

UNIVERSITY UNDERGRADUATE FELLOWS PROGRAM
An Objective Method for Critical Analysis
of Designed Landscape Projects Within the Urban Area

by

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This research project represents the search for what turned out to be the ideal. It is, however, fortunate that a successful research project is not always dependent upon proving a preconceived idea or product. Perhaps the following information will be of value to those interested in this or some related thesis.

The built environment is that portion of the land surface whose character or form has been altered by the presence of man. Ittelson in An Introduction to Environmental Psychology identifies three uniquely human features of man's endeavors to change his surroundings: the extent, the deliberate and self-conscious implementation, and the complexity. Man has reshaped the earth for his uses since the Stone Age. Modern technology has opened doors and permitted alterations of the environment on a scale which man neither foresaw or understood. Man alone effects changes deliberately and self-consciously and does it within a complex interactive culture framework. Man's response to environment and adaptive changes occurs on psychological and social levels as well as physical and biological ones. Changes in the environment are

reflective of not simply survival considerations but of philosophical and ethical concepts from human social organization, and human attitudes toward the physical environment. As man has broadened his technological capabilities for altering the physical environment he has begun to create situations which reflect his perceptions and prejudices and satisfy his needs and goals. These needs and goals are constantly changing as man's self-perceptions change.

The availability of technological alterations have corresponding increased the number of changes in the built environment. The majority of people live in a world whose character and form is a result of dramatic human alterations of the original landscape. Evaluation of the character, form, and utility of the urban landscape provides a clue to the perceptual world in which the people live and the experiential basis for behavior patterns. Designers of the physical world employ certain processes for the creation of forms responsive to human needs. Investigation of these processes provides insight into how problems and needs are identified, analyzed, alternate solutions proposed, and final solution chosen to be implemented.

Design Process

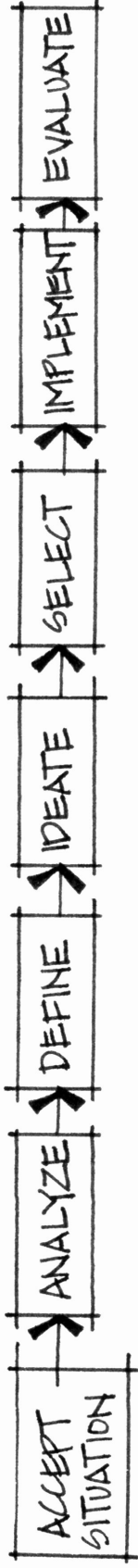
The design process is simply a logical framework for creative problem-solving. This framework is composed of a sequence or series of events in a logical order. Koberg and Bagnall in The Universal Traveler describe these "energy states" as follows:

- 1) accept situation- statement of initial intentions and acceptance of the problem as a challenge to be solved in the process.

