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SCHOOL OF BUILDING AND ENVIRONMENT

DEPARTMENT OF ARCHITECTURE

UNIT – I - SOCIETY, CULTURE & ENVIRONMENT– SDE 1103

UNIT 1

CULTURE AND ARTS

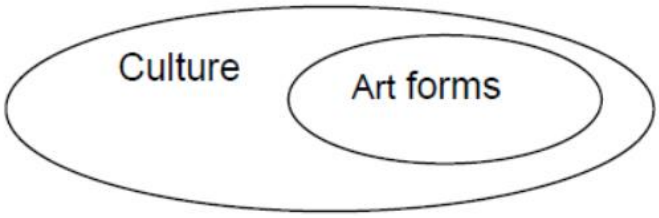
Role of art, art reality, perception, representation categories of art in terms of media and technique, paintings, sculpture, film- basic characteristics and development of each field, aspects of literature, performing arts - theatre, dance, music with examples from different cultural contexts.

Objective: To introduce the various art forms both stabile and mobile and to understand the relationship between arts and culture.

Methodology:

Role of art, art reality, perception, Representation categories of art in terms of media and technique, paintings, sculpture, film	Visual presentation and Discussion
Development of each field, Aspects of literature, performing arts theatre, dance, music	Power point presentation
Examples from different cultural contexts.	Group assignment, discussion

Art and culture



Culture is everything that human beings create in the world, in the physical space. Every single thing that we create is a culture. Art is one of the aspects of culture. It is a much defined creative approach to making objects or making concepts. It is defined as a physical thing that we create be it a painting or a movie or whatever. So it is almost like creating. It is a craft or a skill by which we create an object. It is a defined activity and it is a much defined product. Whereas the culture is everything, what we are surrounded by.

Art represents people, cultures, values, and perspectives on living, but it does much more. While bringing us pleasure, art teaches us. While reading or contemplating a painting our minds go elsewhere. We are taken on a journey into a world where form and meaning are intertwined.

Art and Culture represent the zenith of mental and emotional evolution of mankind. They denote the aesthetic dimension of progress. Art adores life; painting, sculpture, music and dance weave the tapestry of joy and bliss in ordinary life. Art elevates us from mundane pursuits to sublime accomplishments. By adding enthusiasm and flavour, they alchemise our existence despite our travails and tribulations. They mirror our flaws and foibles in a subtle manner and transform us into new beings. They are harbingers of social reforms and radical idea

Art is the expression or application of human creative skill and imagination, typically in a visual form such as painting or sculpture, producing works to be appreciated primarily for their beauty or emotional power.

Art is a diverse range of human activities and the products of those activities, usually involving imaginative or technical skill.

- include the production of works of art, the criticism of art, the study of the history of art, and the aesthetic dissemination of art.
- Focuses primarily on the visual arts, which includes the creation of images or objects in fields including painting, sculpture, printmaking, photography, and other visual media like graphics, animation etc.

  - Painting (visual), two dimensional
  - Sculpture (tactile), three dimensional
  - Utility ware (function), practical use
- Architecture is considered as the master of all arts.

Art may be characterized in terms of mimesis, expression, communication of emotion, or other qualities. During the Romantic period, art came to be seen as "a special faculty of the human mind to be classified with religion and science".

Creativity + Interpretation = Aesthetics

Representational categories of art		
Architecture	Digital art	Painting
Art games	Drawing	Paper art
Arts and crafts	Electronic games	Pavement art
Artworks in concrete	Film	Photography
Artworks in metal	Glass art	Plastic arts
Basket weaving	Graffiti	Printmaking
Body art	Graphic design	Replicas
Artists' books	Installation art	Robotic art
Ceramic art	Jewellery	Rock art

Collage	Kites	Sculpture
Comics	Laser art	Seashells in art
Computer art	Light art	Stained glass
Crafts	Masks	Television
Digital art	Mosaics	Textile arts
Drawing	Murals	Woodworking

Read the links
1) http://users.clas.ufl.edu/burt/filmphilology/heideggerworkofart.pdf 2) http://isites.harvard.edu/fs/docs/icb.topic1315975.files/2%20Beginnings%20and%20Ends/Heidegger_Origin%20of%20the%20Work%20of%20Art.pdf

HISTORY OF ART

In the perspective of the history of art, artistic works have existed for almost as long as humankind: from early pre-historic art to contemporary art. One early sense of the definition of *art* is closely related to the older Latin meaning, which roughly translates to "skill" or "craft," as associated with words such as "artisan."

The second, and more recent, sense of the word art as an abbreviation for creative art or fine art emerged in the early 17th century.

Fine art refers to a skill used

- to express the artist's creativity
- to engage the audience's aesthetic sensibilities
- to draw the audience towards consideration of more refined or finer work of art.

Within this latter sense, the word art may refer to several things:

(i) a study of a creative skill
(ii) a process of using the creative skill
(iii) a product of the creative skill
(iv) Audiences experience with the creative skill.

The creative arts

- a collection of disciplines which produce artworks (art as objects) that are compelled by a personal drive (art as activity)
- convey a message, mood, or symbolism for the perceiver to interpret (art as experience).

Art is something that stimulates an individual's thoughts, emotions, beliefs, or ideas through the senses.

- Skill is being used in a common or practical way, people will consider it a craft instead of art.
- skill is being used in a commercial or industrial way, it may be considered commercial art instead of fine art
- sometimes crafts and design are considered applied art.

The purpose of works of art may be to

- communicate ideas, such as in politically, spiritually, or philosophically motivated art
- to create a sense of beauty
- to explore the nature of perception; for pleasure
- to generate strong emotions.
- The purpose may also be seemingly nonexistent.

Art has been defined as a vehicle for the expression or communication of emotions and ideas, a means for exploring and appreciating formal elements for their own sake, and as *mimesis* or representation.

The creative arts are often divided into more specific categories, each related to its technique, or medium, such as decorative arts, plastic arts, performing arts, or literature. An artistic medium is the substance or material the artistic work is made from, and may also refer to the technique used. For example, paint is a medium used in painting, and paper is a medium used in drawing.

An art form is the specific shape, or quality an artistic expression takes. The media used often influence the form. For example, the form of a sculpture must exist in space in three dimensions, and respond to gravity. The constraints and limitations of a particular medium are thus called its **formal qualities**. A genre is a set of conventions and styles within a particular medium.

Art	**formal qualities**	**genre**
painting	canvas texture, color, and brush texture	still life, pastoral landscape, expressions
sculpture	Earth, metal, wood, paper	still life, expressions
video games	non-linearity, interactivity and virtual presence	Humans, animals, mobility

A **medium** is a means by which one communicates a message, the vehicle carrying the message. Thus, if you take the term '**media art**' literally, all **art** is **media art**. After all, each **artwork** must have a vehicle, such as a piece of paper, a block of marble, or a video tape.

Traditional drawing media

Airbrush Acrylic paint Chalk Charcoal (soft or hard)	Crayon Gouache Graphite Colored pencil	Marker Oil paint Pastel Pen and ink Pencil	Sand Water colour Tempera Human finger

Traditional bases for drawing

Canvas Card stock Fabric	Glass Human body (typically for tattoos) Metal	Paper Plaster Scratchboard	Vellum Walls (typically for murals) Wood

Pencil Drawings

The common pencil (the word derives from the latin 'peniculus' meaning brush), used by draughtsmen around the world, is the most immediate and sensitive of the drawing media, being as capable of producing a quick sketch or a finely worked drawing. Pencil marks vary according to the hardness of the graphite lead in the shaft. Harder the lead (and the sharper the tip) the finer the line. Pencils are a dry medium, in contrast to pens which apply liquids.

The Frenchman **Nicolas-Jacques Conde** is credited with inventing the modern pencil in the 18th century, when a method was found of combining graphite with clay.

Preparatory Sketches with Pencil

The major drawback of artworks in pure pencil is their relative impermanence, and monochrome character. As a result, most draftsmen commonly execute works in more permanent media (or with a fixative), and add pigment through the use of water colours or gouache or pastels. However the easy erasability of pencil lines makes the medium exceptionally convenient for preparatory sketches, which is why the majority of modern painters, using oils, water colours or acrylics, execute their initial designs in pencil.

Types of Lead Pencil

Pencils are available in traditional form, enclosed in a wooden shaft, or as graphite sticks. These sticks are made from high-grade compressed graphite, formed into thick chunky sticks. The draftsman can vary the marks made by using the point, the flattened edge of the point or the length of the stick. The graphite stick is the preferred medium of many artists, for its variable density of tone.

Painting

Traditional paint media	Supports for painting	Traditional tools and methods	Mural techniques
Acrylic paint Blacklight paint Encaustic paint Fresco Gesso Glaze Gouache Ink Latex paint Magna paint Oil paint Primer	Architectural structures Paperboard Canvas Ceramics Cloth Glass Human body (typically for tattoos) Metal Paper	Action painting Aerosol paint Airbrush Batik Brush Cloth Paint roller or paint pad Palette knife Sponge Stick	Aerosol paint Digital painting Fresco Image projector Pounce art

Stencil Tempera or poster paint Vinyl paint (toxic/poisonous) Vitreous enamel Watercolor	Vellum Wall Wood		

Sculpture

Sculpture is the art of producing in three dimensions representations of natural or imagined forms. It includes sculpture in the round, which can be viewed from any direction, as well as incised relief, in which the lines are cut into a flat surface. Stone sculpture is the result of forming 3-dimensional visually interesting objects from stone. It is an ancient activity where pieces of rough natural stone are shaped by the controlled removal of stone.

Carving, incise, bas reliefs

modeling	permits addition as well as subtraction of the material and is highly flexible
carving	strictly limited by the original block from which material must be subtracted
casting	a reproduction technique that duplicates the form of an original whether modeled, carved, or constructed, but it also makes possible certain effects that are impractical in the other techniques.

The principal sculptural techniques have undergone little change throughout the ages. Hand modeling in wax , papier-mâché, or clay remains unaltered, although the firing of the clay from simple terra-cotta to elaborately glazed ceramics has varied greatly.

- Carving has for centuries made use of such varied materials as stone, wood, bone, and, more recently, plastics, and carvers have long employed many types of hammers, chisels, drills, gauges, and saws.
- Bronze casting is also a technique of extreme antiquity. Metal may also be cast in solid, hammered, carved, or incised forms.

The mobile is a construction that moves and is intended to be seen in motion. Mobiles utilize a wide variety of materials and techniques.

Sculpture begins in the Stone Age. If these objects are pre-sculptural forms, the earliest prehistoric sculpture proper emerged around 35,000 BCE in the form of carvings of animals, birds, and figures.

Carving materials	Tools	Assembled materials
Bone carving Gemstones Glass Granite Ice Ivory Marble Plaster Stone Wax Wood Bronze	Bristle brush Chisel and hammer (modern pneumatic) Clamp or vise Hammer or mallet (modern pneumatic) Scraper Kiln for heating ceramics and metals Knife Pliers Potter's wheel Power tools Sandpaper Saw Snips Welding and cutting torch Wire cutter	Beads Corrugated fiberboard (cardboard) Edible material Foil Found objects Glue and other adhesives Paperboard Textile Wire Wood
Casting materials	**Finishing material**	**Modeling materials**
Cement Ceramics Metal Plaster Plastic Synthetic resin Wax	Acids to create a patina (corrosive) Glaze Polychrome Wax	Clay Papier-mâché Plaster Sand Styrofoam

Photography

Photography is a method of recording the image of an object through the action of light, or related radiation, on a light-sensitive material. The word, derived from the Greek photos (—lightǁ)and graphein (—todrawǁ),wasfirstusedinthe1830s.

It is a means of visual communication and expression, photography has distinct aesthetic capabilities. In order to understand them, one must first understand the characteristics of the process itself. One of the most important characteristics is immediacy. Usually, but not necessarily, the image that is recorded is formed by alens in a camera. Upon exposure to the light forming the image, the sensitive material undergoes changes in its structure, a latent (but reversed) image usually called a negative is formed, and the image becomes visible by development and permanent by fixingwithsodiumthiosulfate,called—hypo.ǁ

The essential elements of the image are usually established immediately at the time of exposure. This characteristic is unique to photography and sets it apart from other ways of picture making. The seemingly automatic recording of an image by photography has given the process a sense of authenticity shared by no other picture-making technique.

In photography a photosensitive surface is used to capture an optical still image, usually utilizing a lens to focus light. Some media include:

- Digital image sensor
- Photographic film
- Potassium dichromate
- Potassium ferri cyanide and ferric ammonium citrate
- Silver nitrate

Daguerreotype is the first successful form of photography in the 1830s. Daguerre and Niépce found that if a copper plate coated with silver iodide was exposed to light in a camera, then fumed with mercury vapour and fixed (made permanent) by a solution of common salt, a permanent image would be formed.

Talbot discovered that the gallic acid acid could be used to develop a latent image. This discovery revolutionized photography on paper as it had revolutionized photography on metal in 1835.

