LECTUR

UNIVERSITY OF ABOUBEKR BELKAID TLEMCEN FACULTY OF TECHNOLOGY DEPARTEMENT OF ARCHITECTURE ACADEMIC YEAR 2024/2025

1st Year Architecture

Subject title: Critical History Of Architecture _ HCA1

Course leader: Ms BENADLA-KDROUSSI Houda Wafâa

ARCHITECTURE IN PREHISTORY

L'ARCHITECTURE DANS LA PRÉHISTOIRE

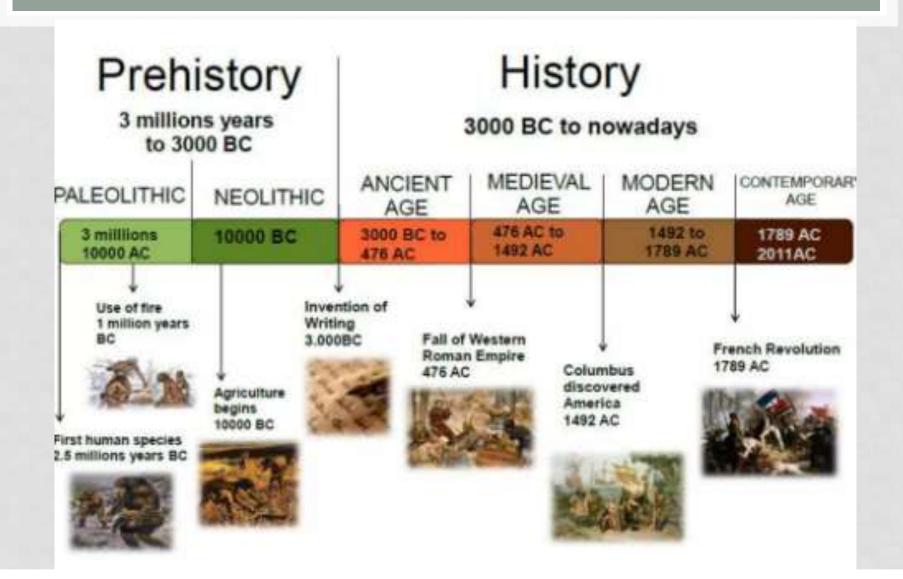
INTRODUCTION

L'ÉTUDE DE L'ARCHITECTURE
PRÉHISTORIQUE EXPLORE LES
PRATIQUES ARCHITECTURALES
DES PREMIÈRES SOCIÉTÉS
HUMAINES. L'ACCENT EST MIS
SUR LA MANIÈRE DONT
L'HOMME A RÉAGI À SON
ENVIRONNEMENT À TRAVERS
LA CONSTRUCTION D'ABRIS
PRIMITIFS, DE STRUCTURES
MÉGALITHIQUES ET DE
PREMIERS ÉTABLISSEMENTS.

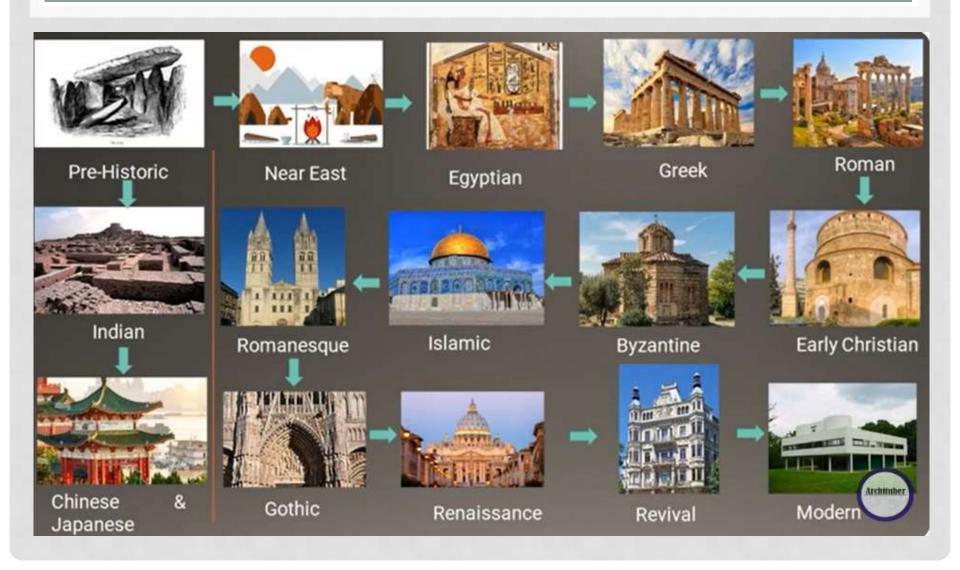
L'ANALYSE DES MATÉRIAUX ET DES TECHNIQUES UTILISÉS PERMET DE COMPRENDRE COMMENT CES FORMES ARCHITECTURALES REFLÈTENT LES CROYANCES CULTURELLES ET SOCIALES DE LEURS CRÉATEURS, TOUT EN METTANT EN LUMIÈRE L'HÉRITAGE DURABLE DE NOTRE ENVIRONNEMENT BÂTI. The study of prehistoric architecture explores the architectural practices of early human societies. The focus is on how humans reacted to their environment through the construction of primitive shelters, megalithic structures, and early settlements.

