

LECTURE 009

SOCIETY, CULTURE AND BUILT ENVIRONMENT

Course objective: To introduce the various aspects of different social, cultural forms and built environment.

CONSTRUCTION AND CULTURE

Role of intuition, innovation, inventiveness, creativity and ingenuity in construction, the origin of the Architect and the master builder, emergence of the specialist, designer and builder relationship, culture of construction workers.

Objective: To understand how architecture evolved from preconceived forms and the leverage an architect had in the historical context.

Methodology:

Role of intuition, innovation, inventiveness, creativity and ingenuity in construction	Lectures (Supported by visual presentation)
The origin of the Architect and the master builder, emergence of the specialist, designer and builder relationship, culture of construction workers.	Power point presentation
Examples for the above mentioned topics	Group discussion & Seminars

What is technology??

Living in the computer-driven Information Age, we don't necessarily think of fire or tools as technologies. But by definition technology refers to the "practical application of knowledge in a certain area." Learning how to tame and use fire proved an invaluable technological advance in human development. Learning how to sharpen a flint, attach a flint to a piece of wood to create a spear, then understanding how to use flint on other pieces of wood to create digging tools were all technological leaps.

Farm System

Advances in tool-making technology led to advances in agriculture. And farming revolutionized the world and set prehistoric humans on a course toward modernity. Inventions such as the plow helped in the planting of seeds. No longer did humans have to depend on the luck of the hunt. Their food supply became much more certain. Permanent settlements were soon to follow.

Animals were raised for food as well as to do work. Goats, for instance, were sources of milk and meat. Dogs were used to aid in hunting wild animals. Modern, civilized societies began to emerge around the globe. Human life as we know it started to flourish.

Neolithic revolution

- It is the first agricultural revolution, representing a transition from hunting and gathering nomadic life to an agriculture existence. It evolved independently in six separate locations worldwide circa 10,000–7000 years BP (8,000–5,000 BC). The earliest known evidence exists in the tropical and subtropical areas of southwestern/southern Asia, northern/central Africa and Central America.
- Introduction of agriculture – a defining characteristic of Neolithic societies, which resulted in a swing from a nomadic lifestyle to one that was more sedentary, and the use of agricultural tools such as the plough, digging stick and hoe (tool).
- Domestication – of animals, including dogs.
- Pottery– emerged as a defining characteristic of the Neolithic period

Architecture – included houses and villages built of mud-brick and wattle and daub and the construction of storage facilities, tombs and monuments.

First built structures – myth of their prevalence??

Wattle and daub is a composite building material used for making walls, in which a woven lattice of wooden strips called wattle is daubed with a sticky material usually made of some combination of wet soil, clay, sand, animal dung and straw. Wattle and daub has been used for at least 6000 years and is still an important construction material in many parts of the world. Many historic buildings include wattle and daub construction, and the technique is becoming popular again in more developed areas as a low-impact sustainable building technique.



The wattle is made by weaving thin branches (either whole or more usually split) or slats between upright stakes. The wattle may be made as loose panels, slotted between timbers framing to make infill panels, or it may be made in place to form the whole of a wall.

Daub is usually created from a mixture of certain ingredients from three categories: binders, aggregates and reinforcement. Binders hold the mix together and can include clay, lime, chalk dust and limestone dust. Aggregates give the mix its bulk and dimensional stability through materials such as earth, sand, crushed chalk and crushed stone. Reinforcement is provided by straw, hair, hay or other fibrous materials, and helps to hold the mix together as well as to control shrinkage and provide flexibility. The daub may be mixed by hand, or by treading – either by humans or

SOCIETY, CULTURE AND ENVIRONMENT

livestock. It is then applied to the wattle and allowed to dry, and often then whitewashed to increase its resistance to rain.

Rössen culture – one of an earliest of culture and settlement patterns

Domestic architecture and settlement patterns suggest that only a few Rössen settlements have been excavated. Prominent examples are the sites of Deiringsen-Ruploh und Schöningen/Esbeck.

The predominant structure is a trapezoidal or boat-shaped long house, up to 65 m in length. The ground plans suggest a sloping roofline. Multiple internal partitions are a frequent feature, probably indicating that several smaller family units inhabited a house. Rössen settlements are true village communities. Some settlements were surrounded by earthwork enclosures.

Their economy flourished with a practice of mixed agriculture and animal husbandry.

