

DESIGN METHODS

Second Year - Second Semester
2022 - 2023

Idea and Concept in Architectural Design Process

Asst. Prof. Dr. Faris Ali Mustafa

Department of Architecture, Salahaddin University – Erbil

▪ **Idea:**



In philosophy, the term **idea** has been used to cover a range of concepts. Ideas are often interpreted as mental representational images; i.e., images of some objects.

In other contexts, ideas are concepts, although abstract concepts do not necessarily appear as images.

Ching, A thought or notion resulting from mental awareness, understanding or activity



Francis D.K. Ching

▪ ***Idea:***

According to Plato, there are two worlds:

1- World of **Ideas**, concepts. 2- World of **Matter**, sensation, and phenomena.

The realization of an idea in its best possible form is the synthesis motive that inspires, directs and controls the designer in his choice of materials and means.

- The architectural idea is the spark that transforms the design elements into an architectural composition.
- The idea is strong or weak, normal or original that leads to architectural creativity.
- Imagination is more important in architectural work than knowledge because knowledge is limited and imagination expands, so it is the catalyst for progress and development

"It's in the doing that the idea comes"

Concept in Architectural Design Process

Concept and Design Concept

- ❖ **Concept:** Philosophers generally agree that a concept is an **idea** formed from **inference**.
- ❖ **Concept:** Ching generally agrees that a concept is a **mental image** or **formulation** of what something **is** or **ought to be**, an **Idea** generalized from particular characteristics or examples.

-Idea:

A thought resulting from mental awareness.

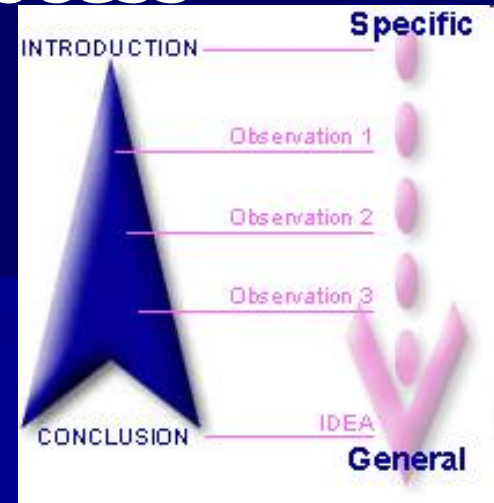
-Inference:

A conclusion reached on the basis of evidence and reasoning.

Concept in Architectural Design Process

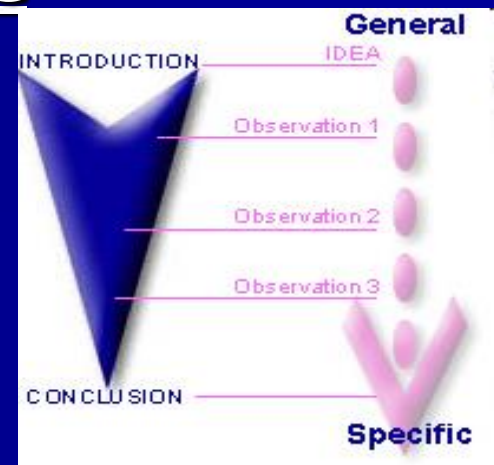
- **Concept:**

- **Inductive reasoning or inductive logic**, is a type of reasoning which involves moving from the specific to the general.

