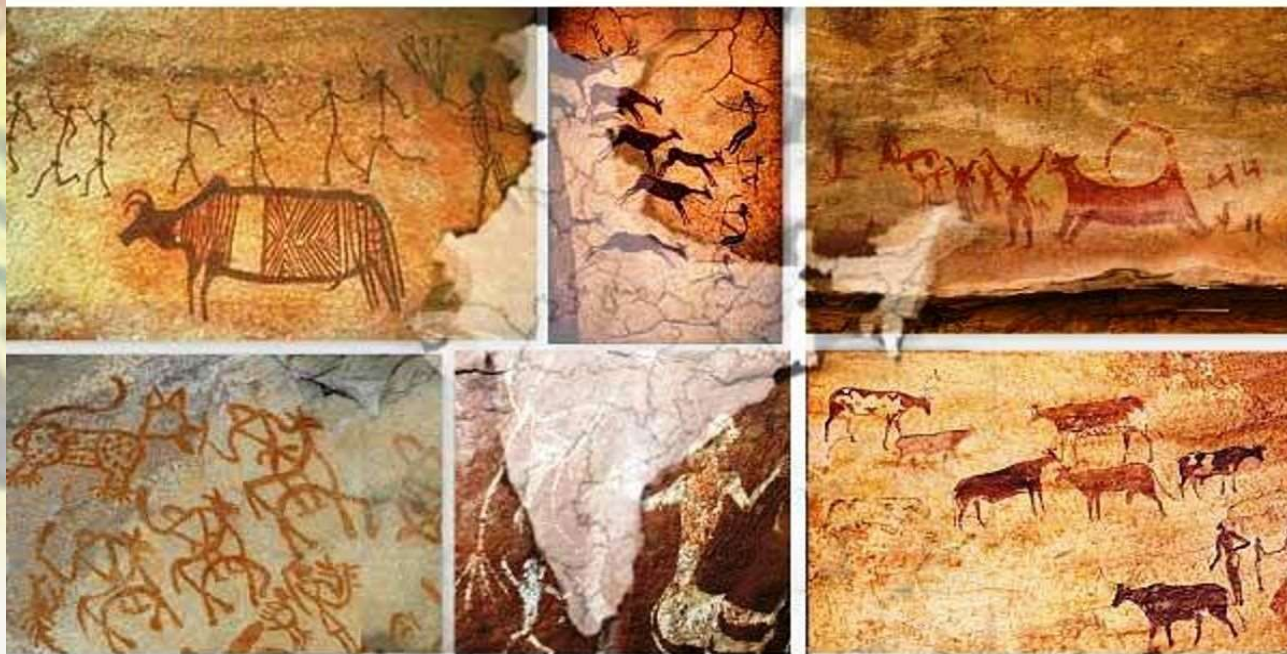


# EARLY STONE AGE SOME ARCHAEOLOGICAL TERMS





# Pre-Historic Period (30,00,000 BC-600 BC)

- It consists of five periods- **Palaeolithic, Mesolithic, Neolithic, Chalcolithic and Iron age.**
- No written records are available of this period.
- Archaeological remains from this period are stone tools, pottery, artifacts, and metal implements use by prehistoric people
- **Robert Bruce Foote** discovered what was probably the first Paleolithic tool discovered in India — the **Pallavaram handaxe.**
- **Robert Bruce B Foote** is known as the father of **Prehistoric Archaeology.**
- **Sir Mortimer Wheeler** contributed towards our knowledge of the prehistoric cultures of India and their sequence.





