

Architecture & Town Planning

Introduction to Architecture & Town Planning

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Architecture

What is Architecture?

Architecture is the **art**, science, and profession of planning, **designing**, and supervising the construction of new **buildings, landscapes, communities**, and **furnishings** in their totality, examining their environment in accordance with the **principles** of utility, strength, and **aesthetics**.

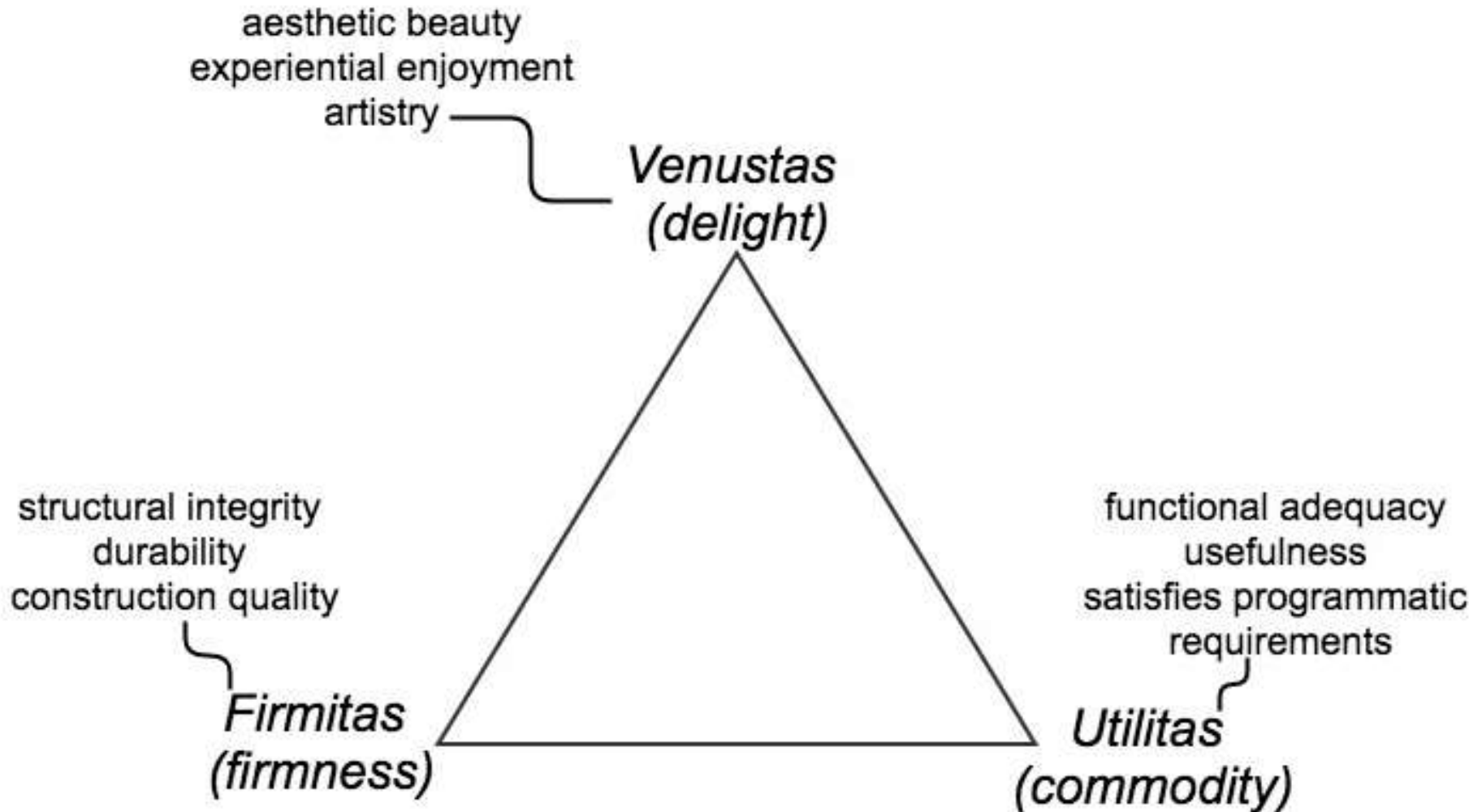
Other Definitions of Architecture

- ❖ **Architecture** is both the process and the product of planning, designing, and constructing buildings or any other structures. Architectural works, in the material form of buildings, are often perceived as cultural symbols and as works of art.
- ❖ Architecture provides a sense of place and support of all types of human activity.
- ❖ Architecture helps the man-made fit in harmony with the environment while promoting health and well-being, enriching lives aesthetically and spiritually, providing economic opportunities, and creating a legacy that reflects and symbolizes culture and traditions.