The analysis of the materials and techniques used allows for an understanding of how these architectural forms reflect the cultural and social beliefs of their creators, while also highlighting the enduring legacy of our built environment.

TIMELINE OF HISTORY



TIMELINE OF ARCHITECTURAL PERIODS



FROM NOMADISM TO SEDENTARISM

Development of early culture -



Living in a cave



Settlements developed near caves



Farming & Cultivation



Hunting



Cave painting invented



Specialized tools were developed

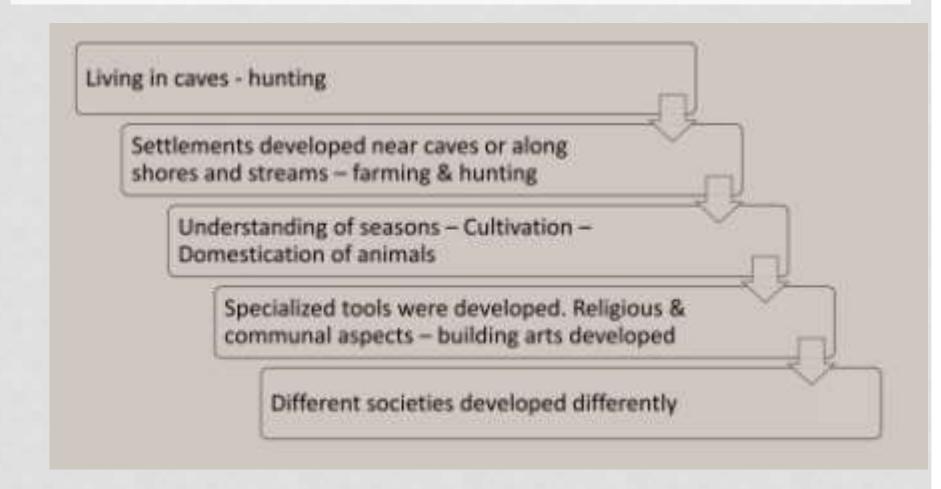


Formation of different societies



Religious and communal aspects

FROM NOMADISM TO SEDENTARISM



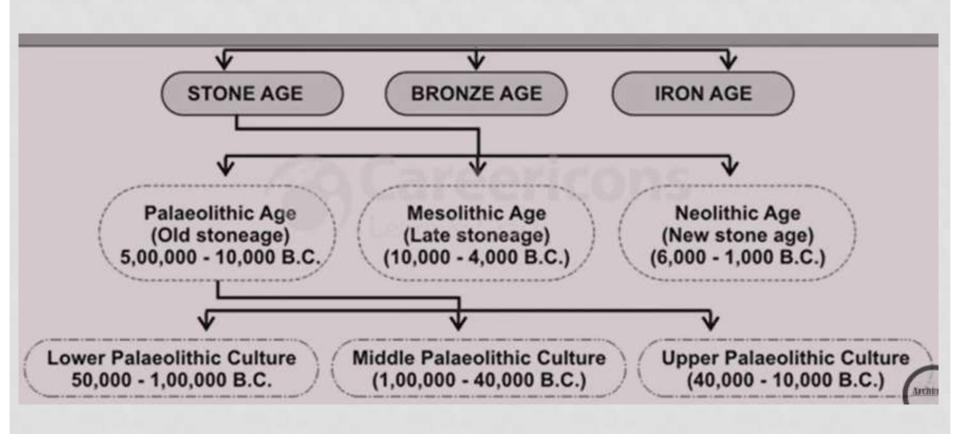
BIGGINING OF ARCHITECTURE

The New Stone Age



- When early man emerged from cave dwellings into shelters created by his hands
- The history of architecture began
- Three types of architecture emerge:
 SHELTERS (ephemeral architecture) ≠
 MEGALITHS (sustainable architecture)
 And villages