## PALEOLITHIC OR OLD STONE AGE: (30,00,000 BC – 10000 BC)

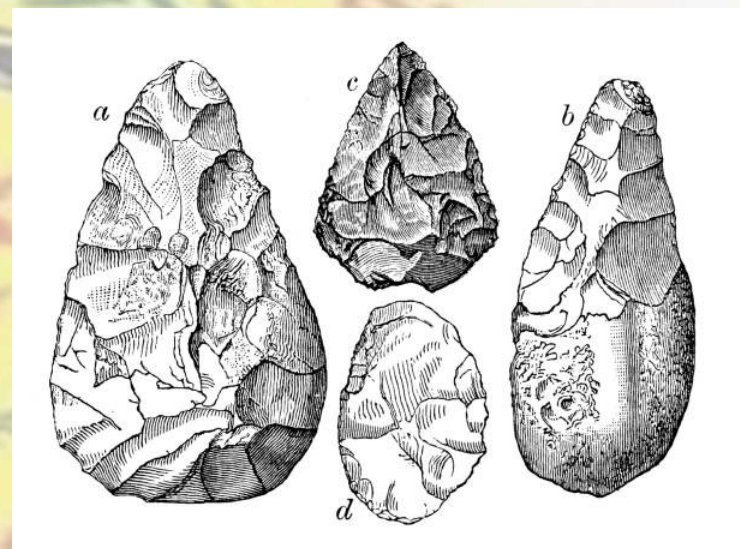
- **The Paleolithic Age** is the earliest period of the **Stone Age**, which developed in the **Pleistocene period** or the **Ice Age**.
- It spread in practically all parts of India except the alluvial plains of the Indus and Ganga.
- **Quartzite men:** Since the stone tools were made of a hard rock called quartzite, Paleolithic men are therefore also called Quartzite men in India."
- **Hand Axe culture:** The implements of this culture were found first in Madurai and Attirampakkam of Madras, so also called as Madrasian Culture..

# Famous sites of old stone age

- Soan valley and Potwar plateau.
- Siwalik hills in north India.
- Bhimbetka in Madhya Pradesh.
- Adamgarh Hills in Narmada Valley.
- Kurnool in Andhra Pradesh.
- Attirampakkam near Chennai.

## Lower Paleolithic Age:(5,00,000 to 50,000 BC)

- Evolution:** Hunting and food gathering.
- Lived in trees and in caves.
- Tools:** Simply chopper-chopping i.e., crude and rough tools prepared out of pebbles. Choppers, Hand Axes and Cleavers.
- Sites:**
  - Soan and Sohan river valley (now in Pakistan)
  - Didwana, (Rajasthan)
  - Hiran Valley (Gujarat)
  - Rock shelters of Bhimbetka (MP),
  - Belan Valley of Mirzapur (UP).





## Middle Paleolithic Age: (50,000 to 40,000 BC)

- **Evolution:** Language was invented in this period. Men remained hunters and food gatherers.
- **Flake culture:** due to excessiveness of implements made from flakes. Refined and lighter tools made of harder stone material like flint were used.
- **Sites:** Soan, Narmada and Tungabhadra river valleys, Potwar plateau (between Indus and Jehlum), Sanghao Cave (near Peshawar, Pakistan).



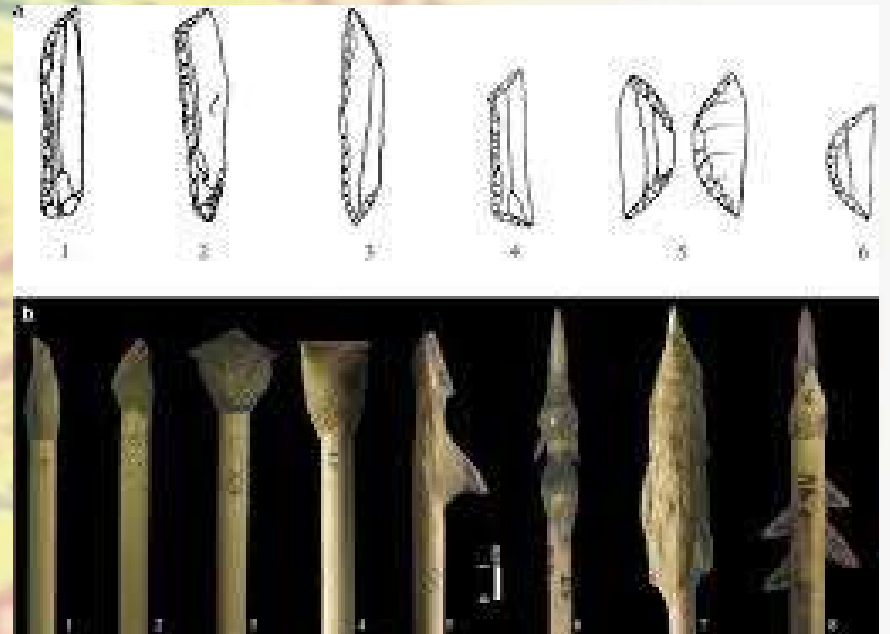
## Upper Paleolithic age: (40,000-10,000BC)