Other Definitions of Architecture

- ❖ The selection of forms, shapes, materials, texture, color, etc. for a structure to make it look elegant and beautiful is called Architecture. It tells us how to provide support to the building economically from the point of view of materials as well as of space.
- ❖ It makes use of applied services such as structural engineering, sanitation, hygiene and ventilation, etc.
- ❖ It utilizes proper materials at the proper places and in appropriate form.

Principles of Architectural Design



Delight (Example of Beauty in old Buildings)



PHOTO COURTESY CHRISTINA AHLHELM, FLICKR

Delight (Example of Beauty in New Buildings)

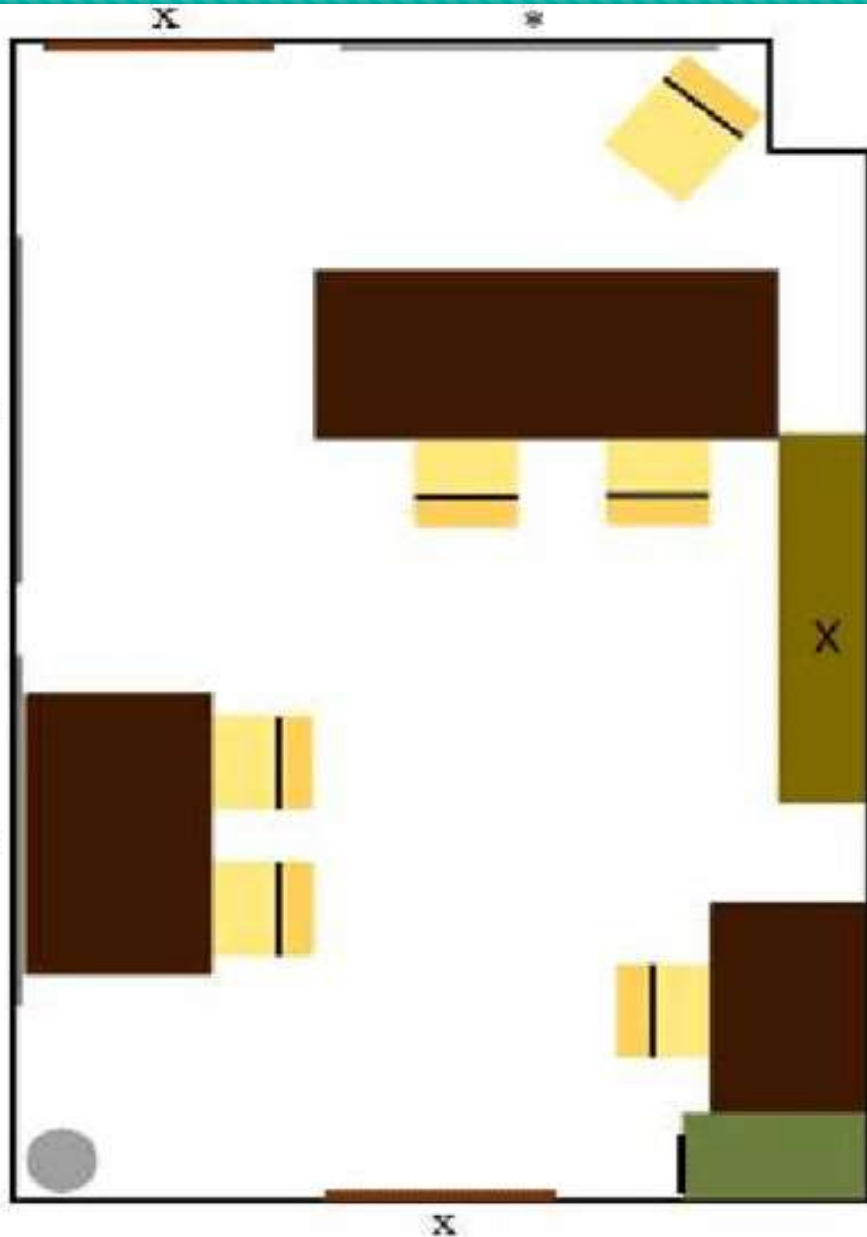
Falling water by Architect Frank Lloyd wright