PREHISTORIC TIMELINE

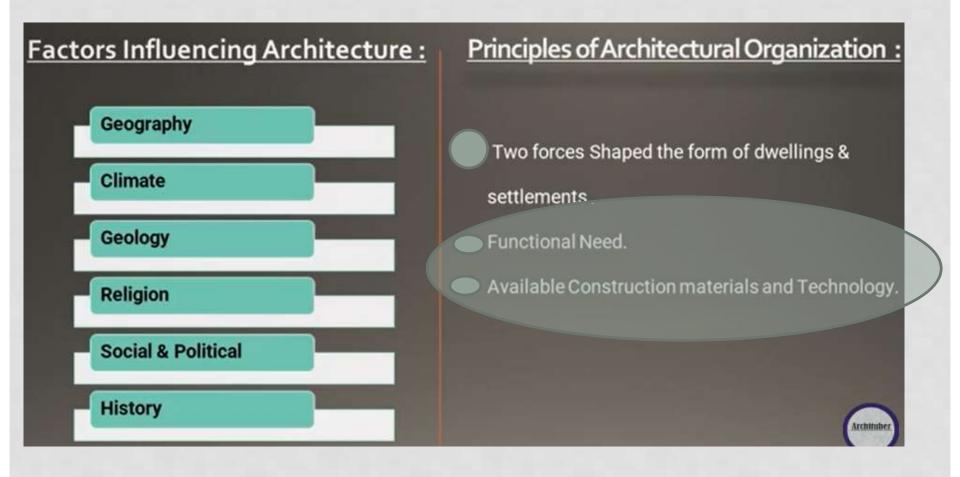


PRIMITIVE SHELTERS

FIRST FORM OF ARCHITECTURAL PRODUCTION

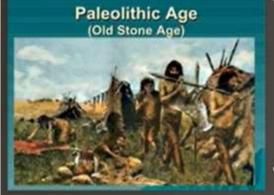
LES ABRIS PRIMITIFS. LA PREMIÈRE FORME DE PRODUCTION ARCHITECTURALE

THE DTERMINANTS OF EARLY ARCHITECTURAL PRODUCTION

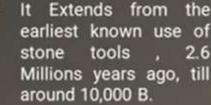


PRIMITIVE SHELTERS/ LES ABRIS PRIMITIFS

Paleolithic Stone Age (Old Stone Age)



 The Paleolithic Is a pre-historical Period of human History distinguished by the development of the most primitive stone tools.



Dwelling of the paleolithic Era can be categorised into 5 types , These structures are created in wood , stones and the skin & bones of their prey.









Cave:

- Most common & oldest types of dwellings.
- 2. Natural underground.
- 3. Spaces Large enough for Human.

Huts:

- 1. Oval in shape.
- 2. Built close to sea shores.
- 3. Built using stakes & stones.
- 4. Stands posts along axis.
- 5. Floor made of natural Matter & Ash.

Molodova:

- A More sophisticated sought.
- Wooden framework covered with skins, Held in place by Rough oval Mammoth, Bones.

Mezhirich:

- Foundation wall of mammoth jaws And long bones, capped with skulls
- Roofed with trees branches, overlaid by tusks.

Pit Houses

- Common in eastern Europe with low tempterature.
- Central posts holes Indicati
 existence of roof .
- 3. construction made in depressions



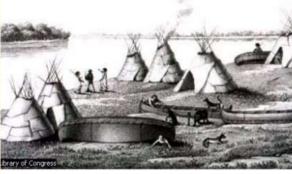
PRIMITIVES SHELTERS

Tents from Animal Skin





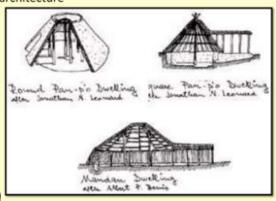




Tepees of American Indians

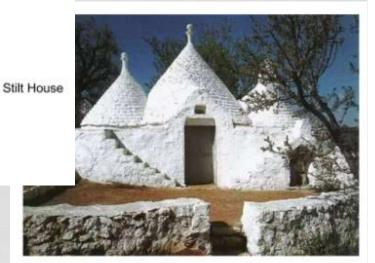
Mud Construction

· Improvement in technology led to mud construction and architecture









trullo: Southern Italy

yurts: Mongolia

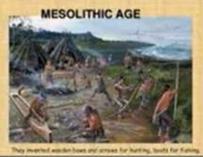
PRIMITIVE SHELTERS MESOLITHIC PERIOD

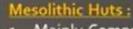
Mesolithic Stone Age (Middle Stone Age)

- Mesolithic Era comes after the end of paleolithic Era.
- People became Nomadic with new mobility Due to the end of ice age.
- Establishments of forests.
- Fishing , cultivating of cereals and vegetables began.
- Animals were domesticated , farming tools were developed.
- Architecture reflected Less hostile Period of time.
- Timber and more similar materials used for construction of dwellings rather than skins and bones & mammoth.
- Villages arranged Systematically.
- · Houses aligned in rows.
- · More Regular Plans.
- Artefacts came into existence.
- Settlements begin around water bodies.
- Dwellings were more durable as compared to that in the paleolithic age.
- Architecture reflected more freedom & structure looks more on openness.









- 1. Mainly Comprised of Bamboos
- Plans were trapezoidal.
- Entery facing the water bodies.
- 4. Floors plastered with limes.
- Posts Reinforced with stones.



Mesolithic Pit Houses:

- Shallow pits 6m 9m long
- & 25 m wide.
- 2. Roofs made of timber.
- 3. Stone Hearths as working



PRIMITIVES SHELTERS NEOLITHIC PERIOD

Neolithic Stone Age (New Stone Age)

The beginnings of the modern period of humanity









- Neolithic Exists between the 10,000 900 BC, the people were great builders.
- · Many Changes took place , they utilized mud brick to construct houses and villages.
- Production of food.
- Developments in agriculture lead to settling down.
- Dwellings became more sustainable.

PRIMITIVE SHELTERS NEOLITIC PERIOD





Long Houses, Neolithic Era

- A long, Narrow timber dwelling built by the 1st farmer in Europe in 5000 to 6000 BC.
- The long house was a rectangular structure, 5.5 to 7.0 m wide of variable length, around 20 m up to 45 m.
- Outer walls wattle & daub sometimes with split logs, with pitched, thatched roofs, supported by rows of poles.
- The exterior walls would have been quite short beneath the large roof.
- They were solid and massive, oak posts being preferred.
- Clay for the daub was dug from pits near the house, which then used for storage.