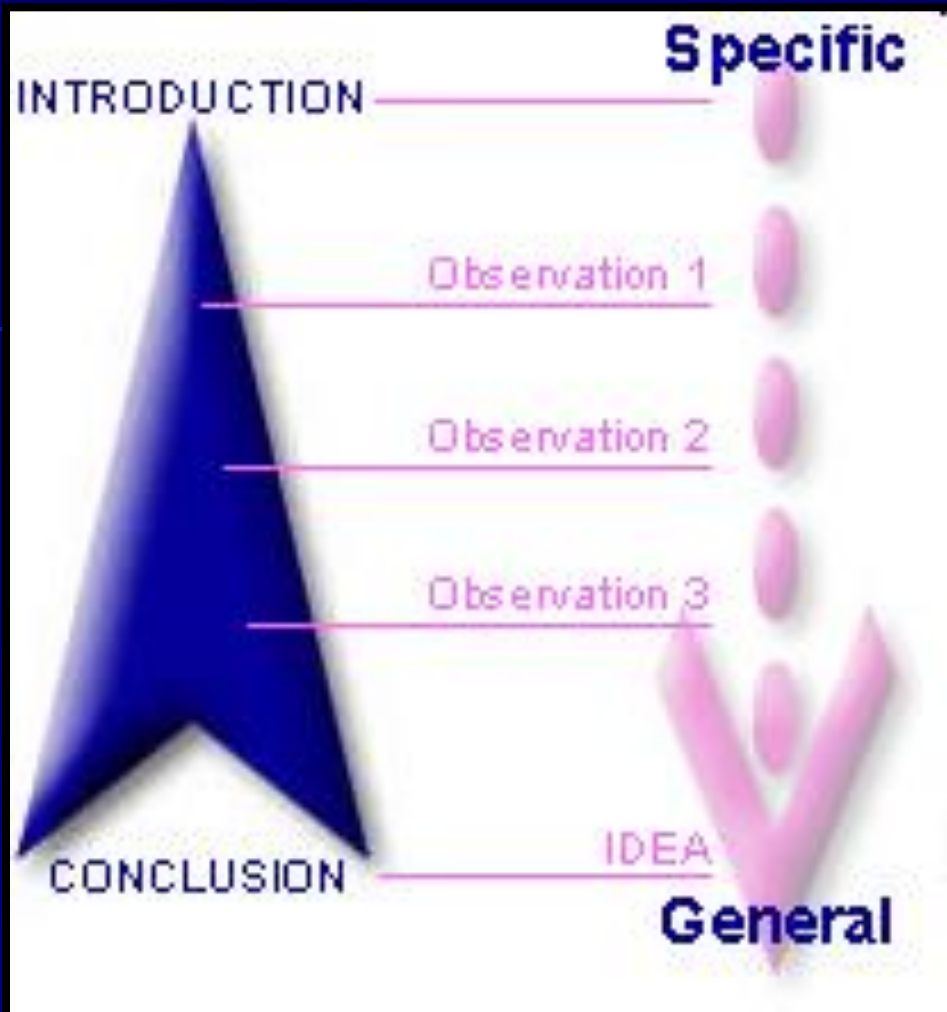


Inductive
Reasoning *from*
Specific to General

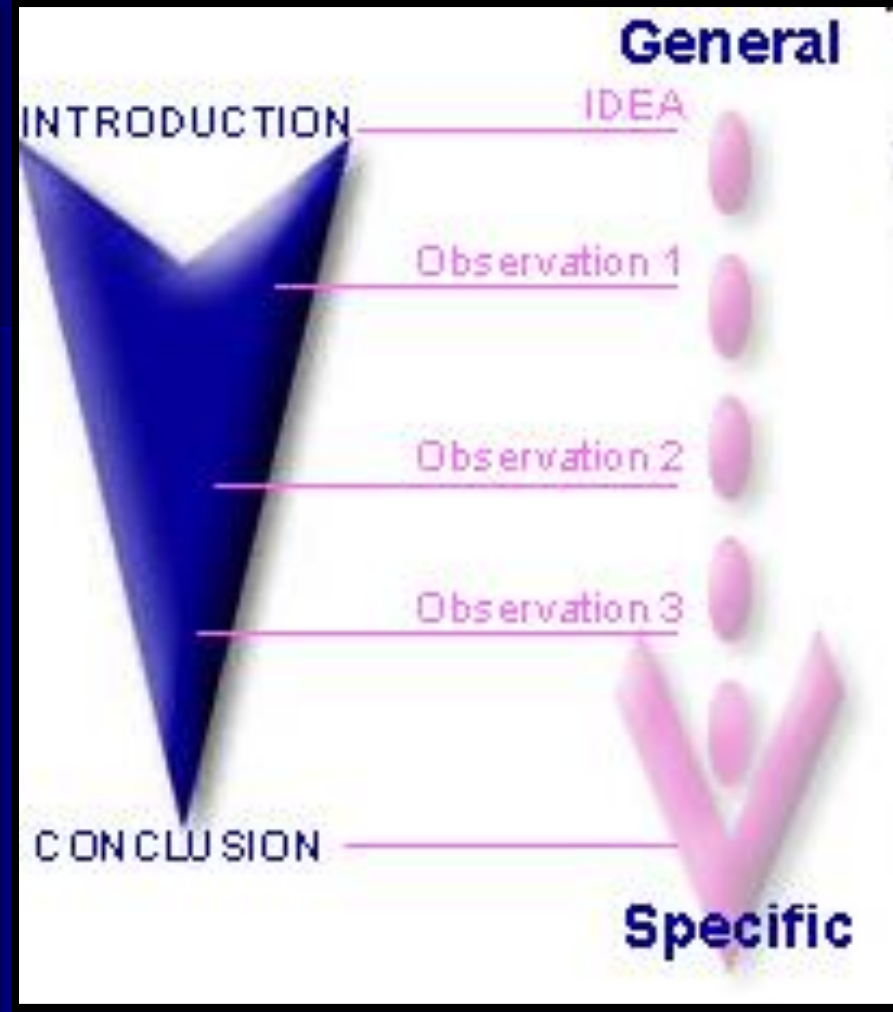
- **Deductive reasoning or deductive logic**, is a type of reasoning which involves moving from the general to the specific.