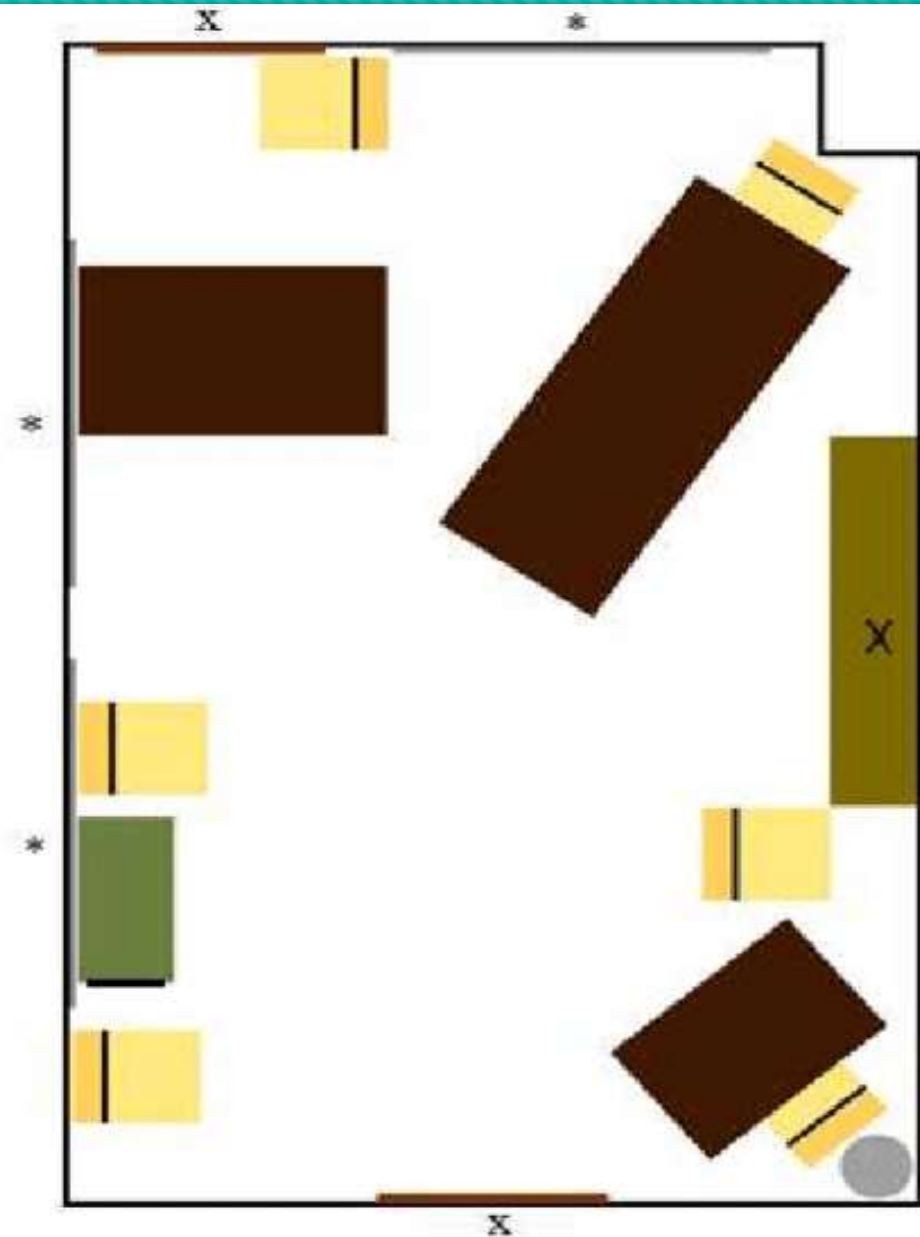
Firmness (Example of structural stability Buildings)



Commodity (Example of Room Layouts)



Functional Arrangement



Non-Functional Arrangement

TOWN PLANNING

Also known as Urban Design

Terms Defined

- Urban
 - Man-made environment overrides the natural environment
- Suburban
 - Both man-made and natural environments get due respect
- Rural
 - Natural environment is dominant

Terms Defined (Contd.)

- Development

- The gradual growth of something so that it becomes more advanced, stronger, etc.
- The process of continuous change – usually in a positive manner – leading towards some state or sort of improvement, completion or perfection at sometime in the future.

Terms Defined (Contd.)

- Planning

The process of decision making whereby resources are allocated for certain (alternative) strategies to achieve specify goals in the future.

- Design

The art or process of deciding how something will look, work, etc. by drawing plans, making models, etc.

Urban Design/ Town Planning

- The creation, renewal and maintenance of the urban fabric and urban infrastructure.
- The process of deciding how to lay out a town and what type and style of buildings to have
- Urban design concerns the arrangement, appearance and functionality of towns and cities, and in particular the shaping and uses of urban public space
- The art of shaping the interaction between, people and places, environment and urban form, and nature and built fabric, and influencing the processes which lead to successful villages, towns and cities.

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- The art of shaping the interaction between, people and places, environment and urban form, and nature and built fabric, and influencing the processes which lead to successful villages, towns and cities.
- City or environmental design deals with the spatial and temporal pattern of human activity and its physical setting, and considers both its economic-social and psychological effects.