PRIMITIVE SHELTERS NEOLITIC PERIOD

Dry Stone Houses / Stone Dwellings:



- · Stone Built Houses with 3m thick cavity walls.
- Inner, Outer caves were made of dry stones.
- The interiors Covered with Domestic refuse.
- Rectangular plan with circular corners.
- Thatched roof with a smoke hole At the top positioned over a central hearth.







MEGALITHIC ARCHITECTURE

ANOTHER FORM OF ARCHITECTURAL PRODUCTION FROM PREHISTORY

L'ARCHITECTURE MÉGALITHIQUE. UNE AUTRE FORME DE PRODUCTION ARCHITECTURALE DE LA PRÉ HISTOIRE

MEGALITHIC ARCHITECTURE

Architecture Of the Civilization (New Stone age)

- Funerary Buildings Structure Such as tombs used for rituals & burials. (Dolmen Tomb)
- Religious Buildings Buildings used for Rituals of worship & Religion (Shrines embedded within Catal Huyuk)
- Ritual Buildings Functions are not entirely Certain ,activities maybe related to religion. (Stonehenge)

Characteristics of Pre- historic architecture will be examined under Three headings:

Building Types Building material ,Construction & technology

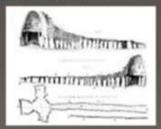
Principles of architectural organizations

- Settlements lead to Building of Monumental Architecture.
 - Large Upright standing stones, UnevenTexture, Square shaped tapered towards the top.
 - May Exists as a monolithis or part of a group.
 - Existed as identification mark at burial sites or otherwise.

Collective Tombs

Menhirs

- Passage graves
- Gallery Graves





- Dolmens
- Henges





TYPES OF MEGALITHS

L'art des mégalithes

Comme l'homme chasse moins et ne vit plus dans les grottes, l'art pariétal disparaît. Les œuvres d'extérieur sont les monuments mégalithiques. Il en existe dans le monde entier.

En Europe atlantique, ils sont très nombreux et les premiers datent de 3500 av. J.-C. Étudiés en Bretagne, ils portent des noms bretons rappelés ici :

- Les menhirs sont des pierres levées, plus ou moins taillées, de quelques décimètres à 10 mètres de haut ou plus, et parfois gravées.
 - Le menhir brisé (pourquoi ?) de Locmariaquer (Morbihan) atteignait 21 mètres de haut et pesait 350 tonnes.
 - Les alignements de Carnac (Morbihan) comptent 2935 menhirs répartis en une trentaine de rangées et sur 3-4 km de longueur.
- Les cromlechs sont des menhirs disposés en cercle ou en carré.
- Les dolmens forment des dalles, des tables de pierre reposant sur des pierres verticales. Ils servaient de chambre funéraire.
- = Un dolmen recouvert de terre formait un tumulus.
- Un dolmen recouvert d'un monceau de pierres s'appelait un caïrn.
- = Une succession de dolmens formant couloir (chambre funéraire collective) était une « allée couverte ». Par exemple, en Ille-et-Vilaine, la Roche aux fées comprend 41 blocs dressés et une dalle de couverture.



Menhir

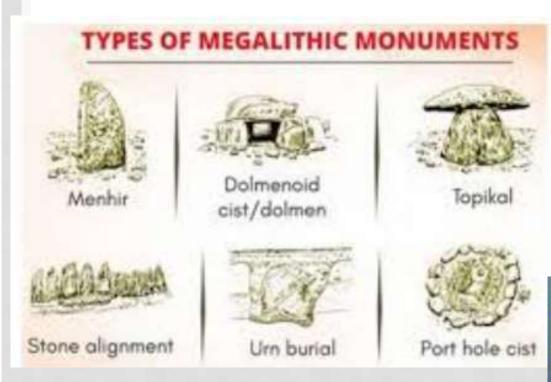


Cromlech



Dolmen

TYPES OF MEGALITHS





Passage Graves:

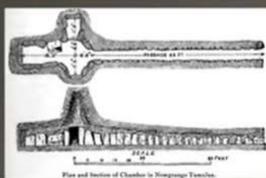
- A long Passage Leads to the chamber deep inside.
- 2. Covering Mound
- Entrance passage M wide 1.5 m High Burial Chamber.
- Smooth walls built with rectangular blocks
- Three cells at three sides of the chambers.
- 6. Corbelled Roof

Gallery Graves:

- 23 m long chamber divided into 12 sections.
- Covered with rectangular mound.







Henges:

- Open air ritual structures .
- Plan comprised of concentric circles.
- An altar located in the center.
- 4. Surrounded by five trilithon pairs of stone
- 5. Example : StoneHenge

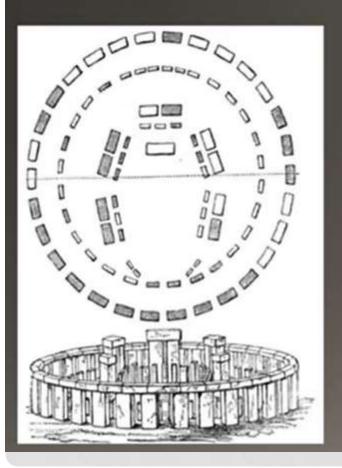
Dolmens:

- 1. Two or more stones supporting the top stone.
- Burial Feature.