- **Tools** flake-blade culture
- **Sites:** Found in Andhra Pradesh , Karnataka, Maharashtra, central MP, southern UP and chotanagpur plateau. **Bones** found only at cave sites of Kurnool .



## MESOLITHIC OR MIDDLE STONE AGE: (9000 BC- 4000 BC)

- In India, the credit of discovery of **Mesolithic archaeological material** goes to **John Evan**.
- First burials are reported and use of stone-ornaments also appears. Domestication of animals like sheep and goats is found.
- **Tools:** Microlith tools i.e., tools made of micro-sized stones which were very refined.
- **Sites:** Bhimbetka, Mahadaha, Sarai Nahar Rai, Adamgarh (MP), Langhnaj (Gujarat), etc. Earliest cave paintings are found at Bhimbetka (UNESCO World Heritage Site).





# NEOLITHIC AGE OR NEW STONE AGE(7000BC-1000 BC)

- In India, the credit of discovery of **Neolithic archaeological material** goes to **Dr. Primrose**.
- **V.Gordon Childe** termed the Neolithic phase as **Neolithic Revolution**.
- The Neolithic age saw man turning into a food producer from food gatherer.
- Man lived in huts, reared cattle, developed agriculture used earthenware (both handmade and wheel-made).
- **Domestication of animals:** cattle, sheep and goats was also done.
- **Tools:** Sharper, symmetrical and polished stone tools for not only hunting but agriculture also.



# Neolithic sites

- Kashmir valley, Chirand (Bihar), Daojali Hading, Belan valley (UP), and Maski etc.
- **Chopani-Mando, Belan valley:** earliest evidence of use of **pottery**.
- **Burzahom:** unique rectangular chopper, **domestic dogs buried** with their masters.
- **Koldihwa and Mahagara:** earliest evidence of **rice cultivation** in the world.
- **South India:** Maski, Brahmagiri, Hallur and Kodekal in Karnataka, Paiyampalli in TN and Utnur in Andhra Pradesh.
- **Koldihwa (Belan valley):** presence of **three-fold Neolithic, Chalcolithic and Iron Age settlements**.
- **Mehrgarh (Pakistan):** earliest Neolithic site known as the **Breadbasket** of Balochistan

## CHALCOLITHIC (METAL) AGE: 3500BC-1000BC)

- **Chalco + Lithic** was derived from the **Greek** words **khalkos + líthos** which means copper and stone or Copper Age.
- The Chalcolithic culture corresponds to the farming communities: **Kayatha, Ahar or Banas, Malwa, and Jorwe.**
- Settled & community life. Crops cultivated were: barley, wheat, lentil, bajra, jowar, ragi millets, green pea, green and black gram and cotton. Unaware of: **Iron, horse and script.**
- Marks the beginning of use **metal in place of stone** yet burnt brick was generally absent. **High Child Mortality is indicated by a large number of child burials.**
- **Tools/Idols:** Knives, axes, fishing hooks, chisels, pins, and rods were made of copper and its alloys. Beads of semi-precious stones and the Terracotta image of Mother Goddess are reported.
- **Copper and stone tools** were used simultaneously. People were expert coppersmiths. Used Black and Red Ware, Painted pottery, in black pigment.
- **Important sites:** Navdatoli, Jorwe, Daimabad, Ahar Banas, Malwa, Inamgaon, Songaon, Nashik, Mehgam, Kausambi, Alamgirpur, Ropar etc



