

Site Analysis

Prepared by : Shna Asaad
2023

Goals of site analysis

- To achieve a **successful design**, site analysis is should be done carefully.
- Site Analysis involves taking an inventory of site elements and analyzing these factors relative to the **clients needs & aims**.
- Gather relevant information about the **properties of the site**, from topography to climate to wind pattern and vegetation.
- Analyze these features and incorporate them into the design.

Site : Any area which has played a significant role in the history of our country.

Such significance may be: Historical , Cultural , Archaeological , Sociological , Scientific.....

Site : A space or ground occupied or to be occupied by a building or a concentration of building developments or human activities that fall under the same land use category.

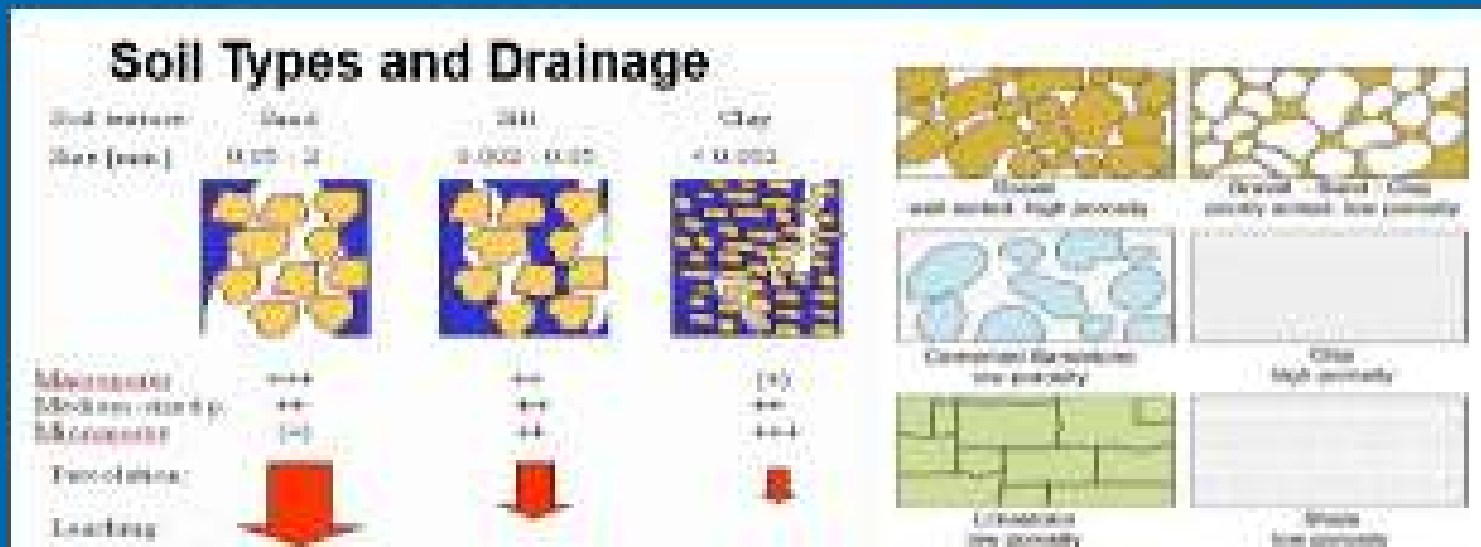
Site analysis is more than just categorizing existing elements; the site planner must feel and understand the site **completely**. He must develop sensitivity to the nature of the site and discover those site qualities which will help determine **actual land use and design**.