Stonehenge (3100 – 2000 BC) Whitshire, England



- Neolithic Architecture
- Post & lintel Construction.
- Megalithis are 21 24 feet tall, including the height of the lintel, Buried 4 feet in the ground.
- 4. Cromlech
- 5. Solar & lunar orientation
- Stones dragged away far from the site.
- Circle of megaliths embrace structure enclosing it

Functions of Stonehenge:

- 1. Cremation
- 2. Astrological observatory
- 3. Solar Calendar
- 4. Sacred site



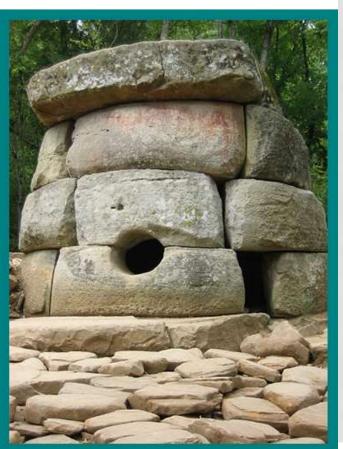
EXEMPLES OF MEGALITHIC ARCHITECTURE OTHER USES OF MEGALITHIC ARCHITECTURE/

Megalithic prehistoric architecture, although primarily associated with funerary and ceremonial monuments, may also have served as dwellings. However, there is little direct evidence of residential structures attributed to the builders of megaliths.

D'autres usages de l'architecture mégalithique

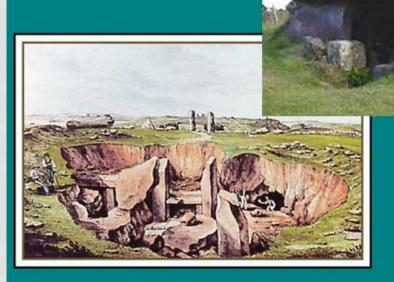
Habitations mégalithiques





L'architecture préhistorique mégalithique, bien que principalement associée à des monuments funéraires et cérémoniels, pourrait également avoir servi d'habitations. Cependant, il existe de preuves peu directes de structures résidentielles attribuées aux bâtisseurs de mégalithes.

EXEMPLES OF MEGALITHIC ARCHITECTURE OTHER USES OF MEGALITHIC ARCHITECTURE/VILLAGES



Construction mégalithique (villages bretons en France)





OTHER USES OF MEGALITHIC ARCHITECTURE/ BRIDGES

D'autres usages de l'architecture mégalithique



Pont mégalithique en Normandie (France)

Pont mégalithique de Lablachère _ Ardèche (France)

Les ponts les plus anciens consistent principalement à la pose de pierres plates sur des appuis en pierres.

Certaines civilisations commencent à maîtriser les principes d'empilement leur permettant de réaliser des éléments voûtés.

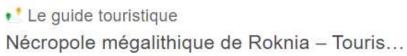
IN ALGERIA/ ROKNIA_GUELMA

Les vestiges de Roknia sont un ensemble de mégalithes situés à Roknia, dans la wilaya de Guelma, dans le Nord-Est de l'Algérie. Cet ensemble compte plus de 3 000 dolmens (on en trouve 4 500 sur tout le territoire français à titre de comparaison), disposés sur une longueur d'environ 2 km sur le bord d'une falaise.









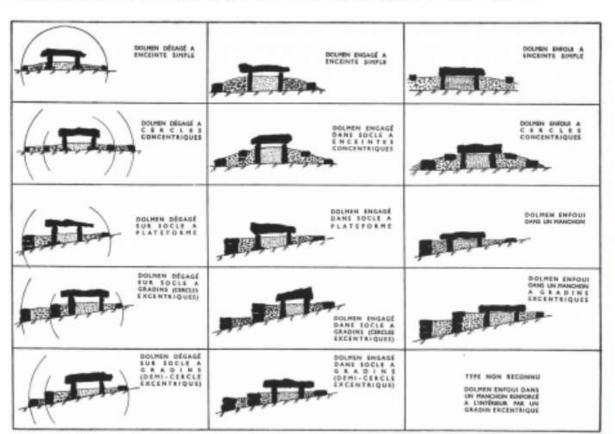


1889 ALGÉRIE MÉGALITHES Dolmen Roknia Sigus Khreneg...

IN ALGERIA/ BOUNOUARA _CONSTANTINE

La vaste nécropole mégalithique qui couvre le versant ouest et le sommet du Djebel Mazela près du village de Bou Nouara est l'une des plus célèbres d'Algérie orientale. Le Djebel Mazela est un anticlinal de calcaires aptiens qui dépend du massif de l'Oum Settas, à trente kilomètres au sud-est de Constantine.

Tableau des différents types de dolmens représentés à Bou Nouara.





YouTube BOUNOUARA LES 4000 DOLMENS EN DAN...



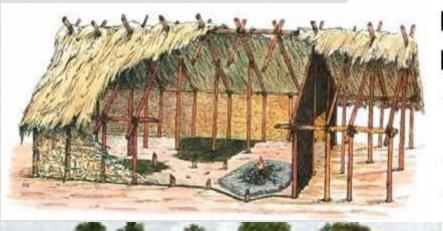
vitaminedz.com Constantine Un site archéologique en ...

