URBAN DESIGN- Lecture Notes- Spring 2002

1. Urban Design: Some Definitions

1.1. Scope of Urban Design

Urban design has replaced the "civic design" which dealt primarily with city halls, museums, streets, boulevards, parks and other open spaces since 1960s. However there is not a consensus about the definition and boundaries of urban design.

Urban Design is,

- The process of giving physical design direction to urban growth, conservation, and change
- The design of cities - 'a grand design'
- The interface between architecture, landscape and town planning
- The complex relationships between all the elements of built and unbuilt space (DoE, 1996)
- The architecture of public space

Some theoreticians rather not to describe urban design but to explain what it is not:

- It is not land use policy, sign controls, and street lighting districts.
- It is not strictly utopian or procedural.
- It is not necessarily a plan for downtown, however architectonic, nor a subdivision regulation.

Descriptions explained above suggest that **there is no easy, single, agreed definition of urban design**. However we can determine the general framework of urban design.

The basis for a framework defining urban design can be grouped under six main headings according to The Institute for Urban Design (IUD)'s criteria:

1. Historic preservation and urban conservation
2. Design for pedestrians
3. Vitality and variety of use
4. The cultural environment
5. Environmental context
6. Architectural values

Goals and principles describing urban design can be grouped under eight major headings:

- Place,
- Density,
- Mixed and compatible uses,
- Pedestrianization and human scale,
- Human culture,
- Public realm,
- Built environment
- Natural environment

1.2. Role of Urban Design

Urban design is generally considered neither a profession nor a discipline. There is a trend to formulate urban design as the interface between architecture and town planning, or the gap between them.

- For example, when Kevin Lynch saw *urban design as a branch of architecture* Michael Southworth on the other hand thought *urban design as a branch of urban planning*.

"It is easier to talk about urban design than to write about it… In between (planning and architecture), but belonging neither to one nor the other, lies the magic world of urban design. We can recognize it by its absence. It is inferred, suggested, felt."

- Another commentator Jonathan Barnett also recognizes the crucial role of urban design between the urban planning and architecture:

"What is the difference between an urban designer and urban planner, or between an urban designer and an architect?

An urban planner was some one who was primarily concerned with the allocation of resources according to projections of future need. Planners tend to regard land use as a distribution of resources problem, parcelling out land, for zoning purposes, without much knowledge of its three-dimensional characteristics, or the nature of the building that may be placed on it in the future. The result is that most zoning ordinances and official land use plans produce stereotyped and unimaginative buildings.

Architect, on the other hand, designs buildings. A good architect will do all he can to relate the building he is designing to its surroundings, but he has no control over what happens off the property he has been hired to considered.

There is a substantial middle ground between these professions, and each has some claim to it, but neither fills it very well. Land use planning would clearly be improved if it involved someone who understands three-dimensional design. On the other hand, **some one is needed to design the city, not just the buildings. Therefore, there was a need for someone who could be called an urban designer.**"

Undoubtedly urban design cannot stand alone between these three main professions. Urban design is an interdisciplinary concept and should be considered with the other disciplines and professions such as Real Estate Development, Economics, Civil Engineering, Law, Social Sciences and Natural Sciences.

1.3. Urban Design Process

Four basic phases of urban design:

1. Analysis

a. Gathering of Basic Information

It includes understanding the structure, organization, and pattern of urban areas. Basic information is gathered on such items as land use, population, transportation, natural systems, and topography. Designers also examine the varied character of the site and the structure of neighborhoods and business areas. Problems and design goals are identified.

b. Visual Survey

The visual survey is a standard part of any urban design study. It is an examination of the form, appearance, and composition of a city or neighborhood. To conduct a visual survey, one must have a basic idea of the elements of urban form. (The most prominent is the study of Kevin Lynch: *Paths*, *Nodes*, *Edges*, *Districts* and *Landmarks* as five basic skeletal elements of a city form) Next, one must examine the city and describe it in terms of this vocabulary.

c. Identification of hard and soft areas

The definition of hard (e.g. public parks) and soft areas (e.g. business district) helps to designer to know what parts of the city can accommodate growth and change and what parts are essentially fixed because they may be occupied, for example, by a historic landmark. Such information is of considerable value in the latter stages of the urban design process when proposed plans must be evaluated for feasibility of implementation.

d. Functional Analysis

The functional analysis examines the relationship of activities among the various land uses and the way that relate to circulation systems. This study builds on the work of the land-use planners. However, the urban designer carries the study into three dimensions. (e.g. changing of building heights to street width ratio over time.)