Factors which determine a sites character include :

- 1. Natural factor**
- 2. Cultural - Man made factor**
- 3. Aesthetic Factors**
- 4. visual factors**

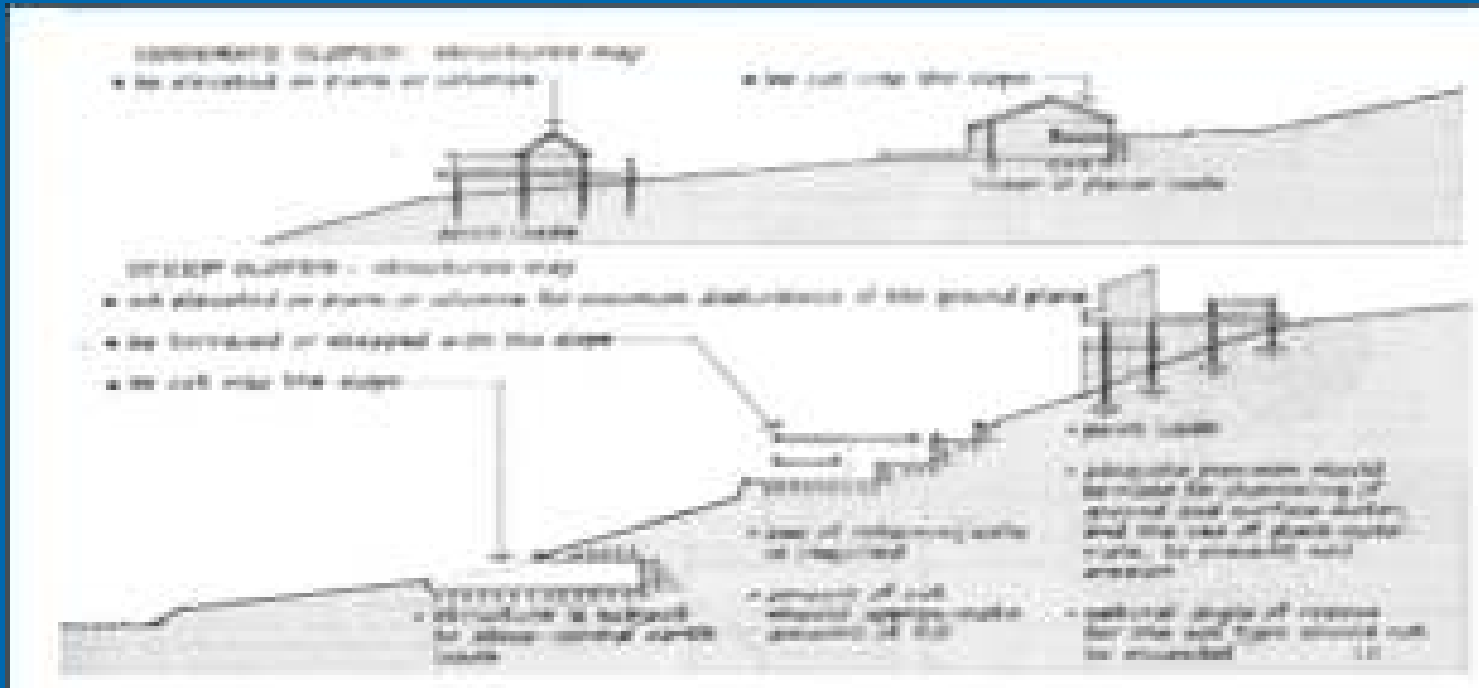
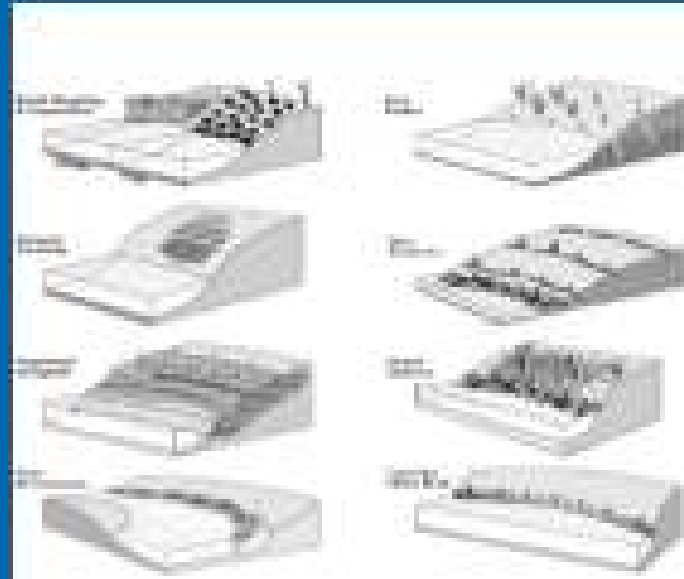
1. Natural factor :

- **Geomorphology** : Land forms, soil properties (composition, soil texture, bearing capacity, stability, erosion.....)