THE FIRST NEOLITHIC VILLAGES

LES PREMIERS VILLAGES NÉOLITHIQUES

THE NEOLITIC VILLAGES

Principles of Architectural Organization



DWELLINGS AND SETTLEMENTS: NEW STONE AGE

- Became settled requiring permanent dwellings
- Required durable construction
- Improved dwellings and settlements to meet needs
- Change in form of house, introduction of furniture and differentiation of space
- Improvement in village form including introduction of streets
- Improvement in construction technology

EVOLUTION OF THE SOCIETY / EVOLUTION OF SKILLS AND MATERIALS

The New Stone Age

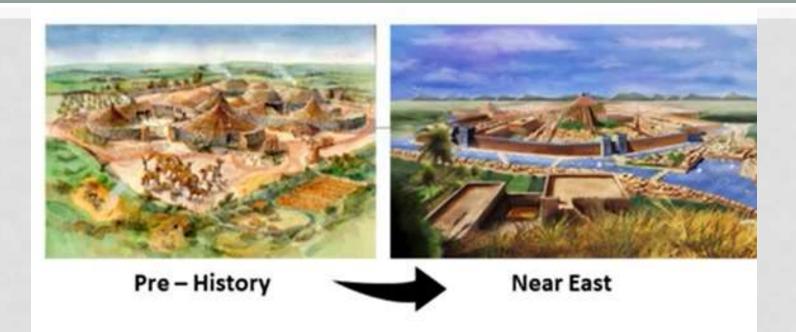
- Skills were developed, marking start of civilization
- People stopped wandering and settled down in permanent settlements
 - Discovery: result of population pressure
- Introduction of basic social organization of society
 - Villages were established and grew, protected by walls

Materials, Construction System & Technique

NEW STONE AGE

- More diversified construction materials
- Adobe and stone most popular materials
- · Large stone was used for monuments
- Construction method also improved over time
- Significant improvement in Adobe construction
- Evidence of ability to quarry, shape, transport and join large stones to create monuments

FROM VILLAGE TO CITY



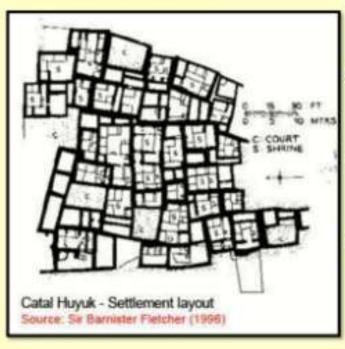
- The area witnessed the earliest rise of human civilization around 4500 BC.
- Civilization there lasted for 5000 years.
- Different Cultures established city states and empires at different periods .
- The cultures include Sumerian , Akkadian , Assyrian , Babylonian & Persian.

THE FIRST CITIES IN THE HISTORY OF HUMANITY

LES PREMIÈRES VILLES DANS L'HISTOIRE DE L'HUMANITÉ

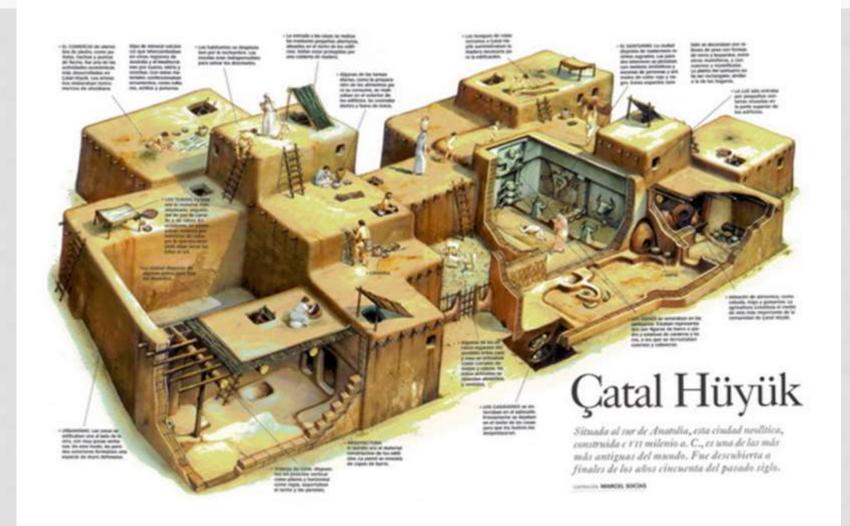
THE FIRST TOWNS / CATAL HUYUK CITY IN TURKEY

Neolithic Dwelling & Settlement: Catal Huyuk



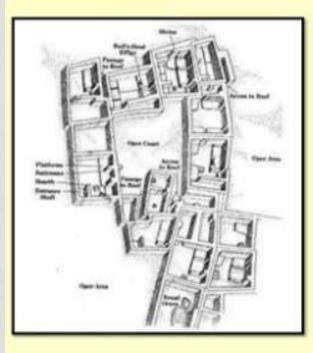
- Neolithic monument in present day Turkey
- Occupied between 6300 BC to 5400 BC
- Supported a population of up to 6000 people
- Largest and most cosmopolitan city of its time