Deductive
Reasoning *from*
General to Specific



Inductive Reasoning from
Specific to General



Deductive Reasoning from
General to Specific

Concept in Architectural Design Process

Concept and Design Concept

- ❖ **Design Concept:** CHING generally agrees that a Design concept is a **Concept** for the **Form**, **Structure** and **Features** of a building or other **Construction**, represented graphically by:
 - **Diagrams.**
 - **Drawings (Plans, Elevation,...).**

Concept in Architectural Design Process

Concept and Design Concept

❖ **Design Concept:**

- ✓ **Behind** an **Architectural Product** there is an **Idea** which is **Orientated** by **design principles**.
- ✓ **We can** read the **Idea** behind the design by concepts.
- ✓ **Conceptualizing** concepts can be **determined** as the loss of reality of the thing and moving into **metaphysics**.

Concept in Architectural Design Process

Concept and Design Concept

**An Idea Oriented by Project Nature
& Architectural Design Principles**



Architectural Concept



Architectural Product

Concept in Architectural Design Process

Concept and Idea

- ❖ **Idea:** CHING generally agrees that a **thought** or notion resulting from **mental awareness**, understanding or activity
- ❖ **Concept:** CHING generally agrees that a concept is a **mental image** or **formulation** of what something **is** or **ought to be**.

Concept in Architectural Design Process

Concept and Design Concept

❖ **Design Concept:**

- ✓ Program and Site analysis provide us with information, considerations and conditions that affect our design decisions.
- ✓ The Concept provides the holistic idea that brings the program and the site together.

Concept in Architectural Design Process

Concept and Design Concept

❖ **Design Concept:**

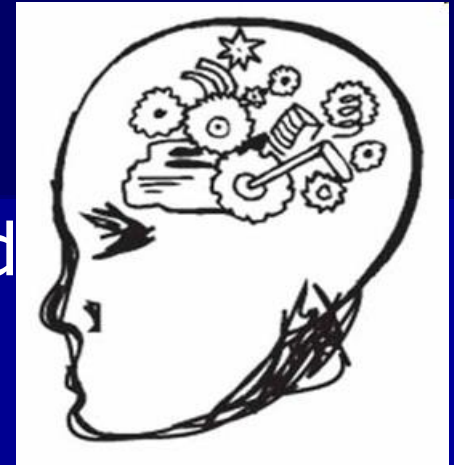
- ✓ **Sources of concepts** can be from nature, technology, culture, literature, art, site, program, etc.. It can be pragmatic (direct) or abstract (indirect).

- ✓ **The project** is like a cup that contains juice!
 - The cup is the site.
 - The juice is the program .
 - The concept gives shape and appearance to the cup, and taste of the “juice”.

Concept in Architectural Design Process

Concept and Design Concept

- Creativity and efforts play a role to find aesthetically pleasing approaches and valid solutions to problems identified through programming.
- Even highly skilled and experienced designers often find it difficult how this aspect of the design process works.
- They will say that they “think about the problem” until they are **“hit by an idea”**.