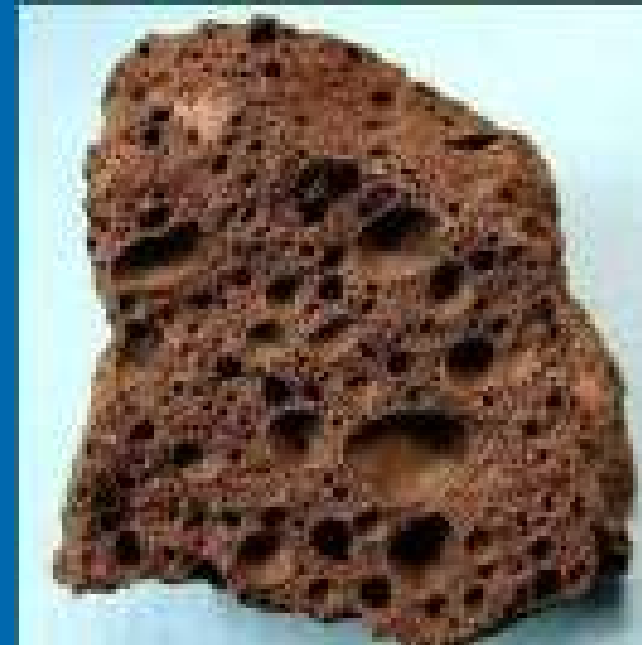
1. Natural factor :

➤ Topography : Elevation, slope



1. Natural factor :

- **Geology** : Seismic Hazards, depth to bedrock



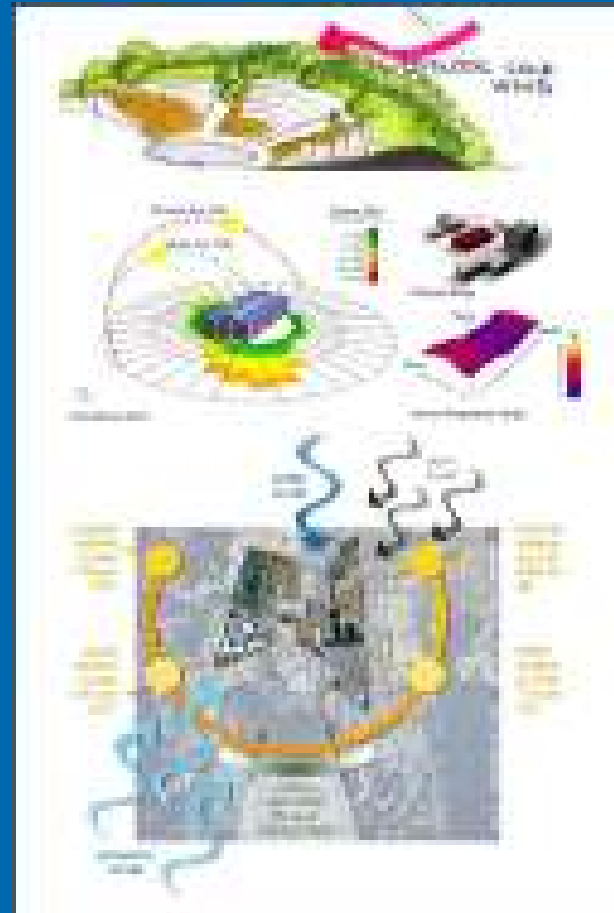
1. Natural factor :

- **Hydrology** : Surface and ground water, drainage, aquifer recharge areas, depth to seasonal water table.