In 1850s the production of the **stereograph** entailed making two images of the same subject, usually with a camera with two lenses placed 2.5 inches (6 cm) apart to simulate the position of the human eyes, and then mounting the positive prints side by side laterally on a stiff backing. Brewster devised a stereoscope through which the finished stereograph could be viewed; the stereoscope had two eye pieces through which the laterally mounted images, placed in a holder in front of the lenses, were viewed. The two images were brought together by the effort of the human brain to create an illusion of three-dimensionality.

Photography was revolutionized in 1851 by the introduction of the **wet collodion process** for making glass negatives. This new technique was 20 times faster than all previous methods and was, moreover, free from patent restrictions. Paper prints could easily be made from glass-plate negatives. The process had one major drawback: the photographer had to sensitize the plate almost immediately before exposure and expose it and process it while the coating was moist.

In the 1870s many attempts were made to find a **dry substitute** for wet collodion so that plates could be prepared in advance and developed long after exposure, which would thereby eliminate the need for a portable darkroom followed by colours and by 1950s digital photography came in to existence.
Digital photography is a form of photography that uses cameras containing arrays of electronic photo detectors to capture images focused by a lens, as opposed to an

exposure on photographic film. The captured images are digitized and stored as a file ready for further digital processing, viewing, digital publishing or printing.

Literature

Literature, in its broadest sense, is any written work; etymologically the term derives from Latin literatura/ litteratura "writing formed with letters", although some definitions include spoken or sung texts. More restrictively, it is writing that possesses literary merit, and language that foregrounds literariness, as opposed to ordinary language. Literature can be classified according to whether it is fiction or non-fiction and whether it is poetry or prose; it can be further distinguished according to major forms such as the novel, short story or drama; and works are often categorized according to historical periods or their adherence to certain aesthetic features or expectations (genre)

The history of literature follows closely the development of civilization. When defined exclusively as written work, Ancient Egyptian literature,[43] along with Sumerian literature are considered the world's oldest literatures.[44] The primary genres of the literature of Ancient Egypt—didactic texts, hymns and prayers, and tales—were almost entirely written in verse. Literature in all its forms can be seen as written records, whether the literature itself be factual or fictional, it is still quite possible to decipher facts throughthingslikecharacters‘actionsandwordsortheauthors‘styleofwritingandthe intent behind the words.

The plot is for more than just entertainment purposes; within it lies information about economics, psychology, science, religions, politics, cultures, and social depth. Studying and analyzing literature becomes very important in terms of learning about our history. Through the study of past literature we are able to learn about how society has evolved and about the societal norms during each of the different periods all throughout history. This can even help us to understand references made in more modern literature because authors often make references to mythology and other old religious texts or historical moments.

Performing arts

The performing art is a form of entertainment that is created by the artist's own body, face and presence as a medium. There are many skills and genres of performance, dance and theatre being examples. Performance art is a performance that may not present a conventional formal linear narrative.
Performance art differs from the plastic arts, which use materials such as clay, metal or paint which can be molded or transformed.
Performance *art* arose in the early 1970s as a general term for a multitude of activities—including Happenings, body art, actions, events, and guerrilla theatre. It can embrace a wide diversity of styles.

Performing arts may include dance, music, opera, theatre and musical theatre, magic,

illusion, mime, spoken word, puppetry, circus arts, performance art, recitation and public speaking. There is also a specialized form of fine art, in which the artists perform their work live to an audience. This is called performance art. Most performance art also involves some form of plastic art, perhaps in the creation of props. Dance was often referred to as a plastic art during the Modern dance era.

· Performance art borrows styles and ideas from other forms of art, or sometimes from other forms of activity not associated with art, like ritual, or work-like tasks.

Theatre

Theatre is the branch of performing arts; concerned with acting out stories in front of an audience, using a combination of speech, gesture, music, dance, sound and spectacle. Any one or more of these elements is performing arts. Theatre takes such forms as plays, musicals, opera, ballet, illusion, mime, classical Indian dance and non conventional or contemporary forms like postmodern theatre, post dramatic theatre, or performance art .

Dance

In the context of performing arts, dance generally refers to human movement, typically rhythmic and to music, used as a form of audience entertainment in a performance setting. Definitions of what constitutes dance are dependent on social, cultural, aesthetic artistic and moral constraints.

Dance is a powerful impulse, but the art of dance is that impulse channeled by skillful performers into something that becomes intensely expressive and that may delight spectators who feel no wish to dance themselves

Civilization and arts

Egyptian art
• 3000 BC to 100 AD. • reached a high level in painting and sculpture, and was both highly stylized and symbolic • use of media ranging from drawings on papyrus through wood, stone, and paintings • stone surfaces were prepared by whitewash, or if rough, a layer of coarse mud plaster, with a smoother *gesso* layer above; some finer limestones could take paint directly. Pigments were mostly mineral, chosen to withstand strong sunlight without fading. • Sunk or sunken relief is largely restricted to the art of Ancient Egypt where it is used for large reliefs on external walls, and for hieroglyphs



Sunk relief
Statue
Heiroglyphics

- Most of Egyptian secular and religious life was marked by the performance of music and dance.
- Lotus flowers, mandrakes, wigs and unguent cones, as well as men and women clothed in semi-transparent garments and the gestures of the banquet participants appeared in the 18th century.
- Detailed study of the depiction of dancers has revealed that the artists were often depicting a series of different steps in particular dances, some of which have been reconstructed. Movements of Egyptian dances were named after the motion they imitated.
- depictions of dance in Pharaonic tombs and temples invariably show the dancers either being accompanied by groups of musicians or themselves playing to keep the rhythm
- Many dancers depicted in the temple and tomb paintings and reliefs show dancers in athletic poses such as cartwheels, handstands and backbends.



Greek Art

- Sculpture (materials – marble, bronze, terracotta and wood)

- Dance – expressions and actions of the features and head which suggest ideas like marching, acrobatic performances, mimetic.

- The plays were comedies (funny, often poking fun at rulers) or tragedies (sad and serious, with a lesson about right and wrong)
- The masterpieces of Greek drama date from the 5th century BC. At that time, in Athens, the audience sit on the bare hillside to watch performances on a temporary wooden stage. In the 4th century a stone auditorium is built on the site, and there is still a theatre there today - the theatre of Dionysus.

Read more:http://www.historyworld.net/wrldhis/PlainTextHistories.asp?ParagraphID=cui#ix zz3dxsaIx5J

Roman Art

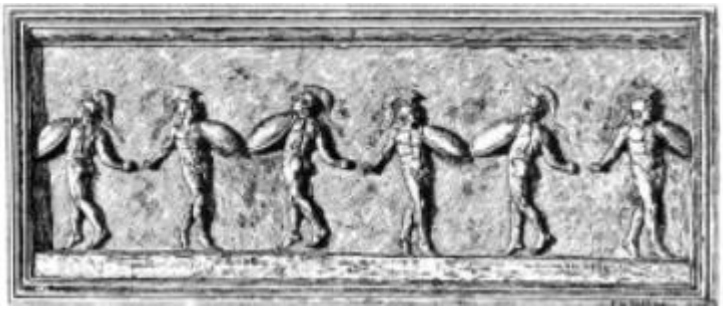
- Roman art includes architecture, painting, sculpture and mosaic work.
- Luxury objects in metal-work, gem engraving, ivory carvings, and glass, are sometimes considered in modern terms to be minor forms of Roman art, although this would not necessarily have been the case for contemporaries.
- Sculpture was perhaps considered as the highest form of art by Romans, but figure painting was also very highly regarded.
- Roman painting provides a wide variety of themes: animals, still life, scenes from everyday life, portraits, and some mythological subjects.
- it evoked the pleasures of the countryside and represented scenes of shepherds, herds, rustic temples, rural mountainous landscapes and country houses.
- Erotic scenes are also relatively common.
- The main innovation of Roman painting compared to Greek art was the development of landscapes, in particular incorporating techniques of perspective, though true mathematical perspective developed 1,515 years later.
- Surface textures, shading, and coloration are well applied but scale and spatial depth was still not rendered accurately.
- Some landscapes were pure scenes of nature, particularly gardens with flowers and trees, while others were architectural vistas depicting urban buildings.
- Roman genre scenes generally depict Romans at leisure and include gambling, music and sexual encounters

- It is also important to distinguish two quite distinct ‗markets' for Roman sculpture
    - the first was the aristocratic ruling class taste for more classical and idealistic sculpture
    - the second, more provincial, ‗middle-class' market seems to have preferred a more naturalistic and emotional type of sculpture, especially in portraiture and funerary works

Sculpture on Roman buildings could be merely decorative or have a more political purpose, for example, on triumphal arches (which most often celebrated military victories) the architectural sculpture captured in detail key campaign events which reinforced the message that the emperor was a victorious and civilizing agent across the known world.

The music of ancient Rome was a part of Roman culture from earliest times. Music was customary at funerals, and the tibia (Greek aulos), a woodwind instrument, was played at sacrifices to ward off ill influences.
Song (carmen) was an integral part of almost every social occasion. Roman art depicts various woodwinds, "brass", percussion and stringed instruments.

Dances were numerous
- rurally ritual
- serious dancing profession through fields and villages.



Indus Valley Civilization

Sculpture in Stone
Sculpture in Metal
Sculpture in Terracotta

Pottery and Painting

Pottery found in large quantities shows that with the potter's wheel the craftsman produced pottery of various artistic shapes. The special clay for this purpose was baked and the different designs on pots were painted. Figures of birds, animals and men were depicted on the pots. Paintings on the pots show, that these men were equally good at painting.

- The art of the earliest people in South Asia is of interest, this ranges from cave paintings (such as at Bhimbetka), Neolithic pottery glazed with patterns and decorations, terracotta figurines, cast bronze statuettes, seals and various figures ranging from priest figures to children‘s toys.

- Painted pottery and copper tools originated along the banks of the Indus river
- Two types of pottery – monochromatic and multi colored
- Vessels were first painted with black outlines of design and after firing colored with yellow, white, blue and red.

- Along with pottery clay idols and animal figurines are characteristics for art of the Indus valley civilization
- Bumped bulls, birds, pumas, rams , fish etc were depicted.

Some of the figures are solid and some are hollow.



Mother Goddess, Bull, bird figurines

- Numerous square seals engraved with images of animals like bulls, rhinoceros, elephants etc, and unicorns, human or divine figures.



Elephant and deer seal

A number of bangles, necklaces and pendants decorate the figures neck and arms, and the hair is coiled into a loose bun. Whether the figure actually represents a dancing girl is a matter of some conjecture, though certainly the restrained movement inherent in the pose, the provocative nature of the figure, and the numerous adornments indicate this profession.



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SCHOOL OF BUILDING AND ENVIRONMENT

DEPARTMENT OF ARCHITECTURE

UNIT – I I- HISTORY CULTURE AND BUILT ENVIRONMENT – I– SARA 1101

UNIT 2

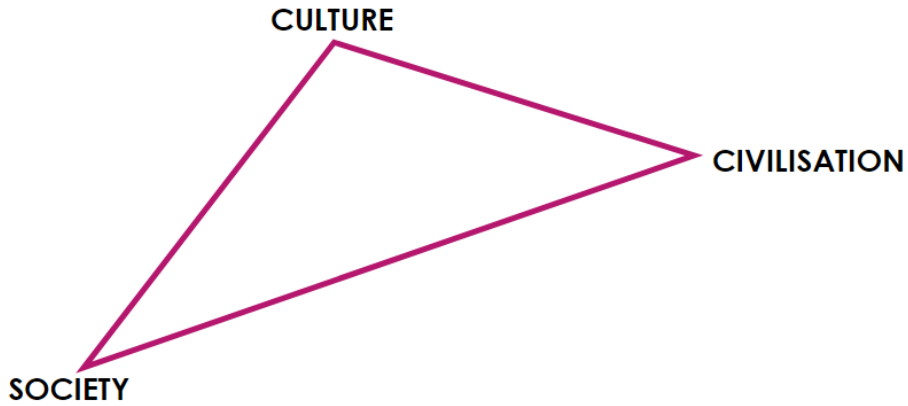
CULTURE AND SOCIETY

Importance of Culture and Social identity with reference to architecture. Evolution of civilization and cultures, groups, society, culture, environment and time, Levels of social organization & evolution of various social groups over time, human habitat to be related with culture and various contexts with examples in different eras.

Objective: To give an idea about various civilizations and to understand the relationship between culture, society, social organization and their development in different eras.

Methodology:

Evolution of civilization and cultures, groups, society, culture, environment and time	CULTURE & CIVILIZATION	Power point presentation & Discussion
Importance of Culture and Social identity with reference to architecture, Levels of social organization & evolution of various social groups over time	CULTURE & SOCIETY	Power point presentation & Discussion
human habitat to be related with culture and various contexts with examples in different eras, Importance of Culture and Social identity with reference to architecture	WITH EXAMPLES OF VARIOUS CIVILIZATIONS	Group discussion & Seminars



Culture, society are functionaries of a civilization and all three in combination are an important factor in human evolution in terms of how they lives- lifestyle, what they built – cities, dwellings, monuments etc. The study of culture and society of a region is very important in understanding architecture specific to that region and thus of that civilisation. Therefore, first we look at what is civilization, what is its relationship with culture. Then we study about society, its structure and hierarchy. Finally, we shall look at how these three are inter-related and inter-dependant with Indian and global examples of civilization.