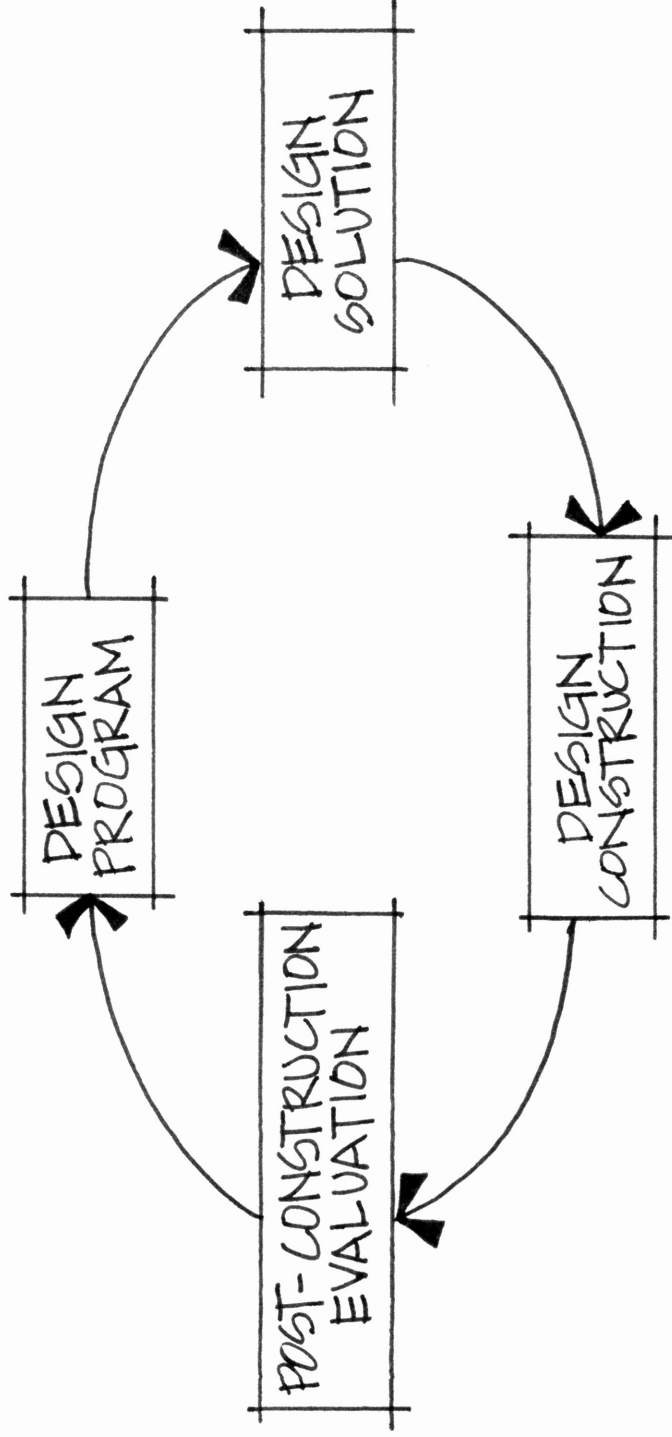
- 2) analyze- analysis of the problem, considering all sides and angles of the situation.
- 3) define- clear definition of what are perceived to be the main issues of the problem and definition of the goals to be accomplished within the problem situation.
- 4) ideate- generating creative alternatives for reaching the major goals.
- 5) select- comparison of goals with alternatives to find the best single or combined ways of solving the problem.
- 6) implement- giving action or physical form to the selected best alternative (s).
- 7) evaluate- determining effects, ramifications, and creativity of implemented alternative in solving problem situation to accomplish major goals.

The design process can be viewed in a number of ways - linear, circular, branching, or as a constant feedback loop. However it is viewed, it is always a complete process for learning how to see and solve problems.

To objectively evaluate the designed landscape project it is necessary to explore and understand the values which have been the basis for decision-making in each step of the process. The landscape design process can be analyzed in terms of the environmental ecological context, social organization of the intended users, suitability of the implemented project to its intended use, and its flexibility in accommodating future change. Each of these areas can be applied to any project scale. The values from which decisions are made in each context are the standards for evaluation of the finished product.



LINEAR DECISION-MAKING PROCESS



CIRCULAR DESIGN PROCESS

The natural environment is the non-retrievable resource of natural processes. Vegetation, topography, drainage, climate, wildlife, and soil are the integral features of the living environment which exist in a delicate balance of ecological and biological unity. Disruption of any single system such as the clearing of trees to build a paved parking lot results in increased rainfall runoff rates, loss of wildlife habitat, and creates a microclimate opposite to that of the shaded forest. The total picture must be considered as well as the individual elements. The ultimate livability of the environment for the human population lies in the recognition of natural processes. Consideration of their preservation or sensitive alteration must be seen as valuable for maintenance of environmental living quality.