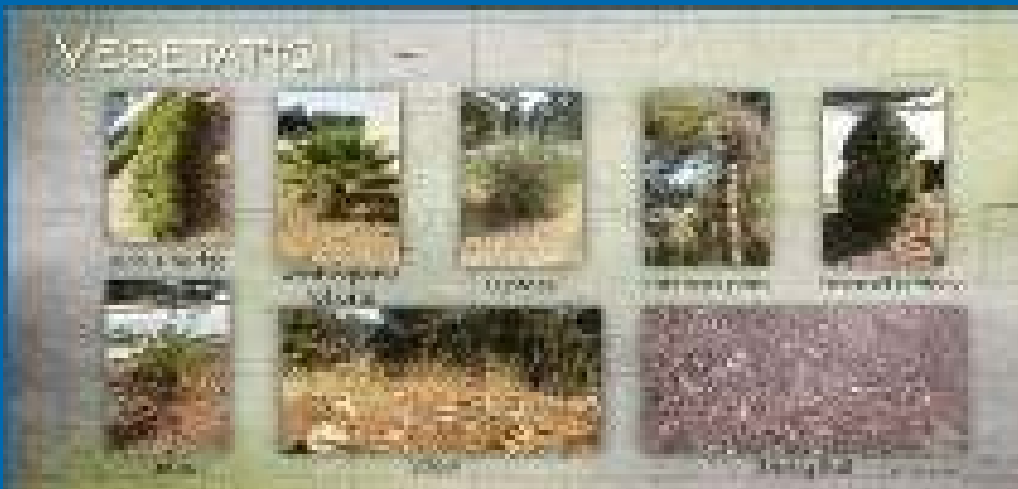
1. Natural factor :

- **Climate** Wind, solar orientation, temperature , humidity, precipitation.....