CULTURE & CIVILIZATION

Civilization refers to a complex human society, in which people live in groups of settled dwellings comprising cities. Early civilizations developed in many parts of the world, primarily where there was adequate water available.

The causes of the growth and decline of civilizations, and their expansion to a potential world society, are complex. However, civilizations require not only external advances to prosper, but also the maintenance and development of good social and ethical relationships usually grounded in religious and spiritual norms.

Definition of CIVILILZATION

The term "civilization" or "civilization" comes from the Latin word civics, meaning "citizen" or "townsman." By the most minimal, literal definition, a "civilization" is a complex society. Anthropologists distinguish civilizations in which many of the people live in cities (and obtain their food from agriculture), from tribal societies, in which people live in small settlements or nomadic groups (and subsist by foraging, hunting, or working small horticultural gardens). When used in this sense, civilization is an exclusive term, applied to some human groups and not others.

What characterizes civilization?

An Egyptian farmer using a plow drawn by domesticated animals, two developments in agriculture that started the Neolithic Revolution and led to the first civilizations.

CULTURE

- According to E.B. Taylor, culture is the sum total of ideas, beliefs, values, material cultural equipments and non-material aspects which man makes as a member of society. Taylor's theme that culture is a result of human collectivity has been accepted by most anthropologists.
- From this, it follows that culture and society are separable only at the analytical level: at the actual existential level, they can be understood as the two sides of the same coin. Culture, on one hand, is an outcome of society and, on the other hand, society is able to survive and perpetuate itself because of the existence of culture.
- Culture can be conceived as a continuous, cumulative reservoir containing both material and non-material elements that are socially transmitted from generation to generation.
- Culture is continuous because cultural patterns transcend years, reappearing in successive generations. Culture is cumulative because each generation contributes to the reservoir.
    - Culture is what differentiates group or society from the next; different societies have cultures.
    - A culture represents the beliefs and practices of a group, while society represents the people who share those beliefs and practices. Neither society nor culture could exist without the other. Culture and society are intricately related.

· Culture consists of the beliefs, behaviors, objects, and other characteristics common to the members of a particular group or society. Through culture, people and groups define themselves, conform to society's shared values, and contribute to society.

· Culture includes many societal aspects: language, customs, values, norms, mores, rules, tools, technologies, products, organizations, and institutions. · A culture consists of the —objects‖ of a society, whereas a society consists of the people who share a common culture. When the terms *culture* and *society* first acquired their current meanings, most people in the world worked and lived in small groups in the same locale.

Relationship between CIVILIZATION AND CULTURE

Sociologists differentiate culture and civilization as two different levels of phenomena. The concept of civilization was almost equated with highly valued things, such as respect of people for one another, the sanctity of life and high regard for the good, the ethical and the beautiful. In this sense, those who were lacking in these attributes were regarded as barbaric or uncivilized.

Preliterate or primitive people who lived in a state of nature—quite naked, used to eat unbaked animal flesh—were usually termed as barbarians. However, many anthropological studies showed that many preliterate societies had their own values, beliefs, rules, religions and tools, etc.

They made certain changes in the natural order of things which are characteristics of culture, in the modern sense of the term. The use of the term _civilization as exhibited above is different from its use in sociological or anthropological sense. Defining civiliation MacIver and Page (1962) said, _by civilization we mean the whole mechanism and organization which man has designed in his endeavour to control the conditions of life‘.

Similarly, S.M. Fairchild (1908) argued that it is the higher stage of cultural development characterized by intellectual, aesthetic, technological and spiritual attainment. On the basis of this meaning, he made reference of ‗civilized peoples‘ in contrast to ‗uncivilized or non-civilized peoples‘.

A few scholars have equated civilization with technology and progress; e.g., Robert Bierstedt (1974) emphasized on sophistication, self-criticism and other awareness as the chief characteristics of civilization. Sociologists do not use the term ‗civilization‘ in the sense stated above because all above views are value-loaded.

Distinction between CULTURE AND CIVILIZATION

1. Culture is an end (values and goals) in itself while civilization is a means (tools and techniques) to an end. Cultural facts like belief, art and literature—prose, poetry or novel,

etc., gives direct satisfaction to the reader while equipment's of civilization such as cars, computers, refrigerators, etc., do not give direct satisfaction, until and unless they do not satisfy our wants. Thus, civilization is utilitarian. It just helps in achieving the end.
2. Culture has no value in itself but it is a measurement by which we can value other articles of civilization. We cannot determine the value of culture, i.e., beliefs, norms, ideas, etc., but the value of anything can be determined by its measurement standard. Culture is a measuring rod or weighing balance.
3. Civilization is always advancing but not culture. Cultural facts like dramatic plays or poems may not be necessarily better today than the plays or poems of Shakespeare? 4. Civilization is easily passed without much effort to the next generation but not culture. Cultural facts, e.g., any art or a piece of literature, cannot be learned without some intelligence. It requires a few pains to understand it. Contrary to it, the equipment's of civilization (building, TV, etc.) can easily be inherited without much or any use of energy and intelligence.
5. Civilization may be borrowed without making any change but not culture. Borrowing any cultural fact like any political, economic or social belief requires some necessary alteration to adjust in the new cultural environment while this is not necessary to make any material change in the civilization equipment's such as TV, computer, etc.
6. Culture relates to the inner qualities of society like religion, customs, conventions, etc., while civilization relates to the outer form of society such as TV, radio, fans, etc. 7. Culture is more stable than civilization—cultural change takes place in years or in centuries but civilization changes very rapidly.
8. Variability of cultures may not be accompanied by variability of civilization at different places. Civilization may be similar in variable cultural areas. For instance, there is a great difference between American and Indian cultures but there are many similarities in their civilization equipment's.
9. Culture is a social fact, i.e., creation of the whole society while civilization, i.e., the invention of any equipment may be by a single individual. Any ordinary person can affect any change in the civilization equipment but for any modification or alteration in any cultural fact requires the power and imagination of whole society.

SOCIETY & CULTURE

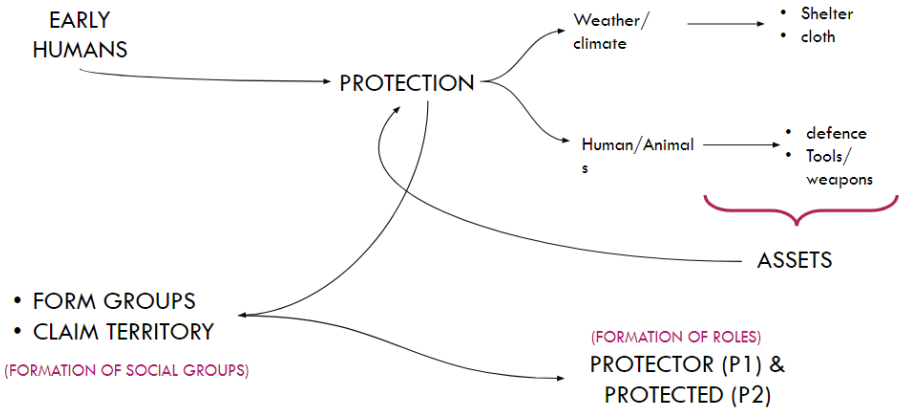
Society is the term to describe human beings together (collective, the sum of their social networks and social interactions). It can also mean a specific group of people who interact, as well as a wider society of which they are members.

Social Groups and its Evolution

Origin and evolution of social groups

- The growth of agriculture resulted in intensification, which had important consequences for social organization.
- Larger groups gave rise to new challenges and required more sophisticated systems of social administration.
- Complex societies took the forms of larger agricultural villages, cities, city-states, and states, which shared many features.
- Specialized labor gave rise to distinct social classes and enabled creative and innovative developments.
- Systems of record-keeping and symbolic expression grew more complex, and many societies had systems of writing.

EVOLUTION OF GROUPS → SOCIAL GROUPS → SOCIETY



EVOLUTION OF GROUPS → SOCIAL GROUPS → SOCIETY

EVOLUTION

EVOLUTION OF SOCIETY

SOCIAL GROUPS of hunter/ gatherers (nomadic)

Learn about land/soil/water while moving from one place to another

Grow small plant/herbs

Eat plants, how to eat

Grow plants in small scale (clear → plant → harvest → move)

EVOLUTION OF ROLES

- Hunter / Gatherer
- Caretakers
- Children

P1 → P2

- Hunter / Gatherer
- Farmers
- Animal keepers
- Caretakers
- Healers
- Children

P1 → P2

EVOLUTION OF GROUPS → SOCIAL GROUPS → SOCIETY

EVOLUTION

Learn about soil fertility, irrigation

Grow plants in large scale

(growing food in excess – storing food; not all people need to farm)

- Protectors
- Administrator
- Farmers
- Animal keepers

P1

- Healers
- Caretakers
- Children

P2

GROWING FOOD, TRADING FOOD AND OTHER GOODS, UTILITIES, CLOTHES, GEMS, JWELLERY

AGRICULTURE & TRADE based society

- Defence (trained)
- Administrator

P1

- Farmers
- Animal keepers
- Traders
- Builders
- Art & craft
- Thinkers/Teachers
- Healers
- Caretakers
- Children

P2

Relationship between CIVILIZATION AND SOCIETY

Historically, societies referred to as civilizations have shared some or all of the following traits.

- Tool making, which permits the development of intensive agricultural techniques
- Division of labor came in to existence.
- The gathering of these non-food producers into permanent settlements, called cities.
- A form of ruling system or government.
- A social hierarchy consisting of different social classes.
- A form of writing will have developed, so that communication between groups and generations is possible.
- The establishment of complex, formal social institutions such as organized religion and education, as opposed to the less formal traditions of other societies.
- Development of complex forms of economic exchange.
- A concept of a Higher being, though not necessarily through organized religion, by which a people may develop a common worldview that explains events and finds purpose.
- A concept of time, by which the society links itself to the past and looks forward to the future.
- A concept of leisure, permitting advanced development of the arts. · Development of criticism.

SOCIAL ORGANIZATION

A social animal has some organized interaction between individuals. In the human condition there are complex social interactions within and between several organizational categories: individual, in-group, family, polity and ethnic culture.

Individual	· Highest level of biological organization, and the smallest visible unit in social organization.
In-Group	· Refer to all of the many different social groupings that an individual participates in and identifies with. Family, polity and culture can be considered in-groups. · Can thrive or fail, and so are subject to evolutionary pressure
Out group	· Out-group is defined by negation to be everything outside the in-group. · It is a construct of the in-group, and doesn't have any actual social reality
Dynamics of in-group/out-group conflict and social enforcement of boundaries between the in-group and out-group seem to be a basic aspect of human nature present at all levels of social organization.	
Family	· Family is the smallest unit of social organization.
Polity	· It is the highest level of effective political organization, which in ancient times would be the village or tribe, and in modern times is the nation-state.

SOCIAL HIERARCHY

As communities evolved, in various parts of the world, including the valleys of the Indus, Tigris-Euphrates, and Nile rivers, larger and denser settlements began to emerge. These large concentrations of people are referred to as **complex societies** or **civilizations**, which share many features, including having a dense population, an agriculture-based economy, a **social hierarchy**. The Social Hierarchy was mainly devised as a tool for

- a division of labor and specialization,
- a smooth functioning administrative system like a centralized government, etc.

CIVILIZATION OF DIFFERENT ERAS - CULTURAL, SOCIAL & CIVILIZATIONAL CHARACTERISTICS

Looking at the different eras from history and studying, analysing and understanding them in the following way. This gives an idea of the importance of cultural & social aspects and their influence on architecture.

CIVILIZATIONAL (technological) CHARACTERISTICS

This is nothing but the evolution of technology and various inventions or discoveries of that particular period of civilization which can be seen in various items of that civilization/era including

- Tools/ Weapons
- Utilitarian Items – Pottery, etc
- Machinery
- Building/Monuments
- Crafts (technology based) – jewellery, textiles, not artworks like sculpture or painting
- Other technologies uses – metal works etc.

CULTURAL CHARACTERISTICS

These are mainly represented in

- Religion / spiritual practices
- Beliefs, value system

And are reflected in

- Dressing, jewellery
- All types of Art
- Games, Past times

SOCIAL CHARACTERISTICS

The following will be looked at for the various civilizations

- Social Structure / hierarchy
- Administrative system followed – like tax collection – government.

EXAMPLES OF INDIAN CIVILIZATIONS

Indus Valley Civilization

Indus Valley Civilization was an ancient civilization that thrived in the Indus and Ghaggar-Hakra river valleys, now in Pakistan, along with the north-western parts of India,

Afghanistan and Turkmenistan.

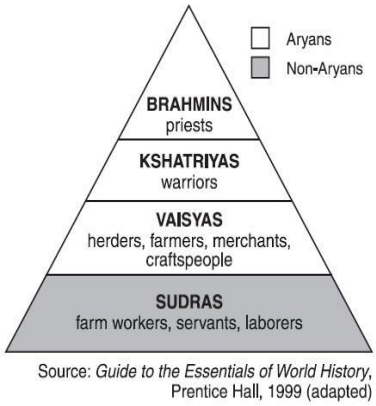
TECHNOLOGICAL CHARACTERISTICS
Evidence of religious practices in this area date back approximately to 5500 BCE. Farming settlements began around 4000 BCE and around 3000 BCE there appeared the first signs of urbanization. By 2600 BCE, dozens of towns and cities had been established, and between 2500 and 2000 BCE the Indus Valley Civilization was at its peak.