Çatalhöyük

Çatalhöyük was a very large Neolithic and Chalcolithic proto-city settlement in southern Anatolia, which existed from approximately 7500 BC to 5700 BC, and flourished around 7000BC. Çatalhöyük is located overlooking the Konya Plain, southeast of the present-day city of Konya (ancient Iconium) in Turkey, approximately 140 km (87 mi) from the twin-coned volcano of Mount Hasan. A channel of the Çarşamba river once flowed between the two mounds, and the settlement was built on alluvial clay which may have been favorable for early agriculture.



South Excavation Area, Çatalhöyük

Culture

Çatalhöyük was composed entirely of domestic buildings, with no obvious public buildings. While some of the larger ones have rather ornate murals, the purpose of some rooms remains unclear. The population of the eastern mound has been estimated to be, at maximum, 10,000 people, but the population likely varied over the community's history. The sites were set up as large numbers of buildings clustered together. Households looked to their neighbors for help, trade, and possible marriage for their children.

The inhabitants lived in mud-brick houses that were crammed together in an aggregate structure. No footpaths or streets were used between the dwellings, which were clustered in a honeycomb-like maze. Most were accessed by holes in the ceiling, with doors reached by ladders and stairs. The rooftops were effectively streets. The

SOCIETY, CULTURE AND ENVIRONMENT

ceiling openings also served as the only source of ventilation, allowing smoke from the houses' open hearths and ovens to escape. Houses had plaster interiors characterized by squared-off timber ladders or steep stairs. These were usually on the south wall of the room, as were cooking hearths and ovens. The main rooms contained raised platforms that may have been used for a range of domestic activities. Typical houses contained two rooms for everyday activity, such as cooking and crafting.

All interior walls and platforms were plastered to a smooth finish. Ancillary rooms were used as storage, and were accessed through low openings from main rooms. In good weather, many daily activities may also have taken place on the rooftops, which may have formed a plaza. In later periods, large communal ovens appear to have been built on these rooftops. Apart of ritual life, the people of Çatalhöyük buried their dead within the village. Human remains have been found in pits beneath the floors and, especially, beneath hearths, the platforms within the main rooms, and under beds. Bodies were tightly flexed before burial and were often placed in baskets or wound and wrapped in reed mats.

Vivid murals and figurines are found throughout the settlement, on interior and exterior walls. Distinctive clay figurines of women, notably the Seated Woman of Çatalhöyük, have been found in the upper levels of the site.

Predominant images include men with erect phalluses, hunting scenes, red images of the now extinct aurochs (wild cattle) and stags, and vultures swooping down on headless figures. Relief figures are carved on walls, such as of lionesses facing one another.

Çatalhöyük had no apparent social classes, as no houses with distinctive features (belonging to royalty or religious hierarchy, for example) have been found so far. The most recent investigations also reveal little social distinction based on gender, with men and women receiving equivalent nutrition and seeming to have equal social status, as typically found.

Çatalhöyük's spatial layout may be due to the close kin relations exhibited amongst the people. It can be seen, in the layout, that the people were "divided into two groups who lived on opposite sides of the town, separated by a gully." Furthermore, because no nearby towns were found from which marriage partners could be drawn, "this spatial separation must have marked two intermarrying kinship groups." This would help explain how a settlement so early on would become so large.

In upper levels of the site, it becomes apparent that the people of Çatalhöyük were gaining skills in agriculture and the domestication of animals. Female figurines have been found within bins used for storage of cereals, such as wheat and barley, and the figurines are presumed to be of a deity protecting the grain. Peas were also grown, and almonds, pistachios, and fruit were harvested from trees in the surrounding hills. Sheep were domesticated and evidence suggests the beginning of cattle domestication as well.

SOCIETY, CULTURE AND ENVIRONMENT

Necessity of Art as an expression in naturally occurring built environment

- Cave Paintings in Zimbabwe
 - Naturally occurring pigments such as ochres and iron oxides have been used as colorants since prehistoric times.
-
- Archaeologists have uncovered evidence that early humans used paint for aesthetic purposes such as body decoration.
 - Pigments and paint grinding equipment believed to be between 350,000 and 400,000 years old have been reported in a cave at Twin Rivers, near Lusaka, Zambia. Before the Industrial Revolution, the range of color available for art and decorative uses was technically limited.
 - Most of the pigments in use were earth and mineral pigments, or pigments of biological origin. Pigments from unusual sources such as botanical materials, animal waste, insects, and mollusks were harvested and traded over long distances.
 - Some colors were costly or impossible to mix with the range of pigments that were available. Blue and purple came to be associated with royalty because of their expense.