UNDERSTANDABLE STRUCTURE

UNDERSTANDABLE STRUCTURE ENABLES THE VIEWER TO GRASP THE ORGANIZATION, OR THE "MAP" OF THE BUILDING INSTANTLY BY LOOKING AT ITS EXTERIOR AND/OR INTERIOR.

ISSUES

The problem of orientation -- knowing where you are -- and wayfinding -- getting to your destination -- is a major issue in museum design. The problem is more acute in larger museums.

Understanding the building reduces uncertainty, increases predictability in negotiating the environment, thus making navigation easier or effortless even to first-time users.

Reducing wayfinding anxiety can begin even before entering the building by exposing the visitor to building elements that are easy to "read." Upon entering, a quick look should reveal the lay-of-the land, the order of spaces, how the building works.

QUALITIES AND CHARACTERISTICS:

* Provides primary information about its overall form, parameters, and floor plan organization

* Provides an image, or tangible information about the contents and mode of operation as a system

* Provides clues about paths and circulation systems

* A better solution will reveal the above instantly from an external point of observation before entry, or from an internal vantage point, without the need for further exploration.

* A good understandable structure will still retain variety and change, opportunities for surprise and some mystery. It should not be a boring building.
APPROACHES FOR DESIGN:

1. EXTERIOR, OR BUILDING ENVELOPE, REFLECTIVE OF INTERIOR ORGANIZATION:

A building's facade or external elevations can give clues to the way the interior spaces are organized. For example, the externalization of the spiral, shell-like path at the Guggenheim Museum in New York provides a complete grasp of the structure's parameters, beginning of path, and its progression.

2. SIMPLE, REPETITIVE GEOMETRY:

Repetitive geometry makes for predictability, even if only part of the building is in view. It is sufficient to see a beginning of a sequence of rooms along a linear spine to "guess" the overall structure. A symmetrical geometry is even more predictable, such as the case with the Hirshhorn Museum in Washington, D.C.: a simple circular plan within a void in the center has almost perfect symmetry and perhaps too much simplicity.

3. TRANSPARENCY:

The ability to literally see the inside organization from the outside or from an internal vantage point increases the understanding of the plan and interior of the building.

A storefront, glassed approach such as at the Museum of Modern Art in New York provides partial, "first floor" understanding. At the Visual Arts Center in Norwich the entire two opposing sides of a monumental box are exposed to the outside and are completely transparent.

4. DOMINANT INTERNAL PATH:

The appropriate strategy for beginnings and endings of the visit depends upon the nature of the internal path. Internal streets, indoor towns, concentric rings, one-way paths, romantic meanders, rational classics, informal yet majestic, and the rabbit warrens all have special qualities and demand particular treatment for coming and going. If any of the above is a dominant physical feature, it can become another element in an understandable structure: for example, the vaulted skylight above the "internal street" at the Boston Fine Arts Museum is a clear circulation which overlooks the entire wing; it explains the structure of the wing and the way subspaces branch from the path.
5. DIRECTIONAL SYSTEM:

Where building design is not an option in making the museum structure understandable such as in the case of an existing or recycled building, a clever and sophisticated but simple directional system can repair some of the problem, by giving the viewer a graphic, pictorial or abstract reference to the environment. This can supplement any of the other approaches also.
EXAMPLES:

The Solomon R. Guggenheim Museum  New York
Frank Lloyd Wright  1943-1959

The exterior shell depicts the interior spiral ramp and gives away the secret of its internal organization.

The Visual Arts Center
Norwich, England
Foster Associates  1977

The simple box-like building is completely transparent from two sides, which gives the outside viewer a commanding view of the overall structure and the museum contents. The same visual control is provided on the inside as well.
Everson Museum of Art
Syracuse, New York
I. M. Pei 1961-1969

The simple, repetitive geometry of the four wings surrounding an internal courtyard is as clear from the inside as well as the outside.

Second Floor Plan

The regularity and repetitive geometry makes for an easy understanding and comprehension of the internal organization, despite the variations in gallery sizes.
Boston's Fine Arts Museum
I. M. Pei 1982

The internal street is the most dominant physical element in the new wing.

The 250-foot-long vaulted skylight is visible inside and outside. The galleria is the social and activity center of the wing, and a main path.
Center National d'Art
Georges Pompidou Paris
Piano & Rogers 1971-1977

The obvious external structural expression explains both the circulation system and the layer structure of this multi-story, monolithic building.

RELATED CONCEPTS:

* CIRCULATION WHICH OVERLOOKS

* A PREVIEW