The civilization, which is also known as Harappan Civilization, lasted from 3300 BC to 1700 BC. The discovery of the Ancient Indus River Valley Civilization was made, when the Harappan city, the first city of Indus Valley, was excavated.

Approximately 1052 cities and settlements belonging to the Indus Valley Civilization have been excavated till date, mainly in the general region of the Ghaggar and Indus Rivers and their tributaries. The artefacts discovered in these cities suggest a sophisticated and technologically advanced urban culture.

CULTURAL CHARACTERISTICS
Various sculptures, seals, pottery, gold jewellery and figurines in terracotta, bronze and steatite, etc, have been excavated from the sites of the Ancient Indus Valley Civilization. Other crafts that have been unearthed include shell works, ceramics, agate, glazed steatite bead making, special kind of combs, etc. There is also evidence of seals, toys, games and stringed musical instruments in the Indus Valley.

SOCIAL HIERARCHY



Source: *Guide to the Essentials of World History*, Prentice Hall, 1999 (adapted)

Occupations/ Division of Labor The main **social classes** of the **Indus River Valley Civilization** are the Gods, Brahmins (priests and academics), Kshatryia (warriors and kings), Vaishya

(merchants and landowners), Sudra (commoners, peasants, and servants), and then the Untouchables (the outcasts of the Caste system).

Keeladi/Vaigai River Valley Civilization

Keezhadi is steeped in historical, religious and archaeological richness. The site Keeladi with the cultural deposit mound extending over a vast area of more than 110 acres, amidst the coconut groves, is located 13 km East and South East of Madurai, a Temple city of Tamil Nadu. On the northern side of this potential mound runs the river Vaigai of 2 kms. On the East, exists the village Manalur having its kanmaai (lake) on its northern side and there by forming the north eastern natural water source of the site. Keeladi strikes importance due to its vast area and proximity to the celebrated historic town of Madurai, the capital of Pandyas of Sangam period.

TECHNOLOGICAL CHARACTERISTICS

- A 13 m long wall with 3 courses of bricks was excavated. Bricks of two sizes measuring 38x23x6 cm and 38x26x6 cm respectively were used in the construction. The had well-laid floors, made of fine clay– these show their technological advancement in building construction.
- Pottery – The even knew the art of raising the kiln temperature to 1100°c to produce the typical Black-and-Red ware pottery.

CULTURAL CHARACTERISTICS

- The occurrence of artefacts such as dice, hop scotches and gamesmen, really reflects the pastime activities of the ancient people. Majority of the gamesmen recovered from excavations are of terracotta. Even now the same game is prevalent in Madurai and other regions known as *Pandi or Nondivilayattu.*
- Art made up of clay and burnt clay emerged first than that of stone, wood, ivory and metal. This craft doesn't require much of technology of specialized tools for shaping the contours. They generally represent various forms of human and animal beings, besides gamesmen and children toy objects.
- jewellery pieces of gold and copper, objects of iron were also excavated. But it is to be noted that objects meant for worship have not been excavated so far.
- More than 4000 beads of semiprecious stones, glass beads, shell bangles, ivory bangle pieces, Comb and terracotta objects indicate the cultural richness and economic prosperity.




SOCIAL CHARACTERISTICS

- During the Age of Sangam, the estuaries of the river courses become popular as port towns carry out trade with other minor ports of the Tamil country. The ancient Tamils with

the Occident and Oriental world particularly with South-East Asian countries, Sri Lanka, Egypt, Rome, Greece and China. The commodities like pearl, gemstone, textile, steel, pepper and perfumes were exported to other countries from Tamil Nadu. Similarly, gold, wines and horses were imported from the West. - This global trade well establishes the presence of an administrative network that facilitated the trade.

- Language – Tamili - One kind of scripts that survived between the disappearance of Indus script and the emergence of Brahmi script is called as graffiti marks by the scholars. These graffiti marks are the one evolved or transformed from Indus script and served as a precursor for the emergence of Brahmi script.
- The excavation & discoveries at Keeladi is still ongoing, and no evidences have been found so far regarding the social hierarchy. But, the excavation at Keezhadi has been carried out at two localities in the farm. Both the places have yielded different items and we presume they represent a social hierarchy as bigger of the two locations with more number of trenches is said to be a settlement of educated rich people, as many jewellery, fine game stones, semi-precious stones and a dozen Tamil Brahmi inscriptions have been found. It is presumed that they had the same social hierarchy as the SANGAM period.

VEDIC Civilization

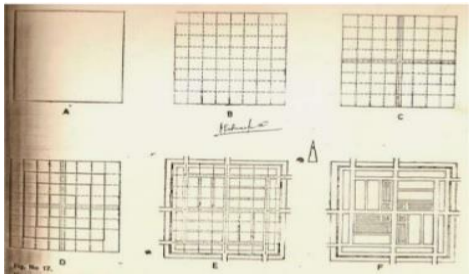
The Vedic Age was between 1500 BC and 600 BC. This is the next major civilization that occurred in ancient India after the decline of the Indus Valley Civilization by 1400 BC. The Vedas were composed in this period and this gives this age the name. The Vedas are also the chief source of information about this era. The Vedic Civilization flourished along the river Saraswati, in a region that now consists of the modern Indian states of Haryana and Punjab .Later they moved into Indo-Gangetic plains. They were mainly a cattle-keeping people, and were mainly in search of pastures.

TECHNOLOGICAL CHARACTERISTICS

Vedic agriculture in Ancient India had many developments in science, mathematics, civilization, and Agriculture. Especially, the Vedic people skilled in cultivation and succeed in Agriculture. The Hindu people had strongly followed the traditions and cultures so that every practice of agriculture was associated with these religious customs. The Vedic people cultivated the crops of wheat, barley, and other eatable nuts which were the primary food items. The people of the Vedic period used the useless items like the leaves, cow dung and other materials thrown into the agriculture land made them decompose. This process made the soil to increase the fertility of good crops.

City planning

The science of building was quite advanced during the Vedic period. The Vedic civilization leaving its primitive stage far behind had registered remarkable progress in the field of building edifices and planning villages and towns, Village is rectangular/square.



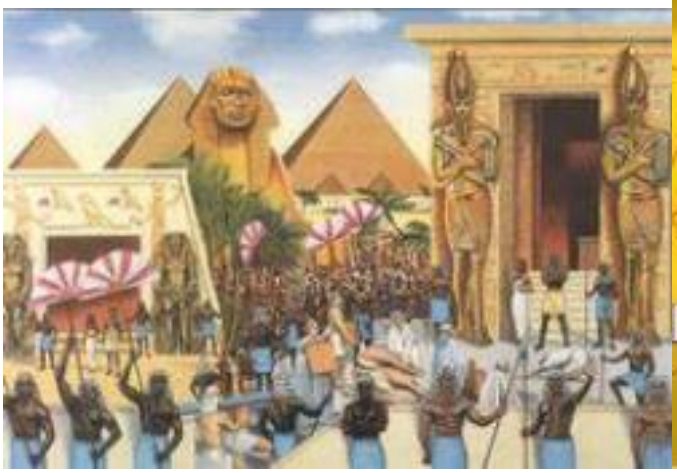
CULTURAL CHARACTERISTICS

- Spiritual/practises/religion - The historical Vedic religion, and subsequent Brahmanism, constituted the religious ideas and practices among some of the Indo-Aryan peoples of northwest India and the western Ganges plain of ancient India during the Vedic period. These ideas and practices are found in the Vedic texts.
- Literature - Vedic period are mainly the four Vedas, but the Brahmanas, Aranyakas and the older Upanishads as well as the oldest Śrautasutras are also considered to be Vedic.
- Dressing - The Vedic period was the time duration between 1500 and 500 BCE. The garments worn in the Vedic period mainly included a single cloth wrapped around the whole body and draped over the shoulder. They had different garments for different purposes, and professions also.
- Both women and men of the Indus valley Civilization used to decorate themselves with jewellery

EXAMPLES IN OTHER CIVILIZATIONS

Egyptian Culture and Civilization

Ancient Egyptian culture flourished between c. 5500 BCE with the rise of technology (as evidenced in the glass-work of faience) and 30 BCE with the death of Cleopatra VII, the last Ptolemaic ruler of Egypt. It is famous today for the great monuments which celebrated the triumphs of the rulers and honored the gods of the land. The culture is often misunderstood as having been obsessed with death but, had this been so, it is unlikely it would have made the significant impression it did on other ancient cultures such as Greece and Rome.



Ancient Egyptian civilization has so captured the imagination of scholars and laypeople alike. Just as life arose from the waters, the seeds of civilization were first sown along the banks of the Nile. This mighty river, which flows north from the heart of Africa to the Mediterranean Sea, nourished the growth of the pharaonic kingdom. The long, narrow flood plain was a magnet for life, attracting people, animals and plants to its banks. In pre-dynastic times, nomadic hunters settled in the valley and began to grow crops to supplement their food supply. Seen as a gift from the gods, the annual flooding of the river deposited nutrient rich silt over the land, creating ideal conditions for growing wheat, flax and other crops. The first communal project of this fledgling society was the building of irrigation canals for agricultural purposes.

The sun was a principal deity whose passage across the sky represented the eternal cycle of birth, death and rebirth. The pharaohs were seen as gods, divine representatives on earth who, through rituals, ensured the continuation of life. After death, they became immortal, joining the gods in the afterworld.
The Egyptians also believed that the body and soul were important to human existence, in life and in death. Their funerary practices, such as mummification and burial in tombs, were designed to assist the deceased find their way in the afterworld. The tombs were filled with food, tools, domestic wares, treasures -- all the necessities of life -- to ensure the soul's return to the body so that the deceased would live happily ever after.

The most imposing tombs are the famous pyramids, shaped like the sacred mound where the gods first appeared in the creation story. These were incredibly ambitious projects, the largest structures ever built. Their construction was overseen by highly skilled architects and engineers. Paid laborers moved the massive limestone blocks without the use of wheels, horses or iron tools. The conscripts may have been motivated by a deep faith in the divinity of their leaders and a belief in immortality. Perhaps they thought that their contributions would improve their own prospects at the final judgment

in the afterworld.

Greek Culture & Civilization

Ancient Greek Culture was the birthplace of Western civilization about 4000 years ago. Ancient Greece produced many magnificent achievements in areas of government, science, philosophy and the arts that still influence our lives. The Greeks made a wealth of contributions to human culture, especially in the areas of government, philosophy, drama, and the visual arts.The art of ancient Greece has exercised an enormous influence on the culture of many countries from ancient times until the present. There are three scholarly distinctions of Greek art that correspond roughly with historical periods of the same names. These are the Archaic (700 - 480 BC), the Classical (480 - 323 BC) and the Hellenistic (323 – 31 BC) periods. The main physical categories of Greek art are sculpture, pottery, coin design and architecture.

The Greeks used many different types of materials in their **sculptures** including stone, marble and limestone as these were abundant in Greece. Other materials such as clay were also used but due to their brittle nature very few have survived. Greek sculptures are very important as the vast majority of them tell us a story about Gods, Heroes, Events, Mythical Creatures and Greek culture in general. Examples of Greek sculpture that survive and receive worldwide recognition are: the Parthenon Marbles, Agamemnon's Death Mask, stone statues of humans, such as the limestone Kouros (male) and Kore (female) statues (c.590 BC), Discobolos (The Discus Thrower) by Myron, the Venus de Miloand the Winged Victory of Samothrace.

Roman Culture & Civilization

The Roman Civilization came into picture around the 6th century BC. The early Romans adopted culture from their neighbors, the Greeks and Etruscans, in particular, but imprinted their unique stamp on their borrowings. The Roman Empire then spread this culture far and wide, affecting diverse areas of the modern world. For instance, we still have colosseums and satire, for entertainment, aqueducts to supply water, and sewers to drain it. Roman-built bridges still span rivers, while distant cities are located along remnants of actual Roman roads. Going further and higher, the names of Roman gods pepper our constellations. Some parts of Roman culture are gone, but remain intriguing. Chief among these are the gladiators and death-games in the arena.

Even the story behind the foundation of the ancient Rome is something of a legend, it‘s full of myths. But at the height of its power, the Romans ruled over the biggest chunk of land in that era – all the present day counties surrounding the modern day Mediterranean sea were a part of ancient Rome.

Early Rome was governed by kings, but after only seven of them had ruled, the Romans took power over their own city and ruled themselves. They then instead had a council known as the _senate‘ which ruled over them. From this point on one speaks of the _Roman Republic‘. Rome also saw the rise and fall of some of the greatest emperors in human civilization, like Julius Caesar, Trajan and Augustus. But eventually, the empire of Rome became so vast that it simply was not possible to bring it within a single rule.