Such natural process values require comprehensive planning efforts but their importance as a long-term public resource is now being recognized. The designer has the responsibility for establishing the setting as a non-retrievable public resource which must be delicately explored and sensitively utilized. McHarg speaks of the proper "fit" of a particular solution into the broader environmental context:

Every society and ethnic group has a social organization which incorporates each member into a role or set of roles by which he is identified. These roles will change over time from simply growing up, the acquisition of power, or any other reason. But while the roles are defined, or at least recognized by the society or community at large, the individual understands his relationships to others within the societal framework. Socio-economic classes have been shown to have very different systems of social interaction and spatial organization. Observers of low-income

or slum neighborhoods note the vitality of the street life and the many activities and social contacts which are all happening simultaneously along the sidewalks and in doorways. The deplorable conditions of the dwelling interiors promotes these external activities. The sharing of common problems allows a compatibility and sharing of mutual joy and pain. The average upper middle-class dwelling set back on its neat lawn is separate and independent from all its neighbors and the only opportunity for interaction occurs when two neighbors go out to pick up their daily papers at the same time. Urban renewal housing is resisted many times by residents in more squalid conditions because new sterile settings destroy much of the valuable social contact and identification which residents enjoy in their initial setting. A number of government attempts at re-settling poor families into newer, more modern facilities have failed. Social groups compressed into physical settings foreign to their past experience are not only alienated from their physical surroundings but can also disintegrate because the social fabric is ignored or not accommodated by the physical environment in which they live. Sociologists, psychologists, anthropologists and other social scientists have sought to identify the social characteristics and patterns of most identifiable socio-economic or ethnic groups. However, the translation of such data into recommendations for actual physical forms has been left up to the designers, many of whom have had a sincere desire to retain and reinforce the social fabric of their user public but have been unable to do so from lack of specific recommendations for spatial relationships. Social interactions can be reinforced or eliminated by the physical design and relationship of

environmental forms such as dwelling entrances and pedestrian circulation patterns.

The imposition of human activity onto the landscape affects the character and quality of the landscape. The type of activity which is proposed for a particular site should be compatible with the natural processes of the piece of land. Physical landscape design must promote by character and form the expected range of activities and uses.

Landscape design projects are physical forms constructed in a constantly - changing environment. Demographic, social, and economic forces are always changing as reflections of culture. The original uses or social groups for which a particular project was designed may change by the completed implementation of a project. Creative design solutions must allow for this vital flux of needs and desired facilities and be able to accommodate different uses and activities from those initially considered. An inflexible design will be either abandoned or destroyed to make room for different activities with different spatial requirements.

Every landscape design project has a set of expectations and requirements to be met. This program of expected benefits and realistic limitations is initiated by the client who is seeking the satisfaction of a need or maximization of land resources usually for monetary gain. The ideal solution to a problem is translated and compromised by manipulation so that it is a solution within the given program constraints. Constraints are usually of a social, psychological, or budgetary nature. Budgetary constraints are the most common although prejudicial psychological attitudes also tend to limit the evolution of the best form

solution. A client may establish program expectations which are diametrically opposed to the natural constraints of the site or to provision of facilities to meet the needs of the ultimate users. The landscape architect has the responsibility of translating the needs and desires of the client into an implementable form which does not disrupt the natural environmental context nor exclude the needs of the ultimate users.

Technological constraints may be presented if the implementation of a solution is impossible with the existing technology available. A definite idea-to-hardware ratio exists whereby the realistic validity of a proposed solution can be measured by the extent, depth, and complexity of the technical skills and materials required for implementation.

Methodologies

Numerous methodologies exist for evaluation of urban landscape design projects. Generally an analysis framework will concentrate on one particular scale of project whether on a regional/metropolitan scale, a district-scale, or individual residence. Such a variance for evaluation by project scale is necessary since objective quantification requires detailed and specific identification of project elements. Project elements for any scale can be identified within any or all of the value categories. Evaluation on any scale includes analysis of the physical, affective, functional, cognitive, social, and environmental features of the implemented project and understanding of their dynamic interchange in creating a place. Evaluation of an urban plaza involves a grain of analysis which concentrates on human scale relationships,

visual character, aesthetic form integrity, pedestrian circulation and movement rhythms, and the integral vitality of the space which makes it into an identifiable "place". Yet a list of these same characteristics would be inapplicable to a park or subdivision unless re-defined. Once the value abstractions have been established, the specific elements and characteristics which constitute an effective problem solution must be discovered on an individual project scale. Even the complete dissection of a particular scale of project will merely quantify those characteristics which lend themselves to dissection and codification. The ultimate success of a landscape design project involves rational consideration of each step in the design process and an intuitive, artistic judgement concerning the effort to instill a genius loci reflective of human creativity.