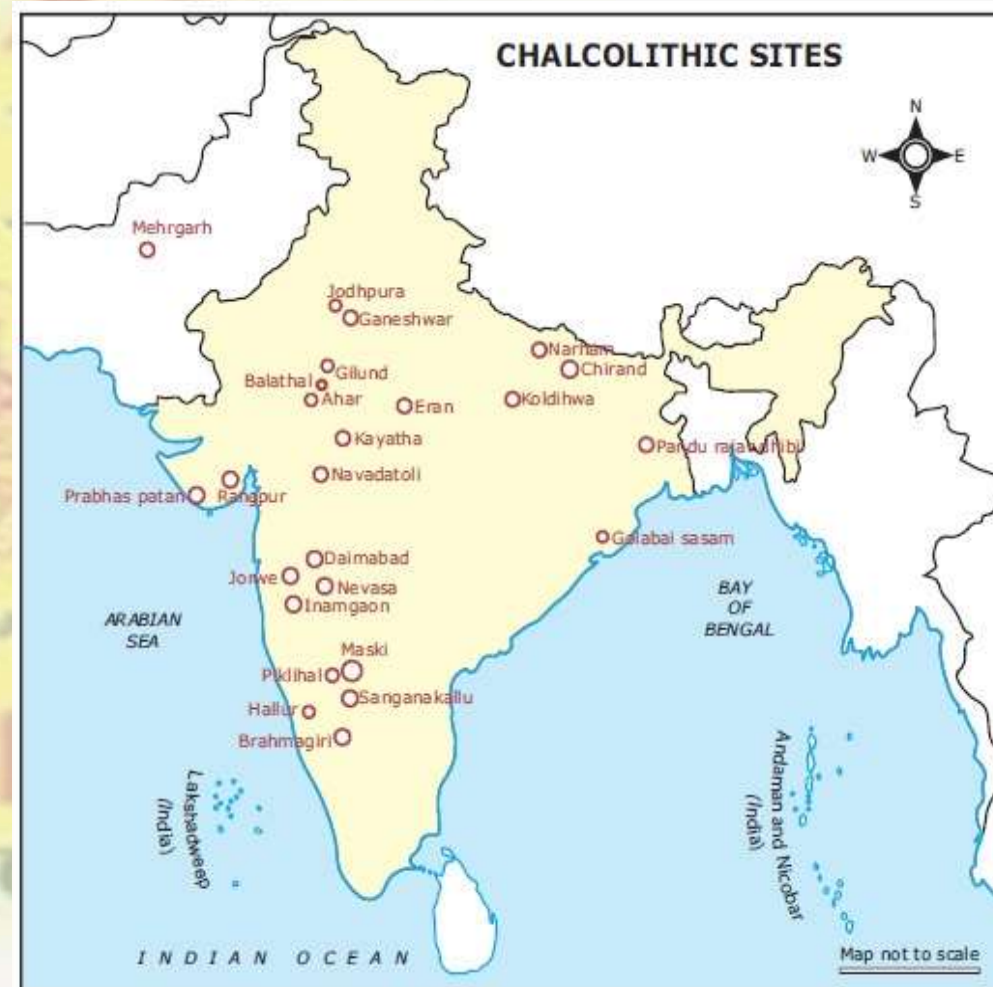
# CHALCOLITHIC SITES

- **Ahara Culture**- Aahar (Rajasthan), Balathal, Gilund etc. The distinctive feature is black and red ware.
- **Kayatha Culture**- Located in Chambal and its tributaries, the sturdy red slipped ware with chocolate designs is the main feature.
- **Malwa Culture**- Narmada & its tributaries in Gujarat. One of the largest Chalcolithic settlements.
- **Savalda Culture**- Dhulia district of Maharashtra.
- **Prabhas & Rangpur Culture**- Both of them are derived from the Harappa culture. The polished red ware is the hallmark of this culture.

# EARLY IRON AGE 1200BC-600BC

- The Chalcolithic age is followed by the **Iron Age**.
- **Iron** replace **Bronze** as a metal of choice.
- Introduction of **writing** .
- Iron is frequently referred to in the **Vedas**.
- Iron age saw the development of **astronomy, mathematics** and **metallurgy** in India.
- The Iron Age of the southern peninsula is often related to **megalithic burials**. Megalith means large stone.
- The **burial pits** covered with these stones are extensively found in South India.