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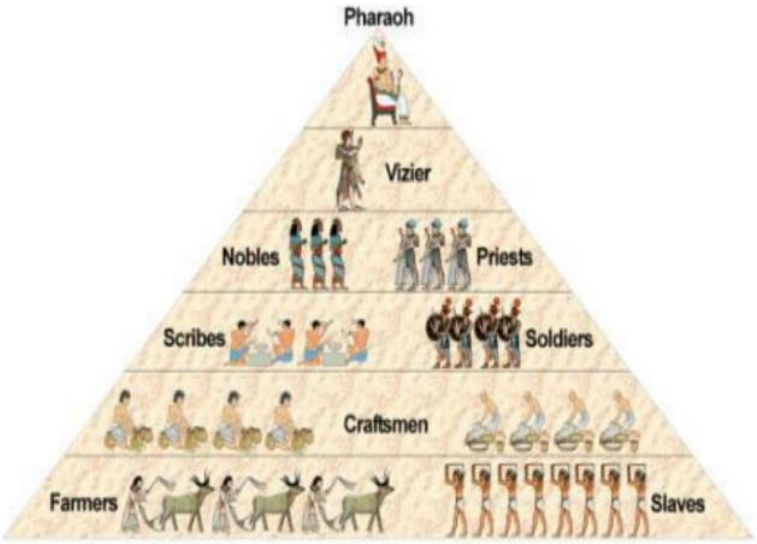
SOCIAL HIERARCHY IN FOREIGN CIVILIZATIONS

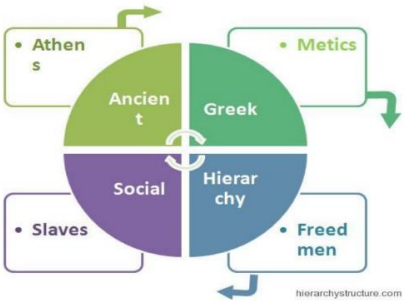
SOCIAL HIERARCHY in the ancient Egyptian civilization



	The pharaoh was believe to be a God on earth and had the most power, responsible for making laws and keeping order ensued that Egypt was not attacked or invaded by enemies.
	The vizier was the Pharaoh‘s chief advisor and was sometimes also the High Priest. He was responsible for overseeing administration and all official documents had to have his seal of approval.
	Nobles ruled the regions of Egypt and were responsible for making local laws and keeping order in their region.
	Scribes were the only people who could read and write and were responsible for keeping records regarding army, number of workers, harvest etc.
	Soldiers were responsible for the defense of the country. Second sons were chosen in the army. Soldiers we allowed to share riches captured for enemies and were also rewarded with land for service to the country

	Craftsmen were skilled workers such as pottery makes, leather workers sculptors, painters, weavers, jewellery makers, shoe makers, tailors. Group of craftsmen worked together in workshops.
	Farmers worked the land of the Pharaoh and nobles and were giving housing, food and clothes in return.
	Slaves were usually prisoners captured in war. Slaves could be found in the households of the Pharaoh and nobles, working in mines, quarries and in temples.

Social hierarchy in the ancient Greek civilization



Athens – The Upper Class	· The people of this class possessed the uppermost power and position in the society. · One has to be born in Athens to be a part of the Upper Class as the rights for this class could only be inherited on the hereditary basis. · The upper class symbolized a good civil character, good artistic taste, and highly socialized individuals. · The people from this class handled all the government work, philosophy as well as the literature department, and also the war. · Athens people always got slaves so as to perform their materialistic works so as to save their precious time which they had to use for administrative purposes.
Metics – The Middle Class	· These people came to Athens to settle down for earning their livelihood. · Such people were apt for the Middle Class. · They possessed very little rights as compared to the Upper Class. · They were majorly involved in the trading and manufacturing related jobs.

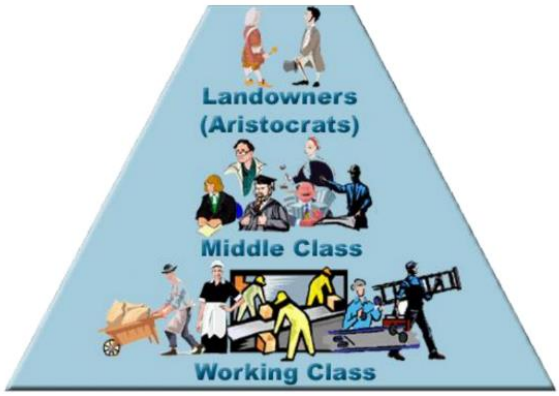
Freedmen – The Lower Class	· This was the lower class people category but did not belong to Athens, i.e. these were neither Athens nor were granted citizenship in their life what so ever money they earned. · These were the people who possessed least amount of privileges, but still got few, as compared to salves who had zero privileges.
The Slaves	· This is the lowest most class, actually a level because Greeks never considered it as a class. · These people were either rescued from war, some criminals or even bought upon people. · These people possessed zero rights or authority. · They did not even possess right of their own life.

Social hierarchy in the ancient Rome civilization

Patricians	· Official and the advisories position of the king were occupied by the members of the wealthiest families · After the dissolution of the monarch rule, the patricians took control over the city and formed the basis of aristocracy..
Senators	· This class of ancient Rome social hierarchy got its position due to the political power that it possesses. The power is although less than that of the Patrician class. The class included all men who served in the senate. This class was dominated by the nobles. The nobles were the families whose ancestors included at least one ambassador. · senators have to follow certain restricted rules to live in the society – cannot un a business, cannot own a cargo ship.
Equestrians	· A man was entitled to belong to the Equestrian class along with his/her family, if s/he possessed a stable minimum wealth worth 400,000 sesterces. · Members from the senator families who gave preference to the monetary and business gain than to politics
Commons	· The Commons were all other freeborn Roman citizens. The special trademark of the Roman citizens was their dress called as Toga. All the common citizens had the right to arrange a legal marriage with another Roman citizen.
Freed people	· he men and women belonging to this class were slaves in the early days but have now recovered their freedom. However, they were not fully freed and they have had various restrictions regarding their legal rights. They are not eligible for working in the public offices.

Slaves	· This was the lowest class of the Roman hierarchy and they don't have any freedom of their own. They used to be the property of their masters.

Social hierarchy during Industrial Revolution



Land owners / aristocrats	Lords of the country side controlled most of the wealth and enjoyed power of their rank. By 1800s, the status of wealthy industrialists was included in this class.
Middle class	Doctors, lawyers, business man, managers
Working class	Came in to existence during industrial revolution

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SCHOOL OF BUILDING AND ENVIRONMENT

DEPARTMENT OF ARCHITECTURE

UNIT – III - HISTORY CULTURE AND BUILT ENVIRONMENT – I– SARA 1101

UNIT 3

CONSTRUCTION AND CULTURE

Relationship between nature and architecture. Architecture and its context, Social and cultural aspects of building practices, 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:

Relationship between nature and architecture. Architecture and its context, the origin of the Architect and the master builder, emergence of the specialist,	GEOGRAPHICAL & CLIMATIC CONTEXT	Power point presentation & Discussion
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.	CONSTRUCTION & TECHNOLOGY	Power point presentation & Discussion
Social and cultural aspects of building practices,	CONSTRUCTION & SOCIO-CULTURAL INFLUENCES	Visual presentation with seminar & interaction.

CONTEXT - GEOGRAPHICAL & CLIMATIC

Primitive man is concerned primarily with shelter, and protection from climate - a space that is safe. Climate is often a key factor in shaping and influence construction choices such as materials, available resources, shape & form of the structure. A house in a rainy location may look nothing like a house in a hot desert.

Apart from climate, geography too is a determining factor. Geography, once again, can vary from the hilly terrain of the Himalayas and Kashmir, to the flats of the Deccan and the south, from the damp ground of Assam and Bengal to the dry earth of Punjab. Therefore, construction is influenced by the physical attributes of a location, like its

- climate,
- topography, geography
- site

As construction processes evolved, along with the culture and society, specialized

professions started to emerge who were learned and knowledgeable in construction processes for a particular location. They had developed skills as well as tools and other means to advance construction processes. These skills were recognised as an essential and important within the society and the individual or groups of people who possessed these skills were given different names throughout different regions of the world – like “maestry”, ‘viswakarma’, “stonemasons” etc. These were the origins of architecture profession, the emergence of a specialist and this progressed to the creation of the master builder.
Technology played an immense role in the above mentioned progress of architect into a master builder which is examined below.

CONSTRUCTION & TECHNOLOGY

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

Technology in 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 & Daub

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

Çatalhöyük

Catalhayuk 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.

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 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.

Innovations in living – by the ancient civilians

Role of intuition, innovation, inventiveness, creativity and ingenuity in construction
During the growth of the ancient civilizations, ancient technology was the result from advances in engineering in ancient times. These advances in the history of technology stimulated societies to adopt new ways of living and governance. The Empires may have fallen more than 1,500 years ago, but its rich legacy of innovation and invention can still be seen today. The ancient civilians were prodigious builders and expert civil engineers, and their thriving civilization produced advances in technology, culture and architecture that remained unequaled for centuries.

1. Aqueducts

The Romans enjoyed many amenities for their day, including public toilets, underground sewage systems, fountains and ornate public baths. None of these aquatic innovations would have been possible without the Roman aqueduct. First developed around 312 B.C., these engineering marvels used gravity to transport water along stone, lead and concrete pipelines and into city centers. Aqueducts liberated Roman cities from a reliance on nearby water supplies and proved priceless in promoting public health and sanitation. While the Romans did not invent the aqueduct—primitive canals for irrigation and water transport existed earlier in Egypt, Assyria and Babylon—they used their mastery of civil engineering to perfect the process. Hundreds of aqueducts eventually sprang up throughout the empire, some of which transported water as far as 60 miles. Rome's famous Trevi Fountain, for instance, is supplied by a restored version of the Aqua Virgo, one of ancient Rome's 11 aqueducts.

2. Concrete

Many ancient Roman structures like the Pantheon, the Colosseum and the Roman Forum are still standing today thanks to the development of Roman cement and concrete. The Romans first began building with concrete over 2,100 years ago and used it throughout the Mediterranean basin in everything from aqueducts and buildings to bridges and monuments. Roman concrete was considerably weaker than its modern counterpart, but it has proved remarkably durable thanks to its unique recipe, which used slaked lime and a volcanic ash known as pozzolana to create a sticky paste. Combined with volcanic rocks called tuff, this ancient cement formed a concrete that could effectively endure chemical decay. Pozzolana helped Roman concrete set quickly even when submerged in seawater, enabling the construction of elaborate baths, piers and harbors.

3. Newspapers

The Romans were known to contribute to public discourse through the use of official texts detailing military, legal and civil issues. Known as Acta Diurna, or —daily acts,‖ these early newspapers were written on metal or stone and then posted in heavily trafficked areas like the Roman Forum. Acta are believed to have first appeared around 131 B.C. and typically included details of Roman military victories, lists of games and gladiatorial bouts, birth and death notices and even human interest stories. There was also an Acta Senatus, which detailed the proceedings of the Roman senate. These were traditionally withheld from public view until 59 B.C., when Julius Caesar ordered their publication as part of the many populist reforms he instituted during his first consulship.

4. Roads and Highways

At its height, the Roman empire encompassed nearly 1.7 million square miles and included most of southern Europe. To ensure effective administration of this sprawling domain, the Romans built the most sophisticated system of roads the ancient world had ever seen. These Roman roads—many of which are still in use today—were constructed with a combination of dirt, gravel and bricks made from granite or hardened volcanic lava. Roman engineers adhered to strict standards when designing their highways, creating arrow-straight roads that curved to allow for water drainage. The Romans built over 50,000 miles of road by 200 A.D., primarily in the service of military conquest. Highways allowed the Roman legion to travel as far as 25 miles per day, and a complex network of post houses meant that messages and other intelligence could be relayed with astonishing speed. These roads were often managed in the same way as modern highways. Stone mile markers and signs informed travelers of the distance to their destination, while special complements of soldiers acted as a kind of highway patrol.

5. Roman Arches

Arches have existed for roughly 4,000 years, but the ancient Romans were the first to effectively harness their power in the construction of bridges, monuments and buildings. The ingenious design of the arch allowed the weight of buildings to be evenly distributed along various supports, preventing massive Roman structures like the Colosseum from crumbling under their own weight. Roman engineers improved on arches by flattening their shape to create what is known as a segmental arch and repeating them at various intervals to build stronger supports that could span large gaps when used in bridges and aqueducts. Along with columns, domes and vaulted ceilings, the arch became one of the defining characteristics of the Roman architectural style.

6. Written language

The use of drawings to tell stories is certainly nothing new; cave paintings found in France and Spain date all the way back to 30000 B.C. But drawings and paintings wouldn't evolve into the first written language for thousands of years, when the first writing systems arose out of Egypt and Mesopotamia.

7. The Plow

While historians aren't entirely certain of where the plow originated, evidence suggests that the Egyptians and Sumerians were among the first societies to employ its use around 4000 B.C. Likely built from modified hand tools, the plows were so light and ineffective that they are now referred to as "scratch plows" for their inability to dig deep into the ground. What's more, the plows ran on nothing more than elbow grease. For

instance, wall paintings illustrate four men pulling a plow through a field together -- not a great way to spend a day in the scorching Egyptian sun.