Dimensions of Concepts

Any building concept should provide:

- Exterior Expression
- Interior Experience



Concept in Architectural Design Process

□ Sources of Architectural Concept

- **F**orm-geometry.
- **T**ransparency.
- **H**armony with **E**nvironment.
- **I**ntegration with **N**ature.
- **I**nside-**O**utside **R**elation.
- **I**niting.
- **H**orizontal-**V**ertical effects.
- **I**nterspace/between space.
- **D**eclared **I**n-**O**ut **S**pace.
- **C**ontinuity.

Concept in Architectural Design Process

Source of Architectural Concept

- **Form – Geometry Theory:**

Refers to the external three-dimensional outline, the appearance of something in contrast to the matter or content or material of which it is composed.

- **Site:**

- Nature.

- Location (Historical, Social and Economic condition).

- **Function.**

Concept in Architectural Design Process

❖ **Form – Geometry Theory:**

- **Site Nature.**



Burj Al-Arab Hotel - UAE.

Concept in Architectural Design Process

❖ **Form – Geometry Theory:**

- **Site Location (Historical).**



New Prime minister building- Iraq.

Concept in Architectural Design Process

❖ **Form – Geometry Theory:**

- **Function of the building.**



Kennedy Terminal - USA.

Concept in Architectural Design Process

□ Source of Architectural Form

■ **Transparency Theory:**

A physical property that allows light to be transmitted through a substance/material.

➤ **Site:**

- Nature.

- Location (Historical, Social and Economic condition).

➤ **Function.**

Concept in Architectural Design Process

❖ **Transparency Theory:**

- **Site Nature.**



Plant Gallery - USA.

Concept in Architectural Design Process

- ❖ **Transparency Theory:**
 - **Site Location (Historical).**



World Trade Center Memorial - USA.

In January 2004, the design submitted by architect Michael Arad and landscape architect Peter Walker, Reflecting Absence, was chosen as the winning project.



Concept in Architectural Design Process

❖ **Transparency Theory:**

- **Function of the building.**



Green Village- USA.

Concept in Architectural Design Process

Source of Architectural Concept

- **Harmony with Environment Theory:**

The design concept takes into account the characteristic of the environment and the existing building, indicated by:

- **The Site:**

Concept in Architectural Design Process

❖ Harmony with Environment Theory

- Site (Building Style).



City Partner Hotel - Paris.



Office Building - Paris.

Concept in Architectural Design Process

□ Source of Architectural Form

❖ **Integration with Nature Theory:**

Design Concept adapts the topography, including materials integrated with nature and giving the least harm to nature.

- **Site:**
 - Nature.

Concept in Architectural Design Process

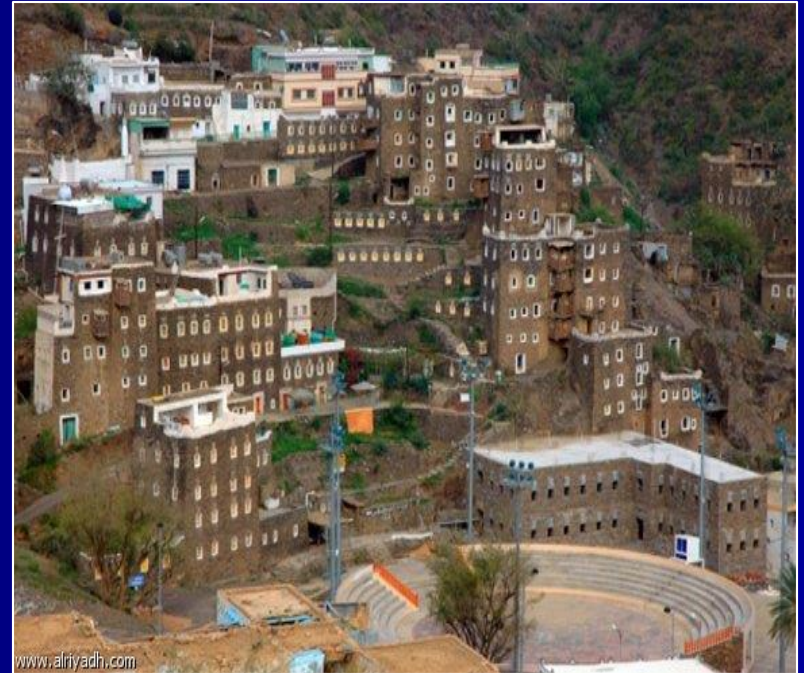
Source of Architectural Form

❖ Integration with Nature Theory

- Site (Nature).