2. Synthesis

In this phase, the data gathered and the analysis of the problem must be translated into proposal for action. The first component of synthesis phase is the evolution of concepts that address the problem. Concepts are followed by the development of schematic design proposals. These proposals are more specific in nature. Schematics are followed by preliminary plans.

3. Evaluation

Evaluation occurs at many levels, ranging from meeting technical demands to the ability to gain public acceptance. After the design proposals are complete, it is essential that they be evaluated in the light of the original problem or issue they were intended to address. One of the more complicated tasks associated with evaluation is determining what criteria should be employed. There are two basic categories:

(1) how well the solutions fit the problem and

(2) how readily the proposals can be implemented.

4. Implementation

During the implementation, the strategy for actual financing and construction is formulated. Detailed phasing studies and tools are considered to realize the project.

2. Urban Design Theory

2.1. Urban Spatial Design Theories (R.Trancik, Finding Lost Space, 1988)

1. Figure-Ground Theory

The figure-ground theory is founded on the study of the relative land coverage of

Solid masses → (“figure”) (buildings)

Open voids→ (”ground”) (parks, streets, squares)

A predominant “field” of solids and voids creates the urban fabric.

[Remember the first lecture: Elements of Built Environment: masses (m) / spaces (s) / paths (p)]

The figure-ground approach to spatial design is an attempt to manipulate the solid-void relationships by adding to, subtracting from, or changing the physical geometry of the pattern.

The figure-ground drawing is a graphic tool for illustrating mass-void relationships; a two-dimensional abstraction in plan view that clarifies the structure and order of urban spaces.

Urban Solids:

[m] Public Monuments or institutions (Ziggurat, Pyramid, Gothic or Baroque Churches etc.)

[m] Urban Blocks (Krier’s mission is to reconstruct the traditional urban block as the definer of streets and square)

[m] Edge-defining Buildings -establish an edge of the district- (Berlage’s Housing district in Amsterdam, 1915)

Urban Voids:

[s] Entry foyer space –establishes the important transition from personal domain to common territory- (fore court, mews, niche, lobby, front yard)

[s] Inner block void –a semi private residential space for leisure or utility- (courtyard and covered passage)

[p] Network of streets and squares –places to spend time in and corridors through which to move-

[s] Public parks and gardens –nodes for the preservation of nature in the city, places for recreation-

[p] Linear open-space system commonly related to major water features such as rivers, waterfronts, and wetland zones.

2. Linkage Theory

Linkage theory is derived from "lines" connecting one element to another. These lines are formed by streets, pedestrian ways, linear open spaces, or other linking elements that psychically connect the parts of a city.

The designer applying the linkage theory tries to organize a system of connections, or a network, that establishes a structure for ordering spaces. Emphasis is placed on circulation diagram rather than the spatial diagram of the figure-ground theory. Movement systems and the efficiency of infrastructure take precedence over patterns of defined outdoor space.

3. Place Theory

The place theory adds the components of human needs and cultural, historical, and natural contexts. Advocates of the place theory give physical space additional richness by incorporating unique forms and details indigenous to its setting. In place theory social and cultural values, visual perceptions, of users and an individual's control over public environment are as important as principles of enclosure and linkage.

2.2. Urban Design Paradigms

1. Urban Design Theory on the European Continent

Neo-Rationalism

Neo-Classicism

2. Urban Design Theory: The Anglo-American Axis

The Townscape Movement

Venturi and Contextualism

Historical Eclecticism

Neo-traditional Urbanism

Additional Sources on Urban Design

1. P. D. Spreiregen, The Architecture of Towns and Cities
2. G. Broadbent, Emerging Concepts in Urban Design
3. Kevin Lynch, Good City Form
4. N. Ellin, Postmodern Urbanism
5. A. Madanipour, Design of Urban Space