8. Door Lock

The earliest such device, created around 4000 B.C. in Egypt, was basically a pin-tumbler lock, in which a hollowed-out bolt in the door was connected to pins that could be manipulated by insertion of a key. When the key pushed upward on the pins, they slipped away from the bolt shaft, allowing it to be withdrawn.

9. Surgery & Medical Treatments

Cataract and plastic this were also first performed by the ancient physician Sushruta. These were dated back to 2000BCE and his work were later translated to Arabic language and gradually passed on to European countries. He used a curved needle and removed the cataract by pushing the lens. The eyes were then immersed in warm butter and were properly covered till they were completely healed. People from far off countries came to India to seek treatment.

Leprosy was first noticed by Indians and various ancient remedies are also mentioned in the Atharva Veda. Lithiasis treatment or the treatment for eradicating stones was first introduced in India. Small Pox vaccinations were first cured in India and symptoms and ways of immunization against small pox were mentioned in 8th century by Madhav. Ayurveda and Siddha are the two primitive methods of treatment that originated in India and are still used as an alternate way of treatment. They were used for holistic healing and ancient sages of India mastered this treatment method. Another Indian medical practitioner named Upendra Nath Bramhachari invented methods to treat Visceral Leishmaniasis or Kala Azar. This Nobel Laureate was responsible for the eradication of this ailment. These technological advancements in medicine also demanded specialised buildings to hold and conduct these treatments and surgeries. Thus started the hospitals in ancient India.

10. Crucible steel

High-quality steel has been produced in South India since ancient times. The technique used to manufacture it was later on called the crucible technique. Pure wrought iron was first put together with glass and charcoal in a container and was heated till the metal melted and absorbed the carbon.

15. Rulers

Commonly known as Scale is a geometrical equipment used for measuring lengths and drawing straight lines was also first invented by Indians in about 1500 BC.

15. Natural fibres

Natural fibers like wool, cotton and plant originated from India. Evidences show that people of the Indus Valley used cotton and India pioneered the art of cotton spinning and used it in making fabric. Jute, a plant fiber, was cultivated in India since ancient times and was later exported to other countries. Cashmere wool, which is supposed to be the finest wool was first made in Kashmir and was used to make hand- made shawls. These shawls have maintained their richness and exclusivity even today.

THE EVOLUTION OF MASTER BUILDERS AND EMERGENCE OF WORLD

MASTERPIECES: Architect Imhotep and Pyamid of Djoser Nebuchandnezzar II and the beauty of —The Hanging Gardens‖

Apollodorus of Damascus – The epic of Pantheon Ictinus and Callicratus – The Parthenon

Basic civilization to the city formation – Harappan culture

Harappan architecture is the architecture of the Harappans, an ancient people who lived in the Indus Valley from about 3300 BCE to 1300 BCE. The Harappans were advanced for their time, especially in architecture.

Each city in the Indus Valley was surrounded by massive walls and gateways. The walls were built to control trade and also to stop the city from being flooded. Each part of the city was made up of walled sections. Each section included different buildings such as: Public buildings, houses, markets, craft workshops, etc.

The Harappans were excellent city planners. They based their city streets on a grid system. Streets were oriented east to west. Each street had a well-organized drain system. If the drains were not cleaned, the water ran into the houses and silt built up. Then the Harappans would build another storey on top of it.

Although not every Harappan house had a well, they are quite common and comprise one of the most recognizable features of Harappan urbanism. Over the years, the level of streets and houses were raised owing to the accumulation of debris which necessitated raising the height of the wells.

· Houses and other buildings were made of sun-dried or kiln-fired mud brick. These bricks were so strong; they have stood up to thousands of years of wear. · Each house had an indoor and outdoor kitchen. The outdoor kitchen would be used when it was warmer (so that the oven wouldn't heat up the house), and the indoor kitchen for use when it was colder.

· In present day, village houses in this region (e.g. in Kachchh) still have two kitchens. Indoor kitchens are used mostly as store houses and are only used for cooking when it rains. Otherwise, residents prefer to use the outdoor kitchens because the dry shrub and cow dung used as cooking fuel are very smoky, making indoor cooking difficult.

· So far, no unequivocal examples of temples have been found at sites belonging to the Indus Valley Civilization. Archaeologists do not know yet what religion was practiced in the Indus Valley Civilization.

· Community water pools (swimming or bathing) do exist, which may be linked with religious practice. Water plays an important role in Hindu sacred places, and pilgrimage to such places often involves sacred bathing (apart from the Ganges).

SOCIO-CULTURAL INFLUENCES ON CONSTRUCTION

The connection between architecture and society is obvious and even though sometimes ignored, it is something that we have to keep in mind whenever we want to build or design something for people other than ourselves.

Buildings result from social needs and accommodate a variety of functions: social, political, economic, religious and cultural. Their size, appearance, location, and form are governed not simply by physical factors but by a society's ideas, its forms of economic and social organizations, its distribution of resources and authority, its activities, and the beliefs and values, which prevail at any one period of time. As changes in the society occur, so too does change in its build environment. New building types emerge as old ones become obsolete. Some buildings are modified, extended and take on different functions; others may simply disappear. Society produces its buildings, and the buildings, although not producing society, help to maintain many of its social forms.

Simon Unwin in his book, Analyzing architecture, states that people make places in which to do things they do in their lives - places to eat, to sleep, to shop, to worship, to argue, to learn, to store and so on. The way in which they organize their places is related to their beliefs and their aspirations, their world view. As worldviews vary, so does architecture, at the personal level, at the social level and cultural level, and between different subcultures within a society.

The following are some of the more important socio-cultural aspects which affect built form:

1. Some basic needs
2. Family.
3. Position of women
4. Privacy
5. Social intercourse.

BASIC NEEDS

Sitting, Eating, resting etc. are basic needs and they way it is one is heavily influenced by the culture and social aspects which in turn affects the way the space is designed thus generating the form.

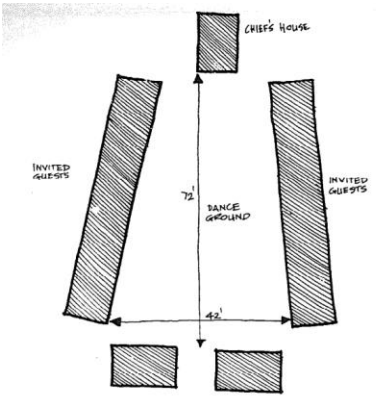

FIG. 2.21. Diagrammatic plan of special village for dance rituals, Ronpila, New Guinea. (Adapted from Aspects de la Maison dans le Monde, *p. 66.)*

FAMILY

Differences in family structure which are , significant in relation to house forms which differ equally as much. Even when we have described the basic type of family structure, there may still be various forms that result, as, for example, the extended family group which can lead to the courtyard cluster of the Kabylie, the longhouse of the Iroquois, and the grouping of the Southwest Porno of California, whose arrangement is not clear from the plan, and can only be seen once the names of the families are known.

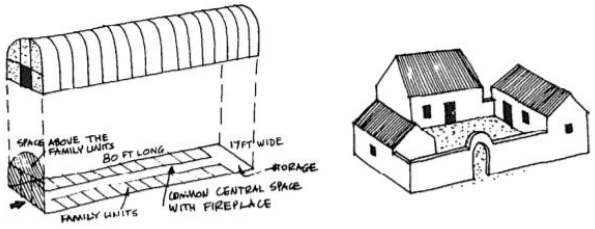

FIG. 3.9. Left: Onondaga–Iroquois longhouse. (Adapted from Morgan, Houses and House Life of the American Aborigines, *p. 129.) Right: Inca* marca *(for diagrammatic plan see Fig. 2.11). There are still great numbers of this type in the altiplanos of Peru and Bolivia.*

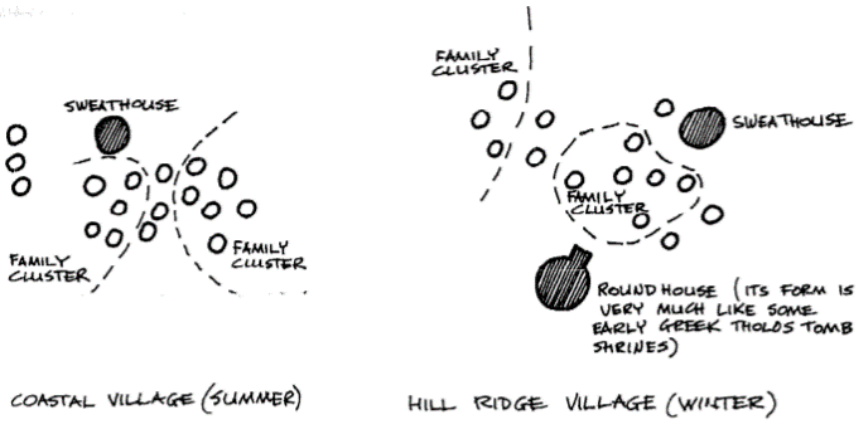

FIG. 3.8. Grouping of Southwest Pomo Indians, California.

The Iroquois longhouse is just one of many forms of the communal house. Its specific form can compared with that of the pueblo or the Inca marca.

POSITION OF WOMEN

Example- The Mediterranean area contains two types of houses. There is a two story, stone house with an outside stair found on the coasts and islands from Syria to Catalonia and the Balkans-and in the same area is also the courtyard house. Their occurrence in the same area, and the fact that the court house is very much the same. In Greece, North Africa, and Latin America, suggest that the latter relates to some social factor, which may be the extreme need for privacy for women who are cloistered. The windows and roofs of these court houses are designed to prevent anyone from intruding into the intimacy of the house. For the same reason, house doors on opposite sides of the street may not face each other.

PRIVACY

Streets in the Punjab, for example, link the three elements of the village-house, temple or mosque, and bazaar. Widenings in the streets provide room for a small tree or a well, around which a storyteller or small market will set up shop and help the street serve a social function. The transition between street and private domain of the house becomes very important in this case.

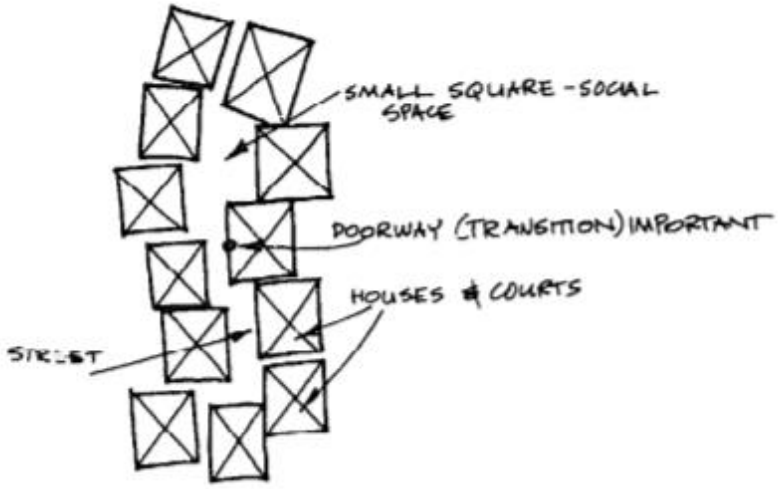

FIG. 3.11. Diagrammatic plan of Punjab village.

SOCIAL INTERCOURSE

The meeting of people is also a basic need, since man has been defined as a social animal. What concerns us is where people meet, whether in the house, the cafe, the bath, or the street. This, not the fact of meeting itself, affects the form of the habitat.

Necessity of Art as a cultural expression in naturally occurring built environment (Cultural Influence)

- 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. P
- 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 wih royalty because of their expense.

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1. http://www.bookabacus.com
2. https://scotthaddow.wordpress.com
3. http://www.buildingconservation.com
4. John McCann, 'Brick Nogging in the Fifteenth and Sixteenth Centuries, with examples drawn mainly from Essex',Transactions of the Ancient Monuments Society, Volume 31, 1987
5. It is likely that repairs to infill panels will take place alongside repairs to the structural timber frame, so see also: SPAB Technical Pamphlet No 12, The Repair of Timber Frames and Roofs by James Boutwood

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SCHOOL OF BUILDING AND ENVIRONMENT

DEPARTMENT OF ARCHITECTURE

UNIT – IV - HISTORY CULTURE AND BUILT ENVIRONMENT – I– SARA 1101

SATHYABAMA UNIVERSITY
Faculty of Building and Environment
Department of Architecture

AR 1101 SOCIETY, CULTURE AND BUILT ENVIRONMENT

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

UNIT 4
BUILT ENVIRONMENT 8Hrs

Introduction to history and theory of built forms - Geographical location, politics, religion, materials and construction techniques with examples in different contexts. Understanding human cultural development, built form and cultural context, expression of the under lying value systems and relationship with the built form.

Objective:

To understand the built environment along with the history with respect to the locations, religion and the materials used in that period along with the construction techniques with examples from each period. To brief the student about the meaning of environment and its relationship with society and to make them understand the concept of ecology and environment.