Falling water – Pennsylvania - USA.



Assir Village– Saudi Arabia.

Concept in Architectural Design Process

Source of Architectural Form

- **Inside – Outside Relation Theory:**
- Perception of **Outside** from **Inside** or vice versa. Interfaces which combine these spaces play a big role in the relation of inside-outside.
- **Function.**

Concept in Architectural Design Process

Source of Architectural Form

❖ Inside – Outside Relation Theory

- Function.



Louvre Pyramid - Paris.

Concept in Architectural Design Process

Source of Architectural Form

❖ **Inviting Theory:**

Attractive and inviting spaces (like entrance) that make people go towards them.

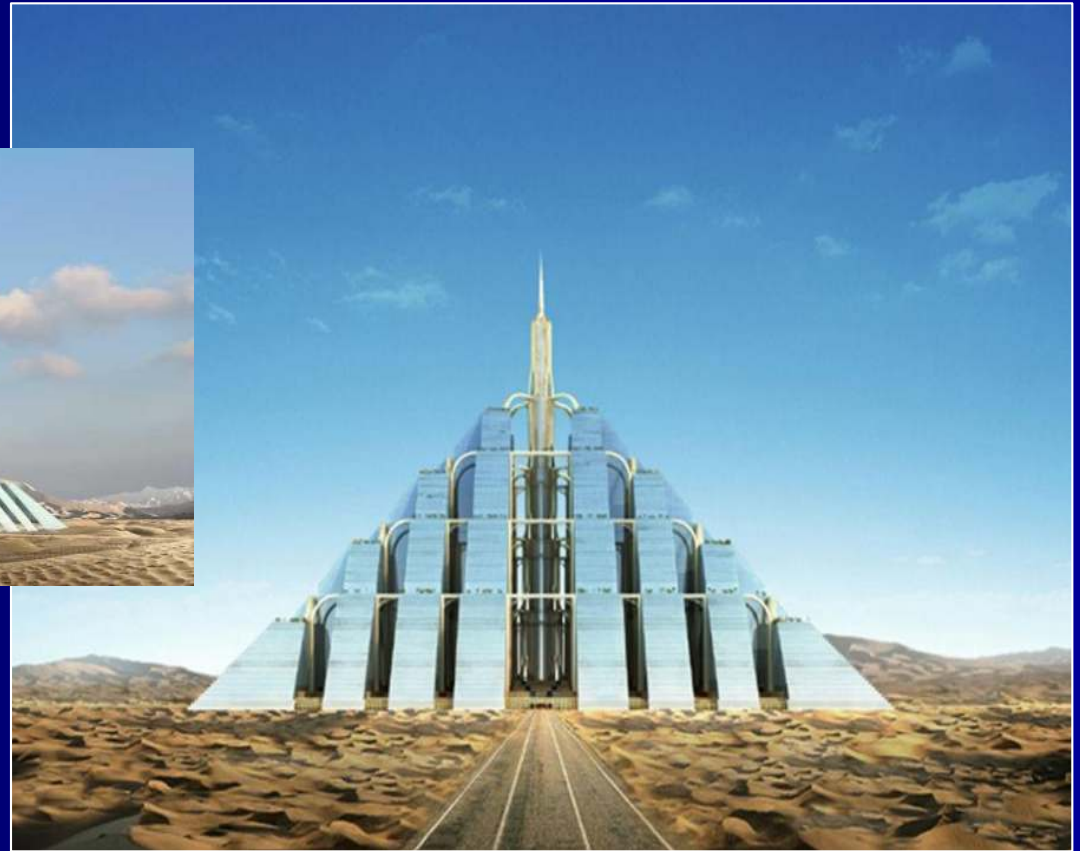
➤ **Function.**

Concept in Architectural Design Process