Urban Design/ Town Planning

- Ordering the use of Land, buildings, communication routes so as to secure the maximum practicable degree of economy, convenience and beauty
- Shaping and guiding the physical growth of town creating buildings and environments to meet the various needs such as social, cultural, economical and recreational etc. and to provide healthy conditions for both rich and poor to live, to work, to play and relax
- Town planning is the planning and design of all the new buildings, roads, and parks in order to make them attractive and convenient for the people who live there.
- The comprehensive planning of the physical and social development of a town, including the construction of facilities

Objectives of Town Planning

AIMS & OBJECTIVES OF TOWN PLANNING

- to create and promote healthy conditions and environments for all the people –
- to make right use of the land for the right purpose by zoning
- to ensure orderly development
- to avoid encroachment of one zone over the other

HEALTH



- social, economic, cultural and recreational amenities etc.
- Recreational amenities - open spaces, parks, gardens & playgrounds, town halls stadiums, community centers, cinema houses, and theatres

CONVENIENCE



- To preserve the individuality of the town
- To preserve the aesthetics in the design of all elements of town or city plan,

BEAUTY



BEAUTY

Beauty is achieved by taking the more possible advantages of the natural surroundings, also by giving some architectural finishing to various components of a town.



CONVENIENCE

- Convenience can be understood by giving some social, economical and recreational amenities to the public.
- Cheap power
- Proper industrial sites
- Transport facilities
- Adequate water supply
- Easy sewage disposal
- Open spaces/ parks/
- Play grounds
- Theatres etc.

CONVENIENCE

LOS ANGELES



HEALTH AND MORAL

- To create and promote healthy conditions and environment for all the people rich and poor, to live, to work, to play and relax
- To make right use of land for the right purpose by proper division of land in order to avoid the encroachment of public. Misuse of land should be strictly avoided, such as encroachments over residential area by industries.
- Similarly, parks and play grounds should be allowed for the healthy activities.
- In town planning moral values of the society should also be considered.

Healthy Towns



Elements of a City

Communications

Roadways, Railways, Airways and Waterways



Built-up Area

Residential buildings; Public / Semi-public buildings; Commercial buildings & Industrial buildings

RESIDENTIAL



COMMERCIAL



INDUSTRIAL



Open areas

- Green space includes parks, community gardens, and cemeteries.
- Playgrounds, Vacant Lots etc.



Public Utility

- Water supply
- Drainage
- Electricity
- Gas
- Telephone
- Fire Safety



Public Amenities

Bank • Post office • Police station • Waste disposal • Petrol pump • Fire brigade



Urbanization

- **Urban Growth:** is the rate of growth of an urban population.
- **Urban Sprawl:** The unplanned, uncontrolled spreading of urban development into areas adjoining the edge of a city
- Urbanization is the transformation of rural or natural land into urban areas as a result of population immigration to an existing urban area.
- A country is said to be more urbanized:
Cities grow in number
Urban populations increase in size
Proportion of its population living in urban areas rises.
- The degree of urbanization varies across the world, which reflects the economic condition of countries.

Definition of an Urban area

- The definition of an urban area changes from country to country.
- A way of defining a city or an urban area is by the number of residents.
- The UN defines settlements of over 100,000 as cities.
- Cities with over 5 million inhabitants are known as megacities.
- Historically, a city population, always depends upon its "hinterlands" to provide food.

Causes of urbanization

1. **Industrial Revolution:** Technological innovation and development of large scale energy and metallurgy production
2. **Natural Increase:** Birth-Deaths
3. **Rural-urban Migration:** Push & Pull factors
4. **Reclassification:** Rural to Urban category
5. **Area annexation:** Expansion of city limit by the urban administrations

Push and Pull Factors

Pull Factors

- High income
- Entertainment
- Specialization of professions
- Infrastructure
- Better and higher educational facilities
- Better and more of job opportunities
- Better health facilities
- Availability of Sui gas, electricity & sewerage system
- Better living standard

Push Factors

- Lack of educational facilities
- Lack of job opportunities
- Lack of health facilities
- Lack of Sui gas, electricity and sewerage system
- Land lord system
- Inequality
- Low living standard
- Old traditions

Effects of Urbanization

POSITIVE EFFECTS

- Average income is high in Cities
- Few people live in poverty
- It provides employment opportunity
- Access to amenities
- Social and religious taboos disappearing
- Education is a tool to eradicate social evils
- High Life expectancy (Health)
- Greater ability to grow food
- Greater productivity in
 - Manufacturing
 - Transport
 - Power

NEGATIVE EFFECTS

- Slums (Haphazard development)
- High densities (Over Crowding)
- Housing Shortages
- Excessive size both in population and geographical area
- Urban Expansion & Loss of agricultural land
- High land prices
- Water, Air and Noise Pollution
- Uncontrollable growth
- Traffic congestion
- Unemployment & Underemployment
- Poor waste management
- Poor health
- Crime/ violence
- Physiological problems
- Explosion of minerals and fishery resources
- Shortage of Urban Services
- Racial and Social Issues
- Environmental Degradation
- Growing demand for food and facilities
- Political Corruption