Methodology:

Introduction to history and theory of built forms- Geographical location, politics, religion, materials and construction techniques with examples in different contexts	Visual presentation and Discussion
Understanding human cultural development, built form and cultural context, expression of the under lying value systems and relationship with the built form	Power point Presentation
Examples of history and theory of built forms	Group discussions

Introduction to history & Built environment:

History (from Greek historia, meaning "inquiry, knowledge acquired by investigation") is the study of the past, particularly how it relates to humans. The history of architecture traces the changes in architecture through various traditions, regions, overarching stylistic trends, and dates.

Relationship between Architecture and Art

Ever since Antiquity, architecture - the art of designing and constructing buildings - has always been closely intertwined with the history of art, for at least three reasons. First, many public works (especially religious buildings) were designed with aesthetics in mind, as well as functionality. They were built to inspire as well as serve a public

function. As a result, they involved the services of a wide range of 'artists' and decorative craftsmen as well as laborers. Second, in many of these buildings, the exteriors and interiors acted as showcases for fine art painting (e.g. Sistine Chapel), frieze and relief sculpture (eg. The Parthenon, European Gothic cathedrals), stained glass art(eg. Chartres Cathedral), and other artworks like mosaics and metalwork. Thirdly, public building programs typically went hand in hand with the development of visual art and most major 'arts' movements (eg.Renaissance, Baroque, Rococo, Neoclassical) influenced both architecture and the fine arts.

Ancient Architecture:
Early architecture had two main functions:

- To consolidate security and power
- To please the Gods.

The richer the society, the more important these functions became

Before recorded history, humans constructed earthen mounds, stone circles, megaliths, and structures that often puzzle modern-day archaeologists.

Ancient Egypt
History of Egyptian Art

Art has existed in Egypt for about as long as it has anywhere else in the world, with prehistoric carvings and artifacts dating back thousands and thousands of years. Egyptian civilization first began to really develop under the Early Dynastic period of roughly 3000-2680 BCE, when the first kings rose into power. But ancient Egyptian civilization really begins with the advent of the Old Kingdom, which lasted from 2680-2259 BCE. This is where Egyptian art really first appeared as the Pharaoh Djoser expanded Egypt into a major civilization.

The Old Kingdom is time when many of what we think of as traditional Egyptian styles appeared. The pharaohs began building large tombs for themselves in the shapes of pyramids in the Old Kingdom, starting with the smaller step pyramids of Djoser and leading to the Great Pyramids of Giza. Old Kingdom artists carved reliefs into temples, palaces, and tombs using a mixture of hieroglyphs and images, recording scenes of history, mythology, and even poetry.
Following the Old Kingdom was the Middle Kingdom, which lasted from 2258-1786 BCE. In this period, architects refined the designs of temples and pyramids, but overall, most art remained roughly the same. Artistic styles of carving and painting also remained consistent into the New Kingdom of 1550-1070 BCE. However, in this era, the pharaohs stopped building pyramids, possibly because they had become too expensive, and started building massive tombs hidden underground.

They compensated by making the temples even larger, adding massive stone entryways. Throughout the three different kingdoms, Egyptian art remained pretty consistent, but after that, Egypt was invaded and conquered by other nations, first

Persia and then the Macedonian Greeks. Each of these introduced new cultural influences, leading to a decline in traditional artistic styles.

Classical

850 BC to 476 AD - From the rise of ancient Greece until the fall of the Roman Empire, great buildings were constructed according to precise rules. The Classical Orders, which defined column styles and entablature designs, continue to influence building design in modern times.

Characteristics of Classical Architecture:

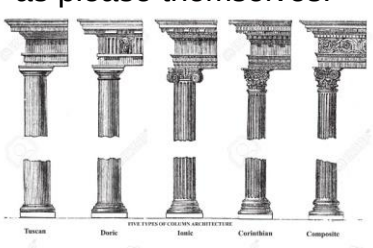
Classical Architecture is different from other architecture because the buildings were all built to have exact symmetry. The architects during this era tried to make everything symmetrical from the doors to the windows to the decorations inside and outside the building. Another thing that set this era apart from the others is their use of floral decorations. They often used flowers on the outside of the building as well as human sculptures and animals.GREEK Architecture PARTHENON the Parthenon was built in the 5th century BC, and despite the enormous damage it has sustained over the centuries, it still communicates the ideals of order and harmony for which Greek architecture is known.

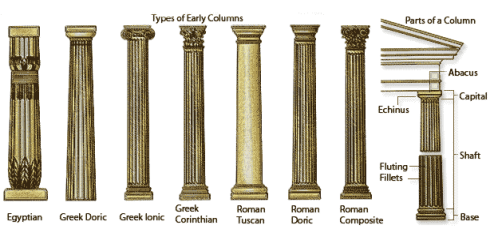
Classical architecture was also often built on a grand scale, with imposing columns and large arches to demonstrate the skills of the builders. Classical Architecture is the simple yet breath-taking, complex yet elegant foundations and figures. The buildings are so symmetrical right down to the bare details. The architects of that time period tried to have everything symmetrical.

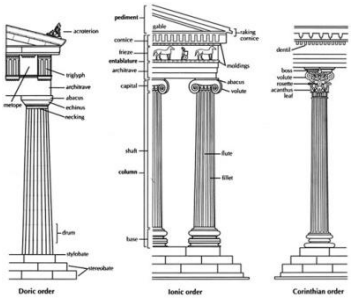
Caryatids on the Erechtheion, (Athens), an example of a Greek architectural element taken up by later classical architecture.

Why was it Important?

This type of architecture was either for one or two things. One of the reasons that houses were built were for a basic need, shelter. Or, they could have built that home for a god(s), a place to worship a god(s), or a gathering place (ex. Town Hall). As time passed, the buildings became more elaborate and more detailed. Some civilizations grew from stone and mud huts to huge temples as well as tombs like the Egyptians. There is a possibility that the reason the buildings got more and more elaborate was because each city or race was fighting against each other -by buildings. That could explain why these buildings were so elaborate and so time consuming. The most logical reason is that they wanted their buildings to be so elaborate to please their gods as well as please themselves.





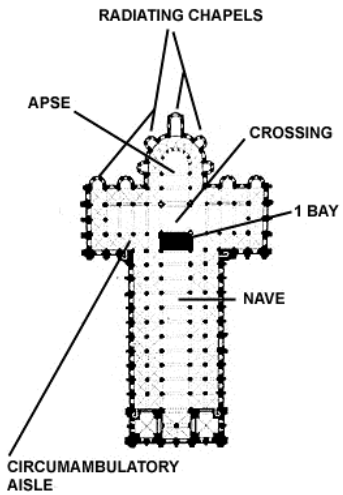


Byzantine

527 to 565 AD. After Constantine moved the capital of the Roman Empire to Byzantium (now called Istanbul) in 330 AD, Roman architecture evolved into a graceful, classically-inspired style that used brick instead of stone, domed roofs, elaborate mosaics, and classical forms. Emperor Justinian (527 AD to 565 AD) led the way.Buildings increased in geometric complexity, brick and plaster were used in addition to stone in the decoration of important public structures, classical orders were used more freely, mosaics replaced carved decoration, complex domes rested upon massive piers, and windows filtered light through thin sheets of alabaster to softly illuminate interiors. Most of the surviving structures are sacred in nature, with secular buildings mostly known only through contemporaneous descriptions.

Justinian, Architect of the Byzantine Golden Age Before we take a closer look at Byzantine architecture, it behooves us to look at the man behind the movement: Emperor Justinian. Justinian was following in the footsteps of Constantine, the Roman emperor who converted to Christianity and elevated it to the level of a state religion. Justinian wanted to realize Constantine's vision of a united Christian empire. Yet Justinian was not content to unify his empire by force of arms. The last century had made it clear that swords alone could not hold the empire together. So Justinian took a page from Constantine's book and began an ambitious building project, constructing churches all over his empire.

Prime examples of early Byzantine architecture date from Justinian I's reign and survive in Ravenna and Istanbul, as well as in Sofia (the Church of St Sophia). One of the great breakthroughs in the history of Western architecture occurred when Justinian's architects invented a complex system providing for a smooth transition from a square plan of the church to a circular dome (or domes) by means of pendentives. Byzantine architecture shared many of the qualities of early Christian architecture: the use of mosaic to decorate surfaces, the focus on the apse, or half domed alcove at the front of the church, and the use of clerestory, or windows at a high level to bring in light. All of these trends carried over from Christian times. In these respects, the main difference between early Christian and Byzantine art and architecture can be summarized in two words: bigger and more. Byzantine churches featured more clerestory windows and mosaics on every conceivable surface.



Central-Plan Style

In the mid sixth century, the architectural style of churches began to diverge sharply. The long, narrow basilica, which had been Constantine's favored form of church, continued to be the dominant form of church in the West, while rounder, domed, central-plan styles of churches, like the early Christian circular baptisteries, became more popular in the Byzantine East. You can remember these differences between the Eastern and Western styles of church by looking at the differences between the Eastern and Western renditions of the cross. The Western cross, or Latin cross, is long, just like the Western basilica is long. It also has a small cross-section, just like the Western basilica is crossed by a transept, or bema, at the eastern end, giving the whole building the appearance of a cross if seen from above. The Eastern cross, or Greek cross, is as wide as it is long - just as the Eastern central-plan church is round.

This central-plan style reached its apex in the Hagia Sophia, which is indisputably the greatest work of Byzantine architecture. Sadly, most of this immense church's glorious mosaics were destroyed or covered by the Turks, whose Islamic religion forbade any images whatsoever. As they turned the Hagia Sophia into a mosque, the Turks whitewashed over these beautiful images. Yet the lack of mosaic art allows us to notice some of the more architectural advancements of the Byzantines. First, let's look at this dome.

Romanesque

Early Christian architecture started with the vision of Emperor Constantine. Byzantine architecture was part of a building project started by Emperor Justinian. Carolingian architecture got its start with Emperor Charlemagne

800 to 1200 AD As Rome spread across Europe, heavier, stocky Romanesque architecture with rounded arches emerged. Churches and castles of the early medieval period were constructed with thick walls and heavy piers.

Romanesque architecture is different. The Romanesque architectural movement was not one of these top-down imperial building projects. It was more like a grassroots movement that took off independently in a variety of places from Italy to England, each with its own unique take on this new form.

Yet they all have a few things in common. They all seem fixated on the semicircular arch. They all had intricately decorated exteriors, especially on their western entrances. Unlike their predecessors, they decked out their buildings out with decorative sculpture, towers, and arcades. They all make use of a vaulted masonry ceiling rather than a wooden one. This heavy masonry ceiling required heavier construction. This meant thick walls with few windows and little light. It also meant supplementing or replacing delicate round columns with sturdier square piers. Let's have a look at each of these elements.

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The Semicircular Arch

The semicircular arch was very popular in the Roman Empire. This similarity is likely where the term 'Romanesque' originated. The semicircular arch is strong and durable. Romanesque architects love this arch, and they use it everywhere: doors, windows, ceilings, arcades.

Vaulting

Romanesque architects were nothing if not ambitious. Not only did they want to build huge new churches, but they also wanted to roof those churches with masonry, not wood. Now, you can't just run masonry horizontally; you can't build a ceiling like you would a wall. The pieces would fall out. To tackle this problem, Romanesque architects turned to their favorite form: the semicircular arch. An arch allows you to build unsupported openings out of masonry. It only took a little bit of cleverness to stretch this arch out, making a sort of tunnel. When this arched tunnel is used to roof a building, it's called vaulting. There were three sorts of vaulting popular in Romanesque times. First was the barrel vault next came the groin vault, which was later improved to ribbed vault.

Barrel Vault

The **barrel vault** is the simplest sort of vaulting. It's just a semicircular arch stretched along a single axis. The barrel vault had been around for a very long time. We see its use in ancient Egypt and Rome. Earlier Medieval churches had also made use of this technique, but its use was modest, and, with a few exceptions, underground. With the Romanesque, we see barrel vaults get pushed to their limits.

Groin Vault

Barrel vault worked nicely for covering a long hall, like the basilicas of old. But by this time, churches didn't just have one axis but several axes. The use of a transept, or a crossing part of a church, had become a standard in the West during Carolingian times. So what happens when two barrel vaults meet at a right angle? The solution is the groin vault.

The **groin vault** is where two barrel vaults meet. It vaults the intervening space with a sort of square dome. The groin vault has the added bonus of setting the weight more vertically, on pillars, rather than horizontally on walls. Like barrel vaults, groin vaults are very old. The Romans used them in their baths and their indoor markets. Carolingians used them in their crypts. Romanesque architects made groin vaults even larger, grander, and more beautiful.

Ribbed Vault

Toward the end of the Romanesque era, a new form of vaulting was invented: the ribbed vault. Unlike the groin vault, which is essentially two barrel vaults meeting at a right angle, with the **ribbed vault**, you're essentially building little arch frames or ribs and then filling in the gaps between them. These ribs do an even better job of focusing

the weight of the vaulting onto a few small places. With ribbed vaults, Romanesque architects could make their churches wider, taller, and even more impressive.

