATED PRINCIPLES:**

- FOCAL POINT
- LANDMARK
- URBAN RESPONSE

**RELATED PRINCIPLES:**

Other design principles which relate either to this principle's issue(s) or overlap its solution(s).