Source of Architectural Form

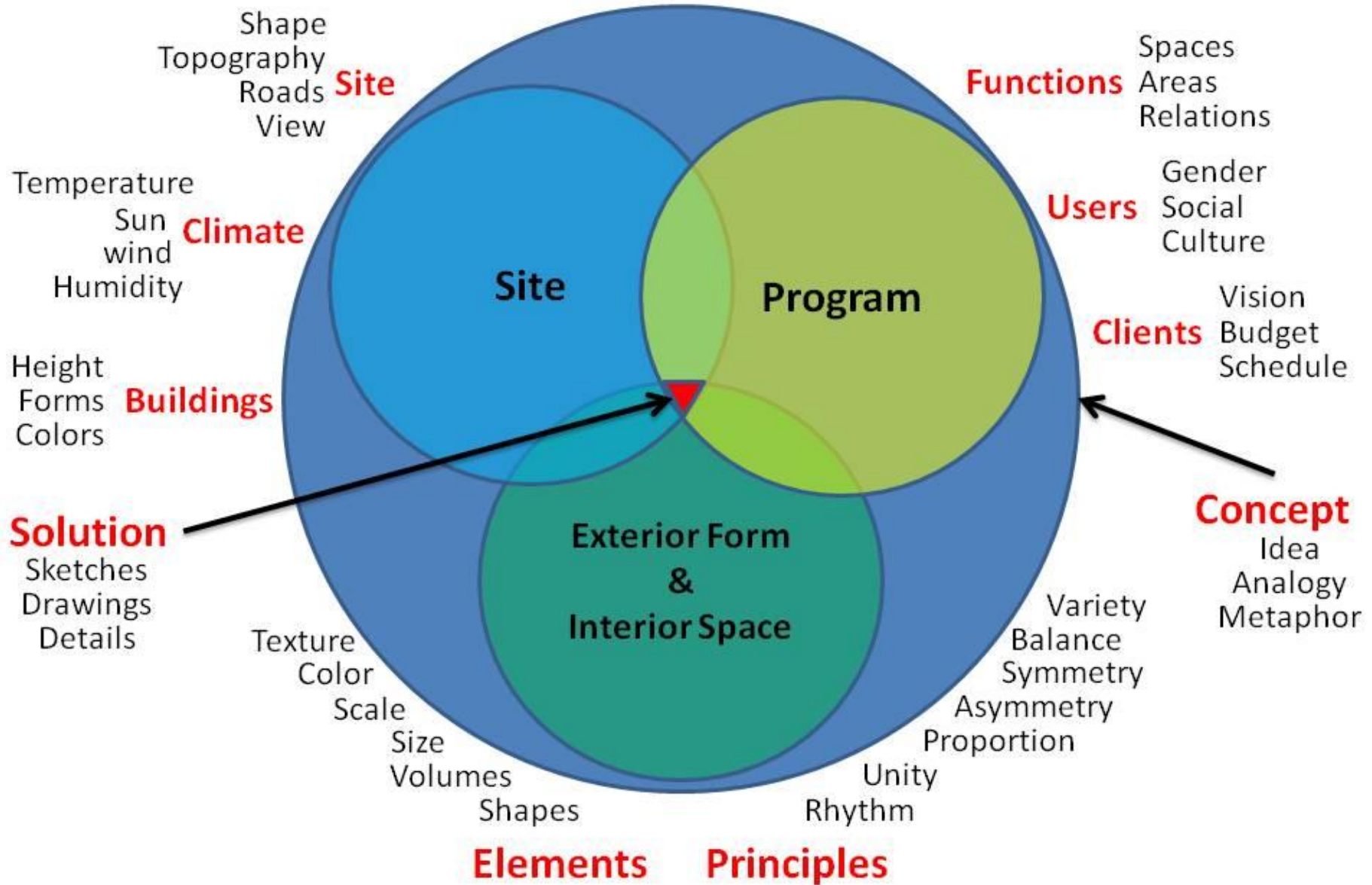
❖ **Inviting Theory:**

- **Function.**



(Dubai Ziggurat) Carbon-Neutral Pyramid City - UAE.

The Concept



<https://youtu.be/DZRogDvIm8A>

Keynote by Ar Frank Ching at Zonal NASA Convention 2018

Zonal NASA Convention, Enigma, Zone 6 was hosted by Eranad Knowledge City College of Architecture from 20th September 2018 to 22nd September 2018. Ar. Frank Ching was one of the eminent speakers in the three day convention. F

rancis D. K. Ching is an architecture and design graphics writer. He is a Professor Emeritus at the University of Washington. He received the Special Jury Commendation in the 2007 Cooper-Hewitt National Design Awards, and an AIA 2007 Institute Honor Award for Collaborative Achievement.