1. Natural factor :

- **Vegetation** : Plant communities, specimen trees, exotic invasive species



- **Wildlife** : Endangered of threatened species and habitats

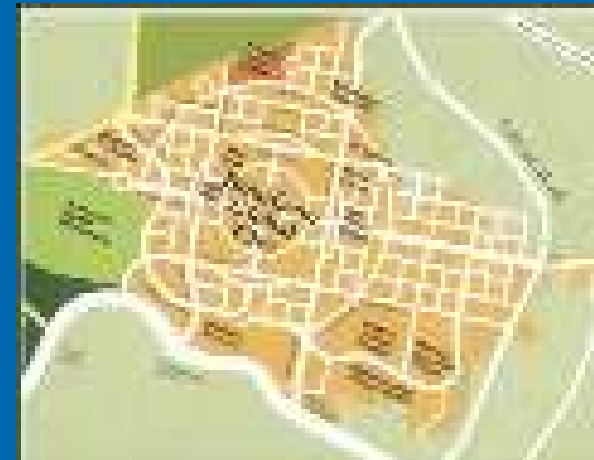


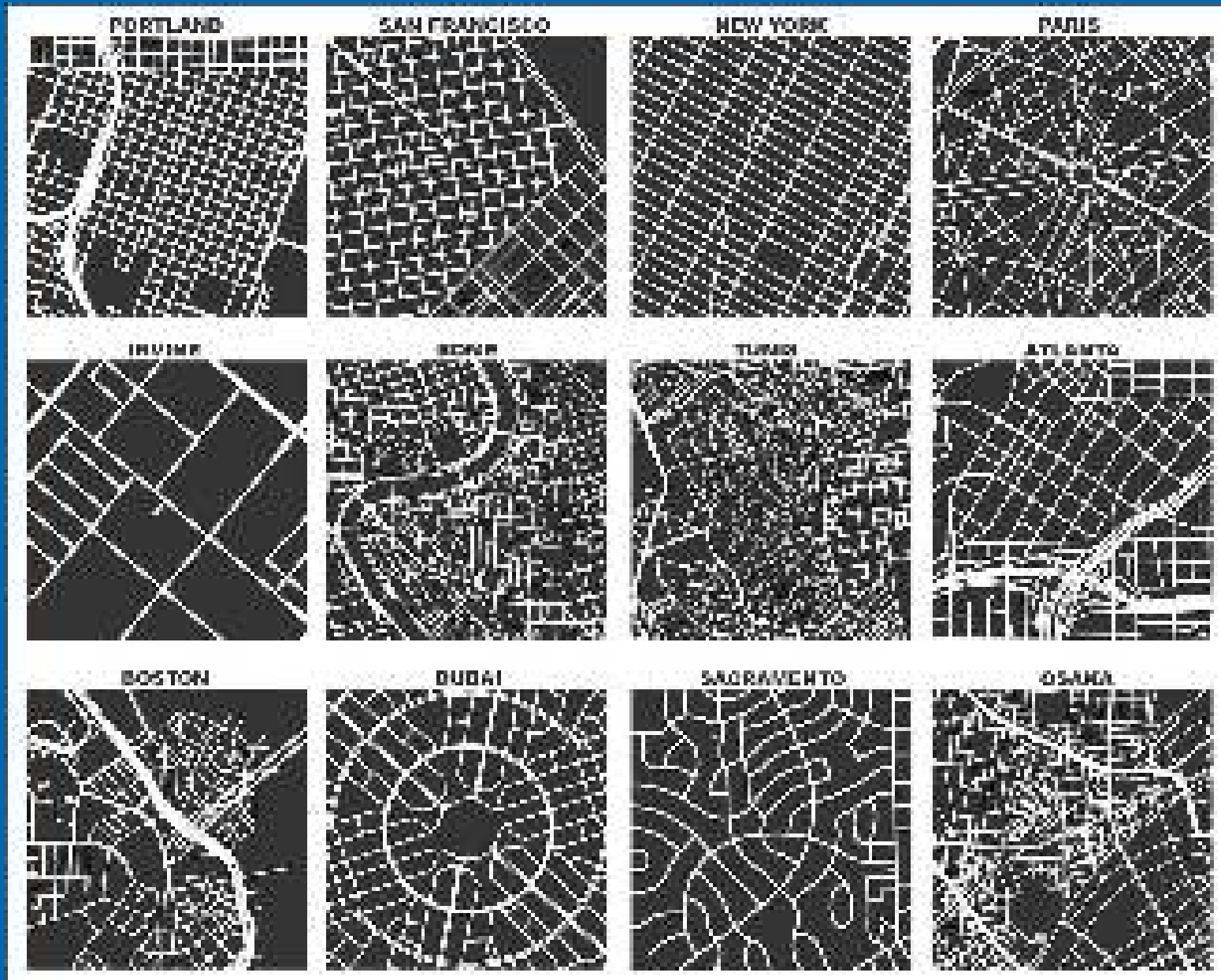
2. Cultural - Man –made factor :

- **Existing Land Use:** Ownership of adjacent property, off-site nuisances.
- **Legal Land ownership :** land use regulations, easements and deed restrictions.
- **Circulation :** Vehicular and pedestrian circulation on or adjacent to site, traffic volume, street function (arterial, collector)
- **Density and Zoning:** Legal and regulatory controls
- **Socio-economic factors and sensory :** (noise, odor, visual quality)
- **Utilities :** Sanitary, storm-water, water supply, power supply, and communications
- **History factors :** Historic buildings, landmarks, and archeology.

3- Aesthetic Factors:

- **Perceptual:** by using vehicles or by pedestrian, by bike ...etc.
(Image of the city).
- **Spatial Pattern:** views of the site, views from the site, spaces existing, potential for new areas, sequential relationship , Spaces and sequences.
- **Natural Features:** significant natural features of the site, water elements, rock formations, plant materials....





