History of Architecture

Lecture (1)

Prehistoric Architecture

by : SEEMA K. ALFARIS
<table>
<thead>
<tr>
<th>Course name</th>
<th>History of Architecture I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecturer</td>
<td>Seema k. Alfaris</td>
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<td><strong>Course ’s information</strong></td>
<td>This course traces the history of Architecture from the early developments in the Paleolithic Age (Early Stone Age) to the Rome (16th century).</td>
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| **The objective**    | 1. Treating the history of architecture as a history not only buildings, but of cultural beliefs and ideas, values and aesthetic ideals actualized through architectural forms and experiences,  
                        2. this course seeks to foster the students' ability to analyze and understand the unique formal vocabulary of architecture and its expressive potential, as well as the complex and instrumental dialogue between architecture and culture. |
## Course mark’s division

<table>
<thead>
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The Historical Timeline of Architecture

- Egyptian
- Byzantine
- Pre-Historic
- Greek
- Roman
- Early Christian
- Romanesque
- Gothic
- Renaissance
- 18th-19th C: Revival
- 20th C: Modern
- Near East
- Islamic
Pre-historic and Early Civilization

What is Pre-History?
• Cultures who lived before the time of writing and so of recorded history.
• only evidences were founded about the earliest dwellings of ancient people.

Introduction
• Direct human ancestors evolved in Africa from 2.3 million years ago
• Humans spread from Africa into Southern Europe, Asia.
• Could not settle far north due to the cold climate.
• From Siberia by foot into North America
• From Southeast Asia by boat into Australia
• No organized religion
• The dead are treated with respect - burial rituals and monuments.
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Primitive Architecture:

1. Old stone age (Paleolithic 500000) B. C).
2. Middle stone age (Mesolithic 15000 B.C).
3. Modern stone age (Neolithic 8000 B.C).

NOTE : It can be said that the stone formations which carried out in these Ages are only the beginning of the art and mystery of Architecture.
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1. **Old stone age (Paleolithic)**:

   - The Stone Age is the longest age between the other ages.

**Human Environment:**

   - Man was a hunter and a food gatherer, that’s why he was **unsettled (Nomadic)**, moving from place to other in search of food, water and good weather. Usually move about in small bands of less than 15 persons, their life style made them barely able to survive.

   - The use animal skins for implantation.

   - **Making primitive hunting tools** as a weapon to protect against life conditions – made of stones, wood and bones.

   - **The discover of Fire**, it been used for protection, Hunting and cooking.
1. Old stone age (Paleolithic):

Architecture Character:

• There is no trace of human intervention in any kind of civilization, because, Don’t need to a permanent shelter or settlements.

• Cave dwellings: Caves were early human living spaces, Man made use of natural and man-made caves both below and above ground as a shelter.

• This shelter for protection, and there was an architectural treatment such as smoke exit vents.

Water cave, Found traces Of human life within it
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Cave entrance shows the Human influence in Design.

- Caves were, however, more popular as dwelling
- Caves used by Stone Age people have been found in many regions of the world.
- A good example is the cave at Lascaux in France.
- Discovered in 1940
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- Evidence of human occupancy of caves comes from the painting that were made with only fire-light as illumination. The intention of the paintings were not for decoration but rather to provide images that might grant mystical power over haunted animals.
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2. The middle stone age (Mesolithic):

• This age is shorter than the first one.

Human Environment:

• In this age the first attempts to Settlement was near the sources of fresh water, also he began to raise animals, and tried to produce the food, Still also gathering food.

Architecture Character:

• This age also recode the beginning of architecture, by Construct a temporary shelters from perishable materials such as tree trunks and leaves.
• Used simple, easily available materials, Usually of plants and animal materials such as wooden poles, grasses, and animal skins.
• Construction system was also simple, Usually involves digging holes, putting wooden poles in holes and burying them. The poles are tied together to create the shell of the building. The shell is covered with grasses, leaves or animal skins.
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Temporary Structures (First shelter):

1. **The HUTS:**
   - Bambuti Hut: huts show evidence of use of leaves to cover hut.
   - The Tongues Hut: show evidence of use of grass to make huts.

2. **The huts protected the old man from:**
   - Inclement elements of weather such as sun, wind and rain.
   - The huts gave him security from wild animals.
Pre-historic and Early Civilization
Temporary Structures (First shelter):

2. **The Lapp tent**:
   - The Lapp tent shows the use of animal skins.
Pre-historic and Early Civilization

Temporary Structures (First shelter):

2. The Lapp tent:
Pre-historic and Early Civilization
Temporary Structures (First shelter):

2. **Brushwood Hut:**

- Space inside is organized for different uses.
- The hut was used by a band of people for limited hunting days.
- It is left to collapse after use and new huts built over by the next years hunting season.
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Temporary Structures (First shelter):

3. **Inuit- Igloo (Eskimo):**

- The snow house or the Igloo of the Inuit people is a circular construction built from blocks of snow.
- The blocks are laid up in *concentric circle of diminishing size* to form a dome.
- An entrance tunnel of snow blocks is angled to prevent penetration by prevailing winds, and it includes a space to accommodate dogs.
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Temporary Structures (First shelter):

- Within the house skins are used to line the house, leaving an air space that helps to insulate the interior while preventing the heat from melting the snow dome.
- Raised platforms lift the interior floor level and also act as a substitute form of furniture.
- The domed exterior form is strongly resistant to high winds in winter.
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Temporary Structures (First shelter):

4. **Mongolian yurt**:

   - The yurt is a structure with an enclosing wall of lattice strips (grid) supporting a roof structure of poles. The exteriors are covered with skins or mats. Inside, boxes to hold possessions rugs and stools create spaces with considerable aesthetic character.
3. **The New stone age (Neolithic):**

**Human Environment:**
- Discovery of agriculture and food production.
- Multiple professions like (hunter, farmer and craftsman, ... etc.), and that’s the basis for the city emergence.
- **Stability concept more developed** next to the sources of fresh water, and the formation of primitive society and tribes. Mobility was in groups controlled by the head of the tribe.

