Design Principles: An Approach to Programming and Design

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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 facility. For example, in the context of designing environments for children, the mental and physical development of residents 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.”

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.

A closely related process for organizing the programming for design is to identify the important, user-relevant issues and problems which can be the driving force behind the solution. For example, in the context of the museum, “way finding” and “museum fatique” are two critical issues which form a strong basis for design principles. Given the issue of way finding, it is clear from the research literature that a coherent path can facilitate easier visitor’s orientation. Two design principles that emerge from this issue are “understandable structure” and “circulation which overlooks.”

Design by Norhashimah Jantan.
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 project are much like those in Alexander’s patterns (Alexander, Ishikawa, and Silverstein, 1977). They are based on behavioral issues that are derived from the 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 offices and law practices, and still others are facility management 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 readers and to stimulate their imagination and intuition, while avoiding doctrinaire solutions which might inhibit design innovation.

The use of design principles listed in this report is meant to be selective and flexible. It is clear that several design principles, e.g., “neighborhoods”, are appropriate for some law offices, 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, law office employees, facility managers, administrators, 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 principle has five parts:

**Title (and icon)**
An evocative name that is memorable. It is stated in general terms, usually specifying some quality the environment should have.

**Overview**
An expanded description of the topic.

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

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

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

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