- common iron tools-Axes
- New development of weapons- sword and spear
- Iron was also use for horseshoes and agriculture implements- plowshares
- Important Megalithic Site-**  
Hallur and Maski in Karnataka,  
Nagarjunakonda in Andhra Pradesh  
and Adichchanallur in Tamil





# INDUS VALLEY CIVILIZATION



### Dates of Indus Valley Civilization:

1. Sir John Marshall estimated Mohenjodaro's settlement between 3250 and 2750 B.C.
2. Subsequent excavations and radiocarbon dating techniques revised the chronology.
3. Dates have been suggested ranging from 2000 to 1500 B.C. by Fairservis and 2300 to 1750 B.C. by D.P. Agarwal.

### Theories of Origin:

1. The Sumerian colonization theory suggests the introduction of language and script, although Sumerians' facial features remain unknown.
2. The Dravidian origin theory proposes that Harappans were Dravidians, supported by similarities in pottery and script.



## Drainage System:

1. Sophisticated sanitation systems.
2. Early understanding and practice of water channeling and waste disposal.
3. Advanced water management with separate wastewater and stormwater canals.
4. Subterranean wastewater drains with clay covers for cleaning.





### **Trade:**

1. Indus Valley civilization earliest known use of cotton.
2. Cotton spun and woven by farmers.
3. Cotton among exported materials.
4. Presence of port cities indicates extensive marine trading contacts.
5. Lothal potentially world's first dockyard, other ports include Allahdino, Suktagendor, and Balakot.

### **Social Life:**

1. Both men and women wore two pieces of cloth.
2. Ornaments such as beads, bangles, and bracelets were popular.
3. Cosmetics were widely used.
4. Fishing, bullfighting, and hunting were popular pastimes.
5. Limited written artifacts make defining the civilization's state and institutions difficult.

## Religion and Worship:

1. Soil was venerated as a fertility goddess.
2. Various animal symbols and stone phallus symbols were discovered.
3. Trees and animals were considered sacred.



Pashupati seal





**Oldest Signboard:**

A stone symbol/letter board was found in Dholavira in 1999, likely the world's first signboard.



**Hygiene and Cleanliness:**

The civilization maintained a clean environment with public baths and advanced water management systems.

**Burial Methods:**

- 1. Both full burial and post-cremation burial were common.
- 2. Coffins and pot burials were used, with no substantial evidence of Sati practice.



**Art:**

- 1. Various toys and games were found, indicating a significant population of children.
- 2. Advanced craftsmanship was evident in items made from terracotta, bronze, copper, and beads.





## Economic Facts of Indus Valley Civilization

- **Agricultural Foundation:** Indus Valley Civilization thrived on robust agricultural practices.
- **Vibrant Trade and Commerce:** Flourishing trade networks, evidenced by references in Mesopotamian texts to Meluhha, a significant trading partner likely representing the Indus Valley.
- **Luxury Imports:** Sumerians imported valuable goods like timber, ebony, sesame oil, and lapis lazuli from Meluhha.
- **Lothal Dockyard:** Discovery of a dockyard in Lothal emphasizes advanced maritime activities, facilitating trade.
- **Export-Import Dynamics:** Clear evidence of both exports and imports in the economic landscape.
- **Cotton Production:** The cultivation of cotton, evidenced by findings in Mehrgarh from the 6th B.C.
- **Standardized Measurement:** The numeral '16' a unit of measurement highlights a standardized system.
- **Weights and Measures:** Archaeological findings, especially at Lothal, reveal the existence of weights and measures, primarily cubical in shape and made from materials like limestone and steatite.

## Architectural Marvels of Indus Valley Civilization

- **Mohenjodaro Granary:** The largest building, measuring 150x50 feet, showcased advanced technology akin to Rome 2800 years later.
- **Harappan Granaries:** Six granaries in two rows at Harappa, built on raised platforms to withstand floods, foreshadowing sophisticated engineering.
- **Dholavira Water Reservoirs:** Dholavira boasted 16 water reservoirs, highlighting advanced urban planning and water management.
- **Brick Varieties:** Two brick sizes (7x14x28 cm and 10x20x40 cm) with a 1:2:4 ratio. Larger bricks for public buildings, smaller for houses.
- **Unique Features:** Houses with a single door, pioneering attached bathrooms—world's first.
- **Great Bath:** Iconic Mohenjodaro structure, measuring 39x23x8 feet, symbolizing meticulous urban planning.