**Architecture Character:**
- Established **permanent dwellings**, Constriction techniques developed to use *Mud, Brick and stone*.
- This age also recode the **emergence of urban communities and housing units and the emergence of the concept of residential communities (Villages)** protected by high walls.
- Monumental construction.
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Megalithic Monuments

- Monumental construction by Neolithic man particularly in Europe.
- Megalithic construction involves setting up large stones.
- Blocks alone or leaning against each other.
- The constriction method were unknown, Very similar to the Egyptian pyramids, Stones dragged from far away to this site.
- Megalithic Monuments, are consist of two types of arrangements:
  1. Tombs – also called Dolmen
  2. Non funereal structures:
     - Single stones – Menhirs
     - Stones composed in groups – Stonehenge Monuments

Megalithic means large stone
Pre-historic and Early Civilization

Megalithic Monuments

1. **(Dolmens) Tombes:**
   - The arrangement of a large stone placed on top of two or three upright stones, so many dolmens created the inner chamber of a tomb.
   - After the burial chamber was completed, the whole structure was buried under an artificial hill. **Dolmens are more often liked to burial rites.**

   - Cueva de Menga in Spain is the largest dolmen in Europe, built using 32 megaliths, the largest of which weighs 180 tons. It was discovered and opened in the 19th century, the skeletons of several hundred people were found inside.
Menhirs: A single, large upright monolith. Serves a religious purpose, its shape like irregular obelisk, with a semi-circular section of more than 20 m. Arranged for thousand of miles.

Menhirs means tall stone.
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3. **The New stone age (Neolithic):**

**Architecture Monuments:**

2. **Stonehenge:**

- This arrangements of stones called **Alignments**, Huge stones where carefully placed to create interior spaces with strong aesthetic impact, whether they were originally open to the sky (as it is now) or roofed with materials that have since disappeared. The purpose seems to have been connected with rituals relating to the movements of the sun, moon and stars. The circular form is characteristic of many ancient human constructions.

Most important prehistoric structure in Europe, Stonehenge in Wiltshire, England 2750-1500 BC
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- The plan of Stonehenge is arranged in the form of **concentric circles**, At the center is an **Alter**, Around it five **trilithons**.

- **Trilithon**: is a structure consisting of two large vertical stones (posts) supporting a third stone set horizontally across the top (lintel). Commonly used in the context of megalithic monuments. The most famous **trilithons** are those seen at Stonehenge, Malta, and the Osirion in Egypt.
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- The actual function of the structure is still not clear but it suggests that its functions are:
  - Cremation / burial site.
  - Astrological observatory.
  - Solar calendar.
  - Sacred site.
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Pre-historic and Early Civilization

3. **The New stone age (Neolithic):**

Neolithic Dwelling & Settlement:

Village of Catal Hüyük near Konya, Turkey 6900–5400 BC

- Jericho and Catal Hüyük were famous Neolithic cities.
- **Catal Hüyük** was the largest and most cosmopolitan city of its time, with a population up to (6000) person.
- It had an extensive economy based on specialized craft and commerce.
- The city was a trading center.
- The size of the city and its wealth are a product of its status as a trading center.
- Physically Catal Huyuk was highly organized with elaborate architectural features.
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3. The New stone age (Neolithic):

• All the buildings at Catal Huyuk were accessed from the roof-tops.
• The buildings comprised dwellings, workshop, and shrine rooms.
• As the town had no formal fortification, it is thought that the door-less and the window-less exterior walls of the connected structures formed the defensive perimeter for the community.
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3. **The New stone age (Neolithic):**

**Permanent Structures:**

- Houses were packed in one continuous block punctuated by courtyards.
- Houses were of one floor **mud construction.**
- No streets in settlement and access to houses was through the roof.
- Movement from house to house through the roof.

![Catal Huyuk - view of settlement](source: Trachtenberg & Hyman (1986))
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3. **The New stone age (Neolithic):**

Permanent Structures:

- Two types of houses were discovered there:
  1. Houses had main rooms with in-built clay furniture, fireplaces and ladder to the roof.

- The chamber of each house had a **raised sleeping platform** and a hearth for cooking and heat. Access to the outside was provided by a ladder to the roof hatch that also served as a smoke vent. A few wooden beams supported smaller poles that in turn supported the roof surface of clay or mud.
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3. **The New stone age (Neolithic):**

Permanent Structures:

2. Houses have cult rooms decorated with bull heads. Some houses appear to be shrines for worship.
Conclusion:

Old stone age (Paleolithic) → Middle stone age (Mesolithic) → New stone age (Neolithic)

Cave Dwellings → Handmade shelters → History of Architecture began
Conclusion:

- In organic materials such as mud or (in cold climates) snow have limited lasting qualities, while stone, although very durable, is so difficult to work as to have had very limited possibilities for shelter building.
- **These realities mean** that the materials surviving from prehistoric times are largely **small objects** of stone such as arrowhead sands pear points, or large arrangements of stones setup in patterns or assembled into structures.
THANK YOU ...