ÇATAL HUYUK CITY IN TURKEY



ÇATAL HUYUK CITY IN TURKEY

Catal Huyuk



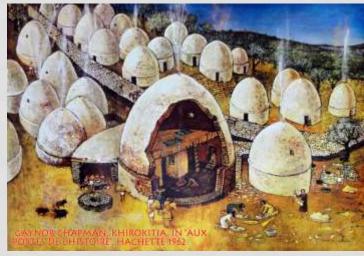
- Had extensive economy based on specialized craft and commerce
 - The city was a trading center
 - The size of the city and its wealth are a product of its status as a trading center

THE FIRST TOWNS/ KHIROKITIA IN CYPRUS

CLIMONAS AND KHIROKITIA







THE FIRST TOWNS/ JERICHO IN PALESTINE

Ancient Jericho

Towns became bigger as their populations increased. This made their architecture and urban planning more complex and they required more space to expand. The possibility of storing food surpluses meant that part of the population quit agricultural activities to devote their time to other things. Artisans, priests, traders... The wealth of flourishing cities attracted greed of the nomadic tribes and forced their inhabitants to build protective walls around their cities. This was the case of Jericho, in the West Bank, Palestine. With a history of more than 11,000 years, this was the first fortified city known ever and, up to the present day, it is considered the first city in history.

Jericho, the first one

Natufian hunter groups settled in this spot in 12,000 BC before it became the city of Jericho. Towards 9,400 BC, the settlement had more than 70 houses with around a thousand inhabitants and something unprecedented; a 3.5m highand almost 2m thick wall and a stone tower that reached a height of 8.5 m.

7000 BC

The round houses made with adobe, similar to igloos, were substituted by rectangular ones. Sanctuaries and ovens appeared.

Glory and collapse

They had stone foundations,

were covered with a mixture

clay brick structure, 50 cm

width walls and the roofs

of reeds and clay.

The apparition of the Canaanites implied changes in house planning. This people absorbed the original culture and took Jericho to its most glorious times. According to archeological records, the city was destroyed by 1500 BC to be re-founded in the 9th century BC.

Courtyards

The buildings usually had a 7 metre square courtyard used to cook and preventing smoke from entering inside

Double fortification

Similar to medieval dortifications, these were 3 m wide and more than 4 m high by 1700 BC. They were reconstructed at least 15 times.

Resources

There is evidence of cultivated plants and possible sheep breeding since 7220 BC. There was a water canal system.

The Jordan River

Jericho was favored by the river and trade. Its walls became thicker and were surrounded by a moat.

> Two storeys Two storey houses had a working area in the first floor and the rooms on



ANCIENT JERICHO: THE FIRST WALLED CITY IN HISTORY

JERICHO IN PALESTINE

Jéricho (Ariha en arabe), Cisjordanie-Palestine (9000 avant JC). Située à 37 km à l'est de Jérusalem est qualifiée de la Plus ancienne

ville continuellement habitée au monde, les archéologues ont mis au jour les vestiges de 20 peuplements successifs à Jéricho, datant de plus de

11 000 années. La ville se trouve près du fleuve Jourdain en Cisjordanie et abrite aujourd'hui environ 20 000 habitants.



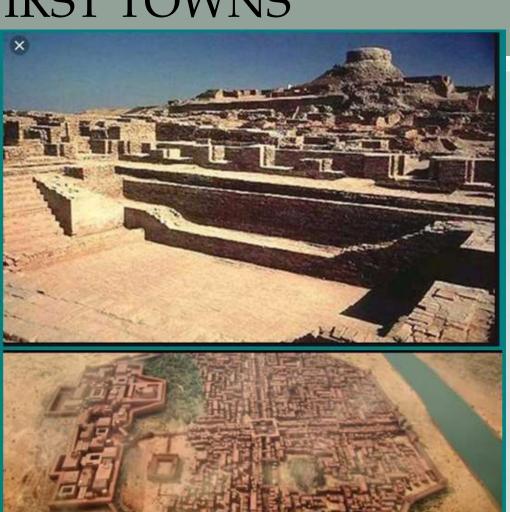




ANCIENT JERICHO: THE FIRST WALLED CITY IN HISTORY

THE FIRST TOWNS

Located in modern-day Pakistan, Mohenjo-Daro was founded in 2500 B.C.E., about two miles from the Indus River. Its name means "mound of the dead. " Artifacts were found on a series of mounds that concealed the city before it was excavated in 1924. At its largest point, the city housed over forty thousand people.



MOHENDJO DARO: THE FIRST CITY WITH SEWAGE SYSTEM

THE BIRTH OF THE FIRST CIVILIZATIONS

LA NAISSANCE DES PREMIÈRES CIVILISATIONS

THE BIRTH OF WRITING/ THE BIRTH OF CIVILIZATION

What do we mean by Civilization?