## Metallurgy in Indus Valley Civilization

- **Diverse Metal Production:** Lead, copper, bronze, and tin were skillfully crafted into various metal products.
- **Microscopic Gold Necklaces** smaller than 0.25 mm in diameter, uncovered at **Lothal** .
- **Casting Technique:** Harappan copper implements were produced using advanced casting methods.
- IVC displayed remarkable proficiency in metal alloying technology.
- **Innovative Tools:** Discovery of a touchstone in Banawali, Haryana  
Ivory scale markings in Lothal



## General Facts about Indus Valley Civilization

- **Mehrgarh Origins:** Mehrgarh, dating back to 7000 B.C., holds the title of the oldest known settlement, primarily a farming village.
  - **Chanudharo Citadel:** Uniquely, Chanudharo lacks a citadel, distinguishing it from other Indus Valley sites.
  - **Abundance of Seals:** Over **4000 seals** discovered across various sites, serving diverse purposes.
  - Mohenjo-Daro was rebuilt at least nine times, showcasing its enduring significance.
  - **Unexpected Professions:** The surprising presence of dentists within the IVC, evident from the discovery of drilled molar crowns in Mehrgarh.
  - **Historical Dental Milestone:** Nature journal, in 2006, recognized Mehrgarh for the first evidence of **live human teeth drilling**, with **11 drilled molar crowns** dating back to 5500-7000 B.C.
- Symbolic Diversity:** Approximately 400 different symbols found inscribed in various objects, revealing a rich symbolic language

**Decline:**

The cause of the civilization's decline remains uncertain, with gradual abandonment due to environmental factors suggested as a possibility.



SITE	DISTRICT	STATE	EXCAVATED BY	COUNTRY	FINDINGS
Kalibangan	Hanumangarh District	Rajasthan	Amlanand Ghose, 1953	India	- Lower fortified town, wooden drainage, copper ox, evidence of earthquake, wooden plough, fire alters and burnt bangles, camel's bones, furrowed land, smaller circular pits
Dholavira	Kutch District	Gujarat	R S Bisht, 1985	India	- Exclusive water management, divided into three parts, giant water reservoir, unique water harnessing system, dams, embankments, stadium, rock-cut architecture
Lothal	Ahmedabad, Bhogva river	Gujarat	R. Rao, 1953	India	- Port town, graveyard, ivory weight balance, copper dog, first manmade port, dockyard, rice husk, fire alters, chess-playing, painted jar, bead making factory
Farmana	Rohtak District	Haryana	Vasant Shinde	India	- Largest burial site of IVC with 65 burials
Surkotada	Kutch District	Gujarat	J P Joshi, 1964	India	- Bones of horses, beads, stone covered beads
Banawali	Fatehabad District	Haryana	R S Bisht, 1974	India	- Beads, barley, oval-shaped settlement, radial streets, toy plough, largest number of barley grains
Daimabad	Ahmednagar District	Maharashtra	BP Bopardikar, 1958	India	- Bronze chariot sculpture, other bronze sculptures
Harappa	Sahiwal District	Punjab	Daya Ram Sahni, 1921	Pakistan	- Indus script pottery, limestone weight, faience slag, statues, copper bullock cart, granaries, coffin burials, terracotta figurines
Mohenjo-Daro	Larkana District	Sindh	R. D Banerjee, 1922	Pakistan	- Great bath, granary, unicorn seals, bronze dancing girl statue, Pashupati Seal, steatite statue, bronze buffalo, woven clothes, cylindrical seals
Rakhigarhi	Hisar District	Haryana	India	India	- Terracotta wheels, toys, figurines, pottery
Sutkagendor	Baluchistan on Dast river	Baluchistan	Stein, 1929	Pakistan	- Trade point between Harappa and Babylon, flint blades, stone vessels, arrowheads, shell beads, pottery, clay bangles