Barrel Vault

Ribbed Vault

Groin Vault

Bulkier Construction

Vaulted ceilings mean that there's a lot heavy masonry hanging over your head. All that weight has to go somewhere. Romanesque architects came up with some very creative ways to handle this new burden. Probably the most mundane solution was big fat walls with few windows. Yet these fat walls severely limited the amount of light that entered the cathedral. Another solution was to alternate columns, which are good at handling vertical force, with piers, which are large, usually square supports that are much better at handling horizontal force. This alternation might be horizontal (as at Mainz Cathedral), vertical (as at Malmesbury Abbey), or both (as at Durham Cathedral). At Durham we also see another solution: the combination of piers with fake surface columns.

Sculptural Decoration

So far we've been focusing on the interiors of these churches. Yet there were other huge changes occurring on the exterior of Romanesque churches as well. Where earlier churches had plain exteriors and only decorated the interior, the Romanesque architects brought some of that beautiful interior decoration outside.

One way in which Romanesque architects jazzed up their exteriors was with sculptural decoration, especially around the main entrance of the church. This round, highly decorated portals, known as **tympanum**, became increasingly popular in Romanesque architecture. We also see the addition of decorative statues and some incredibly fancy columns. We'll cover these developments in more depth in our lesson on Romanesque art.

Gothic Architecture

Gothic architecture is a style of architecture that flourished during the high and late medieval period. It evolved from Romanesque architecture and was succeeded by Renaissance architecture.

1100 to 1450 AD Pointed arches, ribbed vaulting, flying buttresses, and other innovations led to taller, more graceful architecture. Gothic ideas gave rise to magnificent cathedrals like Chartres and Notre Dame.

Fundamentals of Gothic Architecture

There are three things that make Gothic architecture Gothic:

1. The **pointed arch**
2. The **ribbed vault**
3. The **flying buttress**

In 1137, Abbot Suger began to rebuild the Abbey Church of St. Denis. Suger was not content with the dark, bulky, haphazard style of Romanesque architecture. Suger wanted his church to be a graceful expression of geometric harmony, striving toward Heaven and flooded with miraculous light. Years later, the new Church of St. Denis was revealed to the world. As Suger had wished, this new church was definitely unlike its Romanesque predecessors. Where Romanesque churches were short and thick, his new church was tall and elegant. Where Romanesque churches were dark and imposing, his new church was bright and inspiring. Suger called his new style of church 'modern.' His critics called it Gothic.

A thousand years ago, the word 'Gothic' referred to the Goths, a group of Germanic barbarians who had invaded and looted much of the Western Roman Empire. When the people of the 12th century called Suger's new church Gothic, they meant it was unrefined, barbaric and non-Roman.

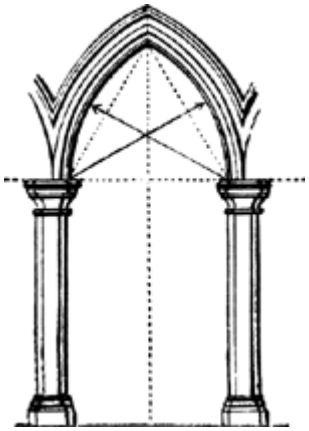
Those critics were almost entirely wrong. Gothic churches showed incredible refinement. They marked the apex achievement of medieval civilization. However, they were right about one thing: these churches certainly were not Roman. This is what makes Gothic architecture so fascinating. After centuries living in the shadow of Rome and trying to copy the marvels of the Roman Empire, Western Europe had finally come up with something new, something marvelous in its own right: the Gothic cathedral.

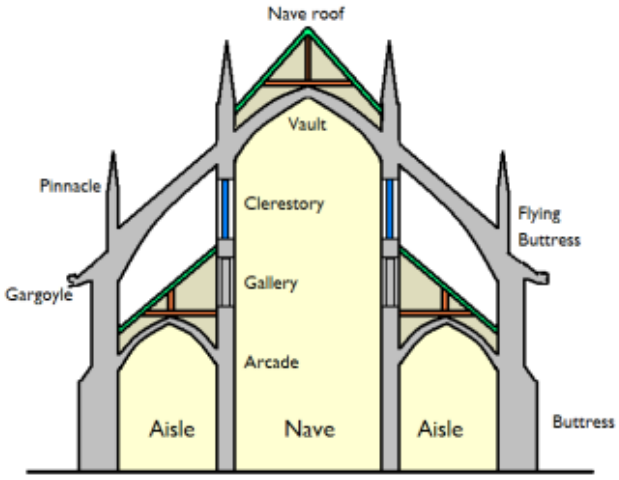
The Pointed Arch

The pointed arch makes all the rest of Gothic architecture possible. Its predecessor, the semicircular or Roman arch, had some severe limitations. These limitations have to do with what engineers call 'stress lines.' A **stress line** is basically the direction in which an arch distributes the pressure above it. The stress lines of the semicircular arch are mostly horizontal. This meant that the weight above these arches was distributed to the sides of the arch, pushing against the walls on either side. This is why Romanesque churches had such thick walls and tiny windows. They needed all that bulk to support the weight of the roof pushing outwards.

By contrast, the stress lines of the pointed arch are much more vertical. The weight above the pointed arch is mostly directed downward to the supporting pillars. This means that you no longer need big heavy walls

Support the roof. This redirection of force from a horizontal to a more vertical plane is characteristic of the other elements of Gothic architecture.





TYPICAL DETAILS OF A GOTHIC CHURCH

Renaissance Architecture

Renaissance architecture is the architecture of the period between the early 15th and early 17th centuries in different regions of Europe, demonstrating a conscious revival and development of certain elements of ancient Greek and Roman thought and material culture.

1400 to 1600 AD A return to classical ideas ushered an "age of awakening" in Italy, France, and England. Andrea Palladio and other builders looked the classical orders of ancient Greece and Rome. Long after the Renaissance era ended, architects in the Western world found inspiration in the beautifully proportioned architecture of the period. Renaissance style places emphasis on symmetry, proportion, geometry and the regularity of parts as they are demonstrated in the architecture of classical antiquity and in particular ancient Roman architecture, of which many examples remained. Orderly arrangements of columns, pilasters and lintels, as well as the use of semicircular arches, hemispherical domes, niches and aedicule's replaced the more complex proportional systems and irregular profiles of medieval buildings.

Baroque Architecture

1600 to 1830 AD In Italy, the Baroque style is reflected in opulent and dramatic churches with irregular shapes and extravagant ornamentation. In France, the highly ornamented Baroque style combines with Classical restraint. Russian aristocrats were impressed by Versailles in France, and incorporated Baroque ideas in the building of St. Petersburg. Elements of the elaborate Baroque style are found throughout Europe.

Rococo Architecture

Less commonly **roccoco**, or "Late Baroque", is an 18th-century artistic movement and style, affecting many aspects of the arts including painting, sculpture, architecture, interior design, decoration, literature, music, and theatre**.**

1650 to 1790 AD During the last phase of the Baroque period, builders constructed graceful white buildings with sweeping curves. These Rococo buildings are elegantly decorated with scrolls, vines, shell-shapes, and delicate geometric patterns.

Neoclassicism in Architecture

1730 to 1925 AD A keen interest in ideas of Renaissance architect Andrea Palladioinspired a return of classical shapes in Europe, Great Britain and the United States. These buildings were proportioned according to the classical orders with details borrowed from ancient Greece and Rome.

Art Nouveau Architecture

1890 to 1914 AD Known as the New Style, Art Nouveau was first expressed in fabrics and graphic design. The style spread to architecture and furniture in the 1890s. Art Nouveau buildings often have asymmetrical shapes, arches and decorative surfaces with curved, plant-like designs.

Beaux Arts Architecture

1895 to 1925 AD Also known as Beaux Arts Classicism, Academic Classicism, or Classical Revival, Beaux Arts architecture is characterized by order, symmetry, and formal design, grandiosity, and elaborate ornamentation.

Neo-Gothic Architecture

1905 to 1930 AD In the early twentieth century, Gothic ideas were applied to modern buildings. Gargoyles, arched windows, and other medieval details ornamented soaring skyscrapers.

Art Deco Architecture

1925 to 1937 AD Zigzag patterns and vertical lines create dramatic effect on jazz-age, Art Deco buildings. Interestingly, many Art Deco motifs were inspired by the architecture of ancient Egypt.

Modernistic Styles in Architecture

1900 to Present. The 20th and 21st centuries have seen dramatic changes and astonishing diversity. Modern-day trends include Art Modern and the school coined by Walter Gropius, Deconstructivism, Formalism, Modernism, and Structuralism.

Post modernism in architecture

1972 to Present. A reaction against the Modernist approaches gave rise to new buildings that re-invented historical details and familiar motifs. Look closely at these architectural movements and you are likely to find ideas that date back to classical and ancient times.

Built Environment

Built environment refers to the human-made surroundings that provide the setting for human activity, ranging in scale from buildings and parks or green space to neighborhoods and cities that can often include their supporting infrastructure, such as water supply or energy networks. The built environment is a material, spatial and cultural product of human labor that combines physical elements and energy in forms for living, working and playing. The "built environment encompasses places and spaces created or modified by people including buildings, parks, and transportation systems."

Culture, Architecture, and Design

Focusing on answers to these and other questions, Culture, Architecture, and Design discusses the relationship between culture, the built environment, and design by showing that the purpose of design is to create environments that suit users and is thus user oriented. Design must also be based on knowledge of how people and environments interact. Therefore, design needs to respond to culture.

The purpose of design is to improve environmental quality, which defines as the many characteristics, or attributes, of environments that respond to wants and are preferred (chosen) or rejected. It is linked to culture through the questions: What is better? Better for whom? How do we know it is better? And so on. Design can then be seen as a process of choosing among alternatives, which involves tradeoffs and ranking components of environmental quality.

Cultural variables also play a significant role in design. They are important in understanding specific user groups, situations, and environments. Environment can be understood as

(1) The organization of space, time, meaning, and communication;
(2) A system of settings;
(3) The cultural landscape; and
(4) The fixed, semi-fixed, and non-fixed elements of systems of settings.

To understand:

- The Nature and Role of Environment-Behavior Studies
- The Nature and Types of Environments
- The Importance of Culture
- Preference, Choice, and Design
- The Nature of Culture
- The ‘Scale’ of Culture • Making ‘Culture’ Usable

Evolution of human being

Man is clearly an animal. His heart, intestine, liver, lungs differ little from the corresponding organs of cat, a dog or a monkey. His respiration, digestion, reproduction muscle contraction, nerve or endocrine co-ordination fine the same general processes and same general chemical and physical relations that one finds in animals. Ecologist concerned with the study of various eco-systems regard man chiefly as a disturbing

element in it, and it is this growing attitude on the growing reality of man's disturbing tendency that has given rise to the academic interest in man-nature relations.

Ecology

The word ecology derived from the Greek word 'Oikos meaning habitation, and logos meaning discourse or study, implies a study of the habitations of organisms. Ecology was first described as a separate field of knowledge in 1866 by the German Zoologist Ernst Haeckel,

Environment

The term environment has been derived from a French word “Environia” means to surround. It refers to both abiotic (physical or non-living) and biotic (living) environment. The word environment means surroundings, in which organisms live. Environment and the organisms are two dynamic and complex component of nature. Environment regulates the life of the organisms including human beings. Human beings interact with the environment more vigorously than other living beings. Ordinarily environment refers to the materials and forces that surround the living organism.

History reveals that human race was once afraid of nature and the natural forces. Human beings worshiped nature and considered nature as superior to human race. Enormous increase in human population raised the demand for development and increased the consumption of various natural resources resulting in environmental deterioration. The term environment describes the sum total of physical and biotic conditions influencing the responses organisms. Everything which surrounds us may be collectively termed as environment. It is from the environment that we get food to eat, water to drink, air to breathe and all the basic necessities required for day to day living. The environment therefore can be said to constitute as "Life support system".

Environment may be divided into the following major components.

Natural and physical component - it can be further divided into two types namely abiotic or non-living and biotic or living component.

The abiotic component is made up of the following –

Location	It can be understood in terms of the exact location of a place on the earth. Related to the location other factors can be understood such as climate, temperature, rainfall, forest, availability of water and other natural resources.
Terrain	Altitude or degree of slope forms another significant aspect of physical environment.
Geological structure	It is the presence and composition of underline rocks and determines land forms and occurrence of mineral wealth
Climate	it is the most dominant component of physical environment. It is understood through temperature, rainfall, humidity and sunlight. It affects various aspects such as plant growth, type of soil, occupation etc.
Energy	Energy received from sun is the main source of heat and light is the environment. It is also the life giving force for the plant and animal world.

The biotic components are those which influence living organism, plants, animals and man. These components are interlinked and form a food chain. Culture or human components - it basically includes all the man-made and artificial characteristics of human society. In other words he develops a cultural environment.
The cultural environment can be further divided into the following categories

1	Social environment	It can be understood in terms of the nonmaterial aspect include the norms, values, ideas knowledge etc. whereas the material aspects are the manifest forms of the nonmaterial aspects.
2	Economic environment	Itt involves the different types of economic activities developed by man. Each type of economic activity has its own requirement of resources as well as technology.
3	Political environment	It includes the type of environment and its ideological principles, various important factors such as production, consumption, use of resources etc. are determined by the strategies and policies advocated by the - government. This in turn determines the level of development and progress of the society.

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