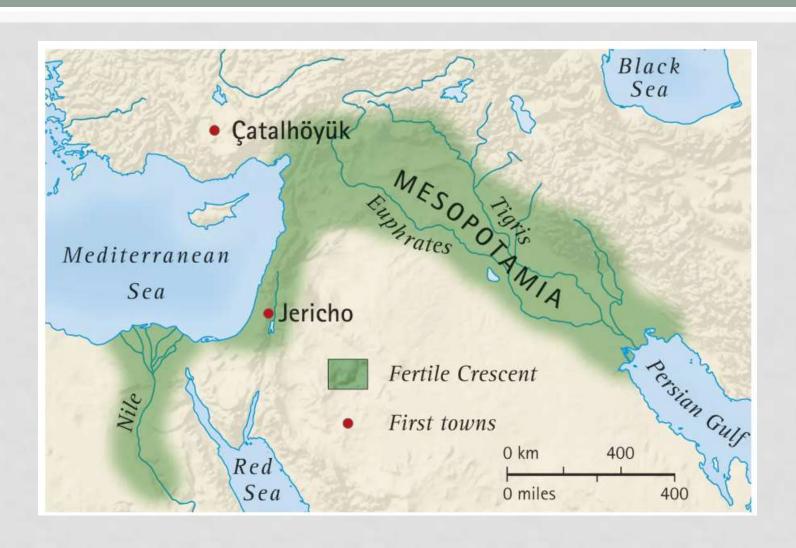
Civilization is associated with the cultural practices of cities
& urban living, the presence of Writing & written Law.



CIVILIZATION?

- Earliest Cities established & urban Culture took hold.
- In 4000 to 3000 BC, large number of people began living in a small area creating first cities.
- Cities grew , increased power & importance
- Rivalries developed between them for military & economic control.
- The ANE was land without Natural defenses
- Warfare was common throughout
- As some cities became more powerful, they defeated Weaker ones to create empires & Kingdoms.
- This led to collective rule of city states by a sovereign King.

THE FERTILE CRESCENT "CRADLE OF CIVILIZATION" LE CROISSANT FERTILE "BERCEAU DE LA CIVILISATION"



L'ARCHITECTURE DE LA PRÉHISTOIRE REPRÉSENTE UNE ÉTAPE FONDAMENTALE DANS L'ÉVOLUTION DE L'HUMANITÉ, MARQUANT LE DÉBUT DE L'INTERACTION ENTRE L'HOMME ET SON ENVIRONNEMENT.

À TRAVERS L'ÉTUDE DES
ABRIS PRIMITIFS, DES
STRUCTURES
MÉGALITHIQUES ET DES
PREMIERS ÉTABLISSEMENTS
NOUS AVONS PU OBSERVER
COMMENT LES BESOINS
FONDAMENTAUX D'ABRI ET
DE SÉCURITÉ ONT CONDUIT
À DES INNOVATIONS
ARCHITECTURALES
SIGNIFICATIVES.

The architecture of prehistory represents a fundamental stage in the evolution of humanity, marking the beginning of the interaction between humans and their environment.

Through the study of primitive shelters, megalithic structures, and early settlements, we have observed how fundamental needs for shelter and security led to significant architectural innovations.

EN CONCLUSION,
L'ARCHITECTURE
PRÉHISTORIQUE N'EST PAS
SIMPLEMENT UNE SÉRIE DE
CONSTRUCTIONS; ELLE EST LE
REFLET D'UNE ÉPOQUE OÙ LES
HUMAINS ONT COMMENCÉ À
FAÇONNER LEUR MONDE.

CE PARCOURS À TRAVERS LE TEMPS NOUS RAPPELLE QUE CHAQUE PIERRE POSÉE ET CHAQUE ABRI CONSTRUIT RACONTE UNE HISTOIRE, CELLE DE L'HOMME ET DE SAQUÊTE POUR S'ÉTABLIR DANS UN ENVIRONNEMENT COMPLEXE.

L'ÉTUDE DE CETTE PÉRIODE NOUS PERMET ÉGALEMENT D'APPRÉCIER LES RACINES PROFONDES DE NOTRE PATRIMOINE ARCHITECTURAL CONTEMPORAIN. In conclusion, prehistoric architecture is not merely a series of constructions; it is a reflection of an era when humans began to shape their world.

This journey through time reminds us that every stone laid and every shelter built tells a story—one of humanity and its quest to establish itself in a complex environment.

The study of this period also allows us to appreciate the deep roots of our contemporary architectural heritage.



La hutte du peuple Toposa



Bénin: la révolution se passe au grenier!



Plan PDF pour la construction d'une yourte d...



Détente ECO privée dans une yourte, Côte de I..

Toutes ces formes d'abris préhistoriques continuent à exister aujourd'hui soit pour des peuples qui vivent encore d'une manière primitive, soit pour des fins touristiques, ou pour des usages qui ont évoluer pour inspirer l'architecture contemporaine.











Journal du Design
Abri en bambou par l'architecte Donn H...



▲ Le Moniteur

Archi-Folies 2024» célèbre les noces d...



Tour du monde : 12 abris de jard...



All these forms of prehistoric shelters continue to exist today, either for peoples who still live in a primitive way, for tourism purposes, or for uses that have evolved to inspire contemporary architecture.



h Houzz

Architecture : Une maison perché...



⊕ Architecture-WordPress.com
 Bengisu Inan | Arch - Sayfa 3 - Ar...



☐ Futura-Sciences

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Abhishek Venkitaraman Follow
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https://www.youtube.com/watch?v=YuA0o3jNEKI
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