Spatial Patterns

4- visual factors of the site:

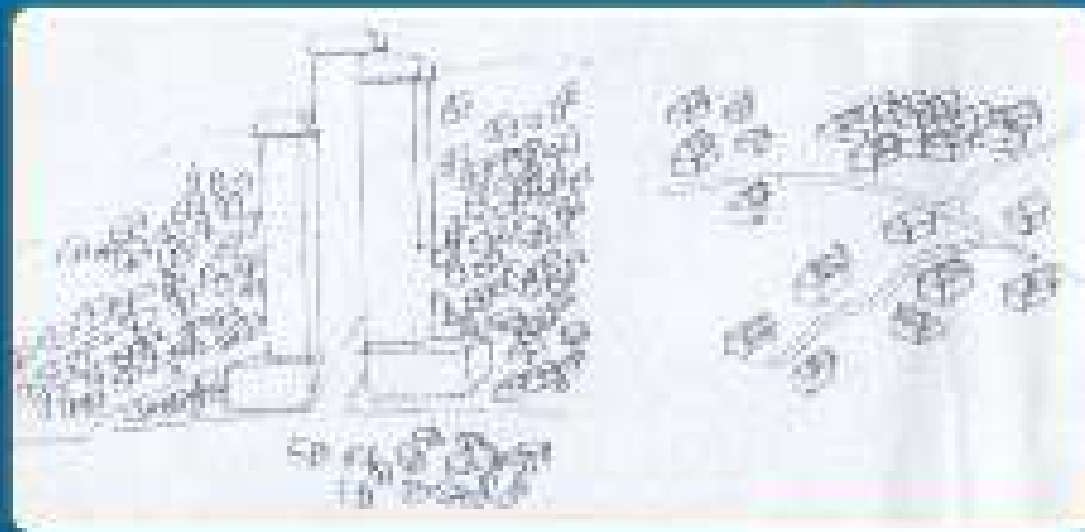
- **Diversity** : In ecological terms, diversity indicates health. Visual density, pleasing, enjoyable, and offers greater variety.
- **individuality or dominance of landscape element** : forest, hill ,stream, meadow . Any dominant quality should be enhanced or reversed.
- **Fitness**: Do man made elements, roads, buildings, grading, or planting --fit into the landscape, or do they create their own separate surroundings?
- **Scale** is a proportional relationship measuring elements against each other. Generally **new developments should be in scale with old**, that is, not appearing proportionality larger or smaller

Other visual factors which should be considered include :

- Contrast
- Feeling
- Uniformity
- Impressions
- Variations
- consecutiveness



Central Factors
Rhythmic Factors



These factors serve three purposes:

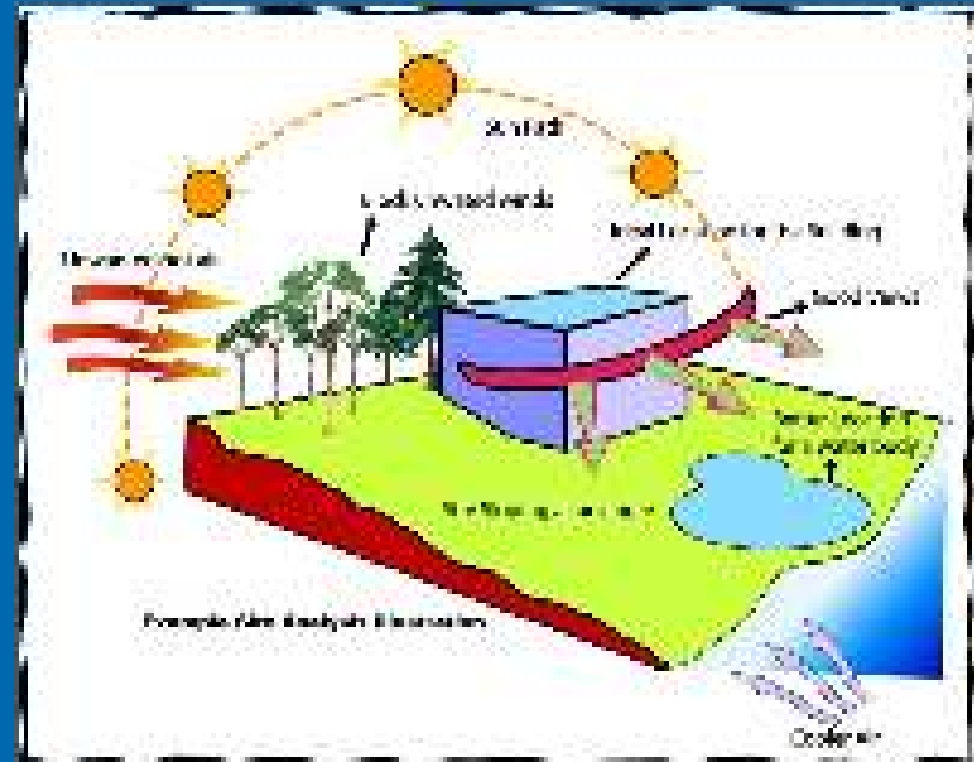
- **1.Functional requirement of man:** moving, living, shopping, working ,learning , maintaining ,etc....
- **2.pleasurable requirements:** recreation, amenity, regeneration beauty, rest, quiet, nature, etc.
- **3.Natural process requirements:** of the physical ,biological environment , the interaction of land, plants, and animals.

- **Site analysis requires an understanding of on-site and off-site conditions:**
- **On-site** refers to the site itself, the piece of land the client owns. On site factors affect the development directly and can often be controlled or manipulated by the site planner.
- **Off-site** is less definite, but equally important since no piece of land really ends at the property line. off-site may refer to land forms such as valley, ridge, stream channel, or flat terrain which affect a site and which might be affected by actions taken on a site. Off-site may also refer to Outside services-streets, roads, utilities, schools, playgrounds,etc.

Off-site factors usually affect the site indirectly and cannot be easily controlled by the site planner

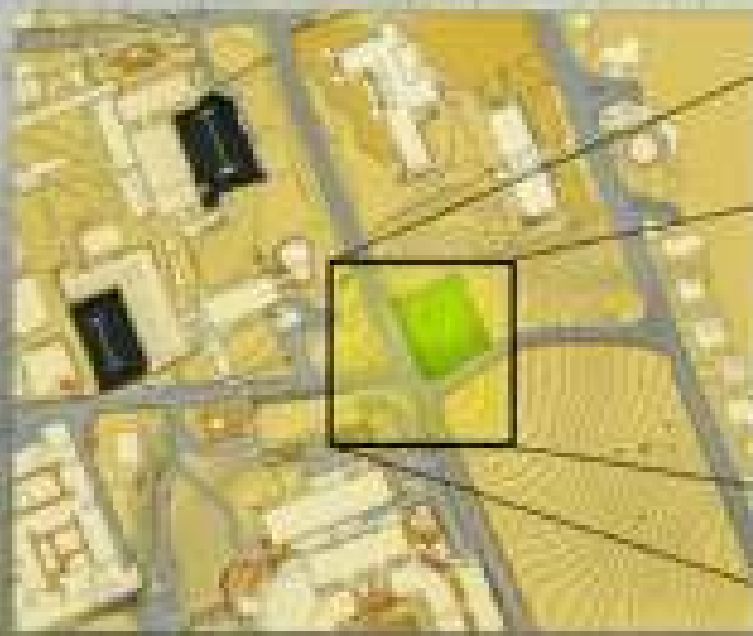
Example Site Condition:

- Under Topography, 5 degree slope is noticed
- Analyzing the conditions, ideal location for building can be established
- For prevailing hot winds, trees would act as buffer.
- Openings in building could be placed to absorb cooler winds

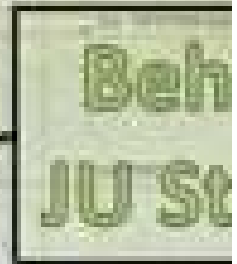
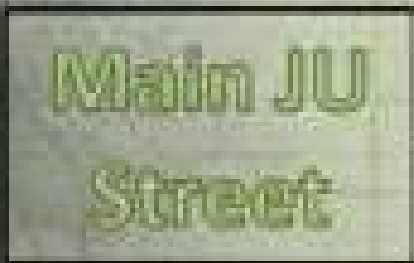


LOCATION Jordan – Amman – Jubaiah
university of Jordan

set backs:
buildable area



APPROACH



CIRCULATION -

- main streets
- bystreets

